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' ' ? * * # * ; ?' 1$CC3D' E' F3' ? ; @ < , G' ?3CC HE'
' ' * ; , * 8' I $4 $ J 3E ' H&' F3' # E 3D' % E2DH J
' ! ' " #' ' $!% #&

' K' L' M@ > '

I # B > @' M ; , ; ' >' @ * ?

' , ' N ' &H4' -E E2' F3' <&& N3' H&' F3' ?-4 3OH4' M3E34$' H&' 8 C P $(3C O C' 9 H4+C' $ED' I -Q N' B- D E2C' F' F3' <&& N3' H&' F3' @H J R J CC HE34C' H&' 8 C' P $(3C O C' 9 HHDC' 6H43C C' $ED' >$ED' ' 3 3E-3C' $ED' &H4' H F34' I -41HC3C' 43 $ E2' H' F3' >$ED' ' 3 3E-3C' S

' E' N ' H' 14H D3' &H4' F3' $+ E2' E' $ED' I $O J 3E ' H&' H- C $ED E2 >H 34O' * N+3 C'

' E' N ' H' $- FH4 T3' F3' 11 N$ HE' H&' I $4 ' H&' F3' >$ED' ' 3 3E-3' H&' F3' @4H E' &H4' F3' @H J 1 3 HE' H&' F3' ' 31$ 4' $ED' J 14H 3 J 3E ' H& " ' ' #( ) ' * % ' ! ' ' U

' E' N ' &H4' J H43' 3&&3N -$ O' 143 3E E2' ; J Q3TT 3 J 3E C' QO' I 34CHEC 3 J 1 HO3D' E' F3' I -Q N' ?34 N3' H&' 8 C' P $(3C O' U!

' E' N ' H' 14H D3' &H4' N$44O E2' H F3' B-C E3CC' H&' F3' @H-4 ' H&' ?3CC HE E' + ' , % #&' F3E' E 344-1 3D' QO' F3' G3$ F' H4' E3N3CC$4O' QC3EN3' H&' $EO' H&' F3' 5-D23C' F343H@' ' UV

' E' N ' H' $11 O' N34 $ E' ?- J C' H' F3' ?34 N3' H&' F3' =3$4' < E3 FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' -.

' E' N ' &H4' F3' ' 3 3&' H&' 8 C' P $(3C O C' ?-Q(3N C' E' $!% #&' Q3 E2' I 4H 3C $E C' H&' F3' ; C $Q CF3D' @F-4NF' $ED' H' 4313$' $E' N ' 1$CC3D' E' F3' I $4 $ J 3E ' H&' $!% #&' E' F3' * F 4 O F 4D' =3$4' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' ! , (!' F3' * F 4D' E -3D' / #' / ' ' ,' ! ,O!' 1, !' 2 , 34 1' !15! ' #(' * ! 1 , #1' # 6 ' !' #(')!' + 0 !# %' 7!1 ' S

' E' N ' &H4' NHE E- E2' H' 8 C' P $(3C O' &H4' < E3' =3$4' N34 $ E' G- 3C HE' I 34CHE$' ' ; C $ 3C' <&& N3C' $ED' I 3E$HEC' E' * #(% #&' &H4' F3' ?34 N3' H&' F3' =3$4' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H'

' U' E

' * B > ; ' , ') !' ? * * # * ; ?

W ' E' N ' H' $ J 3ED' * H' ' 1$CC3D' E' 3' 6 & 0 3 2F F' $ED' 6 & 0 E E F' .$C' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' ! , (!' F3' * F 4D' &H4' 3C $Q CF E2' 3 34' 8 HC1 $ C' $ED' &H4' 143 3E E2' NHE $2 H - C' G C3$C3C' E' $!% #&' !

W ' E' N ' &H4' F3' I 43 3E HE' 5 ' &$4' $C' J $O' F3' 1HCC Q 3 ' H&' F3' G C3$C3' N$ 3D' F3' @FH 34$' H4' ?1$C J HD N' H4' $#& #' @FH 34$' E' 8 #(% #&' 9-

W >' E' N ' &H4' F3' I 43 3E HE' $C' &$4' $C' J $O' Q3' 1HCC Q 3 ' H&' F3' G C3$C3' N$ 3D' F3' @FH 34$' H4' ?1$C J HD N' H4' $#& #' @FH 34$' E' + ' , % #&' !

W ' 4 ' N ' &H ' 4$ C E2' F3' ? - J ' H&' * 3 3' P HEC' QO' ; NF3X - 34' B C &H4' F3' ?34 N3' H&' F3' = 3$4' < E3' FH - C$ED' 3 - F ' F - ED43D' $ED' F 4 0 H' , Y

W ' E' N ' H' 4313$' CH' J - NF' H&' $E' N ' 1$CC3D' E' F3' I $ $ J 3E ' H&' $!% #&' E' F3' * 3E 0 C F' = 3$4' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' ! , (!' F3' * F 4D ' $C' 14H D3C' &H4' F3' $11 H E2' $ED' 3 0 E2' H&' I 43C3E R J 3E C' H&&' F3 $4HE 3C' , : + #' + !53%') !1' $ED' " , # , !' E' $' P $EE34' D &&343E' &4H J ' F$ ' 14H D3D' &H4' F3' H F34' B$4HE 3C' H&' F3' @H - E O' H&' 2 34% #' ; 9

W = / ' E' N ' H' $ - FH4 T3' F3' I $O J 3E ' H - ' H&' F3' @HECH D$ 3D' 6 - ED' H&' $' ? - J ' H&' PHE3O' H $4DC' F3' ; 43N HE' H&' N34 $ E' ' 3 3E - 3' B - D E2C' $ ' < 0! 5 , , %' V

) ' E' N ' H' 3E$Q 3' 8 C' P $(3C O C' I HC J $C 34' M3E34$' H' ' 3 3ED' F3' NNH J J HD$ HE' QO' I HC ' $ED' H' 432 - $ 3' F3' I 4 323' H&' 64$E + E2 ' E' $!% #&=' $ED' &H4' H F34' I - 41HC3C' 43 $ E2' H' F3' I HC ' < && N3' '

W ' ' N ' H' NHECH D$ 3' $ED' $ J 3ED' F3' > $ C' 432 - $ E2' 3' 24$E R E2' $ED' CC - E2' H&' I 34 J C' &H4' F3' ' 3 J H $ ' H&' MHHDC' J D34' F3' > $ C H&' ; N C3 ZV

W ' ' N ' H' 4313$' $E' N ' 1$CC3D' E' F3' ?3 3E F' = 3$4' H&' 8 C' $ 3' 5 P $(3C O' % E2' ! , (!' F3' 6H - 4 F ' E - 3D' / #' / ' ' , ' !#&') !' < !' , ' 43 $ED' !15! ' #(') !' / 11 (# !#' #&' + 34%! #(' , ' < #&1' #&' 7 ! ' !# 1'=' $ED' H' C - QC - 3' H F34' I 4H C HEC' E' 3 - ' F3 3H&' [

W ' E' N ' &H4' NHE E - E2' $E' N ' 1$CC3D' E' F3' 6 4C ' = 3$4' H&' 8 C 143C3E ' P $(3C O ' &H4' 1 - E CF E2' P - EO' $ED' G3C34 HE ' $ED' &H4' F3' Q3 34' I $O J 3E ' H&' F3' 4 J O' $ED' F3 4' \ - $4 34C' [V

W W ' E' N ' &H4' NHE E - E2' $E' N ' 1$CC3D' E' F3' 6 4C ' = 3$4' H&' 8 C 143C3E ' P $(3C O ' &H4' F3' ' 32 - $ HE' H&' 8 C' P $(3C O C' ' HO$' P $4 E3' 6H4N3C' F 3' HE' ?FH43' ' S

WW ' E' N ' H' 14H D3' &H4' F3' ?$ 3 ' P $E - &$N - 43 ' $ED' @HEC - J 1 HE H&' * HQ$NNH' 24H E' E' $!% #&' Q3&X43' F3' 6 4C ' G$O ' H&' ? #3 ' < E3' FH - C$ED' 3 2F ' F - ED43D' $ED' F 4 0 H'

WW ' E' N ' H' 4313$' C3 34$' N C' H&' F3' I $4 $ J 3E ' H&' $!% #&' J 1HC E2' ' 3C 4 N HEC' - 1HE' F3' @H$' * 4$D3 ' $ED' H' 432 - $ 3' F3' C$ J 3 U

WW ' E' N ' &H4' 24$E E2' H' 8 C' P $(3C O ' - E ' F3' * 3E F' G$O' H& 6 ' , 4! ' < E3' FH - C$ED' 3 2F ' F - ED43D' $ED' F 4 OD H' N34 $ E' G - 3C' HE' ? - 2$4' J 1H4 3D' E H' F3' #E 3D' % E2DH J ' &H4' !' ?34 N3' H&' F3' = 3$4' < E3' FH - C$ED' 3 2F ' F - ED43D' $ED' F 4 0 H' U!

WW >' E

@*34% '' !#! %A' B' ' C< '% '

WW ' E' N '&9' F3' '32- $ HE' H&' 8 C' P$(3C O C' 'HO$' P$4 E3 6H4N3C' F 3' HE' ?FH43' UV

WW ' E' N ' H' ED3 J E &O' C-NF' I34CHEC' E' F3' #E 3D' % E2DH J' $C' F$ 3' H J 3D' H' X-$ &O' F3 J C3 3C' &H4' <&& N3C' $ED' ; J 1 HO J 3E C' $ED' &H4' 3 3ED E2' F3' * J 3' J 3D' &H4' FHC3' I-41HC3C' 43C13N 3 O' -E ' F3' * 3E O & & F' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O ' F433 ' H' 134 J '?-NF' I34CHEC' #' ! '" #' 'F$ 3' H J 3D' H' J $+3' $ED' & 3' && D$ C' H&' F3' ; 3N- HE' H&' ED3E -43C' H&' @ 34+C' H' H&E 3C' $ED' ?H N H4C' H' J $+3' $ED' & 3' F3' C$ J 3' HE' H4' Q3&H43' F3' 6 4C ' G$O' H&' % ' *34 J' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O F433 ' $ED' H' $ H ' I34CHEC' H' J $+3' $ED' & 3' C-NF' && D$ C' $ FH-2F' F3' I34CHEC' FH J' F3O' C34 3D' CF$ ' F$ 3' E32 3N 3D' H' $+3' H- ' F3 &' EE-$' @34 & N$ 3C' Y!

WW ' E' N ' H' 3 3ED' $ED' 43ED34' J H43' 3&&3N -$' * H' N C' H&' F3 6 4C ' $ED' ?3NHED' $ED' *F 4D' =3$4C' H&' 8 C' $ 3' P$(3C O' % E2' !, (!' F3' 6H-4 F' 43C13N 4 2' F3' ; C $ 3C' F343QO' 3C 3D' E' F3' 14 EN 1$' <&& N34C' H&' F3' <4DE$EN3' $ED' H' &$N $ 3' F3' 1-Q N' B-C E3CC' E' F3' <4DE$EN3' G31$4 J 3E ' S

WW ' E' N ' H' $- FH4 T3' F3' @H J J CC HE34C' &H4' $-D E2' F3' I-Q N NNH-E C' H&' ! ' " #' ,' 3 $J E3' $4 D' $-D ' NNH-E C' H&' F3' '3N3 1 '$ED' ; 13ED -43' H&' @H HE $' '3 3E-3C ' Z

WW ' E' N ' &H4' $ 34 E2' $ED' $ J 3ED E2' $E' N ' 1$CC3D' E' F3' 143R C3E '?3CC HE' H&' I$4 $ J 3E ' &H4' F3' I43 3E HE ' $C' &$4' $C' J $O' Q3' 1HCC Q 3' H&' F3' G C3$C3' N$ 3D' F3' @FH 34$' H4' ?1$C J HD N' H4' $#& #' @FH 34$' E' +', % #&' ' ' ' ' Z!

WW ' E' N ' &H4' 1-E CF E2' P- EO' $ED' G3C34 HE' ' $ED' &H4' F3 Q3 34' I$O J 3E ' H&' F3' 4 J O' $ED' F3 4' \-$4 34C' ' ZV

WW W' E' N ' H' 43D-N3' F3' H $EN3' HE' ?1 4 C' J $D3' &4H J' P$ ' HE O E' +', % #&' $ED' $!% #&' ' B--

WWW' E' N ' H' $11 O' F3' ?- J' H&' *F433' P HEC' H- ' H&' F3' @HECH D$ 3D'] 6-ED' H' F3' ?34 N3' H&'' F3' =3$4' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED F 4 O H' U

WWW ' E' N ' H' 432- $ 3' F3' B$+ E2' *4$D3' E' $!% #&' U !

WWW ' E' N ' &H4' F3' ; 43N HE' H&' $' , C' I4 -C' @H-4 ' 8H-C3' E 234% #' ' U V

WWW ' E' N ' H' 3&&3N -$ 3' F3' ?34 N3' H&' I4HN3CC' CC- E2' &4H J' F3 @H-4 C' H&' @F$EN34O' $ED' ; NF3X-34' E' 8#(% #&' $ED' $!% #&' 43C13NR 3 O' U!Z

WWW ' E' N ' &H4' NHECH D$ E2' $ED' $ J 3ED E2' F3' >$ C' 2 EC <&&3EN3C' 43 $ E2' H' F3' @H E' U! '

' E' N ' H' NHE E-3' -E ' F3' 6 & F' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O F433 ' $ED' &4H J' F3EN3' H' F3' ; ED' H&' F3' F3E' E3 ' ?3CC HE' H&' I$4 $ J 3E ' $E' N ' H&' F3' 6 & O &H-4 F' =3$4' H&' % E2' !, (!' F3' *F 4D ' &H4' 43ED34 E2' F3' I$O J 3E ' H&' @43D H4C' J H43' 3X-$' $ED' 3 13D H-C' E' +', % #&' ' UYV

B' ' WWW ' E

O ʻ * B > ; ʻ , ʻ) !ʻ ? * * # * ; ?

WWW ʻ Eʻ N ʻ Hʻ $ H ʻ F3ʻ J 1H4 $ HEʻ H&ʻ > - J Q34 ʻ $EDʻ H&ʻ 6 CFʻ $ED I4H C HEC ʻ G - O &433 ʻ E Hʻ F3ʻ C $EDCʻ H&ʻ " 4 &, !1 ʻ + # ʻ C # ' ! # ʻ &ʻ + # ʻ < 3 ' =ʻ $EDʻ Hʻ ED3 J E &Oʻ F3ʻ MH 34EH4Cʻ $EDʻ H F34Cʻ H&ʻ FHC3ʻ C $EDCʻ &H4ʻ F$ E2ʻ 134 J 3Dʻ F3ʻ J 1H4 $ HEʻ H&ʻ FHC3ʻ 4 N 3Cʻ G - OR &433 ʻ ʻ

WWW ʻ Eʻ N ʻ Hʻ $ J 3EDʻ $Eʻ N ʻ H&ʻ 43ʻ * 3E Fʻ =3$4ʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ 6H - 4 F ʻ QOʻ 3 3ED E2ʻ F3ʻ * J 3ʻ F Eʻ F NFʻ 143 3 C E2ʻ ?HN 3 3Cʻ J - C ʻ NHE&HEEʻ Hʻ F3ʻ I4H C HECʻ H&ʻ F$ ʻ N ʻ ʻ U

WWW ʻ Eʻ N ʻ Hʻ NHE E - 3ʻ &H4ʻ < E3ʻ =3$4 ʻ $EDʻ &4H J ʻ F3EN3ʻ - E F3ʻ ; EDʻ H&ʻ F3ʻ F3Eʻ E3 ʻ ?3CC HEʻ H&ʻ I$4 $ J 3E ʻ F3ʻ N Cʻ &H4ʻ F3ʻ ' 3 3&ʻ H&ʻ ECH 3E ʻ G3Q H4Cʻ Eʻ $!% #& ʻ ʻ UZ

WWW W ʻ Eʻ N ʻ &H4ʻ #E &H4 J Oʻ H&ʻ I4HN3CCʻ Eʻ I34CHE$ ʻ N HECʻʻ Eʻ 8 C P $(3C O Cʻ @H - 4 Cʻ H&ʻ > $ ʻ $ ʻ !1 #1 ! ʻ UZ!

W> ʻ Eʻ N ʻ Hʻ $ J 3EDʻ F3ʻ > $ Cʻ 43 $ E2ʻ Hʻ F3ʻ B - C E3CCʻ H&ʻ F3ʻ @ ʻ G31$4 J 3E Cʻ H&ʻ F3ʻ , $ O ʻ $EDʻ Hʻ J $+3ʻ H F34ʻ ' 32 - $ HECʻ &H4ʻ J H43ʻ 3&&3N - $ Oʻ N$44O E2ʻ HEʻ F3ʻ G - 3Cʻ H&ʻ F3ʻ C$ Dʻ G31$4 J 3E C ʻ UV

W> ʻ Eʻ N ʻ Hʻ &$N $ 3ʻ F3ʻ ' 3NH 34Oʻ H&ʻ * F3Cʻ Eʻ N34 $ Eʻ @$C3Cʻ Eʻ $!% #& ʻ $EDʻ &H4ʻ ' 3 3&ʻ H&ʻ F3ʻ @ 342Oʻ H&ʻ F3ʻ ; C $Q CF3Dʻ @F - 4NF ʻ S

W> ʻ Eʻ N ʻ Hʻ $ - FH4 T3ʻ ^ Eʻ I$4 CF3Cʻ N HC3Dʻ - ED34ʻ $EOʻ N ʻ H&ʻ I$4 $ J 3E _ʻ F3ʻ 3 E2ʻ H&ʻ F3ʻ IHH4ʻ H J 3E Cʻ Eʻ C J $ ʻ I H4 HECʻ Hʻ ED - C 4 H - C̄ʻ @H $234C ʻ (SU!

W> ʻ Eʻ N ʻ Hʻ NHE E - 3ʻ - E ʻ F3ʻ 6 4C ʻ G$Oʻ H&ʻ ') ʻ < E3ʻ FH - C$ED ʻ 3 2F ʻ F - ED43Dʻ $EDʻ F 4 O C ʻ $Eʻ N ʻ H&ʻ F3ʻ , E Fʻ =3$4ʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C O ʻ &H4ʻ F3ʻ ' 3 3&ʻ H&ʻ ECH 3E ʻ G3Q H4Cʻ Eʻ SUV

W> ʻ Eʻ N ʻ Hʻ NHE E - 3ʻ &H4ʻ * F433ʻ =3$4C ʻ $EDʻ Hʻ $ J 3ED ʻ F3ʻ > $ Cʻ &H4ʻ F3ʻ ' 3 3&ʻ H&ʻ ECH 3E ʻ G3Q H4Cʻ Eʻ 8 #(% #& ʻ - - -

W> ʻ Eʻ N ʻ Hʻ $ J 3EDʻ F3ʻ ' 3143C3E $ HEʻ H&ʻ F3ʻ I3H1 3ʻ Eʻ 8 #(% #&ʻ $EDʻ %!1 ʻ SS

W> ʻ Eʻ N ʻ Hʻ 3E$Q 3ʻ 8 Cʻ P $(3C O ʻ 8 Cʻ 8 3 4Cʻ $EDʻ ? - NN3CCH4C ʻ Eʻ $11H E ʻ $ʻ * 4 - C 33ʻ H&ʻ F3ʻ " 1) ʻ 31!3 ʻ - D -

W> ʻ Eʻ N ʻ &H4ʻ FH D E2ʻ F3ʻ CC T3Cʻ &H4ʻ F3ʻ @H - E Oʻ H&ʻ E , ,% ʻ $EDʻ &H4ʻ F3ʻ @ Oʻ H&ʻ E , F ') ʻ $EDʻ @H - E Oʻ H&ʻ F3ʻ C$ J 3ʻ @ O ʻ * N3ʻ Eʻ 30340ʻ =3$4ʻ $ ʻ E , F ') ʻ ʻ SV

W> ʻ Eʻ N ʻ Hʻ 432 - $ 3ʻ F3ʻ < && N3ʻ H&ʻ @ 34+ʻ H&ʻ F3ʻ @4H Eʻ Eʻ F3 ʻ @H - 4 ʻ H&ʻ % E2 Cʻ B3ENFʻ Eʻ $!% #& ʻ [

W> W ʻ Eʻ N ʻ Hʻ 3 3EDʻ F3ʻ I4H C HECʻ H&ʻ $Eʻ N ʻ H&ʻ F3ʻ 6 & O C3 3E Fʻ =3$4ʻ H&ʻ 8 Cʻ P $(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ * F 4D ʻ &H4ʻ 432 - $ E2ʻ F3ʻ < && N3Cʻ H&ʻ @ 34+Cʻ H&ʻ F3ʻ ? 2E3 ʻ $EDʻ I 4 Oʻ ?3$ ʻ ʻ

> ʻ Eʻ N ʻ Hʻ C - C13EDʻ - E ʻ F3ʻ ; EDʻ H&ʻ F3ʻ E3 ʻ ?3CC HEʻ H&ʻ I$4 $ J 3E ʻ F3ʻ J $+ E2ʻ H&ʻ > C Cʻ $EDʻ F3ʻ B$ H Cʻ $EDʻ ; E4H J 3E Cʻ &H4ʻ F3ʻ P D $ʻ H&ʻ F3ʻ # E 3Dʻ % E2DH J ʻ ʻ ʻ U

> > ʻ Eʻ N ʻ Hʻ 432 - $ 3ʻ F3ʻ I4$N N3ʻ $EDʻ F3ʻ 633Cʻ Eʻ F3ʻ N3 ʻ D J 4$ O ʻ @H - 4 Cʻ Q4H$D ʻ $EDʻ Hʻ HQ $ 3ʻ GH - Q Cʻ $Cʻ Hʻ F3 4ʻ 5 - 4 CD N HE ʻ U!

> ; ʻ E

G"3)% ' !#! %A U7K S7 M#>' %H

> 4 E N ' H 14HJH 3 F3 J14H 3J3E'H&'$ GC4N'H& PH-E$E
>$ED E F3 @H-E 3C H&'< ! ' ' I, ' $ED ! ' JK$!% #&'QO
J$+E2 E3 ' 'H$DC F4H-2F F3 C$J3' $ED H 3ENH-4$23 F3'; J1 HOR
J3E'H& F3 1HH4 EF$Q $E C F343H&' UV

> ' E N '&H4 NHECH D$ E2 $ED $J3ED E2 F3 >$ C43$ E2 H F3
I$OJ3E'H& 4JO I4T3 PHE3O' '

> ' E N '&H4 J$+E2 I4H CHE &H4 F3 GC1$ NF H& F3 B-CE3CC
EH 'DHE3QO F3 @H-4'H& ; NF3X-34 E+', % #&' Y!

> ' E N ' H$11 O F3'?-J'H& IH-4 P HEC H-'H& F3 @HECH D$ 3D'
6-ED H F3 ?34 N3 H& F3 =3$4 <E3 FH-C$ED 3 2F' F-ED43D $ED
F40 H' YV

> ' E N ' H 3 3ED F3 5-4CDN HE H& F3 @HJJ CCHE34C $N E2 E
F3 ; 3N- HE H& *F433 NC &H4 1$ E2 $ED 432-$ E2 F3 L!(!# 1
* '$ED C3 34$' ? 433 C $ED I $N3C E !1 #1! ' H N34$E H F34
? 433 C $ED I $N3C E !1 #1! = $ED &H4 H F34 I-41HC3C' S

> ' E N ' H NHE E-3 $ED 3 3ED F3 I4H CHEC H& $E N '1$CC3D
E F3 6&OEEF =3$4 H& 8C P$(3C O % E2 M3H423 F3 *F4D' &H4
2 E2 $DD HE$'6$N 3C E 11 N$ HEC H @H-4 C H& ; X- O 432$4D E2
F3 PE23J3E'H& ;C$ 3C H4 6-EDC Q3 HE2 E2 H @F$4 3C' $ED &H4
J$+E2 N34$E I4H CHEC 43C13N E2 ;C$ 3C H4 6-EDC Q3 HE2 E2 H
@F$4 3C' V

> ' E N ' H 3 3ED F3 I4H CHEC H& $E N ' H& F3 64C'=3$4
H& F3 '3 2E H& 8 C 143C3E' P$(3C O '&H4 $ 34 E2 $ED $J3ED E2 F3
>$ ' 432$4D E2 @HJJ J3E C QO @H-4 C H& ; X- O &H4 @HE 3J1 C'
$ED F3 $+E2 B C 5 ,' I,# !11,' ' $ED H 3 1$E N34$E I$4 C
F343H&' ![

> W' E N ' H 4$EC&34 F3 P$E$23J3E'H& N34$E EE- 3C HE > 3C
&4HJ' F3 '3N3 1'H& 8 C P$(3C O C ; NF3X-34 H F3 P$E$23J3E'H&
F3 @HJJ CCHE34C &H4 F3 '3D-N HE H& F3 ,$ HE$' G3Q ' $ED H
$J3ED $E N ' &H4 3E$Q E2 F3 C$D @HJJ CCHE34C H 24$E' >&3
EE- 3C $ED EE- 3C &H4 *34JC H&=3$4C' ![!

>W' E N '&H4 FHD E2 F3 CCT3C &H4 F3 #(1 I,3# ' E $!% #&'
* N3 E3 340 =3$4' $'73%% ,, !'EC 3$D H&*) % 51 ,F ' !

>W ' E N ' H 43ED34 JH43 3&&3N -$'$E N '1$CC3D E F3 6&OEEF
=3$4 H& 8 C $3 P$(3C O % E2 !, (! F3 *F4D' E -3D /#/'' ,'
!#& #& !#&! ' , ! ! !'3 % # /''5 11!& #)! % 1'+!11 ,# , '
* % !# ' , '43 %& #(' #&5 , , #( )! 43 %& #(' , ' && ,# % I)3 ')!1
#5,53%,31 * 1)!1' !U

>W ' E N '&H4 $QH CF E2 F3 I-E CFJ3E'H& G3$ F E N34$E @$C3C'
$ED C-QC - E2 $ 3CC34 I-E CFJ3E' E 3-' F343H&' !U!

>W8 ' E N ' H 3E$Q 3 I334C H& +', % #& H $+3 $ED C-QCN4Q3 E
$!% #& F3 <$ FC 43X- 43D &H4 X-$ &O E2 F3J' H H 3 E $EO ; 3N HE
H& F3 I334C H&+', % #&' -BD

>W ' E N ' H C3 3 $ED D3CN4Q3 F3 G CHEC H& @H-E 3C'$ED F3
> J C H& @ 3C $ED BH4H-2FC' E 8#(% #& $ED %!1' E CH &$4 $C
43C13N C F3 ; 3N HE H& P3JQ34C H C34 3 E I$4 $J3E ' 9-M

'WW ' E

E ' * B > ; ' , ')!' ? * * # * ; ?

>WO ' E' N ' H' $J3ED' F3' '3143C3E $ HE' H&' F3' I3H1 3' E' +', % #&

>W ' E' N ' H' 14H D3' &H4' F3' @HE 3O$EN3' H&' I43J C3C' F3' I4H134 O' H&' F3' @4H E' C -$ 3' Q3 33E' F3' *H 34' H&' <,#&,#' $ED' <,#& . 3 S

>W ' E' N ' H' $J3ED' $E' N ' H&' F3' ?3 3E F' $ED' ; 2F F' =3$4C' H&' F3' '3 2E' H&' 8 C' $ 3' P$(3C O' % E2' !, (!' F3' 6H-4 F' 43 $ E2' H' F3' #E HE' H&' I$4 CF3C' E' $!% #&' Y

>W ' E' N '&H4' F3' JH43' 3&&3N -$' I43 3E HE' H&' *43C1$CC3C' -1HE' I4H134 O' QO' I34CHEC' E' 1-4C- ' H&' M$J3' E' F$' I$4 'H&' ! ' " #' N$ 3D' +', % #&' N YZ

>W W' E' N ' H' 143 3E ' F3' 11 N$ HE' H&' @H41H4$ 3' I4H134 O' H' F3' I-41HC3C' H&' ; 3N HE' H&' P3JQ34C' H' C34 3' E' I$4 $J3E ' Y ZV

>WW' E' N ' H' NHE E-3' &H4' <E3' =3$4' $ED' &4HJ' F3EN3' H' F3' ;ED' H&' F3' F3E' E3 ' ?3CC HE' H&' I$4 $J3E ' C3 34$' N C' 43 $ E2' H' F3' J1H4 $ HE' $ED' +331 E2' H&' 4JC' $ED' M-E1H D34' E' $!% #&' YVS

>WW ' E' N '&H4' CFH4 3E E2' F3' * J3' <&' I43CN4 1 HE' E' N34 $ E' M$C3C '

>WW >' E' N ' H' 3 3ED' F3' I4H C HEC' H&'$E' N 'H&' F3' ?3 3E F' $ED' ; 2F F' =3$4C' H&' F3' '3 2E' H&' 8 C' $ 3' P$(3C O' % E2' F3 6H-4 F' 43 $ 3' H' '3J3D 3C' 2 EC' F3' 8-ED43D' ' <

>WW ' E' N ' H' $J3ED' * H' N C' H&' F3' ?3 3E F' =3$4' H&' F3' '3 2E' H&' 8 C' $ 3' P$(3C O' % E2' !, (!' F3' 6H-4 F' $ED' E' F3' 6 4C' $ED' ?3NHED' =3$4C' H&' F3' '3 2E' H&' 8 C' 143C3E ' P$(3C O' &H4' F3' -E &H4J' $ -$ HE' H&' >$EDC' $ED' *3E3J3E C' E' F3' C3 34$' B$4HE 3C' I$4 CF3C' $ED' H F34' G C HEC' H&' @H-E 3C' E' $!% #&' %6+

>WW ' E' N ' H' 134J ' F3' G C $ HE' H&' ?1 4 C' &4HJ' P$E23' 9 -4T3 ' '

>WW ' E' N '&H4' 432- $ E2' ?NFHH C' H&' E$ HJO' ?$+

>WW ' E' N ' H' D3&4$O' F3' @F$423' H&' F3' I$O' @ H F E2' $ED' NHER E23E' $ED' H F34' ; 13EN3C' H&' F3' G C3J QHD 3D' P $' E' ! ' " #' $ED' $!% #&=' $ED' H' 24$E ' H $EN3C' E' N34 $ E' @$C3C' H' ?-Q$ 34E' <&BN34C' D(- $E C' I$OJ$C 34C' \ -$4 34J$C 34C' ?-423HEC' CC C $E ' ?-423HEC' ?-423HEC' P$ 3C' $ED' ?34(3$E' P$(H4C' H&' F3' P $' -E ' F3' 6 4C' G$O' H&' ?3% ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O F433'

>WW >' E' N '&H4' F3' Q3 34' '32- $ HE' H&' F3' 5>DE3E' $ED' 83J13E' P$E-&$N -43C' H& 43 $ D' ' '

>WW ' E' N ' H' NHE E-3' N34 $ E' N C' 43 $ E2' H' F3' C $ED' H&' E!F ,3#&% #&' $ED' H' 14H D3' &H4' F3' 114H14 $ HE' H&' $ 'G- 3C' F NF' J$O' F343$& 34' Q3' 4$ C3D' F E' F3' C$ D' C $ED' ' ' ' !S

>WW W' E' N ' H' NHE E-3' -E ' F3' *F 4 O & 4C' G$O' H&' 2!'! 4!' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 *H-4(' E' N ' H&' F3' 6 & F' =3$4' H&' 8 C' $ 3' P$(3C O' 43 $ E2' H' F3' 6 CF34 3C' E' E!F ,3#&% #&1' !

>WWW' E' N ' H' $- FH4 T3' F3' D3E &O E2' H&' >$EDC' $ED' I HCC3CR C HEC' H&' N34 $ E' ; NN 3C $C N$' $ED' @H#32 $ 3' @H41H4$ HEC' : Y

>WWW>' E

>WWW ' E' N ' H' 3E$Q 3' 8 C' P$(3C O' H' N$44O' E H' 3&&3N '$' @HE 3E HE' J$D3' Q3 33E' 8 C' C$D' P$(3C O' $ED' F3' ; J134H4' H&' $ ' F3' L311 1 Y!

>WWW ' E' N ' H' 43D-N3' F3' G- 3C' EH '1OQ 3' -'N34 $ E' @$C3C' HE' @$44 $23C' F' 3CC' F$E' 6H-4' 9 F33 C' YV

>WWW ' E' N ' H' $- FH4 T3' &H4' <E3' =3$4' F3' '3 J H $' H&' I4 CHE34C' &4H J' F3' C3 34$' M$H C' E' $!% #&' E' @$C3C' ! '31 D3 J N' G C3$C3C'

>WWW ' E' N ' H' $J3ED' F3' G$ C' 43 $ E2' H' F3' @-C H J C'

>WWW ' E' N ' H' J$+3' $' Q3 34' I4H C HE' &H4' F3' ?-134 E 3ED3EN3' H&' @F$4 $Q 3' EC - HEC' E' $!% #&' J$ E $ E3D' E' F3' FH 3' H4' E' 1$4 'QO' M4$ED' 5-4O' I43C3E J3E C' ' $ED' &H4' F3' JH43' 3&&3N -$' -D ' H&' F3' NNH-E C' H&' F3' C$J3' Z[

>WWW ' E' N ' H' $J3ED' $E' ' N ' H&' F3' 6H4 O & & F' =3$4' H&' 8 C' P$(3C O' % E2' !, (!' F3' *F 4D '43 $ E2' H' IHC '& H$Da' E' $!% #&' Z[!

>WWW ' E' N ' H' 432- $ 3' F3' <&& N3' &H4' 432 C 34 E2' G33DC' @HER 3O$EN3C' $ED' 9 C' E' $!% #&' Z[V

>WWW ' E' N ' H' $J3ED' F3' '3143C3E $ HE' H&' F3' I3H1 3' H&' $!% #&' ZUV

>WWW W' E' N ' H' C3 3' $ED' D3CN4 Q3' F3' > J C' H&' @ 3C' *H EC' $ED' BH4H-2FC' E' $!% #&' E' CH' &$4' $C' 43C13N C' F3' ; 3N HE' H&' P3J Q34C' H' C34 3' E' I$4 $J3E ' Z!

W@ ' E' N ' H' $- FH4 T3' F3' @HJ J CC HE34C' H&' 8 C' P$(3C O C' *43$C-4O' H' 24$E '@HJ13EC$ HE' H' F3' EC13N H4C' $ED' @H$' P3 34C' H&' F3' @ O' H&' 234% #' $ED' H' J1HC3' $' '$ 3' -1HE' @H$ C' J1H4 3D' E H' F3' I H4 ' H&' 234% #' H' 14H D3' $' 6-ED' &H4' C-NF' @HJ13EC$ HE' ' ' Z

W@ ' E' N ' H' 3 1$E' GH-Q C' F$' F$ 3' $4 C3E' 43C13N E2' F3' ? $J1' G- O' 1$O$Q 3' QO' 6433J3E' H&' @H41H4$ HEC' 3E 3D' QO' 4 -3' H&' *4$D3' $ED' '3C D3EN3' E' F3' @H41H4$ 3' *H EC' $ED' @H-E 3C' H&' @ 3C' $ED' *H EC' E' $!% #&' ' ZZ

W ' E' N '&H4' 4$EC&344 E2' F3' I H 34C' H&' F3' 8 2F' @H-4 ' H&' G3 3R 2$ 3C' QH F' E' ; NN 3C $C N$' $ED' P$4 J3' @$-C3C' H' 8 ?' P$ 3C O' E' @H-EN ' ' ZZ!

W@ ' E' N '&H4' 3E&H4N E2' F3' I 4HN3CC' -1HE' @HE 3J1 C' E' F3' @H-4 C' ; NN 3C $C N$' H&' 8#(% #&' $ED' $!% #&' ZZV

W@ ' E' N '&H4' 4$ C E2' F3' ?-J' H&' *F 4 33E' J HEC' 3 2F 'F-ED43D' $ED' E E3 O C ' FH-C$ED' C 'F-ED43D' I H-EDC' QO' ; NF3X-34' B C' &H4' F3' ?34 N3' H&' F3' =3$4' <E3' FH-C$ED' 3 2F 'F-ED43D' $ED' F 4 O H ' ' ZV

W@ ' E' N '&H4' 24$E E2' H' 8 C' P$(3C O' -E ' F3' 6 & F' G$O' H&' / 5 %' <E3' FH-C$ED' 3 2F 'F-ED43D' $ED' F 4 O F433' N34 $ E' G- 3C' HE' ?-2$4' J1H4 3D' E H' F3' #E 3D' % E2DH J' &H4' F3' ?34 N3' H&' F3' =3$4' <E3' FH-C$ED' 3 2F 'F-ED43D' $ED' F 4 O H'

W@ ' E' N '&H4' F3' Q3 34' ; J1 HO J3E 'H&' >$QH-434C' E' 24N- -4$' I$4 CF3C' -E ' F3' * 3E O & & F' G$O' H&' ')' <E3' FH-C$ED' 3 2F 'F-ED43D' $ED' F 4 O &H-4'' V[!

ʻ * B> ;ʻ , ʻ)!ʻ ?* *#* ; ?

W@ ʻ E ʻ N ʻ H 4313$ ʻ C3 34$ ʻ N C &H4 3E$Q E2 F3 9 3C $ED 6$J 3C H& ?H D 3 ʻC ʻ $ED F3 9 DH C $ED 6$J 3C H& D3N3$C3DSH D 3&C ʻ H 43 -4E H F3 4 8 H J 3C ʻ

W@ ʻ E N ʻ &H4 432- $ E2 F3 14H 3C E2 &H4 , HE1$OE 3E ʻ H& B C H& ; NF$E23 D4$ E 1OQ 3 $ ʻ $ I $N3 ED ʻ Q3 E2 F3 I $N3 H& F3 ʻ 3C D3EN3 H& F3 G4$ 33 H4 G4$ 33C H& F3 C$J 3 ʻ V S

W@ W ʻ E N ʻ &H4 4$EC&344 E2 F3 I H 34C $ED G- 3C H& F3 @H J J CR C HE34C H& I -Q N NNH-E C E 43&$4 D H F3 @H J J CC HE34C &H4 $-D E2 F3 I -Q N NNH-E C H& ! ʻ " #ʻ DCP

@ʻ E N ʻ &H4 CFH4 3E E2 F3 * J 3 43X- 43D E @ $ J C H& P HD-C D3N J $ED ʻ H4 ; 3 J 1 HE &4H J ʻ H4 G CNF$423 H& * F3C ʻ

@ ʻ E N ʻ H $- FH4 T3 8 C P $(3C O H $11H E ʻ $ I 34CHE H $N ʻ $C ?F34 &&H& +!% 1) ! D-4 E2 F3 EN1N O H& F3 143C3E ʻ ?F34 &&C VU!

@ ʻ E N ʻ H 4313$ ʻ F3 ; N C3 G- 3C HE 6 E ʻ M $CC ʻ $ED H ʻ J 1HC3 H F34 G- 3C E 3-ʻ F343H& ʻ $ED H $ J 3ED F3 >$ C 43 $ E2 H M $CC VUV

N J ʻ E N ʻ H 14H D3 &H4 F3 ; $ J E$ HE $ED -D ʻ H& F3 @-C H J C $ED ; N C3 ʻ 3 3E-3C E ʻ V

@ ʻ E N ʻ H 432- $ 3 F3 I 34 HD H& 43ED34 E2 A 3 I $Q N NNH-E C $ED J $+ E2 -1 F3 M3E34$ ʻ J 143C ʻ @34 & N$ 3C ʻ V !

@ ʻ E N ʻ &H4 F3 Q3 34 ?-11H4 ʻ H& F3 G 2E O H& F3 ?13$+34 H& F3 8 H-C3 H& @H J J HEC ʻ $ED &H4 D C$Q E2 F3 ?13$+34 H& F3 8 H-C3 H& @H J J HEC &H4 F3 * J 3 Q3 E2 &4H J ʻ FH D E2 $EO <& ?N3 <4 I $N3 H& I 4H& ʻ D-4 E2 I 3$C-43 ʻ -ED34 F3 @4H E ʻ ʻ V V

@ ʻ E N ʻ H 3E$Q 3 F3 <&& N34C E 8 C P $(3C O C 4 J O ʻ $ED F3 4 ʻ 3143C3E $ 3C ʻ $ED F3 9 DH C H& <&& N34C ʻ $ED I 34CHEC HE F3 @H J 1$CC HE$ 3 > C ʻ $ED $ CH @ ʻ <&& N34C HE ʻ 3 43D H4 ?-134$EE-$ HE H $EN3C 1$O$Q 3 QO F3 I $O J $C 34 M3E34$ ʻ H& 8 C P $(3C O C 6H4N3C ʻ H D4$ ʻ &H4 $ED 43N3 3 F3 4 8 $ & I $O $ED H $EN3C ʻ V!S

3 ʻ E N ʻ &H4 432- $ E2 &H4 * F433 =3$4C ʻ $ED &4H J ʻ F3EN3 -E ʻ F3 ; ED H& F3 F3E E3 ʻ ?3CC HE H& I $4 $ J 3E ʻ F3 @$43 ED * 43$ J 3E ʻ H& EC$E3 I 34CHEC E 8#(% #& ʻ ʻ

@ ʻ E N ʻ &H4 $ J 3ED E2 F3 >$ C E 43 $ 3 H F3 11H E J 3E ʻ H& ?13N $ ʻ @HEC $Q 3C ʻ $ED Q4 F3 Q3 34 I 43C34 $ HE H& F3 I 3$N3 ʻ Q ʻ ʻ ʻ V ʻ ?

@ W ʻ E N ʻ &H4 C3 E2 $ED C3N-4 E2 EE- ʻ C HE F3 ʻ 2F ʻ L, ,FJ& /! I) %!1 ##! 1 +3 ,# $ED HE PC E3 ʻ 8 3 4 P $ 3 ʻ E NHEC D34$ HE H& F3 3 J E3E ʻ ?34 N3C H& F3 C$ D B 2F ʻ 8 HEH-4$Q 3 ʻ I) %!1 ##! 1 +3 ,# ʻ [[

@W ʻ E N ʻ &H4 F3 Q3 34 ʻ 32- $ HE H& F3 G- 3C H ʻ Q3 134&H4 J 3D QO F3 <&& N34C HE F3 I 3$ H4 @H J J HE >$ ʻ ? D3 H& F3 @H-4 ʻ H& ; NF3X-34 ʻ [[!

@W ʻ E N ʻ H $QH CF N34 $ E ? E3N-43 <&& N3C NHEE3N 3D F F3 @H-4 ʻ H& @F$EN34O ʻ $ED H J $+3 I 4H C HE &H4 F3 >H4D 8 2F @F$EN3 H4 HE F C ʻ 3 43 J 3E ʻ &4H J ʻ <&& N3 ʻ [[V

@W ʻ E

@W ' E' N ' H' $- FH4 T3' F3' 8343D $4O' >$ED' ' 3 3E-3C' H&' F3' @4H E' E' +' , % #&' Q3 E2' 1 $N3D' -ED34' F3' P$E$23 J 3E ' H&' F3' @H J J CC HE34C' H&' F3' >$ED' ' 3 3E-3C' W[S

@W ' N ' H' NHE E-3 ' -E ' F3' 6 & F' G$O' H&' / 5 %' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O &H-4 ' @H J 1HC HEC' &H4' F3' CC3CC3D' * $ 3C ' $ED' H' 24$E ' ' 3 3&' E' N34 $ E' @$C3C ' [

@W ' E' N ' H' $ J 3ED' F3' >$ C' 43 $ E2' H' B$E+4-1 C '

@W ' E' N ' &H4' F3' Q3 34' C3N-4 E2' F3' @F$4 $Q 3' GHE$ HEC' $ED' B3X-3C C' H&' 8 C' P$(3C O C' ?-Q(3N C' E' ! ' " #' 14H&3CC E2' F3' ' H J $E' @$ FH N' ' 3 2 HE ' [U!

@W ' E' N ' H' 14H D3' &H4' F3' ?$ $4 3C' H&' N34 $ E' 8 2F' $ED' 5-D N $ ' <&& N34C ' $ED' H&' I $O J 3E C' F343 H&H43' J $D3' H- ' H&' F3' @ ' > ' ' 3 3E-3C '

@W >' E' N ' H' $ J 3ED' F3' >$ ' 43 $ E2' H' F3' 11H E J 3E ' H&' 5-C N3C' H&' F3' I 3$N3 ' $ED' H&' 5-4 3C ' E' F3' 8 1 ' $#& !1 ' [S

@W ' E' N ' H' 43C 4$ E' &H4' 6 3' =3$4C ' E' N34 $ E' @$C3C ' I $4 O' I 4HN3CC HEC' E' $!% #& ' ' [

@W W ' E' N ' H' $ J 3ED' * F433' N C' 1$CC3D' 43C13N 3 O' E' F3' 6H-4 (' 6 & F ' $ED' E' F3' ?3 3E F' $ED' ; 2F F' =3$4C' H&' F3' ' 3 2E' H&' 8 C' $ 3' P$(3C O' % E2' ! , (!' F3' 6H-4 F ' 14H D E2' &H4' F3' 3C $Q CF E2' H&' @H J 1HC HEC' &H4' * F3C' E' $!% #&-' $ED' H' J $+3' C-NF' @H J 1HC HEC' 134 J $E3E ' ' [!

@WW ' E' N ' H' 313$' F3' G- 3C' -ED34' F3' PE23 J 3E ' H&' F3' @H J R J CC HE34C' H&' ? $ J 1C' HE' ? $23' @$44 $23C' $ED' HE' 8 H4C3C' 3 ' &H4' 8 43' E' ! ' " #' $ED' H' 24$E ' H F34' G- 3C ' E' 3-' F343H& ' $ED' $ CH' H' NHECH D$ 3' $ED' $ J 3ED' F3' >$ C' 43 $ E2' F343 H '

@WW ' E' N ' H' 3E$Q 3' 8 C' P$(3C O' H' N$44O' E H' 3&&3N ' $' @HE 3E HE' J $D3' Q3 33E' 8 C' P$(3C O' $ED' F3' % E2' H&' F3' R !#')' $ED' ; J 134H4' H&' $ ' F3' L311 1 ' $ED' F3' % E2' H&' " 0 ' ' '

@WW ' E' N ' &H4' J $ DE2' I 4H C HE' &H4' F3' >H4D' 8 2F' @F$EN3 H4' H&' 8#(% #&' E' 3-' H&' 633C' F343 H&H43' 43N3 3D' QO' F J ' U!

@WW ' E' N ' &H4' $QH CF E2' F3' I -E CF J 3E ' H&' G3$ F' E' N34 $ E' @$C3C' H&' 6H42340 ' ' SS

@WW ' E' N ' H' 3 1 $ E' N3 $ E' I 4H C HEC' E' >HN$ ' N C' H&' I $4 $R J 3E ' 43 $ E2' H' GH-Q 3' * H ' HE' * -4E1 +3' ' H$DC ' S

@WW ' E' N ' &H4' 3E$Q E2' 8 C' P$(3C O' H' D 43N ' F3' CC-3' H&' ; NF3X-34' B C' H' $' J 3D' J H-E ' &H4' F3' I -41HC3C' $ED' E' F3' P$EE34' F343 E' J 3E HE3D' ($ED' &H4' 2 E2' ' 3 3&' H' 7 # & &' " 1)' 3 # ' $ED' + ' <3' ! '

@WW ' E' N ' H' $11 O' $' ?-J' H- ' H&' F3' @HECH D$ 3D' 6-ED' $ED' F3' ?-41 -C' H&' 9 $OC' $ED' P 3$EC' H' F3' ?34 N3' H&' F3' =3$4' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' ' $ED' H' $114H14 $ 3' F3' ?-11 3C' 24$E 3D' E' F C' ?3CC HE' H&' I $4 $ J 3E ' S

@WW ' E' N ' &H4' $11H E E2' $DD HE$' @H J J CC HE34C' H' 1- ' E' 3 3N- HE' F3' N C' &H4' 24$E E2' $E' D' H' 8 C' P$(3C O' QO' $' >$ED' * $ ' $ED' NHE E- E2' F3' G- 3C' HE' I 34CHE$' ; C $ 3C ' <&& N3C ' $ED' I 3EC HEC ' ' U S

> < @ > ʻ , G ʻ I ; ' ? < , > ʻ @ * ?

G ; @> ' ; G ʻ I # B> @

, G ʻ * < ʻ B ; ʻ 5#G @ >>= ʻ , < * @ ; G ʻ

ʻ , ʻ N ʻ &H4 ʻ 3E$Q E2 ʻ F3 ʻ < 0! 5, , % ʻ P $4 E3 ʻ CC-4$EN3 ʻ @H J 1$EO ʻ H ʻ C-3 $ED ʻ Q3 ʻ C-3D ʻ E ʻ F3 ʻ , $ J 3 ʻ H& ʻ F3 ʻ @F$ 4 J $E ʻ &H4 ʻ F3 ʻ * J 3 ʻ Q3 E2 ʻ H4 ʻ H& ʻ $EO ʻ < E3 ʻ H& ʻ F3 ʻ G 43N H4C ʻ H& ʻ F3 ʻ C$ D ʻ @H J 1$EO ʻ ʻ. +

ʻ E ʻ N ʻ H ʻ 3E $423 ʻ F3 ʻ * 34 J ʻ $ED ʻ $ J 3ED ʻ F3 ʻ I H 34C ʻ $ED ʻ I 4H C HEC ʻ H& $E ʻ N ʻ 1$CC3D ʻ E ʻ F3 ʻ ?3 3E F ʻ $ED ʻ ; 2F F ʻ =3$4C ʻ H& ʻ 8 C ʻ $ 3 ʻ P $(3C O ʻ % E2 ʻ ! , (! ʻ F3 ʻ 6H-4 F ʻ &H4 ʻ J $+ E2 ʻ $ ʻ E$ 2$Q 3 ʻ @H J J -E N$ HE ʻ Q3R 33E ʻ F3 ʻ @ O ʻ H& ʻ E , F ') ʻ $ED ʻ F3 ʻ ?3$ ʻ $ ʻ H4 ʻ E3$4 ʻ < , 1 , ʻ E ʻ F3 ʻ , #J ʻ +3 , % ʻ ?

ʻ E ʻ N ʻ &H4 ʻ J $ E $ E E2 ʻ $ED ʻ J 14H E2 ʻ F3 ʻ * -4E1 +3 ʻ ' H$DC ʻ 3$D E2 ʻ &4H J ʻ / 1% , & ʻ , ʻ "3J , # ʻ $ED ʻ &4H J ʻ 7 &!1F! % ʻ < ʻ "% ' !F!%% ʻ $ED ʻ &4H J ʻ 8&! , ʻ H ʻ / 1% , & ʻ $ ʻ E ʻ F3 ʻ @H-E O ʻ H& ʻ 2 ! 4 ʻ

ʻ E ʻ N ʻ &H4 ʻ J H43 ʻ 3&&3N -$ O ʻ 431$ 4 E2 ʻ $ED ʻ J 14H E2 ʻ F3 ʻ ' H$D ʻ &4H J & #(1 , # ʻ H ʻ 6%& ʻ + , & ʻ E ʻ F3 ʻ @H-E O ʻ H& ʻ E ,) 5 , # ʻ U!

ʻ E ʻ N ʻ &H4 ʻ 4$H43 ʻ 3&&3N -$ O ʻ 431$ 4 E2 ʻ $ED ʻ H F34 C3 ʻ J 14H E2 ʻ F3 ' H$D ʻ &4H J ʻ $51F ') ʻ H ʻ + , & ʻ + # ʻ ʻ E ʻ F3 ʻ @H-E O ʻ H& ʻ + 4% ʻ +-

ʻ E ʻ N ʻ &H4 ʻ J H43 ʻ 3&&3N -$ O ʻ J $ E $ E E2 ʻ $ED ʻ J 14H E2 ʻ F3 ʻ ' H$DC &4H J ʻ " #() ʻ H ʻ !&A 1)3 ʻ $ED ʻ H ʻ ! ʻ " &(! ʻ $ED ʻ &4H J ʻ F3EN3 ʻ H ʻ F3 ʻ * , F ʻ $D(H E E2 ʻ F3 ʻ " %1 , # ʻ $ED ʻ !&#!143 ʻ * -4E1 +3 ʻ ' H$D ʻ $ED ʻ H ʻ E!) ! ʻ 7 #&%! ʻ E3$4 ʻ 2 3&%! ʻ $ED ʻ &4H J ʻ 7 , 3+! ʻ < ! ʻ E ʻ F3 ʻ I $4 CF ʻ H& ʻ !&#!143 ʻ H ʻ 2 % 1 , # ʻ E ʻ F3 ʻ @H-E 3C ʻ H& ʻ F ' ʻ + , & ʻ $ED ʻ , '!1 ! = ʻ $ED ʻ &H4 ʻ J $+ E2 ʻ E3 ʻ B4$ENF3C ʻ H& ʻ ' H$D ʻ NH J J -E N$ E2 ʻ F343 F ʻ

ʻ E ʻ N ʻ &H4 ʻ 3C $Q CF E2 ʻ $ ʻ 6 H$ E2 ʻ B4 D23 ʻ H 34 ʻ F3 ʻ ' 34 ʻ 7 ʻ $FH4 E3$4 ʻ + % 1) ʻ R! ʻ E ʻ F3 ʻ @H-E O ʻ H& ʻ I , F %% ʻ ; D

ʻ E ʻ N ʻ &H4 ʻ 3C $Q CF E2 ʻ $ ʻ P $4+3 ʻ E ʻ F3 ʻ I $4 CF ʻ H& ʻ % , # , #) ! %% E ʻ F3 ʻ @H-E O ʻ I $ $ E3 ʻ H& ʻ >E N$ 934 ʻ

ʻ E ʻ N ʻ H ʻ NHE E-3 ʻ F3 ʻ * 34 J ʻ $ED ʻ H ʻ $ 34 ʻ $ED ʻ $ J 3ED ʻ F3 ʻ I H 34C ʻ H& $E ʻ N ʻ 1$CC3D ʻ E ʻ F3 ʻ 6 & O & 4C ʻ =3$4 ʻ H& ʻ F3 ʻ ' 3 2E ʻ H& ʻ 8 C ʻ P $(3C O ʻ % E2 ʻ ! , (! ʻ F3 ʻ * F 4D ʻ &H4 ʻ F3 ʻ J 14H 3 J 3E ʻ H& ʻ F3 ʻ 8 $4QH-4 ʻ H& ʻ +3 , # ʻ * , , % ʻ E ʻ F3 ʻ I H4 ʻ H& ʻ * % , 3) ʻ E ʻ F3 ʻ @H-E O ʻ H& ʻ 2 !0 , # ʻ 1

ʻ E ʻ N ʻ &H4 ʻ Q3 34 ʻ $CC3CC E2 ʻ $ED ʻ NH 3N E2 ʻ F3 ʻ I HH4 ʻ $ED ʻ H F34 ʻ I $4HNF $ ʻ ' $ 3C ʻ $ED ʻ &H4 ʻ F3 ʻ Q3 34 ʻ P $ E 3E$EN3 ʻ $ED ʻ ; J 1 HO J 3E ʻ H& ʻ F3 ʻ I HH4 ʻ H& ʻ F3 ʻ I $4 CF ʻ H& ʻ + # ʻ (! ʻ E ʻ F3 ʻ BH4H-2F ʻ $ED ʻ @H-E O ʻ H& ʻ < ! '!1 ! ʻ ʻ Y!

ʻ E ʻ N ʻ H ʻ $ J ED ʻ $E ʻ N ʻ & _4 ʻ 2F E2 ʻ F3 ʻ * H E ʻ $ED ʻ B-42F ʻ H& ʻ * 1%! ʻ $ED ʻ ?-Q-4QC ʻ $ED ʻ I $N3C ʻ $D($N3E ʻ F ʻ M$C ʻ ʻ $ED ʻ H ʻ 3E$Q 3 ʻ F3 ʻ @H J 1$EO ʻ F343QO ʻ ENH41H4$ 3D ʻ H ʻ EN43$C3 ʻ F3 4 ʻ @$1 $ ʻ ? HN+ ʻ ($ED ʻ &H4 ʻ H F34 ʻ I -41HC3C ʻ 43 $ E2 ʻ F343 H ʻ U[!

@<,' %' '*! 1,# %'&!'% !&'*34%'' 'A' Ub' K' M'#>' '

' E' N'&H4' 2F E2' F'M$C' F3' *H E' H&' + #' !%!#1' F3' 8$J 3 H&' &1) '3 # #&%!'$ED' F3' C3 34$' *H ECF 1C' H&' #& '* ' 8''%!1 ,#' $ED' +3 ,#' $' E' F3' I$4 CF' H&' * !1',' E' F3' @H-E O' I$ $ E3' H&'< #' 1 ! ' U

' E' N' H' $ 34' $ED' 3E $423' F3' IH 34C' H&' $E' N' H&' F3' & & 3 F =3$4' H&' 8 C' P$(3C O' #(' !, (!' F3' *F 4D' &H4' 2F E2' $ED' H F34 C3' J141 E2' F3' ? 433 C' $ED' H F34' 1-Q N' I $N3C' E' F3' I$4 CF' H&' + #'<3 !' E' F3' @H-E O' H&' &&%!1!J' $ED' &H4' 1 $N E2' -ED34' F3' @$43' H&' F3' *4-C 33C' N34 $ E' 'H$DC' E' F3' I$4 CF' F NF' 343' $ 3 O' *-4E1 +3' 'H$DC' UY!

' E' N'&H4' D 34 E2' $ 34 E2' 431$ 4 E2' J$ E $ E E2' $ED' J14H E2 F3' C3 34$' *-4E1 +3' 'H$DC' F E' F3' G C 4 N' H&' E!F5, ' E' F3' @H-E O' H&' ,# ,3)' UZ!

' E' N'&H4' 431$ 4 E2' $ED' H F34 C3' J14H E2' F3' 'H$D' &4H J' " &3()' R! ' H' +,3)' E!F4 %&' ,% !1' $ED' &4H J' " ,3()'' H' !% ,#' E' F3' ;$C' ' D E2' H&' F3' @H-E O' H&' H, ' S[

' E' N' &H4' JH43' 3 &3N -$ O' J14H E2' F3' 'H$D' &4H J' "3 , &' H " #43 ' E' F3' @H-E O' H&' 6J , &' $ED' &4H J' "3 , &' H' F3' 'H$D' 3$D E2' H' + ,F' E' F3' @H-E O' H&' %,3'!1 ! 'F,/' +F! , &' !' E' F3' @H-E O' H&' 6J , &' H' F3' 'H$D' E' / #),' E' F3' @H-E O' H&' E,) 5 ,#' ' $ED' &H4' J$+ E2' $' E3 'B4$ENF' H&' 'H$D' H' NH J J -E N$ 3' F' F3' C$J 3' S[V

' E' N' &H4' J$+ E2' $ED' J$ E $ E E2' $' 'H$D' &4H J' E!F' #&1, ' E F3' @H-E O' H&' "! 1' H' F3' $23' H&' *F , &' E' F3' I$4 CF' 5 ' 3 1' E' F3' C$ D' @H-E O' $ED' @H-E O' H&' %1' S

' E' N' &H4' 431$ 4 E2' F3' 'H$D' 3$D E2' H-' H&' F3' "!& , &' $ED' E!F5, '* (#!%%' *-4E1 +3' 'H$D' E3$4' " ,) #' #(!' E' F3' @H-E O' H&' "!& , &' H' 6%#! ' $ED' H F34' I $N3C' E' F3' @H-E O' H&' "3' #() SU!

' E' N' &H4' J14H E2' $ED' J$ E $ E E2' F3' 'H$D' &4H ' H4' E3$4),% 'L, &' " &(!' E' F3' 9 3C' ' D E2' H&' F3' @H-E O' @&' H, ' NH J J -E N$ E2' F' F3' 'H$D' $' H4' E3$4' H' F3' ? F' P 3' ? HE3' &4H J' L,')& %!' E' F3' @H-E O' H&'< #' 1 ! ' ---

' E' N' &H4' JH43' 3&&3N -$ O' 431$ 4 E2' $ED' H F34 C3' J14H E2' F3' 'H$D' &4H J' 2,#' 1 ! ' H' " F ' E' F3' @H-E O' H&'H, ' S

' E' N' &H4' JH43' 3&&3N -$ O' 431$ 4 E2' F3' 'H$D' &4H J' 2,F#) !' H' " ,#' $ED' H' $' I $N3' N$ 3D' F3' 2!0 *1' 2 ')' $ ' E' F3' @H-E O' H&' E, ,% ' S V

' E' N' &H4' JH43' 3&&3N -$ O' 431$ 4 E2' F3' 'H$D' 3$D E2' &4H J ", ,3()4 &(!' E' F3' @H-E O' H&' H, ' H' F3' @ O' H&' 23) '$ED' &H4' J$+ E2' $ED' J$ E $ E E2' N34 $ E' G3 $ HEC' F343 E' S!

' E' N' H' $J 3ED' C3 34$' N C' 43 $ E2' H' <,#&,#' " &(!' #& 114H$NF3C' F343 H' S S

' E' N' &H4' J$+ E2' $ED' J$ E $ E E2' $' '3C34 H 4' -1HE' " &1) 1(N " ,, ' #' F3' *H ECF 1C' , ' 73 ,#' $ED' R# F 1%!' F' F3' I$4 CF' H& G' ",% ,#

' * B > ; ' , ') !' ? * * # * ; ?

" ,O ,# %! , , 1' E' 3' @H-E O' H&' < #' 1 ! ' &H4' 14H D E2' $' J H43' 432- $4' ?-11 O' H&' 9 $ 34' E' " &1) F' " , , ' $&H43C$ D' $ED' E' N34 $ E' ' 34C' NHEE3N 3D' F343 F' ' -.D

' E' N ' H' $ 34' $ J 3ED' 3E $423' $ED' 3 3ED' F3' I H 34C' H&' C3 3 $' N C' 1$CC3D' E' F3' , E F' $ED' *3E F' =3$4C' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' ! , (!' F3' 6H-4 F' &H4' J $+ E2' $ED' J $ E $ E E2' F3' I% !#'!' ' $ $O' ' U

' E' N ' H' 3X-$ T3' F3' ; NN 3C $C N$' B-4 F3EC' H&' F3' I $4 CF' H& + #' '$1% #(,#' E' F3' @H-E O' H&' &&%!1!J'=' &H4' 1$4 $ O' $ 34 E2' F3' 11 N$ HE' H&' F3' ' 3E C' $ED' I4H& C' H&' F3' + ,#!' R !%&1' ; C $ 3' F E' F3' C$ D' I $4 CF' &H4' 3 E2' F3' I 3 C' E' F3' I $4 CF' @F-4NF' H&' + #' '$1% #(,#' $ED' F3' @F$13' H&' ; $C3' F343 H' $ED' &H4' H F34' I -41HC3C' NHEE3N 3D' F343 F' UV

' E' N ' &H4' Q3 34' C-11 O E2' F' 9 $ 34' F3' BH4H-2F' H&' * !1 ,# $ED' I $4 ' H&' F3' *H ECF 1' H&' R 1) F ' ' $D(H E E2' F343 Q' E' F3' I $4 CF' H&' * !1 ,#' E' F3' @H-E O' I $ $ E3' H&' < #' 1 ! '

' E' N ' &H4' J H43' 3&&3N -$ O' 431$ 4 E2' $ED' J 14H E2' F3' ' H$DC 3$D E2' &4H J' " ,#' " &(!' E H' F3' #') !1 ! ' $ED' / % #') ' * -4ER 1 +3' ' H$D' E' F3' @H-E O' H&' < #' 1 ! ' VS

' E' N ' &H4' J H43' 3&&3N -$ O' 431$ 4 E2' $ED' J 14H E2' F3' ' H$D' &4H J' F3' *H E' H&' I , ' ! ,3)' H' F3' *H E' H&' , #(,#' $ED' $' B4$ENF' H&' ' H$D' H 34' " ,3( ) ,#' ( )' " &(! ' -E H' $ED' $C' &$4' $C' F3' 1-Q N' 8 2F $O' 3$D E2' &4H J' F3' $23' H&' * 5' 1 %!' H $4DC' $ED' -E H' F3' $23' H&' ! ' " ,3( ) ,#' E' F3' @H-E O' H&' I 3 4! % #&' ! [!

' E' N ' &H4' J H43' 3&&3N -$ O' 431$ 4 E2' $ED' J 14H E2' F3' ' H$D' &4H J ' 6&) ' E' F3' @H-E O' H&' +,3) 5 ,#' H' R) ' E' F3' @H-E O' H&' +3 ! ' ! S

' E' N ' &H4' J H43' 3&&3N -$ O' 431$ 4 E2' F3' ' H$D' 3$D E2' &4H J " ! F ' 35,# 7F!!&' QO' / ' ,#' " &(!' $ED' / ' ,#' H' 23#(% 1' " &(! ' $ED' F3' ' H$D' &4H J' " %% !' I 31!F ' $ED' * !1 ,#' " &(!' H'(H E' F3' C$ D' ' H$D' $ ' H4' E3$4' ,3#&F, ,&' ,31!' $ED' " #) ,31!' 43C13N 3 O' E' F3' @H-E O' H&' " ! F ' ' !

' E' N ' &H4' J H43' 3&&3N -$ O' 431$ 4 E2' $ED' J 14H E2' F3' ' H$D 3$D E2' &4H J' F3' / % ! ,#' * -4E1 +3' ' H$D' E3$4' #1 !%&' F4H-2F' 7 41) !%' $ED' , ,#' H' F3' E , #( ) ' * -4E1 +3' ' H$D' E3$4' 7 #1%! ' $ED' H F34' ' H$DC' NHEE3N 3D' F343 F' E' F3' @H-E 3C' H&' E , #( ) ' $ED' 2 ! 4 ' ' !U!

' E' N ' &H4' 431$ 4 E2' F3' ' H$D' &4H J' " #( ) ' & F4H-2F 8% &,#A' H' + ,#!4 &(!' E' F3' @H-E O' H&' F ' ' !S

' E' N ' &H4' J H43' 3&&3N -$ O' 431$ 4 E2' F3' ' H$D' &4H J' F3' ?3CC HEC' 8 H-C3' E' F3' *H E' H&' "3' #( ) ' H' #F!%%' E' F3' @H-E O' , :' 6J , & ! V

' E' N ' &H4' J $+ E2' $ED' J $ E $ E E2' $' ' $ $O' &4H J' F3' I 0!) %%' H' F3' 8$4QH-4' H&' " !% 1' E' F3' @H-E O' H&' / # ' ! !

' E' N ' &H4' D3E E2' $ED' J 14H E2' $' I $4 ' H&' <,#&,#' L , &' E' F3' I $4 CF' H&' #') !1 ! ' $ED' @H-E O' H&' < #' 1 ! ' $ED' $ CH' &H4' 3&&3N E2 !' J 14H 3

@< , ' % ' * ! 1 , # % ' & ! ' % ! &' * 34% ' ' ' ?' U ' K' S' M # > ' '

E 14H 3 E3E C' E' 3' ? 433 C' $ED' H F34' I $N3C' F E' (F3' * H &' H&' #') !1 ! ' >

O ' E' N ' &H4' 2F E2' F' M$C' F3' @ O' H4' BH4H-2F' H&' !%1' E' F3' @H-E O' H&' +, ! 1! ' F3' > Q34 O' H&' + #' / #& ! F ' $ED' ?-Q-4QC' H&' F3' C$ D' @ O' H4' BH4H-2F' YUV

' E' N ' H' 3E$Q 3' F3' " 1)' @H J J34N $' EC-4$EN3' @H J 1$EO' H C-3' $ED' Q3' C-3D' E' F3' , $ J 3' H&' < E3' H&' F3' G 43N H4C' , ' H&' F3' ?3N43 $4O' &H4' F3' * J 3' Q3 E2' H&' F3' @H J 1$EO' Y

' E' N ' &H4' Q3 34' 2H 34E E2' $ED' 432- $ E2$E' EC - HE' E' F3 @ O' H&' " 1 , %' N$ 3D' $ED' +EH E' QO' F3' , $ J 3' H&' S' * F3' " 1 , %' CO - J' H4' ?NFHH ' H&' ED-C 4O' &H4' F3' B ED c' YZ!

' E' N ' &H4' 14H D E2' $' * H E' 8 $ ' $ED' P $4+3 ' I $N3 ' $ED' 432- $ E2' F3' P $4+3 C ' E' F3' * H E' H&' O5 , # 35, # +! 0! ' E' F3' @H-E O' H&' , ' !1 ! ' [!

' E' N ' &H4' 3 3ED E2' F3' * J 3' &H4' NH J 1 3 E2' F3' $DD HE$ ' B4 D23' H 34' F3' ' 34' 2 !!' E' F3' @ O' H&' I) !1 ! ' ?T9

' E' N ' H' $ 34' $ED' $ J 3ED' $E' N ' 1$CC3D' E' F3' ; 3 3E F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' ! , (!' F3' 6H-4 F ' &H4' 43Q- D E2' F3' B4 D23C' H 34' F3' ' 34C' +5! ' $ED' R #&) , #' &H4' J $+ E2' NN3CC3C' ' F343 H ' $ED' &H4' J $+ E2' $ED' J $ E $ E E2' N34 $ E' E3 ' ' H$DC' E' F3' @H-E O' H&' 8%(#' E' CH' &$4' $C' F3' C$ J 3' 432$4DC' F3' B4 D23' H 34' F3' ' 34' +5! ' E3$4' R , ') 4! 1' E' F3' C$ D' @H-E O' H&' 8%(#' V

' E' N ' H' 3 1 $ E' $ED' $ J 3ED' * H' N C ' H&' F3' 6 & O & 4C ' =3$4' H&' 8 C' $ 3' P $(3C O' % E2' ! , (!' F3' * F 4D' $ED' F3' 6 & F' =3$4' H&' 8 C' $ 3' P $(3C O' % E2' M3H423' F3' 6H-4 F ' 43 $ 3' H' F3' " &(! F ! ' $ED' 7 3# , #' @$E$' , $ 2$ HE' ' V

' E' N ' &H4' NHEC 4-N E2' $ED' J $ E $ E E2' $' I 34' H4' 8 $4QH-4' $' < (1' E' F3' @H-E O' H&' / ' ZV

' E' N ' &H4' Q3 34' 1$ E2' 2F E2' $ NF E2' $ED' H F34 C3' J R 14H E2' F3' * H E' H&' + #' < ! , # &' E' F3' @H-E O' H&' +311! J' +--

' E' N ' &H4' 3E$Q E2' F3' < 0! 5, , %' $ED' #') !1 ! ' ' $ $O' @H J R 1$EO' H' J $+3' $' B4$ENF' ' $ $O ' $ED' &H4' $ J 3ED E2' $ED' 3E $42 E2' F3' I H 34C' $ED' I 4H C HEC' H&' F3' C3 34$' N C' 43 $ E2' H' C-NF' ' $ $O ' V[!

' E' N ' &H4' J $+ E2' $ED' J $ E $ E E2' $' ' $ $O' &4H J' &!4 &(!' E' F3' I $4 CF' H&' + #' " ! , !' H' ! #U4 &' " &(! ' + #' " ! F &' F' $' NH $ 34$' B4$ENF' H' F3' BH4H-2F' H&' " , & #' $ED' N34 $ E' H F34' B4$ENF3C ' $ ' E' F3' @H-E O' H&' I , #F %' D--

' E' N ' &H4' J $+ E2' $ED' J $ E $ E E2' $' ' $ $O' H4' * 4$ J 4H$D' &4H J' $' N34 $ E' \ -$O' $ ' * , & , ' ' E' F3' I $4 CF' H&' H# 1 ' #) ' E' F3' @H-E O' H&' I # U , #' , ' N34 $ E' ? $ 3' \ -$44 3C' N$ 3D' ") F 4 &! ' $ED' 2 F1 ' E' F3' I $4 CF' H&' R!1 # , (' E' F3' @H-E O' H&' ! , #!) ' [S

' E' N ' H' $ 34' $ J 3ED ' $ED' 3E $423' F3' I H 34C' H&' C3 34$' N C' &H4' J $+ E2' $ED' J $ E $ E E2' + #') #!' GHN+C' E' F3' @H-E O' H& &&%!1! J' ' 7 [Z!

' F

ʿ * B> ;ʿ , ʿ)!ʿ ?* *#* ; ?

ʿ Eʿ N ʿ Hʿ $ 34ʿ $EDʿ 3E $423ʿ F3ʿ I H 34Cʿ H&ʿ * Hʿ N C ʿ 1$CC3Dʿ ʿ F3ʿ 6H-4 Fʿ $EDʿ ? Fʿ =3$4Cʿ H&ʿ F3ʿ ' 3 2Eʿ H&ʿ 8 Cʿ P$(3C Oʿ % E2ʿ ! , (!ʿ) !ʿ *F 4D ʿ &H4ʿ D4$ E E2ʿ $EDʿ J 14H E2ʿ N34 $ Eʿ >H ʿ M4H-EDCʿ $EDʿ @$4Cʿ Eʿ (8Q 9 34 CCʿ Eʿ F3ʿ ; $C ʿ ' D E2ʿ H&ʿ F3ʿ @H-E Oʿ H&ʿ =Q4>ʿ [VS

ʿ Eʿ N ʿ &H4ʿ J $ E $ E E2ʿ C3 34$ ʿ ' H$DCʿ 3$D E2ʿ Hʿ $EDʿ &4H J ʿ F3ʿ * H Eʿ H&ʿ 7 F,)ʿ Eʿ F3ʿ @H-E 3Cʿ H&ʿ + V &ʿ $EDʿ F ' ʿ SS

ʿ Eʿ N ʿ &H4ʿ J $+ E2ʿ $EDʿ J $ E $ E E2ʿ $ʿ * -4E1 +3ʿ ' H$D ʿ &4H J ʿ " 3 # ʿ ,31!ʿ Eʿ F3ʿ I $4 CFʿ , ʿ< 51 ,#!ʿ Eʿ F3ʿ @H-E Oʿ H&ʿ 2 !0 ,#ʿ ,ʿ " J ,3)ʿ Eʿ F3ʿ C$ J3ʿ @H-E O ʿ

ʿ Eʿ N ʿ &H4ʿ J H43ʿ 3&&3N -$ Oʿ 431$ 4 E2ʿ F3ʿ ' H$Dʿ &4H J ʿ % / %!ʿ H ,3)ʿ ,ʿ " %)) 3 ( ) ʿ $EDʿ &4H J ʿ " 5 ,#ʿ Hʿ 1F, ʿ Eʿ F3ʿ @H-E Oʿ <& +3 , ?' ʿ V

ʿ Eʿ N ʿ &H4ʿ Q3 34ʿ J $ E $ E E2ʿ F3ʿ ' H$Dʿ 3$D E2ʿ & H4$ʿ , !1 ,#ʿ) #ʿ ,ʿ + #ʿ I %! 1ʿ $EDʿ H F34ʿ ' H$DC ʿ Eʿ F3ʿ @ J J 3Cʿ H&ʿ * ! 4 , !ʿ $EDʿ I) !# ʿ $EDʿ &H4ʿ J $+ E2ʿ C3 34$ ʿ B4$ENF3Cʿ &4H J ʿ C-NFʿ ' H$DC ʿ !

ʿ Eʿ N ʿ &H4ʿ J H43ʿ 3&&3N -$ Oʿ 431$ 4 E2ʿ $EDʿ J 14H E2ʿ F3ʿ ' H$Dʿ &4H J ʿ E!F' 1 %! 3#&! < !ʿ Eʿ F3ʿ @H-E Oʿ H&ʿ + , &ʿ Hʿ 2 ,#ʿ #ʿ %!1ʿ H F34 C3ʿ ! ʿ 2 ,#ʿ Eʿ F3ʿ @H-E Oʿ H&ʿ + %,5 ʿ $EDʿ &H4ʿ J $+ E2ʿ E3 ʿ B4$ENF3Cʿ $EDʿ G3 $ HECʿ H&ʿ ' H$DCʿ Hʿ NH J J -E N$ 3ʿ F343 F ʿ KV

5 ʿ Eʿ N ʿ &H4ʿ J H43ʿ 3&&3N -$ Oʿ 431$ 4 E2 ʿ $ J 3ED E2 ʿ $EDʿ J $ E $ E E2ʿ N34 $ Eʿ ' H$DCʿ $EDʿ B4 D23Cʿ Eʿ F3ʿ @H-E Oʿ H&ʿ " ! ʿ Z!

ʿ Eʿ N ʿ &H4ʿ J H43ʿ 3&&3N -$ Oʿ 431$ 4 E2ʿ $EDʿ 9 D3E E2ʿ F3ʿ ' H$Dʿ &4H J ʿ F3ʿ * -4E1 +3ʿ ' H$Dʿ $ ʿ C #!) %%ʿ ,ʿ I 55 1ʿ I , ! ʿ $EDʿ &4H J ʿ F3EN3ʿ Hʿ + 5%! ' ,11 ʿ $EDʿ &4H J ʿ I 551 1ʿ I , ! ʿ Hʿ 7 %, 1ʿ I , ! ʿ Eʿ F3ʿ @H-E Oʿ H&ʿ +311! J ʿ $EDʿ $ʿ I 3N3ʿ H&ʿ ' H$Dʿ NH J J -E N$ E2ʿ F343 F ʿ VS

ʿ Eʿ N ʿ &H4ʿ J H43ʿ 3&&3N -$ Oʿ 431$ 4 E2ʿ $EDʿ J $ E $ E E2ʿ F3ʿ * -4ER 1 +3ʿ ' H$Dʿ &4H J ʿ H4ʿ E3$4ʿ $ʿ I $N3ʿ N$ 3Dʿ 7) !ʿ R 0!ʿ 6 1ʿ Eʿ F3ʿ I $4 CFʿ H&ʿ " %% #(1) 3 1 ʿ ,ʿ (H Eʿ F3ʿ , 1) ʿ $EDʿ * -4E1 +3ʿ ' H$Dʿ HE " , &4 &(!ʿ !) #ʿ F3ʿ @H-E Oʿ ,W

ʿ Eʿ N ʿ &H4ʿ J H43ʿ 3&&3N -$ Oʿ 431$ 4 E2ʿ F3ʿ ' H$Dʿ 3$D E2ʿ &4H J ʿ +) # ʿ) %%ʿ Eʿ F3ʿ @H-E Oʿ H&ʿ % !## ʿ Hʿ F3ʿ @ Oʿ H&ʿ ! , & ʿ U[!

5 ʿ Eʿ N ʿ &H4ʿ J H43ʿ 3&&3N -$ Oʿ 431$ 4 E2ʿ $EDʿ J 14H E2ʿ F3ʿ ' H$Dʿ &4H J ʿ I ,#F ʿ Hʿ * F%%) !% ʿ $EDʿ H F34ʿ ' H$DCʿ F343 Eʿ J 3E HE3D ʿ Eʿ F3ʿ @H-E 3Cʿ H&ʿ I # 0 ,#ʿ $EDʿ 2 !#4 ( ) ʿ U!S

ʿ Eʿ N ʿ &H4ʿ J H43ʿ 3&&3N -$ O ʿ431$ 4 E2ʿ $EDʿ J 14H E2ʿ F3ʿ ' H$Dʿ &4H J ʿ " 1) ,5ʿ ! ,3)ʿ Hʿ E, ,#ʿ Eʿ F3ʿ @H-E Oʿ 2 3) ʿ UY!

ʿ Eʿ N ʿ &H4ʿ J H43ʿ 3&&3N -$ Oʿ 431$ 4 E2ʿ F3ʿ ' H$Dʿ &4H J ʿ $( )) ʿ Eʿ F3ʿ @H-E Oʿ H&ʿ !# ʿ Hʿ F3ʿ * -4E1 +3ʿ ' H$Dʿ 3$D E2ʿ &4H J ʿ < ,#& ,#ʿ Hʿ &1 ,#!ʿ Eʿ F3ʿ C$ Dʿ @H-E O ʿ U S

ʿ Eʿ N ʿ &H4ʿ J H43ʿ 3&&3N -$ Oʿ 431$ 4 E2ʿ F3ʿ ' H$Dʿ &4H J ʿ F3ʿ @ Oʿ H&ʿ E, F ')ʿ Hʿ R !#) ʿ Eʿ F3ʿ @H-E Oʿ E&ʿ E, 4%)ʿ U

ʿ Eʿ N ʿ &H4ʿ J $+ E2ʿ $ * -4E1 +3ʿ ' H$Dʿ &4H J ʿ F3ʿ I $4 CFʿ , ʿ I ##ʿ + # ʿ *3 4,%& ʿ E3$4ʿ +) !143 ʿ Eʿ F3ʿ @H-E Oʿ H&ʿ 2 , 1! ʿ F4H-2Fʿ 4,3 #!ʿ I) 1!ʿ $EDʿ F3ʿ E!Fʿ R, !1 ʿ Hʿ F3ʿ B3Dʿ EEʿ $ ʿ B4HHWʿ Eʿ F3 ʿ I $4 CF

< , ' %ʻ * ! 1 , # %ʻ & ! ' % ! &ʻ * 3 4 % ' ʻ UčKʻSbʻ M # > ʻ ʻ W

I$4 CFʻ H&ʻ " 1?3 ʻ Eʻ F3ʻ @H-E Oʻ , ʻ+,3) 5 ,#ʻ H23 F34ʻ Fʻ * Hʻ
B4$ENF3Cʻ F343&4H J ʻ ʻ ʻ UZ!

ʻ Eʻ N ʻ Hʻ $ J 3EDʻ $EDʻ 43ED34ʻ J H43ʻ 3&&3N -$ ʻ N34 $ Eʻ N Cʻ H&ʻ F3ʻ
* 3E O F 4Dʻ =3$4ʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ P(3C Oʻ % E2ʻ < 3H4A ʻ F3ʻ
?3NHEDʻ $EDʻ F3ʻ , E3 3 Fʻ=3$4ʻ H&ʻ 8 Cʻ P $(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ * F 4D ʻ
&H4ʻ F3ʻ J H43ʻ C133DOʻ ' 3NH 34Oʻ H&ʻ ? J $ ʻG3Q Cʻ F Eʻ F3ʻ 7 , F ! ʻU %! +
ʻ ʻ ʻ 9

ʻ Eʻ N ʻ &H4ʻ F3ʻ Q3 34ʻ ; J - $ HEʻ $EDʻ J 14H 3 J 3E ʻ H&ʻ F3ʻ # E 3Dʻ
I$4 CF3Cʻ H&ʻ + #ʻ / # & ! Fʻ %% 4 , #ʻ 4 , 0!ʻ) !ʻ " 1ʻ $EDʻ + #ʻ ! , (!ʻ) !ʻ
ʻ Eʻ F3ʻ @H-E Oʻ H&ʻ &&O1!J ʻ ZUV

ʻ Eʻ N ʻ &H4ʻ J $+ E2ʻ $EDʻ J $ E $ E E2ʻ 9 3 ʻGHN+Cʻ Eʻ F3ʻ I H4 ʻ H&ʻ
%!5 , ,% ʻ $EDʻ $ʻ ' $ $Oʻ &4H Jʻ F3ʻ C$ Dʻ GHN+Cʻ E Hʻ F3 ʻ * H ECF 1ʻ H&ʻ
, , 1%! ʻ Fʻ N34 $ Eʻ B4$ENF3Cʻ F343&4H J ʻ $ ʻ Eʻ F3ʻ @H-E Oʻ H&ʻ 23
ZY!

ʻ Eʻ N ʻ &H4ʻ $ J 3ED E2ʻ $EDʻ 43ED34 E2ʻ J H43ʻ 3&&3N -$ ʻ $Eʻ N ʻ H&ʻ % E2ʻ
! , (!ʻ F3ʻ * F 4D ʻ &H4ʻ J 14H E2ʻ F3ʻ I 34ʻ $EDʻ I H4 ʻ H&ʻ %!5 , ,%ʻ Eʻ
F3ʻ @H-E Oʻ H&ʻ 23) ʻ Za

ʻ Eʻ N ʻ Hʻ 3E$Q 3ʻ F3ʻ @H J 1$EOʻ H&ʻ I 4H14 3 H4Cʻ H&ʻ F3ʻ #') !1 ! ʻ
" , % , #ʻ $EDʻ " 3 ʻ @$E$ʻ , $ 2$ HEʻ $EDʻ ' $ $Oʻ Hʻ $ 34ʻ CH J 3ʻ I $4 Cʻ H&ʻ
F3ʻ C$ Dʻ @Eʻ , $ 2$ HE ʻ Hʻ $ 34ʻ $EDʻ $ J 3EDʻ F3ʻ > E3ʻ H&ʻ F3ʻ C$ Dʻ
' $ $O ʻ Hʻ J $+3ʻ &-4 F34ʻ NH $ 34$ ʻ B4$ENF3Cʻ F343 H ʻ $EDʻ &H4ʻ $E(3ED E2ʻ
F3ʻ I H 34C $EDʻ I 4H C HECʻ H&ʻ F3ʻ N ʻ 43 $ E2ʻ Hʻ F3ʻ C$ Dʻ @Eʻ $ED
ʻ ' $ $O ʻ !

ʻ Eʻ N ʻ &H4ʻ EN HC E2 ʻ D4$ E E2 ʻ $EDʻ 3 J Q$E+ E2ʻ >$EDCʻ F Eʻ F3
ʻ I$4 CF3Cʻ H&ʻ L31 #(, #ʻ $EDʻ 2 , #(, # ʻ $EDʻ F3ʻ * H ECF 1ʻ H4ʻ 8$ a ʻ
H&ʻ E ,)ʻ !ʻ Eʻ F3ʻ I$4 CFʻ H&ʻ + , 3)ʻ ! ʻ $ ʻ Eʻ F3ʻ @H-E Oʻ H&ʻ
< # ' , %# ʻ V

ʻ Eʻ N ʻ &H4ʻ J H43ʻ 3&&3N -$ Oʻ 431$ J E2ʻ F3ʻ 6 4C ʻ G C 4 N ʻ H&ʻ F3ʻ ' H$Dʻ
&4H Jʻ I , %!1) %% ʻ F4H-2Fʻ F3ʻ @ Oʻ H&ʻ < ' % !%&ʻ $EDʻ F3ʻ * H Eʻ H&ʻ + , #! ʻ Hʻ
F3ʻ ; EDʻ H&ʻ F3ʻ @H-E Oʻ H&ʻ + , &ʻ Eʻ F3ʻ ' H$Dʻ 3$D E2ʻ H $4DCʻ I) !1 ! ʻ
$EDʻ C3 34$ʻ H F34ʻ ' H$DCʻ Eʻ F3ʻ @H-E 3Cʻ H&ʻ F ' ʻ $EDʻ + , &ʻ $EDʻ
@ Oʻ $EDʻ @H-E Oʻ H&ʻ F3ʻ @ Oʻ H&ʻ < ? !%& ʻ X9--

ʻ Eʻ N ʻ &H4ʻ 431$ 4 E2ʻ $EDʻ J 14H E2ʻ F3ʻ ' H$Dʻ &4H Jʻ 7 ! # %%ʻ Hʻ
E ! F5 , ʻ Eʻ F3ʻ @H-E Oʻ H&ʻ + %,5 ʻ ! V

ʻ Eʻ N ʻ &H4ʻ J H43ʻ 3&&3N -$ Oʻ 431$ 4 E2 ʻ J 14H E2 ʻ $EDʻ J $ E $ E E2ʻ
F3ʻ ' H$Dʻ &4H Jʻ " F ʻ Hʻ + !%4 ʻ Eʻ F3ʻ 9 3C ʻ ' D E2ʻ H&ʻ F3ʻ @H-E Oʻ H&ʻ
H , ʻ 7 ! !

ʻ Eʻ N ʻ &H4ʻ J H43ʻ 3&&3N -$ Oʻ 431$ 4 E2ʻ $EDʻ J 14H E2ʻ N34 $ Eʻ
' H$DCʻ 3$D E2ʻ Hʻ $EDʻ F4H-2Fʻ F3ʻ * H Eʻ H&ʻ , 3&% 1 ʻ Eʻ F3ʻ @H-E Oʻ
H&ʻ ! # ʻ ! Y !

ʻ Eʻ N ʻ &H4ʻ Q3 34ʻ J $ E $ E E2ʻ N34 $ Eʻ ' H$DCʻ F Eʻ F3ʻ @H-E Oʻ H&ʻ
+ %,5ʻ N$ 3Dʻ `ʻ * F3ʻ +) F43 ʻ G C 4 N ʻ H&ʻ ' H$DC cʻ ! YV

ʻ Eʻ N ʻ &H4ʻ 431$ 4 E2 ʻ J $ E $ E E2 ʻ $EDʻ J 14H E2ʻ F3ʻ ' HDDʻ &4H Jʻ
+ ! 0 ! # (!ʻ Eʻ F3ʻ @H-E Oʻ H&ʻ ! , &ʻ Hʻ " ((%! &!ʻ Eʻ F3ʻ @H- Oʻ
H&ʻ " ! & , & ʻ $EDʻ $ʻ B4$ENFʻ F343&4H Jʻ Hʻ / %1! ʻ Eʻ F3ʻ C$ Dʻ @H-E Oʻ H&ʻ
" ! & , & ʻ ʻ ʻ ʻ !

J ' * B>;' , ')!' ?* *#*;?

' E' N '&H4' JH43' 3&&3N -$ O' 431$ 4 12' $ED' J$ 4 $ E E2' F3' 'H$D' &4HJ' < # 4,#' H' *,# , %' $ED' H F34' 'H$DC' $ED' B4 D23C' F343 E' J3E HE3D' E' F3' @H-E 3C' H&' % , (#' $ED' , # #) ' Z!

' E' N '&H4' 343N E2' $ED' J$ E $ E E2' F E' F3' B-&2 ' H&' && #(,#' $' E3 ' @H-4' 8H-C3' '3NH4D' 'HH J C' $ED' H F34' <&& N3C' &H4' F3' @H-E O' H&' && #(,#' !VS

' E' N '&H4' 3E $42 E2' F3' @F-4NF' H&' + #' ' E' F3' @F$13 4O' H&' " !#)! &' E' F3' @H-E O' I$$ E3' , ' I)!1! ' ' Y[V

' E' N '&H4' 3C $Q CF E2' $C' F3' I$4 CF' @F-4NF' F3' E3 O' 343N 3D' @F-4NF' E' F3' I$4 CF' H&' + #' "),%, !F' $D(H E E2' F3' @ O' H&' I) ')!1! ' ' YU!

' E' N ' H' 3E$Q 3' F3' ? ED4D' > &H' CC-4$EN3' @HJ1$EO' H' C-3' $ED' Q3' C-3D' E' F3' , $J3' H&' F3 4' P E234= &H4' NHE& 4 J E2' F3' ' - 3C' $ED' '32- $ HEC' H&' F3' C$ D' @HJ1$EO' .' $ED' , ' H F34' I-41HC3C' 43 $ E2' F343 H' ' ' YSS

' E' N '&H4' JH43' 3&&3N -$ O' J$+ E2' E$$ E $ F E2' $ED' 431$ 4 E2' N34 $ E' 'H$DC' F' F3' E3N3CC$4O' B& D23 ' F343HE' E' F3' @H-E 3C' H&' *!)' + %#(' $ED' R, '

d' E' N '&H4' JH43' 3&&3N -$ O' 431 E2' 634$' 'H$K' 3$D E2 ' &4HJ' F3' "!%%' E' + , !' R! ' E' F3' @H-E O' H&' , ,% ' Y

' E' N '&H4' J$ E $ E E2' $ED' J14H E2' N34 $ E' 'H$DC' F E' F3' @H-E 3C' H&' , '!1! ' $ED' + , &' N$ 3D' `' *F3' 23&%! ' $ED' " ! !%%' < #!' G C 4 N 'H&' 'H$DC c' $ED' &H4' J$+ E2' C3 34$' B4$ENF3C' &4HJ' C-NF' 'H$DC' YZ!

' E' N '&H4' J14H E2' N34 $ E' 'H$DC' F E' F3' @H-E 3C' H&' , '!1! ' + %,5' $ED' + , &' N$ 3D' *F3' 23&%! ' $ED' E!F' $##' G C 4 N 'H&' 'H$DC c' S

' E' N '&H4' J$+ E2' $ED' J$ E $ E E2' $' *-4E1 +3' 'H$D' &4HJ' F3' *H E' H&' 2,#' 1! ' H' F3' *H E' $ED' I H4 'H&' +!%4 ' E' F3' 9 3C' ' D E2' H&' F3' @H-E O' H&' H, ' S

' E' N '&H4' $ 34 E2' $ED' $J3ED E2' N34 $ E' N C' &H4' 432- $ E2' F3' IH N3' H&' F3' @ O' H&' 8& #43 ()' $ED' F3' (H E ' G C 4 N C' ($ED' &H4' H F34' I-41HC3C' 43 $ E2' F343 H' !S

' E' N '&H4' JH43' 3$C O' 14H D E2' @HJ13EC$ HE' &H4' F3' GJ23' $ED' E(-4O' NHJJ 3D' F E' F3' @ O' " 1 ,%' $ED' @H-E O' , ' F3' C$J3' @ O' D-4 E2' F3' $ 3' ' D C' $ED' G C# 4F$EN3C' F343 E' IS

' E' N '&H4' 431$ 4 E2' 2F E2' $ED' $ NF E2' F3' G C 4 N ' H&' F3' #E 3D' I$4 CF3C' H&' + #' ? !1' $ED' + #' * 3%' E' F3' @H-E O' H&' %,3'!1! '' $ED' &H4' F3' @$43' H&' F3' IHH4' F343H&' Z S

N' E' N '&H4' J14H E2' $ED' 432- $ E2' F3' *H ECF 1' H&' I), % ,# 35,#' !&%,' ' #'),' I,F U' , '< #' 1! ' ' ZYV

N ' E' N '&H4' 1$ E2' 2F E2' $ NF E2' N 3$EC E2' $ED' J14H E2' F3' *H E' $ED' IH4 'H&' 1 #(1' E' F3' @H-E O' H&' +311!J' $ED' &H4' 3C $Q CF E2' $ED' 432- $ E2' P$4+3 C' F343 E' $ED' C-11 O E2' F3' EF$Q $E C' F343H&' F' 9$ 34' ($ED' &H4' H F34' I-41HC3C' ' ' V

@<F'&' '*! 1, '&!!% !&'*3)O! ' '? Ub Sb<'#> ' ' W

N ' E N' H $NN3 34$ 3 F3 4$ C E2 QO F3 E F' 1)' 35 ' UO @$ED
I %1%!' '$ $O @HJ1$EO H&' $ N34 $ E ?-J' &H4 F3 JH43 C133DO
I4HC3N- HE H&' F3 #ED34 $+ E2' U[YV

N ' E N' &H4 J$+ E2 $ED J$ E F E2 $ '$ $O &4HJ' F3 B$C E H&'
F3 *,'!!' @E' E F3 I$4 CF H&' + #' 7), 1')!' U 5,1 %!' E F3
' @H-E O, 2! #' H F3 IH-4 P C E F3 I$4 CF Y !& ,#' E F3 C$ D
@H-E O'

3 ' E N' &H4 F3 JH43 3&&3N ED G4$ E$23 H&' F3 $EDC F E ")#! '
R!#' "% #%'#! ' 2 %!1' < #F, ,&' R!#' < # F, ,&' 2 %!1' $ED #' R!#
$ED #' 2 %!1' E F3 @H-E O H&' < #' ,%#' U V

N ' E N' &H4 F3 Q3 34' G4$ E$23 H&' N34 $ E >$EDC E F3 I$4 CF3C H&'
+5 %& #(' $ED * #')4!' ' E F3 @H-E O H&' < #' ,%#' F3 9$ 34C &4HJ'
F NF $43 D CNF$423D QO F3 ") !' YZ ' G4$ E' U Z!

N ' E N' &H4 4313$ E2 I$4 C H&' $ED $J3ED E2 $ED 3E $42 E2 F3
IH 34C H&' H F34 I$4 C H&' $E N' &H4 3J Q$E+ E2 $ED D4$ E E2 N34 3 $
63EC $ED >H ' >$EDC E F3 I$4 CF3C H&' E,' ,#' $ED *, !) ,, ' E
F3 @H-E O H&' < #' ,%#' $ED E F3 I$4 CF H&' " #1 ,#' E F3 @H-E O H&'
F3 @ O H&' < #' ,%#' UUSS

N ' E N' &H4 JH43 3&&3N -$ O 431$ 4 E2 $ED $J3ED E2 F3 %[
4, ,3()' G C 4 N' H&' F3 'H$D &4HJ' +F #&,#' H %4, , ' $ED , '
%4, ,3()' H 8 0! %! ' E F3 @H-E O H&' %1' $ED $ CH F3 B4$ENF
'H$D &4HJ' F3 C$J3 H F3 143C3E ' *-4E1 +3 'H$D &4HJ' /#&,1'!' H
2!0 !1=' $ED &H4 J$+ E2 $ 'H$D &4HJ' F3 C$ D B4$ENF 'H$D $ '
I ,%% #(4,3 # 2 3&1' H (H E F3 143C3E ' *-4E1 +3 'H$D &4HJ' /#&,0!' ,
' + %143 ' E F3 C$ D @H-E O' UUYV

N ' E N' &H4 431$ 4 E2 $ED J14H E2 F3 'H$D &4HJ' F3 M43$ '
B4 D23 E F3 BH4H-2F H&' F ' ' F4H-2F +,) ' $ED 2 ' H
F3 *H E H&' E,) 5 ,#' UUZ

WN ' E N' &H4 431$ 4 E2 $ED J14H E2 F3 'H$DC &4HJ' * !1 ')
' H "3 ' $ED L '%0 !' E F3 @H-E O I$ $ E3 H&' < #' 1 ! ' UUVS

N' E N' &H4 $J3ED E2 $ED 3E $42 E2 F3 IH 34C $ED 43E3 E2 F3
*34J' 24$E 3D QO N34 $ E N C 1$CC3D &H4 J14H E2 F3 @HJ J-E N$ HE
Q3 33E F3 @ O H&' % 1(,F $ED F3 @ O H&' I %1%!' US[

N ' E N' &H4 $J3ED E2 $ED NHE E- E2 F3 N C 43 $ E2 H F3 'H$D
&4HJ' 8%0 #' R, ,' E F3 @H-E O H&' < # ' H "! ,' ' " &(!' E F3
@H-E O H&' 23 !1' US[V

N ' E N' &H4 Q3 34 J$ E $ E E2 N34 $ E 'H$DC F E F3 @H-E O H&'
I)!# N$ 3D `' *F3 7) !!' I, , 1' G C 4 N' H&' 'H$DC c' $ED &H4
J$+ E2 C3 34$' B4$ENF3C' G 34C HEC' $ED ; 3EC HEC &4HJ' C-NF 'H$DC
US S

N ' E N' &H4 -E E2 F3 6-EDC H&' F3 ,H4 F $ED ?H- F @F$4 $Q 3
E& 4J$4 3C H&' F3 @ O H&' I, ' $ED &H4 3C $Q CF E2 E 3-' H&' C-NF
E& 4J$4 3C < E3 23E34$' 8 HC1 $' &H4 F3 C$ D @ O' UZUV

N O' E N' &H4 343N E2 $ED J$ E $ E E2 $ E3 ' @H-4' 8 H-C3 $ED I-Q N
<&& N3C &H4 F3 @H-E O H&' $#0! #!11' US !

N ' E

N ʻ Eʻ N ʻ &H4ʻ Q3 34ʻ 432- $ E2ʻ F3ʻ I H $23ʻ H&ʻ F3ʻ I H4 ʻ H&ʻ #(1 ,# ʻ 5,# 3%%ʻ $EDʻ H&ʻ F3ʻ ' 34ʻ 3 4! ʻ Z /ʻ &H4ʻ H F34ʻ I -41HC3Cʻ 43 $ E2ʻ F343 H ʻ USYV

N ʻ Eʻ N ʻ &H4ʻ Q3 34ʻ 1$ E2 ʻ 2F E2 ʻ $ NF E2 ʻ N 3$EC E2 ʻ $EDʻ H F34 ʻ C3ʻ J 14H E2ʻ F3ʻ @ Oʻ H&ʻ 8 J ! ! ʻ $EDʻ @H-E Oʻ H&ʻ F3ʻ C$E$3ʻ @ O ʻ U [V

N ʻ Eʻ N ʻ Hʻ J $+3ʻ J H43ʻ 3&&3N -$ ʻ I 4H C HECʻ &H4ʻ 2F E2 ʻ N 3$EC E2 ʻ $EDʻ $ NF E2ʻ F3ʻ @ Oʻ H&ʻ <,#&,#&! ʻ $EDʻ Hʻ $ J 3EDʻ C3 34$ ʻ N Cʻ 43 $ E2ʻ Hʻ F3ʻ C$ Dʻ @ O ʻ U!U!

N ʻ Eʻ N ʻ &H4ʻ D CNF$42 E2ʻ F3ʻ EF$Q $E Cʻ H&ʻ F3ʻ *H ECF 1ʻ H&ʻ 611! ʻ '3 F), 5!ʻ Eʻ F3ʻ I $4 CFʻ H&ʻ 2 ! F143 ʻ Eʻ F3ʻ @H-E Oʻ H&ʻ H, ʻ &4H Jʻ F3ʻ @-C H Jʻ H&ʻ 24 ED E2ʻ @H4E ʻ M4$ E ʻ $EDʻ P $ ʻ $ ʻ N34 $ Eʻ 9 $ 34ʻ @H4Eʻ P Cʻ Eʻ F3ʻ *H ECF 1Cʻ H&ʻ %&ʻ $EDʻ , 43 ʻ $EDʻ Eʻ F3ʻ I $4 CFʻ H&ʻ + #& %ʻ Eʻ F3ʻ C$ Dʻ @H-E O ʻ $EDʻ &H4ʻ J $+ E2ʻ @H J 13EC$ HEʻ Hʻ F3ʻ I 4H14 3 H4ʻ H&ʻ F3ʻ C$ Dʻ P C ʻ ʻ U!Y!

N ʻ Eʻ N ʻ &H4ʻ J $ E $ E E2ʻ N34 $ Eʻ ' H$DCʻ Eʻ F3ʻ , 3 2FQH-4FHHDʻ H&ʻ F3ʻ *H ECʻ H&ʻ " !0! %! ʻ H&ʻ #(1 ,# 35,# 3O ʻ $EDʻ H&ʻ E ,)ʻ I 0! ʻ N$ 3Dʻ ` *F3ʻ " !0! %! ʻ !11 ʻ F,&ʻ E ,)ʻ I 0!ʻ * -4E1 +3ʻ ' H$DC cʻ

N ʻ Eʻ N ʻ &H4ʻ 3C $Q CF E2ʻ $ʻ M3E34$ ʻ @3 J 3 34Oʻ &H4ʻ F3ʻ E 34 J 3E ʻ H&ʻ F3ʻ G3$Dʻ Eʻ F3ʻ , 3 2FQH-4FHHHDʻ H&ʻ F3ʻ P 3 4H1H C ʻ ʻ UY [V

N ʻ Eʻ N ʻ &H4ʻ NHECH D$ E2ʻ F3ʻ C3 34$ ʻ ?F$43Cʻ <&ʻ F3ʻ I 4H14 3 H4Cʻ H&ʻ F3ʻ)0!!1 ! ʻ $EDʻ " ! !%! ʻ @$E$ ʻ @H J 1$EO ʻ $EDʻ &H4ʻ NHE 34 E2ʻ F3ʻ > E 343C Cʻ H&ʻ F3ʻ C3 34$ ʻ I $4 3Cʻ FH D E2ʻ G3Q3E -43C ʻ EE- 3C ʻ $EDʻ 7 <1 HE$ ʻ , H 3Cʻ E Hʻ ?F$43C ʻ $EDʻ &H4ʻ $ 34 E2ʻ $EDʻ 3E $42 E2ʻ F3ʻ I H 34Cʻ H&ʻ F3ʻ C3 34$ ʻ N Cʻ 1$CC3Dʻ &H4ʻ J $+ E2ʻ $EDʻ J $ E $ E E2ʻ F3ʻ C$ Dʻ @E UY!

N ʻ Eʻ N ʻ &H4 ʻ 14H D E2ʻ &H4ʻ F3ʻ G CNF$423ʻ H&ʻ $ʻ @ $ Jʻ Eʻ 43C13N ʻ H&ʻ P HE 3C7$D $EN3DʻQOʻ F3ʻ $ 3ʻ ? !1ʻ ,&(!1ʻ ;C (- 43ʻ H& ʻ ?3N-4 Oʻ H&ʻ F3ʻ >$EDCʻ H&ʻ F3ʻ $ 3ʻ e3 J ED$4ʻ H&ʻ E , !!&ʻ $EDʻ 31 5) # (3 ʻ + ʻ F3ʻ G C 4 N ʻ H&ʻ 6H4 ʻ + # ʻ ! , (!ʻ Eʻ F3ʻ " 1 ʻ $#& !1 ʻ EH ʻ -ED34ʻ F3ʻ MH 34E J 3E ʻ H&ʻ F3ʻ 8 HEH-4$Q 3ʻ F3ʻ " 1 ʻ $#& ʻ @H J 1$EO ʻ ʻ

N ʻ Eʻ N ʻ Hʻ $ J 3EDʻ $EDʻ 3E $423ʻ F3ʻ I H 34Cʻ H&ʻ $Eʻ 1 ʻ &H4ʻ 3C $Q CF E2 ʻ " , #ʻ ! ʻ F Eʻ F3ʻ @H-E Oʻ H&ʻ &&%!1!J ʻ UYZ!

I ' * ; ' @ * ?

' ' ! ' " # $%'

, G' 9 8 ; ' ; < 6' * 8 ; ' I ' , * ; G' @< I ; ?' P =' B ; ' M ; , ' , ' ; G ; , @ ;

' ' , ' N ' &H4' EN HC E2' >$EDC' E' F3' I$4 CF' H&' / 1 , #' F # %' E' F3 @H-E O' H&' 6J , &' -

' E' N ' &H4' EN HC E2' >$EDC' E' F3' I$4 CF' H&' I ' !! 1) ! ' E' F3' @H-E O H&' 6J , &'

' E' N ' &H4' EN HC E2' >$EDC' E' F3' *H ECF 1C' H&' "3) F)' $ED' %! '), 5!' E' F3' I$4 CF' H&' "3) F)' E' F3' ; $C ' ' D E2' H&' F3' @H-E O' H&' 6H4 &' ' ' YV

' E' N ' &H4' EN HC E2' $ED' 3 HE34$ E2' &4H J' * F3C' >$EDC' E' F3' I $4 CF H&' I % ,#' E' F3' @H-E O' H&' " !& , &' [

! ' E' N ' &H4' EN HC E2' N34 $ E' @H J J HEC' H4' * 4$N C' H&' 9 $C 3' >$EDC N$ 3D' 4! , F' $ED' " % !&, ' @H J J HEC ' E' F3' I$4 CF' H&' (%! ' E' F3' @H-E O' H&' , ' !1 ! ' UV

' E' N ' &H4' 3&&3N E2' F3' ?$ 3' H&' N34 $ E' ; C $ 3C' E' F3' @H-E O' H& 2 , #! (%' E' $!% #&' D3 C3D' QO' F3' 9 ' H&' ? !1' 3 ' ; CX- 43' D3N3$C3D ' $ED' &H4' $O E2' H- ' F3' P HE3O' $4 C E2' &4H J' C-NF' ?$ @(-ED34' F3' G 43N HE' H&' F3' 8 2F' @H-4 ' H&' @F$EN34O ' E' F3' I -4NF$C3' H&' H F34' ; C $ 3C ' H' Q3' C3 3D' H' F3' C$ J 3' # C3C ' !

' E' N ' &H4' EN HC E2' >$EDC' E' F3' *H ECF 1' H&' " %%!1%! ' H F34 C3' " 31) ' F E' F3' I$4 CF' H&' / %4! 43 ' E' F3' @H-E O' H&' , # (, ! Z

' E' N ' &H4' 3C E2' E' / ') 4 %&' >H4D' 2 , 3(% 1' H&' 2 , 3(% 1 ' H4' F3' 8 3 4 H&' ; E $ ' E' 1HCC3CC HE' &H4' F3' * J 3 ' N34 $ E' D3 $NF3D' I$4 C' H&' F3' 2 , 3(% 1' ; C $ 3C' E' 633' ? J 1 3' -1HE' 3E $ E2' N34 $ E' H F34' >$EDC' 3X- $ 3E ' E' $ -3' F343 H' U[V

V' E' N ' H'3 J 1H 34' F3' 5-D23C' H&' F3' @H-4 ' H&' ?3CC HE' E' + ' , % #&' H' C3 ' C-NF' I$4 ' H4' I$4 C' H&' F3' ; E $ 3D' ; C $ 3C' Q3 HE2 E2' H' ?,) #' L ') &1, #' ; CX- 43' H&' * , 3 ' E' F3 @H-E O' H&' * !) ' $C' CF$ ' Q3' C-&& N 3E ' &H4' I$O J 3E ' H&' F3' G3Q C' $ED' I 4H C HEC' $&&3N E2' F3' C$ J 3 U

' E' N ' &H4' C31$4$ E2' F3' ' 3N H4O' H&' 8 1 # (, #' E' F3' @H-E O' $ED G HN3C3' H&' 2 3) ' &4H J' F3' 4NFD3$NHE4O' H&' 2 3) ' $ED' $EE3 E2' E' 3-' F343H&' $' I 43Q3ED' H4' @$EHE4O' &H-ED3D' E' F3' @$ F3D4$ ' @F-4NF' H&' 2 3) ' -T-

' E' N ' &H4' 3C E2' N34 $ E' ?3 3D' ; C $ 3C' H&' *) % 5' * 31! ' ; CX- 43 E' F3' @H-E 3C' H&' ! # ' $ED' " ! 1' E' * 4-C 33C' &H4' ?$ @($ED' &H4' $O E2' H- ' F3' P HE3O' F3EN3' $4 C E2' E' F3' I -4NF$C3' H&' H F34' ; C $ 3C ' H' Q3' C3 3D' H' F3' C$ J 3' # C3C ' U V

' * B> ;' , ')!' ?* *#* ; ?

U' E' N ' &H4' EN HC E2' >$EDC' E' F3' I$4 CF' H&' 7), #43 ' E' F3 @H-E O' H&' %,3'!1 ! UYV

' E' N '&H4' EN HC E2' >$EDC' F E' F3' 8$J 3 ' H&' %%' $ED' , , ' E' F3' I$4 CF' H&' E' F3' @H-E O' H&'

' E' N ' &H4' 3 NF$E2 E2' I$4 ' H&' F3' ?3 3D' ; C $ 3C' H&' ? 4' 7), 1' R%! ')! ' R!# ,#' ",3()! ' B$4HE3 ' K4' I$4 ' H&' F C' 633' ? J 1 3' ; C $ 3C

X9' E' N ' &H4' 3C E2' F3' ' 3$' ; C $ 3C' D3 C3D' QO' F3' 9 ' H&' 8%% 1 <!' ,#4 >' ,&(1,#' ; CX- ' DH33$C3D' E' R N! ,# 0) ' F3' P$EH4' H&' !1' 2! 4 ' E' F3' @H-E O' H&' < #' 1 ! ' E' *4-C 33C' H' Q3' CH D' &H4' 1$0 E2' H&&' $E' EN- J Q4$EN3' F343HE' D D E2' * H' *F 4D' I$4 C' H&' F3' ' 3C D-3' H&' F3' I -4NF$C3' P HE30' $J HE2' F3' G3 C33C' H&' * H' *F 4D' I$4 C' H&' F3' C$ D' ; C $ 3C' $ED' &H4' E 3C E2' F3' 43 J $ E E2' < E3' *F 4D' I$4 ' H&' F3' C$ D' P HE30' E' F3' I -4NF$C3' [' H F34' ; C $ 3C' H4' HE' ?3N-R 4 3C' H' F3' C$ J 3' #C3C' $C' F3' H F34' *F 4D' I$4 ' H&' F3' C$ D' D3 C3D' ; C $ 3C' ZY

Y' E' N '&H4' 3 J 1H 34 E2' F3' *4-C 33C' H&' F3' B -3' @H$ ' @F$4 O' ?NFHH E' #(,#' E' F3' @H-E O' H&' < #' 1 ! ' H' J $+3' ?$ 3C' $ED' H' 24$E' B- D E2' $ED' P E E2' >3$C3C' H&' N34 $ E' I$4 C' H&' F3' ; C $ 3C' Q3 HE2 E2' H' F3' C$ D' @F$4 O' $ED' &H4' H F34' I -41HC3C' F343 E' J 3E HE3D' S Z

' E' N ' &H4' 3C $Q CF E2' $ED' N$44O E2' E H' 3&&3N ' $E' 2433 J 3E ' &H4' $' I$4 HE' Q3 33E' %% ' !# ' ", F!#' ?, & #' %1,#' ; CX- 43' $ED' 8& 3#&' ! 1! ' (%! ' ! ,%&!' ; CX- 43' H&' ; C $ 3C' E' F3' @H-E O' H&' F ' ' [

Z' E' N ' &H4' 3&&3N -$ O' C3 E2' $ ' F3' ; C $ 3C' E' ! ' " #' F NF QO' F3' 9 ' H&' F3' $ 3' ' 2F ' 8HEHE4$Q 3' !, (!' * ' >H4D' L 0! 1' D3N3$C3D' D$ 3D' F3' 6 & 33E F' H&' ')' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' 3E O F433' $43' 43X- 43D' H' Q3' C3 3D' QO' F3' ' 2F ' 8HEH-4$Q 3' !, (!' * ' L 0! 1' EH ' >H4D' L 0! 1' H' F3' #C3C' D 43N 3D' QO' C-NF' 9 J ' U

V' E' N ' H' 3E$Q 3' F3' G3$E' $ED' @F$1 34' H&' 23) ' H' $114H14 $ 3' > I$4 ' H&' F3' +H134 O' H&' F3 4' @F-4NF' H' F3' ; C $Q CF J 3E' H&' $' #E 34C O' E' NHEE3 HE' F343 F' &H4' F3' D $EN3 J 3E' H&' >3$4 E2 !

U[' E' N ' H' $- FH4 T3' F3' I$ 4HEC' H4' I$ 4HE' &H4' F3' * J 3' Q3 E2' H&' F3 N$4$23' H&' / 1 ,#' U3J ' " #() ' E' F3' @H-E O' H&' F ' ' H' $114H14 $ 3' $ED' $CC 2E' $EO' I$4 ' H&' F3' * F3C' $ED' N$4 $' G -3C' Q3R HE2 E2' H' F3' C$ D' N$4$23' H4' $EO' ' 3E NF$423' CC- E2' H- ' H&' F3' C$ J 3' &H4' 3EDH E2' N34 $ E' E3 ' @F-4NF3C' F E' F3' C$ D' N$4$23' &' NHE 34 3D' E H' G C 4 N ' I$4 CF3C' H4' N$4$23C' $ED' &H4' C3 E2' F3' D H CHEC' H&' F3' C$ J 3' @F-4NF3C' H4' E3 ' B3E3& N3C' Z

U ' E' N ' H' $- FH4 T3' F3' 24$E E2' H&' >3$C3C' H&' N34 $ E' I$4 C' H&' F3 ; C $ 3C' ^C-Q(3N ' H' F3' *4-C C' H&' F3' 9 _' H&' *) O5' / # ,431' M3E 3R J $E' D3N3$C3D' ' VS

UU' E' N ' &H4' D C$&&H43C E2' $ED' EN HC E2' CH' J -N ' H&' F3' 6H43C' H& L, ' #() ' $C' C C -$ 3' F E' F3' B$ N+' H&' L, ' #() ' $ED' &H4' EN HC E2' < 13E' $ED' @H J JHE' 6 3 D' >$EDC' E' ! ,#' $ ' F E' F3' @H-E O' H&' E,) 5 ,#' ! [

US' E' N' H' 3C'$' I$4'H&' Ff' ;E $ 3D' ;C $ 3' H&'+ % ,3#' $ED' H F34C' E F3' @H-E O', ' && #(,#' E' *4-C 33C' H' C3 ' F3' C$J3' $ED' $11 O' F3' I4 N3' F343H&' H4' F3' ?3N-4 3C' H' Q3' 24$E 3D' F343HE' H $4DC' C$ C&OR E2' F3' G3Q C' NHE 4$N 3D' &H ' PHE3O' $ D' H-' E' F3' J14H 3J3E' H&' F3' C$ D' ;E $ 3D' ;C $ 3'($ED' &H4' &3# E2' N34 $ E' I$4 C' H&' F3' C$ D' ;E $ 3D' ;C $ 3' E' F3' @H-E O' H&' *& #43 ' 9P-

U ' E' N' H' 3E$Q 3' F3' '3 343ED'?,)#' "31)#!%%' $ED' F3' *4-C 33C' H&' F3 9 ' H&'?,)#' "31)#!%%' ;CX- 43' D3N3$C3D' H' 3&&3N' $' ?$ 3' H' * % 5' *31! ' ;CX- 43' H&' F3' P$EH4' H4' >H4DCF 1' H&' I) ! ' $ED' $' N34 $ E' P3CC-$23' >$EDC' $ED' I43J C3C' F343 E' E' 9' @H-E O' H&' "!)1' Q[!

U!' E' N' H' E 3C'$' I$4'H&' F3' ;E $ 3D' ;C $ 3C' H&' " ,& !' $ED' H F34C E' F3' @H-E 3C' H&' 8%(#' $ED' E #' E' *4-C 33C' E' 633' ? J1 3' &H4' F3' I-41HC3' H&' C3 E2'' F3' >$EDC' CH' 3C 3D' $ED' H&' $11 O E2' F3' I4 N3' F343H&' H4' F3' ?3N-4 3C' H' Q3' 24$E 3D' F343HE' H $4DC' C$ C&O E2' G3Q C' I4H CHEC' $ED' H F34C' NHE 4$N 3D' QO' F3' ;E $ 34' $ED' &H4' PHE3O' $ D' H-' QO' F3' 83 4' H&' ;F $ ' E' F3' F 14H 3J3E' H&' F3' C$ D' ;E $ 3D' ;C $ 3C' Y S

' E' N' &H4' 3 NF$E2 E2' 633' ? J1 3' ;C $ 3C' H&' ?4' 7), 1' % %(1) B$4HE3 ' C -$ 3' $'+' O!#'+', ,#' $ED' R #) ' $ED' E' F3' 1$4 CF3C' H&' # !14 ,3()' $ED' R #) ' E' F3' @H-E O' H&' H, ' $ED' EH' E' ?3 3J3E' &H4' $' I$4' H&' F C' ?3 3D' ;C $ 3' C -$ 3' $' ,%% 1' H F34 C3' ,,%),31!' E' F3' *H ECF 1' H&' /55%! ,#' L,!43' ' J&' I$4 CF' H&' ",O,#' *! '' E' F3' @H-E O' H&' F3' @ O' H&' H, '= $ED' &H4' NF$42 E2' F3' ;C $ 3C' $+3E' E' 3 NF$E23' F' $' IH4 HE' &H4' R '<,3 1' I)! #!'+% #(1) ' F3' E&$E' G$-2F 34' H&' I) %!1'+% #(14' ;CX- 43' D3N3$C3D' Y

' E' N' H' NHE& 4E$' N34 $ E' >3$C3C' 24$E 3D' QO' ? !1' !%%!'< &) , ! ;CX- 43' H&' >$ED' $ED' I43J C3C' $' E, #() %%' E' F3' @H-E O' H&' &[&%!1!J' ' $ED' &H4' H F34' I-41HC3C' ' YY!

UZ' E' N' &H4' 3C E2' F3' ;C $ 3C' E' F3' @H-E O' H&' D3 C3D' QO' $ @HD N' H' F3' 9 ' H&' F3' ' 2F' 8HEH-4$Q 3' *! !' $ 3' >H4D' F & ' D3N3$C3D' E' *4-C 33C' -1HE' *4-C' H' C3 ' F3' C$J3' $ED' &H4' $O E2' H-' F3' '3C D-3' H&' F3' PHE 3C' $4 C E2' &4HJ' C-NF' ?$ 3' $& 34' I$O J3E' F343H-' H&' $' @F$423' $&&3N E2' F3' C$J3' ;C $ 3C' E' F3' I-4NF$C3' H&' H F34' ;C $ 3C' H' Q3' C3 3D' H' F3' C$J3' #C3C'

UV' E' N' &H4' D D E2' $ H E2' $ED' EN HC E2' N34 $ E' H13E' @HJ JHE' ?$ ' P$4CF3C' E' F3' *H ECF 1' H&' %5,%!' E' F3' @H-E O' H&' E, ,%

S[' E' N' &H4' 3C E2' F3' 633' ? J1 3' H&' I$4' H&' F3' 6433FH D' ;C $ 3C D3 C3D' QO' F3' 9 ' H&' %% '<!!' /# ,# !' ;CX- 43' D3N3$C3D' E' C 4 N' ?3 3J3E' E' F C' ,31F3 '?,)#' <!!' ;CX- 43' GHN H4' H&' >$ C' ^C-Q(3N' H' $' *34J' H&' 6 3' F-ED43D' =3$4C' $C' $E' ED3J E & N$ HE' 2 EC' $' ?-J' H&' *3E' FH-C$ED' IH-EDC' $ED' E 343C _' $ED' &H4' C-QC - E2' I$4' H&' F3' 633' ? J1 3' ;C $ 3C' H&' F3' C$ D' ?,)#' <!!' E' 3-' F343H&' ! $ED' $ CH' &H4' $11H E E2' E3 ' *4-C 33C' H&' F3' C$ D' ?3 3D' ;C $ 3C'

S ' E' N' &H4' 3 NF$E2 E2' N34 $ E' D3 $NF3D' I$4 C' H&' F3' ;E $ 3D' ;C $ 3 H&' I (!#&1' E' F3' @H-E O' H&' L!# !F' Q3 HE2 E2' H' %% ' I3# #() !' ;CX- 43' &H4' N34 $ E' < F34' >$EDC' F3 D' QO' F J' E' 633' ? J1 3' V

' ' SU' E

' * B> ;' , ')!' ?* *#* ; ?

SU' E' N' &H4' $- FH4 T E2' F3' *4-C 33C' H&' ?,)#') !' F3' 3 D34 D3N3$C3D' H' NH J 1 3 3' HE' F3 4' I $4' $E' ; NF$E23' H&' N34 $ E' >$EDC' $' %%4 #' E' F3' @H-E O' H&' &&%!1!J=' /' , '0!1 #(' F3' 3 NF$E23D' >$EDC' $ED' H F34' 8343D $ J 3E C' E' F3' *4-C 33C' H&' F3' P $44 $23' ?3 3 J 3E' H&' %% '<! &!' ; CX- 43' $ED' !# ! ' F C' 9 &3 F' I H 34' H&'?$ 3' Y

SS' E' N' &H4' 3E$Q E2' ? !1' 7), 1' #' ; CX- 43' $ED' F3' I 34CHEC E' '3 J $ ED34' -ED34' F3' 9 ' H&' ' ? ' 1,#' D3N3$C3D' H' 24$E' >3$C3C' H&' I $4' H&' F3' ?3 3D' ; C $ 3C' F343 E' NH J 14 C3D' &H4' F3' I -41HC3' H&' Q- D E2' -1HE' $ED' H F34 C3' J 14H E2' F3' C$ J 3' Z[!

S ' E' N' &H4' C3 E2' N34 $ E' P $EH4C' $ED' ; C $ 3 ' E' F3' @H-E O' H&' 23) ' H' F3' #C3C' H&' F3' P $44 $23' ?3 3 J 3E' H&' F3' P HC' 8HEH-4$Q 3' I) %!1' %% ' C #!' P $4X- C' H&' <, #&, #&! ' $ED' F3' P HC' 8HEH-4$Q 3' R #' !1' /##!' C #!' P $4NF HE3CC' H&' <, #&, #&! ' F C' 9 &3' $ED' &H4' H F34' I -41HC3C' F343 E' J 3E HE3D' Z

I ' * ;' @*?

! ' " # $%

S!' N' &H4' EN HC E2' >$EDC' E' F3' I $4 CF' H&' #! , F#' E' F3' @H-E O' H&' R! 4 ,%!

SY' E' N' &H4' E$ -4$ T E2' * ! !' ? #!1' /&,%5)!' * 1 !3 >

' E' N' &H4' E$ -4$ T E2' /# ,# ,' * # ' ; CX- 43

SZ' E' N' &H4' E$ -4$ T E2' &F &' I ,& ! 1!

SV' E' N' H' D CCH 3' F3' P $44 $23' H&' ?,1)' +)' F' 8% 4!)' F C' 9 &3' $ED' H' 3E$Q 3' F J' H' J $44O' 2 E' $ED' &H ' H F34' I -41HC3C

[' E' N' &H4' E$ -4$ T E2' 8!) &' #' ! !

' E' N' H' D CCH 3' F3' P $44 $23' H&' %% ' L ,4! ' I% ,#' ; CX- 43' F' /%'!' 3()' 11 ' F C' EH ' 9 &3' $ED' H' 3E$Q 3' F J' H' J $(2O' 2 E' ($ED' &H4' H F34' I -41HC3C

U' E' N' &H4' NHE E- E2' 3C $Q CF E2' $ED' NHE& 4 J E2' -E H' $ED' -1HE' ?,)#' $#('<,') ' ; CX- 43' F3' ?-4E$ J 3' $ED' 4 J C' H&' 1 !' 1-4C-$E' H' F3' 9 ' X&' R #' 1' 1 !' ; CX- 43' D3N3$C3D

S' E' N' H' 4313$' $E' N' 1$CC3D' E' F3' *F 4D' =3$4' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' !, (!' F3' *F 4D' H' 3E$Q 3' F3' P $C 34' 63 H C' $ED' ?NFH $4C' H&' ?!131' @H 323' E' F3' #E 34C O' H&' I 4 &(!' H' $ 34' $ED' $4O' F3' B3E3&$N HE' H&' GHN H4' 8& 3#&' * ,4 ' $ED' ? 4' 7), 1' * ,4 ' $ED' H' $114H14 $ 3' F3' C$ J 3' &H4' F3' B3E3& ' H&' F3' C$ D' @H 323' E' F3' -2 J 3E $ HE' H&' C3 34$' C J $ ' ' 3N H4 3C' $ED' N$4$23C' ($ED' &-4 F34' H' $114H14 $ 3' F3' C$ D' B3E3&$N HE

' E' N' &H4' E$ -4$ T E2' 8&F &' * ! !

> < , G < , .' I 4 E 3D' QO' ' &' (' $ED')*' + ,' '
I 4 E 34C' H' F3' % E2 C' J HC' ; N3 3E' P $(3C O' ZSU

, ' G ' ; ' W

I #B> @' M; , ; ' >' @*?

7K' 'M >'

?F3 E2' F3 F34' F30' 43 $ 3' H' F3' 9 FH 3' H4' H' $EO' I $4 ' H&' F3' #E 3D
% E2DH J ' T

; ' 1 (# !1') ')!' / ' ' !% !1' ,' ; E2 $ED' ^$ED' 9 $ 3C ' &' F3' ?-Q(3N ' 35 3HD ' CH' &$4F'
?' ' ' ' ' ' ?NH $ED'
' ' ' ' ' ' 43 $ED
; ' K' ' ' ' ' ' ; E2 $ED' $ED' 43 $ED
?' K' ' ' ' ' ?NH $ED' $ED' 43 $ED
M B' ' ' ' ' ' M43$ ' B4 $ E
M B' K' ' ' ' ' ' M43$ ' B4 $ E' $ED' 43 $ED
'%' ' ' ' ' * F3' 9 FH 3' H&' F3' #E 3D' % E2DH J

&' ' (&#) *' #+

@@ < # , * ?' H&' F3' ' 3N3 1 ' $ED' ; 13ED -43' H&' @H HE $' ' 3 3E-3C' F3' @H J J CC HE34C' &H4' $-D E2' F3' I -Q N' ; # ;
NNH-E C' H&' M43$ ' B4 $ E' $- FH4 T3D' H' $-D
^I -Q N_' &H4' 4$EC&344 E2' F3' I H 34C' $ED' G - 3C' H&' F3
@H J J CC HE34C' H ' E' 43 $ED ' H' F3' @H J J CC HE34C' &H4' % - - M B K
$-D E2' F3' I -Q N' NNH-E C' H&' M43$ ' B4 $ E
^I -Q N_' H' 432- $ 3' F3' I 34 HD' H&' 43ED34 E2 ' $ED' J $+ E2 'X\T # %
-1' F3' M3E34$' J 143C ' @34 & N$ 3C'
N HEC' I 34CHE$ ' &H4' #E &H4 J O' H&' I 4HN3CC' E ' E' 8 C' P $(3C O C' -D ;
@H-4 C' H&' >$ '$ ' 9 3C J EC 34' g' ' g' "
E$ H J O' ?NFHH C' H&' ' 32- $ HE' H&' ' ' P9 ;
EE- 3C' HE' > 3C ' &H4' 4$EC&344 E2' F3' P E23 J 3E ' H&' & H J' F3'
; NF3X-34' H' F3' @H J J CC HE34C' &H4' F3' ' 3D-N HE' H&' F3' ' . - # %
, $ HE$ ' G3Q

%' ' # %
%
114H14 $ HE' N C' ' ' ' ' / ' . . 0' # %
%

4 J C' &H4' NHE E- E2' &H4' < E3' = 3$4' C3 34$' N C' 43 $ E2' H' F3' [
J 1H4 $ HE' $ED' +331 E2' H&' g' g' g
4 J O' NHE E- E2' $E' N ' H&' ' M- ' ' &H4' F3' Q3 34' I $O J 3E ' , # %
H&' $ED' H&' F3 4' \ -$4 34C' g' g' g
$EE-$' N ' &H4' I $O J 3E ' KN' H&' ' % # %
h ' I 4 T3' P HE30' 'NHECH D$ E2' $ED' $ J 3ED E2' F3'
43 $ E2' H') ! ' I $O J 3E ' H&' ' . # %
<&& N34C' E ' $ED' F3 4' ' 3143C3E $ 3C' $ED' 9 DH C' KN [Y # %

/ H $EN3C'

, G ; W * < * 8 ; I # B > @ M ; , ; ' > @ * ?

0 % &' ' (&#) * #&

CC3CC3D * $ 3C ' NHE E- E2 @H J 1HC HEC &H4 ' H ! Q 14) bS ' 8 S ' M B
H4E 3C @ 34+C ' $EE-$ ' ED3 J E 0 N ' &H4 I 34CHEC H J E2 H ' U ' M B
J $+3 $ED & 3 && D$ C H& F3 ; 3N- HE H& ED3E -43C H& ' '5

B

B$+ E2 * 4$D3 ' ' 32- $ HE H& ' ' S
B$E+4-1 C ' $ J 3ED E2 F3 >$ C 43 $ E2 H ' ' ;
B$4Q$DH3C ' C $ED ' $ H E2 F3 J 1D4 3 HE H& > - J Q34 ' I CF($ED SY # %
I 4H C HEC ' G- 0 &433 ' E H ' ' ' '
B$ $4 $ ' % E2 H& ' 8 C P $(3C 0 3E$Q 3D H N#440 E H 3&&3N ' $ @HER U # %
3E HE J $D3 F ' ' ' '
B C H& ; NF$E23 ' 432- $ E2 , HE1$0 J 3E ' H& ' F3E D4$ E 1$0$Q 3 VZ ' # %
$ ' $ I $N3 EH ' Q3 E2 F3 ' $N3 H& G4$ 33 C ' 3C D3EN3
BH4H-2FC $ED @ 3C ' &H4 D3CN4 Q E2 $ED C3 E2 F3 > J C H& ' CH Y ; ' '
&$4 $C 43C13N C F3 ; 3N HE H& P 3 J Q34C H C34 3 E I $4 $ J 3E ' ZV
B4 CF P -C3- J ' 3E$Q E2 8 C P $(3C 0 ' 8 0 8 3 4C ' $ED ? -NN3CCH4C ' Y # %
H $11H E ' $ * 4-C 33 H& ' ' ' ' '
B-N+ E2F$ J ' I $ $N3 ' $- FH4 T E2 F3 11 N$ HE H& I $4 ' H& F3 # %
>$ED ' 3 3E-3 H& F3 @4H E H F3 ' 31$ 4 $1D @H J 1 3 HE H&

@ ' ' '

@$44 $23C F 3CC $1 6H-4 9 F33 C ' 43D-N E2 F3 G- 3C HE ZU ' ;
@F$EN340 ' @H-4 ' H& ' $QH CF E2 N34 $ E ? E3N-43 < && N3C NHEE3N 3D
F ' $ED J $+ E2 I 4H C HE &H4 F3 >H4D 8 2F @F$E ' ' ;
N3 14 HE F C ' 3 43 J 3E ' &4H J ' < && N3 ' ' '5
h h ' & 4 J $+ E2 I 4H C HE & ' F3 >H4D ? 2F ' @F$EN3 H4 E ;
3- ' H& 633C ' ' '
' D&3N -$ E2 F3 ?34 N3 H& I 4HN3CC CC- E2 &4H J SS ; K ' '
@F$4 $Q 3 GHE$ HEC $ED B3X-3C C 1& ' H J $E @$ FH NC ' &H4 ! M B
Q3 34 C3N-4 E2
EC - HEC J $ E $ E3D QO M4$ED 5-40 I 43C3E E3E C ' &H4 Z! '
J $+ E2 Q3 34 I 4H C HE &H4 F3 ' ?-134 E 3ED3EN3 H&
@F$4 3C ' NH4 - E2 $ED 3 3ED E2 F3 I 4H C HEC H& $E N ' H&
!V M3< ' ' &H4 &$N $ E2 11 N$ HEC H @H-4 C H& ; X- 0 9P ' ;
432$4D E2 F3 P E23 J 3E ' H& ; C $ 3C H4 6-EDC Q3 HE2 E2 H
;
@FH 34$ ^?1$C J HD N H4 ED $E_ ' &H4 F3 I 43 3E HE H& ?
U
@F-4NF3C ' E3 ' &H4 43ED34 E2 J H43 3&&3N -$ ' $E N ' H& ! V M3H ' ' ' 2(
&H4 14H J H E2 F3 Q- D E2 H& ' ' '
@ 3C $ED BH4H-2FC ' &H4 D3CN4 Q E2 $ED C3 E2 F3 > J C H& ' CH ' Y ' ;
&$4 $C 43C13N C F3 ; 3N HE H& P 3 J Q34C < C34 3 E I $4 $ J 3E ' ' ZV ' '
@ ' > C ' ' 3 3E-3C ' 14H D E2 &H4 I $0 J 3E C F343 H&H43 J $D3 H- ' H& Y ' # % '
@ 3420 H& F3 ; C $Q CF3D @F-4NF ' &H4 F3 ' 3 3& H& '
@ 34+ H& F3 @4H E ' 432- $ E2 ' F3 < && N3 H& ' E F3 @H-4 ' H& Z '
% E2 C B3ENF g g g g g
@ 34+C H& F3 ? 2E3 ' $ED I 4 0 ?3C ' 3 3ED E2 F3 I 4H C HEC H& , V ' # %
$E N ' H& ! ' M3H ' ' &H4 432- $ E2 F3 < && N3C H&
@H$ ' * 4$D3 ' 4313$ E2 C3 34$ ' N C J 1HC E2 ' 3C 4 N HEC E11F ' 2(A '
$ED 432- $ E2 F3 C$ J 3 ' ' '5 '
@H E ' NHECH D$ E2 $ED $ J 3ED E2 >$ C 2 EC ' < &&3EN3C 43 $ E2 H ' B ' # % '
@H HE $ ' ' 3 3E-3C ' F3 @H J J CC HE34C &H4 $-D E2 F3 I -Q N
NNH-E C H& M43$ ' B4 $ E $- FH4 T3D H $-D ' NNH-E C H& F3 ' UY ' # % '
' 3N3 1 ' $ED ; 13ED -43 H& " ' ' ' 5 ' '
@H J 1HC HEC &H4 CC3CC3D * $ 3C NHE E-3D H ! F 14 ' ZS ' ' ' 8 S ' M B
hh hh &H4 * F3C ' $ J 3ED E2 * F433 C3 34$ ' N C &H4 3C $Q CF E2 ' ' '
$ED H J $+3 C-NF @H J 1HC HEC 134 J $E3E ' ' ` (' 7 7
@HEC $Q 3C ' ?13N $ ' $ J 3ED E2 >$ C 43 $ 3 H 11D E J 3& ' H& ' HZ '

2 ` K ? ` M # >

&' ' 1 (&#) *' #+2

@HE $2 H-C G C3$C3C ' $ J 3ED E2 N C H& ! Z K ! V M3H ' &H4 1 4 3 ' V
3E E2 i ' ' ' / ' 5
@HE 3O$EN3C ' &H4 432 - $ E2 F3 <&& N3 &H4 432 C 34 E2 ' Z*
@H4+ ^@H-E O_ ' &H4 14H J H E2 F3 J (H 3E 3$ ' H& $ G C 4 N ' H&
P H-E $ E >$ED E ' $ED &H4 3ENH-4$2 E2 F3 ; J 1 HO J 3E ' H& !U
F3 I HH4 F343H&
@H41H4$ 3 I 4H134 O ' &H4 143 3E E2 F3 11 &H$ HE H ' H ; 3N HE YV ' M B K >
I -41HC3C
@H41H4$ HEC ' ; NN 3C $C N$ ' $ED @H#32 $ 3 ' $# Q< 9 T E2 F3 D3ER Z [;
&O E2 H& F3 >$EDC H& N34 $ E
@H-E 3C ' &H4 C3 E2 $ED D3CN4 Q E2 F3 G C HEC H& ' CH &$4 $C Y ;
43C13N C F3 ; 3N HE H& P 3 J Q34C H C34 3 E I $4 $ J 3E ' >
@H-4 ' H& ?3CC HE ' 14H D E2 &H4 N$44O E2 HE F3 B -C E3CC H&(F3E
E 344-1 3D QO F3 G3$D ' H4 E3N3CC$4O QC3EN3 H& $EO H& F3 Y ?
5-D23C H &
@H-4 C ' ; NN 3C $C N$ ' &H4 3E&H4N E2 F3 I 4HN3CC -1HE @HE 3 E1 C E VS ; ' K
H& ; X- O ' 3 3ED E2 F3 I 4H C HEC H& $E N ' H& ' M- '
&H4 $ 34 E2 $ED $ J 3ED E2 F3 >$ ' 432$4D E2 F3 @H J R !Z # %
J J 3E C QO ' &H4 @HE 3 J 1 C
H& >$ ' $ ' 9 3C J EC 34 ' &H4 #E &H4 J O H& I 4HN3CC E I 34R SV ;
CHE$ ' N HEC E '
@43D H4C ' NHE E- E2 N ' H& ! ' M3H ' &H4 43ED34 E2 F3 I $OR S! ?
J 3E ' H& ' J H43 3X-$ ' $ED 3 13D H-C
@-C H J C ' $ J 3ED E2 F3 >$ C 43 $ E2 H Z
' ' 3 3E-3C ' 14H D E2 &H4 F3 ; $ J E$ HE $ED -D ' H& [S

G

G3$ F ' I -E CF J 3E ' H& ' $QH CF E2 E N34 $ E @$C3C ' $ED C-QC - E2 ' YU # %
$ 3CC34 I -E CF J 3E ' E 3- ' F343H& ' 5
I -E CF J 3E ' H& ' $QH CF E2 E @$C3C H& 6H42340 US # %
G3Q H4C ' ECH 3E ' NHE E- E2 &H4 <E3 =3$4 F3 N C &H4 F3 SZ
' 3 3& H&
NHE E- E2 &H4 * F433 =3$4C ' $ED $ J 3ED E2 F3 >$ C &H4 ;
F3 ' 3 3& H&
E ED $ ' NHE E- E2 H C ' P $4NF ZSY $E N ' H& S # %
V M3H ' &H4 F3 ' 3 3& H&
G33DC ' &H4 432 - $ E2 F3 <&& N3 &H4 432 C 34 E2 ?0
G3 32$ 3C ^8 2F @H-4 ' H&_ ' 4$EC&344 E2 F3 I H 34C H& ' H 8 C VU ;
P X(3C O E @H-EN ' g g
G C $ HE H& ?1 4 C &4H J ' P $E23 ' 9 -4T3 ' 13 J 3D M B K
G-Q E ^@ O_ ' 343N E2 $, C ' I 4 -C @H-4 ' 8 H-C3 E g SU
' $- FH4 T E2 F3 @H J J CC HE34C H& F3 * 43$C-4O H 24$E ' V[
@H J 13EC$ HE H F3 EC13N H4C $ED @H$ ' P 3 34C H& ' 3

;

; $C ' ED 3C ' $ J 3ED E2 F3 >$ ' 43 $ 3 H F3 11H E J 3E ' H& # %
5-C N3C H& F3 I 3$N3 $ED H& 5-4 3C E j
; 3N HE ' +! ! P 3 J Q34C H& I $4 $ J 3E
; J Q3TT 3 J 3E C QO I 34CHEC E F3 I -Q N ?34 N3 ' I 43 3E HE H& # %
; NF3X-34 ' &H4 4$EC&344 E2 F3 P E23 J 3E ' H& N34 $ E EE- 3C
HE > 3C &4H J F3 ' 3N3 1 ' H& H F3 @H J J CC HE34C &H4 F3 !V # %
' 3D-N HE H& F3 , $ HE$ ' G3Q '
; NF3X-34 B C ' 4$ C E2 U [[[[[[U # %
4$ C E2 S ZVY Y [[V # %
3E$Q E2 8 C P $(3C O H D 43N ' &H3 CC- E2 H& ' H $ J 3D U! # %
J H-E ' &H4 F3 I -41HC3C F343 E J 3E HE3D

, G ; W' * <' * 8 ; ' I # B > @' M ; , ; ' >' @ * ?

		&'	(&#) *
;	NF3X-34' @H-4 'H&' 3&&3N -$ E2' F3' ?34 N3' 1& I 4HN3CC' CC- E2' &4H J	SS	; ' 4
gg h	' 432- $ E2' F3' G- 3C' H' Q3' 134&H4 J 3D' QO' F3' <& ?N34C' HE F3' I 3$' H4' @H J J HE' >$ ' ? D3' H&'		;
	14H D E2' &H4' F3' G C1$ NF' H&' B-C E3CC' E	!	
;	N C3' G- 3C' HE' 6 E ' M5$ ' 4313$ E2' ' $ED' J 1HC E2' H F34' G- 3C'	[U	;
	' >$ C' NHECH D$ E2' $ED' $ J 3ED E2' F3' >$ ' 432- $ E2' F3 24$E E2' $ED' CC- E2' H&' I 34 J C' &H4' F3' ' 3 J H $' H&' ' MHHDC' -ED34'	Y	M B Z
	' ' 3 3E-3C' 14H D E2' &H4' F3' -D 'H&'	[S	?

' 6.' '

63 34' 8 HC1 $ C' $ J 3ED E2' N C' H&' ! Z' $ED' ! V' M3H ' ' &H4' , 3C $Q CF E2'	V	
6 CF' $ H E2' F3' J 1H4 $ HE' H&' G- O &433' E H' F3' C $EDC' H&' , B$4F$DH3C' ?$ E ' EN3E '$ED' ?$ E ' > -N $'	SY	# %
6 E ' M $CC' 4313$ E2' G- 3C' HE ' $ED' J 1HC E2' H F34' G- 3C' E' , 3-' F34 3H&'	[U	;
6H42340' $QH CF E2' F3' I -E CF J 3E 'H&' G3$ F' E' N34 $ E' @$C3C' H&' 5'	US'	# %
6433 J 3E' H&' @H41H4$ HEC' 3 1 $ E E2' GH-Q C' 43C13N E2' F3' ? $ J 1' ' G- 3C' 1OQ 3' QO' E' @3 $ E' @$C3C'	V	
643ENF' % E2' H&' F3' 3E$Q E2' 8 C' P $(3C O' H' N$44O' E H' 3&&3N' $' @HE 3E HE' J $D3' F'	U	# %
6 4 3E ' ?HN 3 3C' $ J 3ED E2' N ' H&' [' M3H ' ' QO' 3 3ED E2' F3' * J 3' F E' F NF' 143 3 C E2' ?HN 3 3C' J -C' NHE&H4 J' H' ' F3' I 4H C HEC' H&' F$' N' g' g' g	S	;

M

H&	6'	"
M $CC' $ J 3ED E2' F3' >$ C' 43 $ E2' H'	[U	;
M- E' B4 CF' 3E$Q E2' 8 C' P $(3C O' H' D 43N' F3' CC- E2' H&' ; NF3X-34' B C' &H4' F3' ' 3 3&' H&'	XB9	# %
M-E1H D34' &H4' NHE E- E2' &H4' <E3' =3$4' C3 34$' N C' 43 $ E2' H' , F3' J 1H4 $ HE' $ED' +331 E2' H&'	[	

8

8 3 J 13E' P $E-&$N -43' &H4' F3' Q3 34' ' 32- $ HE' H&'		
8 H4C3C' 3' H' 8 43' 4313$ E2' F3' G- 3C' HE ' $ED' 24$E&&-2' H F34C' E' 3-' F343H&	U [	M B
8 H-C3' H&' @H J J HEC' $ J 3ED E2' F3' ' 3143C3E $ HE' H&' F3' I 3H1 3' E' F3'	! .	; ?
	[!	# %
8 -ED 3D' 3 3ED E2' F3' I 4H ? HEC' H&' 'Z' Z' M3H ' ' 43 $ 3' H' ' 3 J 3D 3C' 2 EC'	U	;

ED3 J E O' N '$EE-$' / ' /	U	M B
EC$E3' I 34CHEC' &H4' 432- $ E2' &H4' * F433' =3$4C' F3' @$43' $ED' , * 43$ J 3E ' H&'	[	;
ECH 3E ' G3Q H4C' @HE E- E2' &H4' <E3' =3$4' F3' N C' &H4' F3' , ' 3 3&' H&'	SZ	
NHE E- E2' &H4' * F433' =3$4C' $ED' $ J 3ED E2' F3' >$ C' &H4 F3' ' 3 3&' H&' K'	8	;
h 7 h' NHE E- E2' H' C' P $4NF' ZSY' $E' N ' H&' V' M3X' F3' ' 3 3&' H&'	9 1	# %

K S ' M # > '

5

:&' ' (; #) *' #<

5 - C N3C' H&' F3' I 3$N3' $ED' 5 - 4 3C' E' F3' ; $C ' ED 3C ' $ J 3ED E2' F3' ' ' # %
>$ ' 43 $ E2' H' F3' 11H E J 3E ' H&' ' ' /

%

%344O' ^@H - E O_ ' &H4' 14H J H E2' F3' J 14H 3 J 3E ' H&' $' G C 4 N ' 1&'
P H - E $ E' >$ED' E ' $ED' &H4' 3ENH - 4 E2' F3' ; J 1 HO J 3E ' H&' YU
F3' I HH4' F343H&' '

* F3' ' h ' 8 C' P $(3C O ' 8 C' 8 3 4C' $ED' ? - NN3CCH4C ' 3E$Q 3D' H'
$11H E ' $' * 4 - C 33' H&' F3' B4 CF' P - C3 - J Y # %
8 b' P $(3C O' 3E$Q 3D' H' N$44O' E H' 3&&3N ' $' @HE 3E HE
J $D3' F' F3' ; J 134H4' H&' ' - CC $' ' g' g K> # %
' 8 C' P $(3C O' 3E$Q 3D' H' N$44O' E H' 3&&3N ' $' @QE 3 \ HE
J $D3' F' F3' % E2' H&' F3' 643ENF' $ED' F3' ; J 134H4' H&' Z> # %
$ ' F3' ' - CC $C' $ED' F3' % E2' H&' B$ $4 $

h F3' I H 34C' H&' F3' 8 2F' @H - 4 ' H&' G3 32$ 3C' 4$EC&3443D
H' 8 C' P $(3C O' E' @H - EN ' ' ' VU ;

% E2 C' @H - E O ' &H4' FH D E2' F3' CC T3C' &H4 ' * N3' E' 3 34O' = 3$4 '
$ ' * - $ J HH43 ' EC 3$D' H&' I F 1C H E' ' ' g Y ['

>

>$QH - 434C' E' 24 N - - $ ' I $4 CF3C ' &H4' F3' Q3 34' ; J 1 HO J 3E ' H&' VY ;
- E ' U ! F' P $4NF' ZS

>$ED' ' 3 3E - 3 ' - E E2' F3' <&& N3' H&' ? - 4 3OH4' M3E34$ ' H&' 8 C'
P $(3C O C' 9 H4+C' F' F3' <&& N3' H&' F3' @H J J CC HE34C' H& # %
h ' $ - FH4 T E2' F3' 11 N$ HE' H&' I $4 ' H&' H' F3' @H J 1 3 HE
H&' F3' ' 31$ 4' $ED' J 14H 3 J 3E ' H&' B - N+ E2F$ J ' I $ $N3' S # %

h H&' ?NH $ED ' $ - FH4 T E2' F3' 1 $N E2' H&' - ED34' F3' P E23R
J 3E ' H&' F3' @H J J CC HE34C' H&' F3' >$ED' ' 3 3E - 3C' U M B

>$ED' * $ ' $11H E E2' $DD HE$ ' @H J J CC HE34C' H' 1 - ' F3' >$ED'
* $ ' N C' E' 3 3N - HE' ' ' ' ' U ;

>$EDC' H&' N34 $ E' ; NN 3C $C N$ ' $ED' @H 32 $ 3' @H41H4$ HEC ' &H4'
$ - FH4 T E2' F3' D3E &O E2' H&' ' ' ' Z [;

h ' $ED' * 3E3 J 3E C ' $ J 3ED E2' C3 34$ ' N C' &H4' F3' - E &H4<
$ - $ HE' H&' ' ' ' g' g' S

>3 34C ' 432 - $ E2' F3' I 4 323' H&' &4$E+ E2' ' ' ' !

> J 34 N+' ^@H - E O_ ' &H4' 14H J H E2' F3' J 14H 3 J 3E ' H&' $' G C 4 N)'
H&' P H - E $ E' >$ED' E ' $ED' &H4' 3ENH - 4$2 E2' F3' ; J 1 HO J 3E ' H&' ' ! U
F3' I HH4' F343H&' ' ' ' ' ' '5

> E3E' P $E - &$N - 43 ' &H4' F3' Q3 34' ' 32 - $ HE' H&' ' '

> 341HH ' $ - FH4 T E2' F3' I $O J 3E ' H&' P HE3O' H - ' H&' F3' @HER
CH D$ 3D' 6 - ED' H $4DC' F3' ; 43N HE' H&' N34 $ E' ' 3 3E - 3' ;
B - D (C' $ ' ' '

>H 34O' * N+3 C ' H - C $ED E2 ' 14H D E2' &H4' F3' $+ E2' E' $ED'
I $O J 3E ' H & ' U ;

> - J Q34 ' $ H E2' F3' J 1H4 $ HE' H&' G - O &433 ' E H' F3' C $EDC'
H&' B$4Q$DH3C ' ?$ E ' EN3E ' $ED' ?$ E ' > - N $' ' g' g SY # %

P

P $ ' 43D - N E2' F3' H $EN3' HE' ?1 4 C' J $D3' &4H J' UV B K
P $E23 ' 9 - 4T3 ' 134 J E2' F3' G C $ HE' H&' ?1 4 C' &4H J' M B K >
P $4 E3' 6H4N3C' HE' ?FH43 ' NHE E - E2' N ' H&' ' M - ' ' &H4' F3' '
' 32 - $ HE' H&' ' ' ' ' ' 5 V # %
P $4 E3' 6H4N3C ' $EE - $ ' N ' &H4' F3' ' 32 - $ HE' H&' US # %

, G ; W' * <' * 8 ; ' I # B > @' M ; , ; ' >' @ * ?

@$1 (&#) *'#+

P 3 J Q34C' H&' I $4 $ J 3E ' &H4' C3 E2' $ED' D3CN4 Q E2' F3' G C HEC' Y ;
H&' @H-E 3C' $ED' F3' > J C' H&' @ 3C' $ED' BH4H-2FC ' CH' , ZV
&$4' $C' 43C13N C' F3' ; 3N HE' H&' ' '
&H4' 143 3E E2' F3' 11 N$ HE' H&' @H41H4$ 3' I 4H134 O' H , YV M B K
F3' I -41HC3C' H&' F3' 3N HE' H&
P $ ' C-C13ED E2' F3' B$ H C' $ED' ; E4H J 3E ' H&' &H4' < E3' = 3$4' ! [# %
$EE-$ ' N ' &H4' F3' I $O ' @ H F E2' KN' H&' F3' G C3 J QHD 3D m' Y M B K
P $' ' K' ' ' g'
P HD-C' D3N J $ED ' &H4' CFH4 3E E2' F3' * J 3' 43X- 43D' E' @ $ J C' H&' ' [[;
P - EO' N ' $EE-$ ' ' g' ' ' g' g' g UZ # %

,

, $ O' $ J 3ED E2' F3' > $ C' 43 $ E2' H' F3' B-C E3CC' H&' F3' @ ' / [# %
G31$4 J 3E C' H&' Z + ' ' ' ' ' '5
, 3 &H-ED $ED' C $ED' H&' NHE E- E2' N34 $ E' N C' 43 $ E2' H' $ED' ' P . # %
14H D E2' &H4' F3' 114H14 $ HE' H&' G - 3C' 4$ C3D' F343 E' 3'
h ' h ' 6 CF34 3C' E ' @HE E- E2' H' S C ' G3N3 J Q34' ZS ' $E' N ' PD # %
H&' Y' M3H ' ' 43 $ E2' H' ' ' ' ' '3
, H4 NF ' &H4' FH D E2' F3' CC T3C' &H4' F3' @H E O' 1&' , H4&H +'$ED' * ;
' &H4' (3' @ O' H&' $ ' , H4 NF ' * N3' E' 3 34O' = 3$4' ' 5

< && N3C ' NHE E- E2' G - 3C' HE' ;
' $EE-$ ' ED3 J E O' N ' H' I 34CHEC' E32 3N & 2' H' X-$ &O' &H4' U M B
< 4DE$EN3' G31$4 J 3E ' 3 3ED E2 ' Z ' '* H' N C' H&' M3H ' ' &H4' U ! ' # %
&$N $ E2' F3' B-C E3CC ' KN' E' g' ' g' g'(

I

I $4 CF3C ' $ J 3ED E2' N ' H&' ' K' Z' M3H ' ' 43 $ E2' H' F3' # E HE' H&' Y '
I $4 $ J 3E ' C3 E2' F3' G C HEC' H&' @H-E 3C ' $ED' F3' > J C' H&' ' Y ;
@ 3C' $ED' BH4H-2FC ' CH' &$4' $C' 43C13N C' F3' ; 3N HE' H&' P 3 J Q34C' H&' 3' - '
I $4 O' I 4HN3CC HEC ' 43C 4$ E E2' &H4' % 3' = 3$4C' ' ' '
I 3$N3 ' I 43C34 $ HE' H&' $ J 3ED E2' F3' > $ C' &H4' ' ' '
I 334C' H&' ?NH $ED' 3E$Q 3D' H' $+3' $ED' C-QCN4 Q3' E' 43 $ED' F3'
< $ FC' 43X- 43D' &H4' X-$ &O E2' F3 J ' H' H 3' E' $EO' ; 3N HE' H&' YS ' ? K '
F3' I 334C' H&' ?NH $ED' ' ' g' g
I 34 J C' &H4' F3' ' 3 J H $ ' H&' MHHDC ' NHECH D$ E2' $ED' $ J 3ED E2' F3' ' Y M B
> $ C' 432- $ E2' F3' 24$E E2' $ED' CC- E2' H&' ' ' ' g'(
I 34CHE$ ' ; C $ 3C' $ED' I 3EC HEC ' $EE-$ ' G - 3C' HE' ' ' ;
I HH4 ' $- FH4 T E2' F3' 3 E2' H&' > $ED' H ' E' I $4 CF3C' EN HC3D '
- ED34' $EO' N ' H&' I $4 $ J 3E ' ' ' ' ' U ;
I HC ' < && N3 ' 3E$Q E2' F3' I HC J $C 34' M3E34$ ' H' 3 3ED' F3'
NNH J J HD$ HE' QO' I HC ' $ED' H' 432- $ 3' F3' I 4 323' H&' ' ! '
64$E+ E2
I HC ' ' H$DC ' $ J 3ED E2' N ' H&' ! ' M3H ' ' 43 $ E2' H' ' '
I 43CN4 1 HE' &H4' CFH4 3E E2' F3' * J 3' H&' E' N34 $ E' @$C3C' ' ;
I 43C3E J 3E C' H&&' F3' B$4HE 3C' H&' ?$ E ' ?31- NF43' $ED' GHEH43 ' 43
13$ E2' I $4 ' H&' 4 CF' N ' H&' UY' M3H ' ' 43 $ 3' H' F3' $11 H E2' S ' '
$ED' 3 O E2' H&' ' ' ' ' g
I 4 CHE34C ' $- FH4 T E2' F3' ' 3 J H $ ' H&' &H4' < E3' = 3$4 ' E' @$C3C' H&' , ZS
31 D3 J N' G C3$C3C' ' ' g' ' g'
I 4 O' ?3$ ' 3 3ED E2' F3' I 4H C HEC' H&' $E' N ' H&' ! ' M3H ' ' &H4' Z # %
432- $ E2' F3' < && N3' H&' @ 34+' H&' F3' ' ,
I 4 T3' P HE3O' ^ J O_ ' &H4' NHECH D$ E2' $ED' $ J 3ED E2' F3' > $ C ' ?S # %
43 $ E2' H' F3' I $O J 3E ' H&' ' '

ʾK ʾM#>ʾ

	&'ʾ	(&#) *ʾ#+
I4HN3CCʾ 3&&3N -$ E2ʾ F3ʾ ?34 N3ʾ H&ʾ CC- E2ʾ &4HJʾ F3ʾ @H-4 Cʾ H&ʾ @F$& N340ʾ $EDʾ ; NF3X-34ʾ ʾ ʾ ʾ	SS	; K
h h ʾ&H4ʾ #E &H4J Oʾ H&ʾ Eʾ I34CHE$ʾ N HECʾ Eʾ 8 Cʾ P$(3C O C ʾ, @H-4 Cʾ H&ʾ >$ ʾ$ʾ 9 3C J EC 34ʾ iʾ	SV	;ʾ
h ʾ -1HEʾ @HE 3J1 Cʾ Eʾ @H-4 Cʾ ; NN 3C $C N$ ʾ&H4ʾ 3E&H4N E2ʾ	VS	; K
I4H134 Oʾ H&ʾ F3ʾ @4H Eʾ C -$ 3ʾ Q3 33Eʾ F3ʾ *H 34ʾ H&ʾ >HEN HE ʾ, $EDʾ >HEDHEʾ B4 D23ʾ 14H D E2 &H4ʾ F3ʾ @HE 30$EN3ʾ H&ʾ ʾ 5ʾ	YY	# %
I4H 3C $E Cʾ H&ʾ F3ʾ ; C $Q CF3Dʾ @F-4NFʾ &H4ʾ F3ʾ ' 3 3&ʾ H&ʾ ʾ		
I4H C HECʾ $ H E2ʾ F3ʾ J1H4 $ HEʾ H&ʾ G- O &433ʾ E Hʾ F3ʾ C $EDCʾ 7 H&ʾ B$4Q$DH3Cʾ ?$ Eʾ EN3E ʾ$EDʾ ?$ Eʾ >-N $ʾ	SY	# %
I -Q Nʾ NNH-E Cʾ H&ʾ M43$ʾ B4 $ Eʾ @H J J CC HE34Cʾ, ʾ$- FH4 T3Dʾ Hʾ 3 $J E3ʾ $EDʾ $-D ʾ NNH-E Cʾ H&ʾ F3ʾ ' 3N3 1ʾ $EDʾ ; 13ED -43ʾ ʾ H&ʾ @H HE $ʾ ' 3 3E-3Cʾ ʾ ʾ	UY	# %

'

	4ʾ !	;
' 3143C3E $ HEʾ H&ʾ F3ʾ I3H1 3ʾ $J 3ED E2	Y ! ʾ ZZ	?
' H J $Eʾ @$ FH NCʾ &H4ʾ Q3 34ʾ C3N-4 E2ʾ F3ʾ @F$4 $Q 3ʾ GHE$ HECʾ $EDʾ B3X-3C Cʾ H&ʾ ʾ ʾ ʾ ʾ g	,!	M B
' -CC $ʾ ; J134H4ʾ H&ʾ 8 Cʾ P$(3C Oʾ 3E$Q 3Dʾ Hʾ N$440ʾ E Hʾ 3&&3Nʾ $ʾ @HE 3E HEʾ Fʾ ʾ ʾ ʾ ʾ ʾ g	Z U	# % # %

?

	ʾ SY	8 %
F3ʾ ' 3 3&ʾ H & ʾ ʾ ʾ ʾ ʾ ʾ	d U !	5 %
?$ $4 3Cʾ H&ʾ N34 $ Eʾ 8 2Fʾ $EDʾ 5-D N $ʾ <&& N34Cʾ 14H D E2ʾ &H4ʾ	ʾ Y	# %.
?3 + 4+CF 43ʾ 8 Cʾ P$(3C Oʾ $- FH4 T3Dʾ Hʾ $11H Eʾ $ʾ I34CHEʾ Hʾ $N ʾ $Cʾ ?F34 &&ʾ H&ʾ D-4 E2ʾ F3ʾ EN1N Oʾ H&ʾ F3ʾ 143C3Eʾ ?F34 &&ʾ	[	:
?3CC HEʾ ^@H-4ʾ H&_ʾ 14H D E2ʾ &H4ʾ N$440 E2ʾ HEʾ F3ʾ B-C E3CCʾ H&ʾ F3Eʾ E 344-1 3Dʾ QOʾ F3ʾ G3$ Fʾ H4ʾ E3N3CC$40ʾ QC3EN3ʾ H&ʾ $EOʾ H&ʾ F3ʾ 5-D23Cʾ H&ʾ ʾ ʾ ʾ	!	C
? 2E3 ʾ 3 3ED E2ʾ F3ʾ I4H C HECʾ H&ʾ $Eʾ Nʾ H&ʾ 9Pʾ M3Hʾ ʾ &H4ʾ 43R, 2- $ E2ʾ F3ʾ <&& N3ʾ H&ʾ F3ʾ @ 34+ʾ H&ʾ ʾ	V	# %
?H D 34Cʾ 9 3Cʾ H4ʾ 9 DH Cʾ $EDʾ 6$J 3Cʾ 4313$ E2ʾ C3 34$ʾ N Cʾ, &H4ʾ 3E$Q E2ʾ F3Jʾ Hʾ 43 -4Eʾ Hʾ F3 4ʾ 8H J 3Cʾ	V	# %
?H N H4Cʾ @ 34+Cʾ $EE-$ʾ ED3J E Oʾ Nʾ &H4ʾ I34CHECʾ H J E2ʾ Hʾ, J $+3ʾ $EDʾ & 3ʾ && D$ Cʾ H&ʾ F3ʾ ; 3N- HEʾ H&ʾ ED3E -43Cʾ H&ʾ	U	M B
?13$+34ʾ H&ʾ F3ʾ 8H-C3ʾ H&ʾ @H J J HECʾ &H4ʾ F3ʾ Q3 34ʾ ?-11H4ʾ H&ʾ F3ʾ G 2E Oʾ H&ʾ $EDʾ &H4ʾ D C$Q E2ʾ F3ʾ ?13$+34ʾ &H4ʾ F3ʾ * J 3ʾ Q3 E2ʾ &4H Jʾ FH D E2ʾ $EOʾ <&& N3ʾ H&ʾ I4H& ʾ D-4 E2ʾ I 3$C-43ʾ -ED34ʾ F3ʾ @4H Eʾ g g ʾ g ʾ g g	[!	# %
?1 4 Cʾ J $D3ʾ &4H Jʾ P$ ʾ 43D-N E2ʾ F3ʾ H $EN3ʾ HE F3ʾ G C $ HEʾ H&ʾ &4H Jʾ P$E23ʾ 9 -4T3ʾ 134J 3D	UV	?ʾ K M B K
? $23ʾ @$44 $23Cʾ 4313$ E2ʾ F3ʾ G- 3Cʾ HEʾ $EDʾ 24$E E2ʾ H F34Cʾ	U[	M B
?-Q 3 E2ʾ H&ʾ >$EDCʾ $EDʾ *3E3 J 3E Cʾ 4313$ E2ʾ Nʾ H&ʾ Pʾ M3Hʾ ʾ, 43C13N E2ʾ $EDʾ C-QC - E2ʾ H F34ʾ I4H C HECʾ ʾ 3-ʾ F343H&		
?-2$4ʾ J1H4 3Dʾ $EE-$ʾ G- 3Cʾ HEʾ ʾ "	ʾ UU V ! 7 Y	# % # % # %
?-11 3Cʾ 114H14 $ HEʾ H&	SY ! ! UY	# % # % # %
?- HEʾ n ' 2F ʾ8HEH-4$Q 3ʾ @F$4 3Cʾ P$EE34C_ʾ&H4ʾ C3 E2ʾ EE- 3Cʾ HEʾ $EDʾ HEʾ F Cʾ E3 ʾ 83 4ʾ P$ 3ʾ g g	[V	# %

, G ; W *< *8 ; I #B> @ M ; , ; ' > @*?

* * *

&' ' (&#) *' #+

*$ 3C ' CC3CC3D ' @H J 1HC HEC &H4 ' NHE $-3D H ! F 14 ' ZS ' ' S ' M B '
*3C ' ^?$N4$ J 3E $ _ ' 4313$ E2 4 CF N ' H&SSM3H * < 443 J H E2 ' ' ('
GH-Q C 43C13N E2 I 34CHEC E < && N3 $+ E2 ' ' ' /5 7
* F3C ' &H4 &$N $ E2 F3 ' 3NH 34O H& ' C N34 $ E @$C3C ' ' '
&H4 CFH4 3E E2 F3 * J 3 43X- 43D E @ $ J C H& ; 3 J 1 HE ' - -
&4H J ' H4 G CNF$423 H& ' ' ' ' 5
' $ J 3ED E2 N C &H4 3C $Q && E2 @H J 1HC HEC &H4 ' $ED &H4 V '
J $+ E2 C-NF @H J 1HC HEC 134 J $E3E '
*HQ$NNH 24H E E 43 $ED Q3&H43 C ' 5$E ' ZSS ' 14H D E2 &H4 D 3 U '
?$ 3 ' P $E-&$N -43 ' $ED @HEC- J 1 HE H& '
*H EC ' D3CN4 Q E2 $ED C3 E2 F3 > J C H& ' CH &$4 $C 43C13N C F3 ZV '
; 3N HE H& P 3 J Q34C H& I $4 $ J 3E ' ' '
*43C1$CC3C HE I 4H134 O ' &H4 143 3E E2 ' QO I 34CHEC E 1-4C- ' H& YZ ' ? '
M$ J 3 ' ' ' ' '
*4 E D$D ' 3E$Q E2 8 C P $(3C O H CC-3 ; NF3X-34 B C &H4 F3 U ! ' # % '
' 3 3&H &
* - J 1 +3 ' H ' 4E2 $ E E2 N34 $ E I 4H C HEC ' >HN$ ' N C H& U ' ;
I $4 $ J 3E ' 43 $ E2 H GH-Q 3 *H ' HE '

#

#E HEC 1& I J CF3C ' $ E3ED F2 N ' H& ' K Z M3H ' 43 $D ' H Y '

$ -$ HE ' -E &H4 J ' H& >$EDC $ED *3E3 J 3E C ' $ J 3ED E2 C3 34$ ' S '
N C &H4 ' ' ' ' ' '
N3 D J 4$ O @H-4 C Q4H$D ' 432- $ E2 F3 I 4$N N3 $ED 633C ! ' # %
J ' $ED HQ $ E2 GH-Q C $C H F3 4 5-4 CD N HE

/ 9 3C J EC 34 ' 3 3ED E2 F3 5-4 CD N HE H& F3 @H J J CC HE34C)
-ED34 F3 E3 ' ? 433 ' N C H N34 $ E < F34 ? 433 C $ED I $N3C (' ! Y ' ;
E
9 C ' &H4 432- $ E2 F3 < && N3 &H4 432 C 34 E2 H& ' Z '
9 HHDC ' 6H43C C ' $ED >$ED ' 3 3E-3C ' -E E2 F3 < && N3 H& ? -4 3O#47)
M3E34$& H& 8 C P $(3C O ? 9 H4+C F F3 < && N3 H& @H J J C ' (' # %
C HE34C H& ' ' ' '

> < , G < , ' 4314 E 3D QO # + . (/ + & (+ $ED) * (+ , ' O1 . 223% , . . * + '
I 4 E 34C H F3 % E2 C J HC ' ; N3 3E ' P $(3C O ' ZSU

, , < ʻ ' ; M ,

M # > ; > P ʻ =

#ʻ L!(1ʻ

= ʻ 8

ʻ F3ʻ I$4 $J3Eʻ Q32-Eʻ $EDʻ FHD3Eʻ $ʻ !1 #1! ʻ F3ʻ 6H-4 33E Fʻ G$Oʻ H&ʻ ?3#!ʻ /##,ʻ 2, # ʻ ZS ʻ Eʻ F3ʻ 6 4Cʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ H-4ʻ ?H 343 2Eʻ >H4Dʻ 9 >> Pʻ F3ʻ 6H-4 Fʻ QOʻ F3ʻ M4$N3ʻ H&ʻ MHDʻ H&ʻ F3ʻ #E 3Dʻ % E2DHJʻ H&ʻ ! ʻ" #ʻ $EDʻ $!% #&ʻ % E2ʻ G3&3ED34ʻ H&ʻ F3ʻ 6$ F.

EDʻ &4HJʻ F3EN3ʻ NHE E-3Dʻ QOʻ C3 34$ʻ I4H4H2$ HECʻ Hʻ F3ʻ ? Fʻ G$Oʻ H&ʻ 2!'! 4! ʻ ZS ʻ Q3 E2ʻ F3ʻ ?;@<,Gʻ ?;?? <,ʻ H&ʻ F3ʻ *; , *8ʻ I '> P; ,*ʻ H&ʻ F3ʻ #E 3Dʻ % E2DHJʻ H&ʻ ! ʻ " #ʻ $EDʻ $!% #&

> < , G < , ʻ

I4 E 3Dʻ QOʻ # + . (/ +ʻ &(+ʻ $EDʻ) * (+ , ʻ O1 . 223% , . . * + ʻ
I4 E 34Cʻ Hʻ F3ʻ % E2 Cʻ JHCʻ ; N3 3Eʻ P$(3C Oʻ ZSU

, , <' ? ; @# , G<

MW5> ; > P ' ' ' ; M ?

@ I '

E' N ' &H4' -E E2' F3' <&& N3' H&' F3' ?-4 3OH4'
M3E34$ ' H&' 8 C' P $(3C O C' 9 H4+C' $ED' I -Q N'
B - D E2C' F' F3' <&& N3' H&' F3' @H J J CC HE34C'
H&' 8 C' P $(3C O C' 9 HHDC ' 6H43C C ' $ED' >$ED'
' 3 3E - 3C ' $ED' &H4' H F34' I -41HC3C' 43 $ E2' H'
F3' >$ED' ' 3 3E - 3C ' I S F' ' ZSU ㎜

> 8 ; ' ; ?' QO' D 34C' N C ' $ED' 1$4 N- $4 O' $E' N ' 1$CC3D'
E' F3' * 3E F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2'
! , (!' F3' 6H-4 F ' E - 3D' / #' / ' ' ,' ' ,#1, % & !' #&' <M' N ! ['
!#&') !' <' 'F1' !% #(' ,' ? !' # (! !# ' #&' $ 5 ,0! !# ' , ' 1'
U!1 1' , , &1 ' R , !1 1 ' * 1 ' #&' I) 1!1' ' , ') !' < #&' L!0!#3!'
, ') !' I ,0 ') #') !' +3 0! ' , ') !' 8J ') !V3! ' #' ; E2 $ED ' #&'
, ') !' < #&' L!0!#3!' , ') !' I ,J ' #' 43 $ED' ' #&' , ' !J !#& #('
' ! #' * ,0 1 ,#1' !% #(' ,') !' 1 !' ,') !' $1%!1' , ' P $E' #&'
D34E30 ' $ ' 8 HEH4C ' 8 - ED43DC ' @$C 3C ' >H4DCF 1C ' P $EH4C ' 6H43C C
@F$C3C 9 HHDC ' I $4+C ' P 3CC - $23C ' >$EDC * F3C ' 6 CF34 3C ' 64$ENF C3C
?34 N3C ' ' 3E C ' $ED' H F34' >$ED' ' 3 3E - 3C ' I HCC3CC HEC ' * 3E3 J 3E C '
$ED' 8 343D $ J 3E C' F$ CH3 34' ^ D H CHEC' H&' @F - 4NF3C' $ED' N$4$23C'
HE O' 3 N31 3D_' F NF' Q3 HE2' H' 8 C' P $(3C O' F E' F3' < 4D34 E2' $ED'
?-4 3O' H&' F3' @H-4 ' H&' ; NF3X-34' E' 8 #(% #&' H4' %!1 ' E' $!% #& '
E' F3' $1%!' , ' #' $ED' C' G313ED3EN 3C ' $ED' F3' $1%!' , ' / %&! #! '
F3 F34' E' I HCC3CC HE ' ' 3 J $ ED34 ' H4' ; J 3N $ENO ' ^ F NF' C$ D' 8 HEH4C
8 - ED43DC ' @$C 3C ' >H4DCF 1C ' P $EH4C ' 6H43C C ' @F$C3C ' 9 HHDC ' I $4+C
P 3CC - $23C ' >$EDC ' * F3C ' 6 CF34 3C ' 64$ENF C3C ' ?34 N3C ' ' 3E C
C ' ' $ED

$ED H F34 >$ED '3 3E-3C I HCC3CC HEC $ED *3E3 J 3E C $43 NH J J HE O N$ 3D `` * F3 I HCC3CC HEC $ED >$ED '3 3E-3C H& F3 @4H E c $43 -ED34 F3 P $E$23 J 3E H& $ 6 4C @H J J CC HE34 $ED * H H F34 @H J J CR C HE34C $11H E 3D QO >3 34C I $ 3E D-4 E2 8 C P $(3C O C I 3$C-43 $ED C O 3D `` * F3 @H J J CC HE34C H& 8 C P $(3C O C 9 HHDC 6H43C C $ED >$ED '3 3E-3C c ED F343$C QO $E N 1$CC3D E F3 6 & O &H-4 F =3$4 H& 8 C $ 3 P $(3C O % E2 M3H423 F3 *F 4D E - 3D

! M S @ ! /# / '' , 4! ! L!(3% ,# ,)! I ,#&3'' ,)! "31 #!11 ,)! 6 '! , , 1 #&)! LJ5!#& 3 !)! !, 8 C P $(3C O C 9 H4+C $ED I -Q N B- D E2C EN -D E2 $C 3 F3 9 H4+C $ED B- D E2C F3 ; 13EN3 H& F NF C D3&4$O3D H- H& 8 C P $(3C O C @ > C '3 3E-3C $C F3 9 H4+C $ED B- D E2C F3 ; 13EN3 H& F NF C D3&4$O3D H- H& $EO 6-EDC 24$E 3D QO I $4 $ J 3E H4 H- H& $EO I $4 H& F3 I -Q N '3 3E-3 -C-$ O EN -D3D E F3 EN D3E $ @F$423C H& C-NF G31$4 J 3E $ED F3 ; 13ED -43 E 43C13N H& C-NF 9 H4+C $ED '- D E2C $43 1 $N3D -ED34 F3 ?-134 E 3ED3EN3 $ED @HE 4H- H& $E <&& N34 $11H E 3D D-4 E2 8 C P $(3C O C I 3$C-43 N$ 3D `` * F3 ?-4 3OH4 M3E34$ H& 8 C P $(3C O C 9 H4+C $ED I -Q N B- D E2C ED F343$C %% !# I ,,5! $ED R !&! '' ! I ,,5! ?HEC H& ? 4 ! I ,,5! B$4HE3 D3N3$C3D $43 F3 HE O 43 J $ E E2 M4$E 33C QO >3 34C I $ 3E H& F3 <&& N3 H& -D H4 H& F3 >$ED '3 3E-3C E 8#(% #& ED F343$C -ED34 $E N 1$CC3D E F3 *F 4 O E E F =3$4 H& F3 '3 2E H& 8 C $ 3 P $(3C O % E2 !, (!

SV M S @ZS F3 *F 4D E - 3D /# / '' , #1 ! #(,)! I , 11 ,#! 1 , 3& #( )! *34% '' / '',3# 1)! 2 3 !1 #,#&5! , !& #)! 6 '! ,)! / 3& , 1 ,)! < #& L!0!#3! #& , & !' #( )! ,&! , !1 #( )! / '',3# 1 ,)! * 1 ! !#! % , 1 U!1 1 R, '!1 $ED -ED34 F3 C$ D N H& F3 *3E F =3$4 H& F3 '3 2E H& 8 C $ 3 P $(3C O $& 34 F3 43C13N 3 G3$ FC H& %% !# I ,,5! &,& R !&! '' ! I ,,5! F3 <&& N3 H& F3 C$ D 43 J $ E E2 -D H4C Y& F3 >$ED '3 3E-3 E 8#(% #& $43 D 43N 3D H Q3 $QH CF3D $ED D-4 E2 F3 @HE E-$EN3 H& F3 C$ D I $ 3E 24$E 3D H %% !# I ,,5! $ED R !&! '' ! I ,,5! F3 G- 3C H& F3 <&& N3 H& -&& H4 &H4 I)!1 ! 2 ! 4 < #',%# $ED E, #() $ED H& F3 <&& N3 H& F3 -D H4 &<4 F3 I 4 EN 1$ O H& %!1 ^ F3 M4$E 33C H& F NF $C J 3E HE3D <&& N3C $43 D3$D_ $43 134&H4 J 3D QO $N E2 -D H4C E F3 C$ D <&& N3C H& F3 >$ED '3 3E-3 H& F3 @4H E &H4 F3 @H-E 3C H& I)!1 ! 2 ! 4 < #',%# $ED E, #() $ED &H4 F3 I 4 EN 1$ O H& %!1 $11H E 3D H4 $ H 3D QO F3 @H J J CR C HE34C H& 8 C P $(3C O C *43$C-4O $ED 43 J H $Q 3 $ I 3$C-43 $ED $& 34 F3 G3 34 J E$ HE H& F3 C$ D 43 J $ E E2 <&& N3 H& -D H4 H& F3 >$ED '3 3E-3 H& F3 @4H E E 8#(% #& F3 NNH-E C H& F3 C$ D @H J J CC HE34C H& 8 C P $(3C O C 9 HHDC 6H43C C $ED >$ED '3 3E-3C $43 -ED34 F3 C$ D $C J 3E HE3D N C D 43N 3D H Q3 3 $ J E3D 4 3D $ED $-D 3D QO F3 @H J J CC HE34C $11H E 3D -ED34 FE - FH4 O H& $E N H& F3 * 3E O & & F =3$4 H& F3 '3 2E H& 8 C $ 3 P $(3C O % E2

US M S @ !U !, (! F3 *F 4D E - 3D /# / '' , 4! ! !J # #(#& 3& #( )! *34% '' / '',3# 1 ,)! #(&, ED F343$C C 3 13D 3E F$ F3 P E23 J 3E H& F3 B-C E3CC H& F3 <&& N3 H& 9 H4+C $ED B- D E2C $ED H& F3 B-C E3CC H& F3 <&& N3 H& F3 @H J J CC HE34C H& 8 C P $(3C O C 9 HHDC 6H43C C $ED >$ED '3 3E-3C CFH- D Q3 -E 3D $ED F$ F3 G- 3C $ED I H 34C EQ 134&H4 J 3D $ED 3 34N C3D $ED 3 34N C$Q 3 QO F3 @H J J CC HE34C H& 8 C P $(3C O C 9 HHDC 6H43C C

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!, (! F3 * F 4D ʿ EH ʿ 134&H4 J 3D $ED 3 34N C3D H4 3 34N C$Q 3 QO
F3 ?-4 3OH4 M3E34$ ʿ H& 8 C P$(3C O C 9 H4+C $ED I -Q N B- D E2C ʿ
CFH- D Q3 134&H4 J 3D $ED 3 34N C3D QO < E3 ?3 ʿ H& @H J J CC HE34C ʿ H
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F3 ; $ J E$ HE $ED $-D E2 H& NNH-E C EH ʿ 134&H4 J 3D QO F3
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Q3 4$EC&3443D H F3 @H J J CC HE34C &H4 3 $ J E E2 $ED $-D E2 F3
I -Q N NNH-E C H& F3 % E2DH J ʿ $11 DE 3D -ED34 F3 - FH4 O
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$ 3 P $(3C O % E2 !, (! F3 * F 4D ʿ $ED ʿ C (-C ʿ F$ ʿ F3 C$ D
%% ʿ !# ʿ I , ,5! ʿ $ED R !&! ʿ ʿ ! ʿ I , ,5! ʿ CFH- D 43N3 3 $
@H J 13EC$ HE &H4 F3 >HCC F3O ʿ C-C $ E QO F3 QH HE H& F3 4
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F$ ʿ I 4H C HE CFH- D Q3 J $D3 &H4 F3 ' 3 J H $ ʿ H& F3 BHH+C H&
; E 4 3C ʿ ' 3NH4DC ʿ G33DC ʿ EC 4- J 3E C ʿ 9 4 E2C ʿ P $1C ʿ I $EC ʿ $ED
H F34 H&& N $ ʿ I $134C EH ʿ D31HC 3D E F3 <&& N3C H4 F NF $43 H4
H-2F ʿ H Q3 ʿ E F3 @-C HDO H& F3 C$ D 43 J $ E E2 -D H4C H& F3
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F NF ʿ E N$C3 F C N ʿ F$D EH ʿ Q33E 1$CC3D ʿ H-2F ʿ -ED34 F3
I 4H C HEC H& F3 C$ D N ʿ H& F3 * 3E F =3$4 H& F3 ' 3 2E H& 8 C
$ 3 P $(3C O ʿ H F$ 3 Q33E E4H 3D E F3 C$ D 43 J $ E E2 <&& N3
H& F3 -D H4 H& F3 >$ED ' 3 3E-3 H& F3 @4H E ʿ H4 E F3 <&& N3
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&- -43 @-C HDO $ED @$43 H& C-NF G33DC $ED EC 4- J 3E C. B3
ʿ ʿ F343&H43 3E$N 3D FO F3 % E2 C J HC ʿ ; N3 3E ʿ P $(3C O ʿ QO
$ED F F3 D N3 $ED @HEC3E ʿ H& F3 >H4DC ?1 4 -$ ʿ $ED * 3 J R
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8 C 8 3 4C $ED ?-NN3CCH4C ʿ $ ʿ $EO * J 3 $& 34 F3 1$CC E2 H& F C N ʿ
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QO F3 @H J E CC HE34C H& 8 C P $(3C O C 9 HHDC ʿ 6H43C C ʿ $ED >$ED
' 3 3E-3C ʿ $ED F3 G- 3C $ED I H 34C EH ʿ 134&H4 J 3D $ED 3 34R
N C$Q 3 QO F3 ?-4 3OH4 M3E34$ ʿ H& 8 C P $(3C O C 9 H +C $ED
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F3 G- 3C F343 H&H43 134&H4 J 3D ʿ $ED F3 I H 34C F343 H&H43 3 34N C3D
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'32- $ HEC' $' 143C3E' $11 N 3' H F3' BH$4D' H&' 9 H4+C' $ED' H F3' @H J J CR C HE34C' H&' HHDC' KN' H' Q3' HQR C34 3D' QO' F3' @H J J CR C HE34C' $11H E 3D' -ED34' F C' N

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' $ ' EC 4-N HEC' F NF' E' 1-4C-$EN3' H&' $ED' NHE&H4 J $Q O' H' F3' G 43N HEC' H&' F3' C$ D' N ' H&' F3' 6 & O &H-4 F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P$(3C O' % E2' !, (!' F3' * F 4D' F3' >H4D' 8 2F' * 43$C-434' H4' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' * 43$C-4O' F$ 3' F343 H&H43' 1431$43D' $ED' 4$EC J 3D' H' F3' ?-4 3OH4' M3E34$' H&' F3' <&& N3' H&' 9 H4+C' &H4' F3' @HED-N ' H&' F3' B-C E3CC' H&' F3' <&& N3' H&' 9 H4+C' H4' &H4' F3' ' 32- $ HE' H4' @HE 4H-' H&' F3' ; 13ED -43' F343H&' E' $EO' H&' C' B4$ENF3C' H4' G31$4 J 3E C' $ED' $ ' $ED' C E2- $4' <4D34C' ' - 3C' EC 4-N HEC' $ED' G 43N HEC' F NF' E' 1-4C-$EN3' H&' $ED' NHE&H4 J $Q O' H' F3' I 4H C HEC' H&' F3' C$ D' N ' H&' F3' * 3E F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P$(3C O' F$ 3' Q33E' J $D3' H4' 2 3E' QO' F3' >H4D' 8 2F' * 43$C-434' H4' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' * 43$C-4O' H-NF E2' H4' NHEN34E E2' F3' G- 3C' H&' F3' <&& N3' H&' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' $ED' >$ED' ' 3 3E-3C' CF$ ' Q3' Q ED E2' #1HE' HQC34 3D' $ED' +31 ' QO' F3' @H J R J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' >$ED' ' 3 3E-3C' 9 H4+C' $ED' B- D E2C' $ED' F3 4' ?-NN3CCH4C' E' +3' P$EE34' $C' F3' C$ J 3' EC 4-N HEC' <4D34C' ' - 3C' $ED' G 43N HEC' 43C13N 3 O' $43' EH ' Q ED E2' -1HE' $ED' $43' H4' H-2F ' H' Q3' HQC34 3D' $ED' 134&H4 J 3D' QO' F3' ?-4 3OH4' M3E34$' H&' 8 C' P$(3C O C' 9 H4+C' $ED' I -Q N' B- D E2C' $ED' QO' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' $ED' >$ED' ' 3 3E-3C' 43C13N 3 O

@H J J C' C HE34C' 3' Q3' -ED34' F3' G 43N HE' H&' F3' @H J J CR C HE34C' H&' 3' * 43$C-4O

8 ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' >$ED' ' 3 3E-3C' 9 H4+C' $ED' B- D E2C' $ED' F3 4' ?-NN3CCH4C' CF$ ' 134&H4 J' $ED' HQC34 3' $ ' F3' <4D34C' G 43N HEC' EC 4-N HEC' $ED' ' - 3C' EH ' Q3 E2' NHE 4$4O' H' F C' N ' F NF' CF$ ' &4H J' * J 3' H' * J 3' Q3' 2 3E' H' & 3 J' QO' F3' >H4D' 8 2F' * 43$C-434' H4' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' * 43$C-4O' &H4' F3' * J 3' Q3 E2' H4' $EO' * F433' H4' J H43' H&' F3 J ' H-NF E2' F3' I 34&H4 J $EN3' H&' F3' G- 3C' $ED' F3' ; 34N C3' H&' F3' I H 34C' J 1HC3D' -1HE' $ED' 2 3E' H' F3 J' QO' F C' N

ULM#> ;>P ' ' @$1

' ED' Q3' '&-4 F34 '3E$N 3D' *F$' $' PHE 3C' F NF' $' F3' PHE 3C' E' * J3' H&' F3' & 4C' 11H E $ 34 'H&' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' B$E+C' H&' 9 HHDC' 6H43C C' >$ED' '3 3E-3C' 9 H4+C' $ED' B- D E2 ' CF$ ' Q3 E' F3' B$E+' H&' 8#(% #&' H4' E' F3' B$E+' H&' $!% #&' H4' E' $EO' H F34' 4$EC&3443D' B$E+' 1 $N3D' H' F3' @43D 'H&' $EO' NNH-E ' H4' NNH-E C' -ED34' F3' H' E3 '@H J ' @HE 4H-' H&' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' $ED' J CC HE34C' >$ED' '3 3E-3C' CF$ ' J J 3D $ 3 O' $& 34' F3' 11H E J3E ' H&' 3' @H J J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' >$ED' '3 3E-3C 9 H4+C' $ED' B- D E2C' Q3' 4$EC&3443D '$ED' F3' MH 34EH4C' $ED' P$E$234C' H&' C-NF' B$E+C' 43C13N 3 O' $43' F343QO' $- FH4 T3D' $ED' 43X- 43D' H' 4$EC&34' F3' C$ J 3' PHE 3C' 43C13N 3 O ' H' F3' @43D 'H&' $' +3' NNH-E ' -ED34' F3' @HE 4H-' H&' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' >$ED' '3 3E-3C' 9 H4+C' $ED' B- D E2C

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' @H J J CC HE34C' H&' 8 C' ?- C13ED E2' P$(3C O C' 9 HHDC' 6H43C C' >$ED' '3 3E-3C' 9 H4+C' $ED' B- D E2C &H4' F3' I-41HC3' H&' 14HC3N- E2' D3&3ED E2' $ED' N$440 E2' HE' $ ' H&' F3' N HEC' ?- C' $ED' I 4HN33D E2C' F NF' CF$ ' Q3' 13ED E2' $' F3' &MH E' * J 3' H&' F3 4' & 4C' 11H E J3E ' $ED' F$' FH-' F3' , 3N3CC O' J CC HE34C' H&' C-QC - E2' F3' , $ J 3C' H&' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' >$ED' '3 3E-3C' 9 H4+C' $ED' B- D E2C' E' 3-' H&' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' $ED' >$ED' '3 3E-3C' $ED' H' $ED' &H4' $ ' H F34' E 3E C' @HEC 4-N HEC' $ED' I-41HC3C' F$ CH3 34' 3 N31 ' CH' &$4' $C' H- D' Q3' 431-2E$E ' H' F3' I 4H C HEC' H&' F C' N ' CF$ ' NH J 3' E' F3' I $N3' H&' $ED' Q3' $ED' CF$ ' Q3' D33 J 3D' $ED' $+3E' H' Q3' F3' ?-NN3CCH4C' H&' F3' @H J J CR C HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' $ED' $ED' '3 3E-3C' $ED' $ CH' H&' F3' ?-4 3OH4' M3E34$' H&' 8 C' P$(3C O C' 9 H4+C' $ED' I-Q N' B- D E2C

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' 3 34O' @H J J CC HE34' H' Q3' @H J E C' $11H E 3D' $C' F343 E Q3&H43' C' D 43N 3D' CF$ ' Q3&H43' F3' CF$ ' $N ' E' C HE34C H' 1-4C-$EN3' H&' C-NF' 11H E J3E ' $+3' F3' &H H E2' <$ F' H' Q3' $D J E C 343D' QO' F3' @F 3&' B$4HE' H4' HE3' H F34' H&' F3' B$4HEC' H&' 8 C' 1H E J3E ' P$(3C O C' ; NF3X-34' ^ F$' C' H' C$O _

7 7 / " ' DH' C 3$4' *F$' ' '&$ F&- O' $ED' D 23E O' 3 3N- 3' F3'
7 G- 3C' H&' $' @H J J CC HE34' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C
7 >$ED' '3 3E-3C' 9 H4+C' $ED' B- D E2C

7 ?H' F3 1' J3' M<G

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' 'CF$ ' Q3' $ &-' &H4' 8 C' @H J J C' P$(3C O' $ED' 8 C' ?-NN3CCH4C' QO' F3' >3 34C' I $ 3E ' QO' F NF' F3' C HE34C' H @H J J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' >$ED' '3 3E-3C 9 H4+C' $ED' B- D E2C' CF$ ' Q3' $11H E 3D' $C' $&H43C$ D' H' 24$E ' H F3' I 34CHE' & 4C' E$ J 3D' E' C-NF' >3 34C' I $ 3E ' 43C13N 3 O' ^ FH' CF$ ' Q3' @F$ 4 J $E' H&' F3' @H J J CC HE' $ED' Q3' N$ 3D' F3' 6 4C' @H J J CC HE34_' $ED' H' F3' H F34' @H J J CC HE34C' 43C13N 3 O ' F3' +3' ?$ $4 3C' $C' QO' F3' C$ D' N ' H&' F3' *3E F' =3$4' H&' F3' '3 2E' H&' 8 C' $ 3' P$(3C O' % E2' !, (!' F3' 6H-4 F' 8 C' P$(3C O' C' 3 J R 1H 343D' H' 24$E ' H' F3' 6 4C' @H J J CC HE34' $ED' F3' H F34' @H J R J CC HE34C' 3C13N 3 O' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' $ED' >$ED' '3 3E-3C

U`M#> ;>P ' ' @$1>

IH 34C H& &H4 J34 N C 3C 3D E F3 @H J J CR C HE34C

' ED Q3 '&-4 F34 3E$N 3D' *F$' ' CF$ '$ED J$O Q3 $ &-' &H4 F3 @H J J CC HE34C H Q3 $11H E 3D -ED34 F C N ' $ED F3O $43 F343QO $- FH4 T3D' 3 J 1H 343D' $ED 43X- 43D' H 3 34N C3 $ED N$44O E H 3&&3N '$ ' F3 IH 34C' -FH4 3C' @ $-C3C' ; E$N J 3E C' $ED I4H C HEC NHE $ E3D E F3 C$ D 43N 3D N ' H& F3 *3E F =3$4 H& F3 '3 2E H& 8 C $ 3 P$(3C O % E2 !, (! F3 6H-4 F' 3 F34 3 143CC O H4 QO 43&343EN3 H $EO H F34 N C' $ED $ CH H 3 3N- 3 $ED N$44O E H 3&&3N '$ ' F3 IH 34C' -FH4 3C' ; E$N J 3E C' $ED I4H C HEC NHE $ E3D E $EO H F34 N' H4 N C 43 $ E2 H 8 C P$(3C O C 9 HHDC' 6H43C C' $ED >$ED '3 3E-3C' H4 H F3 ; C $ 3C $ED IHCC3CC HEC H& F3 @4H E' $C &- O' $ J 1 O' $ED 3&&3N -$ O $C F3 C$ J 3 NH- D F$ 3 Q33E N$44 3D E H 3&&3N' $ED 3 34N C3D QO F3 @H J J CC HE34C H& 8 C P$(3C O C 9 HHDC' 6H43C C' $ED >$ED '3 3E-3C P H43C$ D' H4 $C &' F3 @H J J CC HE34C H Q3 $11H E 3D -ED34 P C N 'F$D Q33E E$ J 3D E F3 C$ D N C EC 3$D H& F3 @H J ' J J HE34C H& 8 C P$(3? ? 9 HHDC' 6H43C C' $ED >$ED '3 3E-3C $&H43C$ D

'>3$C3C' @HE 4$N C' $ED 2433R J 3E C H 43 J$ E E &H4N3 E F3 C$ J 3 P$EE34 $C & F C N' Q$D EH ' 1$CC3D

W' ED Q3 '&-4 F34 3E$N 3D' *F$ '$ '>3$C3C' $ED $ '@HE 4$N C $ED 2433 J 3E C &H4 F3 3 E2 H& $EO I$4' H4 IH4 HE H& F3 ; C $ 3C $ED IHCC3CC HEC H& 8 C P$(3C O' F NF CF$ 'F$ 3 Q33E J $D3 H4 3E 343D E H QO F3 @H J J CC HE34C H& 8 C P$(3C O C 9 HHDC' 6H43C C' $ED >$ED '3 3E-3C' $ED $ 'G33DC' @HE 4$N C' $ED 2433R J 3E C F NF CF$ ' F$ 3 Q33E J $D3 H4 3E 343D E H QO F3 C$ D @H J J CC HE34C' H4 QO F3 ?-4 3OH4 M3E34$' H& 8 C P$(3C O C 9 H4+C $ED I-Q N B- D E2C' CF$ '&4H J' $ED $& 34 F3 11H E J 3E' H& F3 @H J J CC HE34C -ED34 F C N 'NHE E-3 $ED Q3 H& F3 C$ J 3 6H4N3 $ED ; &&3N '$2$ EC' $ED &H4 F3 B3E3& ' H& F3 @H J J CC HE34 ' H Q3 $11H E 3D -ED34 F C N' $C F3 C$ J 3 H- D F$ 3 Q33E H& 2 EC' $ED &H4 F3 B3E3& ' H& F3 @H J J CC HE34C H& 8 C P$(3C O C 9 HHDC' 6H43C C' $ED >$ED '3 3E-3C' H4 F3 ?-4 3OH4 M3E34$' H& 8 C P$(3C O C 9 H4+C $ED I-Q N B- D E2C' E N$C3 F C N 'F$D EH 'Q33E 1$CC3D' $ED Q3 @H J J CC HE34C H Q3 $11H E 3D $C $&H43C$ D -ED34 F C N 'CF$ 'F$ 3 Q3 C$ J Q IH 34C $ED '3 J 3D 3C &H4 43NH 34 E2 F3 '3E C $ED NH J 13 %E2 I34&H4 J $EN3 H& F3 @H 3E$E C E' C-NF >3$C3C 43C13N 3 O NHE $ E3D' $ED HE F3 I$4' H& F3 >3CC33C H Q3 1$ D $ED 134&H4 J 3D' $ D &H4 3E&H4N E2 F3 I34&H4 J $EN3 H& C-NF G33DC' @HE 4$N C' $ED 2433 J 3E C' $ED &H4 43NH 34 E2 $EO I3E$ 3C H4 G$ J $23C &H4 F3 , HE1$O J 3E' H& C-NF '3E C' H4 , HE134&H4 J $EN3 H& C-NF @H 3E$E C' G33DC' @HE 4$N C' $ED 2433 J 3E C' $ED CF$ ' $ CH F$ 3 F3 C$ J 3 B3E3& ' H& $ ' ?3N-4 3C 2 3E H4 3E 343D E H &H4 F3 D-3 I$O J 3E' H& C-NF '3E C' $ED I34&H4 J $EN3 H& C-NF @H 3E$E C' @HE 4$N C' $ED 2433 J 3E C 43C13N 3 O' $ED H& $ ' H F34 ?3N-4 3C 2 3E H4 3E 343D E H' H H4 F F3 @H J J CC HE34C H& 8 C P$(3C O C 9 HHDC' 6H43C C' $ED >$ED '3 3E-3C' H4 F3 ?-4 3OH4 M3E34$' H& 8 C P$(3C O C 9 H4+C $ED I-Q N B- D E2C' $C C-NF @H J J CC HE34C H4 ?-4 3OH4 M3E34$' 43C13N 3 O NH- D F$ 3 F$D E N$C3 F C N ' F$D EH 'Q33E 1$CC3D' H4 $C & F3 @H J J CC HE34C H Q3 $11H E 3D -ED34 F C N' F$D Q33E I$4 3C H H4 E$ J 3D E C-NF >3$C3C' @HE 4$N C' 2433 J 3E C' $ED ?3N-4 3C' EC 3$D H& F3 @H J J CC HE34C H& 8 C P$(3C O C 9 HHDC' 6H43C C' $ED >$ED '3 3E-3C' H4 F3 ?-4 3OH4 M3E34$' H& 8 C P$(3C O C 9 H4+C ? $D I-Q N B- D E2C' H4 $C & F3 C$ D ?3N-4 3C F$D' Q33E' 2 3E H F3 @H J J CC HE34C H Q3

Q3' $11H E 3D' -ED34' H4' QO' 4 -3' H&' F C' N ' $ED' $ ' '3E C' $ED' ?-J C' H&' P HE3O' F NF' &' F C' N 'F$D' EH 'Q33E' 1$CC3D' H- D' &4H J' $ED' $& 34' F3' 11H E J3E ' H&' F3' @H J J CC HE34C' -ED34' F C' N ' F$ 3' Q33E' D-3' $ED' 1$O$Q 3' H' F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' 9 HHDC' 6H43C C' $ED' >$ED' '3 3E-3C ' H4' H' F3' ?-4 3OH4' M3E34$ ' H&' 8 C' P $(3C O C' 9 H4+C' $ED' I -Q N' B- D E2C ' CF$ ' Q3' D-3' $ED' 1$O ' $Q 3' H' $ED' CF$ ' Q3' 1$ D' H' F3' @H J J CC HE34C' H' Q3' $11H E 3D' -ED34' F C' N ' $ED' C-NF' @H J J CC HE34C' CF$ ' F$ 3' F3' C$J 3' B3E3& ' H&' $ ' BHEDC' $ED' ?3N-4 3C' $ED' H&' $ ' H F34' '3 J 3D 3C' &H4' 43NH 34 E2' $ED' HQ $ E E2' I $O J 3E ' H&' C-NF' ?-J C' 43C13N 3 O ' $C' F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' 9 HHDC ' 6H43C C ' $ED' >$ED' '3 3E-3C ' H4' F3' ?-4 3OH4' M3E34$ ' H&' 8 C' P $(3C O C' 9 H4+C' $ED' I -Q N' B- D E2C ' J 2F ' H4' NH- D' F$ 3' F$D' E' N$C3' F C' N ' F$D' EH ' Q33E' 1$CC3D' ' $ED' $ ' G3Q C' $ED' ?-J C' H&' P HE3O' F NF' &' F C' N ' F$D' EH ' Q33E' 1$CC3D' H- D' &4H J' $ED' $& 34' F3' 11H E J3E ' H&' F3' @H J J CC HE34C' -ED34' F C' N ' F$ 3' Q33E' 1OQ 3' QO' F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' 9 HHDC ' 6H43C C ' $ED' >$ED' '3 3E-3C ' H4' QO' F3' ?-4 3OH4' M3E34$ ' H&' 8 C' P $(3C O C' 9 H4+C' $ED' I -Q N' B- D E2C ' CF$ ' Q3' 1$ D' QO' F3' @H J R J CC HE34C' H' Q3' $11H E 3D' -ED34' F C' N ' $ED' F3' @H J J CC HE34C' H' Q3' $11H E 3D' -ED34' F C' N ' CF$ ' &4H J' $ED' $& 34' F3O' CF$ ' Q3' $11H E 3D' @H J J CC HE34C' $C' $&H43C$ D ' Q3' QH-ED' QO' 3 34O' C-NF' >3$C3 G33D ' @HE 4$N ' H4' 2433 J 3E ' $C' $&H43C$ D ' E' F3' C$J 3' P $EE34' $C' &' F3O' F$D' Q33E' I $4 3C' F343 H' H4' E$ J 3D' F343 E' EC 3$D' H&' F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' 9 HHDC ' 6H43C C ' $ED' >$ED' '3 3R E-3C ' H4' F3' ?-4 3OH4' M3E34$ ' H&' 8 C' P $(3C O C' 9 H4+C' $ED' I -Q N' B- D E2C

W ' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' F3' 6 4C ' @H J J CC HE34' H&' 8 C' P $(3C O C' 9 HHDC' 6H43C C ' >$ED' '3 3E-3C ' 9 H4+C ' $ED' B- DR E2C' CF$ ' F$ 3' F3' +3' I 4 323' H&' 43N3 E2' $ED' C3ED E2' >3 34C' $ED' I $N+3 C' &433' &4H J' I HC $23 ' $ED' E' $ ' H F34' 43C13N C' CF$ ' F$ 3' F3' I H 34C' $ED' I 4 323C ' $ED' &H4' $ ' I -41HC3C' F$ CH3 34' CF$ ' NH J 3' E' F3' I $N3' $ED' Q3' F3' ?-NN3CCH4' H&' F3' 6 4C ' @H J J CC HE34' ' H&' 8 C' P $(3C O C' 9 HHDC ' 6H43C C ' $ED' >$ED' '3 3E-3C ' $C' 3 ' E' 43 $ HE' H' $ ' H F34' P $ 34C' $C' E' 43 $ HE' H' 8 C' P $(3C O C' 9 HHDC 6H43C C ' $ED' >$ED' '3 3E-3C ' $ED' F$ ' F343' $EO' F E2' C ' QO' $EO' N ' F343 H&H43' 1$CC3D ' 43X- 43D ' D 43N 3D ' H4 ' 134 J 3D' H' Q3' DHE3' QO' F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' 9 HHDC ' 6H43C C ' $ED' >$ED' '3 3E-3C ' $ED' F NF' &' DHE3' QO' * H' H&' F3 J ' H- D' QO' >$ ' Q3' $C' $ D' $ED' 3&&3N -$ ' $C' &' DHE3' QO' $ ' H&' F3 J ' $ED' F3E' $EO' F E2' C' QO' F C' N ' H4' CF$ ' QO' $EO' &- -43' N ' Q3' 43X- 43D ' D 43N 3D ' H4' 134 J 3D' H' Q3' DHE3' QO' F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' 9 HHDC 6H43C C ' >$ED' '3 3E-3C ' 9 H4+C ' $ED' B- D E2C ' F3' C$J 3' J $O' Q3' DHE3' QO' $EO' * H' H&' F3 J ' -E 3CC' 3 143CC' I 4H C HE' Q3' J $D3' H' F3' NHE 4$4O ' $ED' &' DHE3' QO' * H' H&' F3 J ' CF$ ' Q3' $C' $ D' $ED' 3&&3N -$ ' $C' &' DHE3' QO' $ ' H&' F3 J

* H' @H J R J CC HE34C' J $O' $N ' E' N34 $ E' @$C3C

W ' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' <E3' H&' F3' C$ D' @H J ' <E3' @H J R J CC HE34C' H&' 8 C' P $(3C O C' 9 HHDC ' 6H43C C ' >$ED' '3 3E-3C ' 9 H4+C ' $ED' B- D E2C ' &H4' F3' * J 3' Q3 E2 ' $ED' EH' J H43' CF$ ' Q3' @1Q 3' H&' P Q34 ' C E2' $ED' H E2' $C' $' P 3 J Q34' H&' F3' 8 H-C3' H&' @H J J HEC' H&' F3' F3' 8 H-C3' H&' #E 3D' I $4 $ J 3E ' H&' ! ' " #' $ED' $!% #&=' $ED' F$ ' EH' I 134CHE' @H J J HEC' $11H E 3D' $' @H J J CC HE34' -ED34' F C N ' -1HE' F3' & 4C ' 11H E J 3E '

@' H &

U'M#> ;>P ' ' @$1

H&'C-NF' @H J J CC HE34C ' $ED' FH'CF$ '$ ' F3' * J 3' Q3' $' @H J J CC HE34' H&' 8 C' P $(3C O C' 9 HHDC ' 6H43C C ' $BD' >$ED' ' 3 3E-3C ' CF$ ' Q3' D33 J 3D' H4' $+3E' H' F$ 3' $NN31 3D' $E' <&& N3' H&' I 4H& '&4H J ' F3' @4H E' F E' F3' P 3$E E2' H&' $E' N '1$CC3D' E' F3' ? F' =3$4' H&' F3' ' 3 2E' H&' 8 34' $ 3' P $(3C O' \ -33E' /##' E - 3D' /#' / ' 'U4 ')!' +!'3 ' , ' ! ' U!1 1' *! 1,#' #&'\@ O! 5 !# ' #&' , ')!' +3''!11 ,#' ,')!' I ,F#' , 'M43$ 'B4 $ E' #')!' * , !1 '< #!

Y' EE' N' '

W ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ '$ ' F3' NNH-E C ' &4H J ' F3' 6 & F' 7 Z , '? #3 ' 6 ' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H ' $ED' F3' * J 3' C-QC3X-3E ' F343 H ' F343 H&H43' 3 $ J E3D ' 4 3D ' $ED' $-D 3D' QO' H4' E' F3' <&& N3C' H&' F3' -D H4C' H4' $N E2' -D H4C' H&' F3' >$ED' ' 3 3E-3' H&' F3' @4H E' E' 8#(% #&' $ED' %!1 ' H4' E' 3 F34' H&' F3 J ' CF$ ' &4H J ' $ED' $& 34' F3' 1$CC E2 ' H&' F C' N ' Q3' 3 $ J E3D ' 4 3D ' $ED' $-D 3D' QO' F3' @H J J CC HE34C' &H4' 3 $ J E E2' $ED' $-D E2' F3' I -Q N' NNH-E 3' H&' F3' % E2DH J ' -ED34' F3' - FH4 O' H&' F3' C$ D' N ' H&' F3' * 3E O & & F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' !, (!' F3' *F 4D ' 3 N31 ' $C' H' F3' NNH-E ' &H4' F3' * J 3' 143 H-C' H' F3' C$ D' 6 & F' 8 $O' H&' ? #3 ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H ' $ED' F$ ' F3' C$ D' $C J 3E HE3D' @H J J CR C HE34C' CF$ ' F$ 3' $ED' 3 34N C3' F3' +3' I H 34C' $ED' - FH4 3C' &H4' 3 $ J E E2 ' 4O E2 ' $ED' $-D E2' F3' C3 34$' NNH-E C' $&H43C$ D' $C' $43' EH ' 3C 3D' E' F3' C$ J 3' @H J J CC HE34C ' QO' 4 -3' H&' F3' C$ D' N ' H&' F3' * 3E O & & F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' !, (!' 3' *F 4D ' &H4' 3 $ J E E2' 4O E2 ' $ED' $-D E2' F3' I -Q N' NNH-E C' H&' F3' % E2DH J ' H4' $C' $43' EH 9' 3C 3D' E' F3' C$ D' 43 J $ ER E2' M4$E 33C' H&' F3' <&& N3' H&' -D H4C ' H4' E' F3' C$ D' $N E2' -D H4C' H&' F3' >$ED' ' 3 3E-3' H&' F3' @4H E' E' 8#(% #&' $ED' E' F3' I 4 EN 1$ O' H&' %!1' 43C13N 3 O' QO' $EO' ? $ - 3' >$ ' #C$23' H4' @-C H J ' F$ CH3 34

NNH-E C' EH '$-D 3D' QO' F3' -R D H4C' H&' F3' >$ED' ' 3 3E-3' H Q3' 4$ECR &3443D' H' F3' @H J J CR C HE34C' &H4 $-D E2' F3' I -Q N' NNH-E C

W ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' &4H J ' $ED' $& 34' F3' 6 & F' G$O' H&' ? #3 ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O F433' F3' C$ D' 43 J $ E E2' <&& N3' H&' -D H4' H&' F3' >$ED' ' 3 3E-3' E' 8#(% #&' H&' F NF' F3' C$ D' %% ' !# ' I ,,5! ' $ED' R !&! ' ' ! ' I ,,5! ' $43' M4$E 33C' $C' $&H43C$ D ' CF$ ' N3$C3' (Q- ' $ ' NNH-E C' 43 $ E2' H' F3' I HCC3CC HEC' $ED' >$ED' ' 3 3E-3C' H&' F3' @4H E' &H4' F3' * J 3' 143 H-C' H' F3' C$ D' 6 & F' G$O' H&' ? #3 ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' E4 O H ' F343 H&H43' $Q 3' H' Q3' 3 $ J E3D ' 4 3D ' $ED' $-D 3D' QO' F3' C$ D' 43 J $ E E2' -D H4C ' H4' QO' $EO' $N E2' -D H4C' H&' F3' >$ED' ' 3 3E-3' H&' F3' @4H E' 8#() +'H4' E' F3' I 4 EN 1$ O' H&' %!1 ' CF$ ' Q3' 3 $ J E3D ' 4 3D ' $ED' $-D 3D' QO' C-NF' 43 J $ E E2' -D H4C' H4' $N E2' -D H4C' -E ' F3' C$ J 3' CF$ ' Q3' & E$ O' C3 3D ' E' F3' +3' P $EE34' $ED' F' F3' +3' I H 34C' H&' 2 E2' G CNF$423C ' $ED' $#' H F34' F3' +3' I H 34C' $ED' I 4 323C ' $C' &' F C' N ' F$D' EH ' Q33E' 1$CC3D

< & 33' H&' -D H4' H&' F3' >$ED' ' 3 3E-3' H' Q3' $QH CF3D

W ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ '-' 43CHEQ 3' @H J 13EC$ HE' CF$ ' Q3' J $D3' H' F3' C$ D' %O ' !# ' I ,,5! ' &JJ&' R !&! ' ' ! ' I ,,5! ' 43C13N 3 O' &H4' F3' >HCC' F3O' ' 43C13N 3 O' C-C $ E' QO' F3' 1$CC E2' H&' F C' N ' $ED' F3' J H-E ' H&' C-NF' @H J 13EC$ HE' CF$ ' Q3' & 3D' QO' C-NF' I 34CHE' $C' E3 >H4D' 8 2F' *43$C-434' H4' F3' @H J R J CC HE34C' H&' 8 C' P $(3C O C' *43$C-4O ' H4' $EO' *F433' H&' F3 J ' CF$

@HB$13E ' C$ HE' H' M4$E 33C ' Q NQ' CF$ ' Q3' & 3D' QO ' 3&3433C

U M# > ; > P 4 @$1

&H4 F$ I -41HC3 $11H E HE Q3F$ & H& 8 C P $(3C O $ED QO C-NF I 34CHE $C F3 C$ D %% !# I , ,5! <]&R !&! ! I , ,5! H4 F3 ?-4 H4 H& F3 J CF$ $11H E HE F3 4 H4 F C B3F$ & 43C13NR 3 O $ED E N$C3 F3 '3&3433C CH $11H E 3D CF$ EH $2433 F3 J H-E H&C-NF @H J 13EC$ HE CF$ Q3 & 3D QO C-NF I 34CHE $C CF$ Q3 $11H E 3D $C # J 1 43 QO F3 * H & 4C E$ J 3D '3&3433C QO 9 4 E2 -ED34 F3 4 8 $EDC Q3&H43 F3O 14HN33D H F3 B-C E3CC H& F3 '3&3R 43EN3 $ED F3 G3 34 J E$ HE H& F3 C$ D '3&3433C H4 H& F3 4 # J 1 3 CF$ Q3 Q ED E2 HE $ I $4 3C $ED F$ F3 C$ D '3&3433C $ED F3 C$ D # J 1 43 CF$ $ED E$O C3ED &H4 I 34CHEC $ED I $13 J $ED 3 $ J E3 9 E3CC3C -1HE <$ F F NF <$ FC 3 F34 H& F3 C$ D '3&3433C H4 F3 C$ D # J 1 43 C F343QO $- FH4 T3D H $D J E C 34 $ED F3 J H-E H& F3 @H J 13EC$ HEC F3E $CN34 $ E3D $C $&H43C$ D F3 >H4D 8 2F *43$C-434 H4 F3 @H J J CC HE34C H& 8 C P $(3C O C *43$C-4O &H4 F3 * J 3 Q3 E2 H4 $EO *F433 H4 J H43 H& F3 J J $O 1$O H4 D 43N H Q3 1$ D H- H& F3 >$ED '3 3E-3C H& F3 @4H E H4 H- H& $EO P HE3O $11 N$Q 3 $C >$ED '3 3E-3C H& F3 M4H E

W ED Q3 &-4 F34 3E$N 3D *F$ CF$ Q3 $ &- &H4 F3 >H4D 8 2F *43$C-434 H4 F3 @H J J CC HE34C H& 8 C P $(3C O C *43$R C-4O &H4 F3 * J 3 Q3 E2 H4 $EO *F433 H4 J H43 H& F3 J $ED F3 H4 F3O C $ED $43 F343QO 43X- 43D H 14H D3 $ 14H134 B- D E2 H4 B- D E2C E <,#&,# H4 !1 #1 ! &H4 F3 '3N31 HE $ED C$&3 @-C HDO H& $ F3 BHH+C H& ; E 4O '3NH4DC G33DC EC 4- J 3E C 9 4 E2C P $1C I $EC $ED H F34 H&& N $ ICX 34C F NF $43 EH D31HC 3D H4 +31 E F3 <&& N3C H4 F NF $43 E4 H-2F H Q3 E F3 @-C HDO H& F3 C$ D 43 J $ E E2 -D H4C H4 H& $EO H& F3 C$ D $N E2 -D H4C H& F3 >$ED '3 3E-3C H& F3 @4H E E 8 #(% #& H4 E F3 I 4 EN 1$ O H& %!1 $ED $ CH &H4 F3 '3N31 HE $ED C$&3 @-C HDO H& C-NF G33DC $ED EC 4- J 3E C $C CF$ F343$& 34 Q3 E4H 3D E 1-4C-$EN3 H& F3 G 43N HEC F343 E $& 34 NHE $ E3D $ED H& C-NF H F34 9 4 E2C ?-4 3OC P $1C I $EC $ED H F34 H&& N $ I $134C $C CF$ F343$& 34 Q3 D31HC 3D $C F343 E $& 34 J 3E HE3D $ED F$ F3 B- D E2 H4 B- D E2C CH H Q3 14H D3D CF$ Q3 N$ 3D `` * F3 <&& N3 H& >$ED '3 3E-3 '3NH4DC $ED E4H J 3E C c

@H J J CR C HE34C H& F3 *43$C-4O H 14H D3 $ I $N3 &H4 F3 '3NH4DC H& F3 <&& N3 H& >$ED '3 3E-3

W ED Q3 &-4 F34 3E$N 3D *F$ CF$ Q3 $ &- &H4 F3 >H4D 8 2F *43$C-434 H4 F3 @H J J CC HE34C H& 8 C P $(3C O C *43$ C-4O &H4 F3 * J 3 Q3 E2 H4 $EO *F433 H& F3 J &4H J * J 3 H * J 3 H $11H E $ 14H134 I 34CHE H Q3 F3 %33134 H& F3 C$ D '3NH4DC $ED E4H J 3E C $ED H J $+3 '- 3C $ED '32- $ HEC ^EH NHE 4$4O H F3 I 4H C HEC H& F C N _ &H4 F3 ; 3N- HE H& F3 G- 3C H& F3 <&& N3 H& %33134 H& F3 C$ D '3NH4DC $ED E4H J 3E C

$ED $11H E %33134

W ED Q3 &-4 F34 3E$N 3D *F$ F3 %33134 H& F3 '3NH4DC $ED E4H J 3E C CF$ FH D F C <&& N3 D-4 E2 F3 I 3$C-43 H& F3 >H4D 8 2F *43$C-434 H4 F3 @H J J CC HE34C &H4 F3 * J 3 Q3 E2 H& 8 C P $(3C O C *43$C-4O $ED J $O Q3 43 J H 3D & H J F C <&& N3 QO F3 >H4D 8 2F *43$C-434 H4 F3 @E J J CC HE34C H& 8 C P $(3C O C *43$R C-4O &H4 F3 * J 3 Q3 E2 H4 $EO *F433 H& F3 J $ I 3$C-43

%33134 H FH D F C D-4 E2 bb` b

W ED

U M#> ;>P ' ' @$1'

$ED' H' F$ 3' $' ?$ $40

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' 'CF$ 'Q3' $ &-' &H4' F3' >H4D' 8 2F' *43$C-434' H4' F3' @HJJ CC HE34C' H&' 8 C' P$(3C O C' *43$C-40' &H4' F3' * J3' Q3 E2' H4' $EO' *F433' H4' JH43' H&' F3J ' H' $CC 2E' H' F3' %33134' H&' F3' '3NH4DC' $ED' E4H J3E C' C-NF' ?$ $40' H4' H F34' '3J-E34$ HE' $C' H' F3' >H4D' 8 2F' *43$C-434' H4' H' F3' @HJR J CC HE34C' H&' 8 C' P$(3C O C' *43$C-40' &H4' F3' * J3' Q3 E2' H4' $EO' *F433' H&' F3J 'CF$ 'C33J' J33

; 13EN3C' H&' <&& N3' H' Q3' 1$ D' H-' H&' F3' 633C

W W' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' ; 13EN3C' H&' 14H D E2' $ED' J$ E $ E E2' $' B- D E2' H4' B- D E2C' &H4' F3' C$ D' <&& N3' H&' '3NH4DC' $ED' E4H J3E C' $ED' $' F3' ; 13EN3C' H&' N$440 E2' HE' F3' B-C E3CC' H&' F3' C$ D' <&& N3' EN -D E2' ?$ $4 3C' $ED' H F34' '3J-E34$R HEC' CF$ 'Q3' 1$ D' $ED' QH4E3' H-' H&' F3' I4HD-N3' H&' F3' 633C' H' Q3' $+3E' $C' F343 -4$& 34' J3E HE3D

<&& N$' I$134C' H Q3' F *3' <&& N3'

WW' ED' Q3' '&-4 F34' 3E$N 3D' *F$' 'CF$ ' Q3' $ &-' &H4' F3 >H4D' 8 2F' *43$C-434' H4' F3' @HJJ CC HE34C' H&' 8 C' P$(3C O C' *43$C-40' &H4' F3' * J3' Q3 E2' H4' $EO' *F433' H4' JH43' H&' F3J ' $C' 'NHE 3E 3E O' J$O' Q3' H' N$-C3' $' F3' BHH+C' H&' ;E 40 '3NH4DC' G33DC' EC 4-J3E C' ?-4 30C' 9 4 E2C' P$1C' H4' I $EC' $ED' H F34' H&& N $' I$134C' F NF' $43' EH 'D31HC 3D' H4' +31' E' F3' <&& N3C' H4' F NF' $43' H4' H-2F' H' Q3' E' F3' @-C HDO' H&' F3' C$ D' 43J$ E E2' -D H4C' H4' H&' $EO' H&' F3' $N E2' -D H4C' H&' F3' >$ED' '3 3E-3C' H&' F3' M4H E' E' 8#(% #&' , ' E' F3' I4 EN 1$ O' H&' %!1' H' Q3' 43JH 3D' H' F3' C$ D' <&& N3' H&' >$ED' '3 3E-3' '3NH4DC' $ED' E4H J3E C

'G33DC' D 43N 3D' QO' &H4 J34' N C' H' Q3' E4H 3D' E' F3' <&& N3 $QH CF3D' H' Q3' E4H 3D' E' F3' E3 ' <&& N3

WW>' ED' F3' '&-4 F34' 3E$N 3D' *F$' $ 'G33DC' H4' EC 4-J3E C' F NF' E' N$C3' F C' N 'F$D' EH 'Q33E' 1$CC3D' H- D' H4' H-2F '$& 34' F3' C$ D' 6 & F' G$O' H&' ? #3 ' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O F433' -ED34' F3' - FH4 O' H&' F3' C$ D' N 'H&' F3' *3E F' =3$4' H&' F3' '3 2E' H&' 8 C' $ 3' P$(3C O' H4' $EO' H F34' N ' H4' E' 1-4C-$EN3' H&' $EO' @H 3E$E' 3E 343D' E H' o' $EO' I34CHE' H4' I34CHEC' F' F3' % E2 C' P$(3C O' H4' F3' @HJJ CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' $ED' >$ED' '3 3E-3C' H' F$ 3' Q33E' H4' J 2F' F$ 3' Q33E' E4H 3D' E' F3' <&& N3' H&' $EO' -D H4' H4' $N E2' -D H4' 134&H4 J E2' F3' G- O' H&' -D H4' H&' F3' >$ED' '3 3E-3' H&' F3' @4H E' E' 8#(% #&' H4' E' F3' I4 EN 1$ O' H&' %!1' H4' E' F3' <&& N3' H&' F3' @HJJ CC HE34C' &H4' $-D E2' F3' I-Q N' NNH-E C' CF$ 'Q3' E4H 3D' E' F3' C$ D' <&& N3' H&' >$ED' '3 3E-3' '3NH4DC' $ED' E4H J3E C

633C' H' Q3' 1$ D' $C' @HJJC ' C HE34C' H&' F3' *43$C-40' '

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' C-NF' 633C' CF$ 'Q3' 1$ D' &H4' E4H J3E C' J$D3' -ED34' F3' - H4 O' H&' F C' N '$ED' &H4' ?3$4NF3C E' F3' C$ D' <&& N3' H&' >$ED' '3 3E-3' '3NH4DC' $ED' E4H J3E C' $ED' &H ' <&& N3' @H1 3C' &-4E CF3D' QO' F3' C$J3' <&& N3' $C' F3' >H4D' 8 2F' *43$C-434' H4' F3' @HJJ CC HE34C' &H4' F3' * J3' Q3 E2' H&' 8 C' P$(3C O C' *43$C-40' H4' $EO' *F433' H4' JH43' H&' F3J 'CF$ '&4HJ' * J3' H' * J3 $11H E 'O3 'CH' F$ 'C-NF' 633C' CF$ ' EH '3 N33D' F3' JH-E ' H&' F3' 633C' F NF' F$ 3' Q33E' -C3D' $ED' $NN-C HJ3D' H' Q3' $+3E' -1HE' F3' E4H J3E ' H&' F3' +3' G33DC' H4' EC 4-J3E C ' $ED' -1HE' F3' +3' ?3$4NF3C' $ED' -1HE' F3' &-J CQ E2' H&' F3' +3' <&& N3' @H1 3C' $ED' F$' F3' 633C' HE' F3' E4H J3E ' H&' $EO' >3$C3' @HE 30$EN3' G33D' H4 H F34

H F34' EC 4- J 3E ' QO' F NF' $EO' I $4 ' H4' I $4 C' H&' F3' I HCC3CC HEC' $ED'
>$ED' ' 3 3E- 3C' H&' F3' @4H E' CF$ ' Q3' D3 J C3D' 24$E 3D' CH D' H4'
2 3E' E' 3 NF$E23 ' CF$ ' Q3' 1$ D' QO' F3' >3CC33C' I -4NF$C34C' H4'
M4$E 33C' $ED' E' < F34' @$C3C' QO' F3' C$ D' @H J J CC HE34C' H&' 8 C'
P $(3C O C' 9 HHDC' 6H43C C' >$ED' ' 3 3E- 3C' 9 H4+C' $ED' B- D E2C '
$ED' $' P E- 3' H4' GHN+3 ' H&' 3 34O' C-NF' >3$C3' M4$E ' G33D ' H4' H F34'
EC 4- J 3E ' CF$ ' Q3' 3E 343D' $ED' 143C34 3D' QO' F3' C$ D' @H J J CC HE34C'
H&' 8 C' P $(3C O C' 9 HHDC' 6H43C C' >$ED' ' 3 3E- 3C' 9 H4+C' $ED'
B- D E2C' E' F3 4' <&& N3

>

WW ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' F3' C$ D' %33134' H&' F3' G33DC' H Q3'
' 3NH4DC' $ED' E4H J 3E C' CF$ ' $ED' F3' C' F343QO 43X- 43D' H' E4H ' H4
N$-C3' H' Q3' E4H 3D' 3 34O' G33D' $ED' EC 4- J 3E ' F NF' C' F343QO' Q4H-2F '
D 43N 3D' H' Q3' E4H 3D' E' F3' C$ D' <&& N3' H&' ' 3NH4DC' $ED' E4H J 3E C' E'
E' <4D34' H&' * J 3' $C' F3' C$ J 3' CF$ ' 43C13N 3 O' Q3' Q4H-2F ' E H' F C'
<&& N3' &H4' F$ ' I -41HC3 ' $ED' N34 &O' H4' N$-C3' H' Q3' N34 & 3D' -ED34' F C'
8 $ED' H4' F3' 8 $ED' H&' CH J 3' G31- O' H4' CC C $E ' &H4' F3' * J 3' Q3 E2'
H&' F3' C$ D' %33134' H&' F3' ' 3NH4 b' $ED' E4H J 3E C' -1HE' F3' C$ D'
G33DC' H4' EC 4- J 3E C' 43C13N 3 O ' F3E' E4H 3D ' F3' 6$N ' H&' F3 4'
F$ E2' Q33E' CH' E4H 3D

WW ' I 4H D3D' $ $OC ' $ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' E' N$C3' H&' ?$ 3C' -ED34
?$ 3C' F343' F3' I -4NF$C3' P HE3O' CF$ ' EH ' $ J H-E ' H' F3' ?- J ' H&' "
< E3' F-ED43D' I H-EDC' ' CF$ ' EH ' Q3' E3N3CC$4O' H' E4H ' -ED34' F C' Q3 E4H#3D'
N ' F3' @HE 3O$EN3C' QO' F NF' C-NF' ?$ 3C' CF$ ' Q3' N$44 3D' E H' 3&&3N '
Q- ' F3' @H J J CC HE34C' &H4' F3' * J 3' Q3 E2' H&' 8 C' P $(3C O C' 9 HHDC
6H43C C' >$ED' ' 3 3E- 3C' 9 H4+C' $ED' B- DD E2C' CF$ ' HEN3' E' 3 34O'
=3$4' 4$EC J ' H' F3' C$ D' <&& N3' H&' ' 3NH4DC' $ED' E4H J 3E C' $' ? $ 3R
J 3E ' H&' F3' I $4 ' H4' I $4 C' H&' F3' C$ D' I HCC3CC HEC' $ED' >$ED' ' 3 3E- 3C'
H&' F3' @4H E' F NF' CF$ ' F$ 3' Q33E' CH' CH D' EN -D E2' $' ?13N & N$ HE'
H&' F3' G C 4 N ' H4' I $N3' E' F NF' F3' C$ J 3' 3 ' $ED' H&' F3' ?- J C' &H4'
F NF' F3' C$ J 3' CF$ ' F$ 3' Q33E' CH D' F' F3' , $ J 3C' H&' F3' 43C13N 3'
I -4NF$C34C' ' $ED' C-NF' ? $ 3 J 3E ' CF$ ' Q3' E4H 3D' E' F3' BHH+C' H&' F3'
77<&& N3' H&' ' 3NH4DC' $ED' E4H J 3E C

WW ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' 3 3E ' @HE 3O$EN3 ' G33D '' G33DC'
H4' EC 4- J 3E ' F343QO' $EO' ; C $ 3' P $EH4' >H4DCF 1 ' P 3CC- $23C' E4H 3D' $C'
>$EDC' * 3E3 J 3E C' H4' 8 343D $ J 3E C' E' 8 #(% #&' H4' %!1 ' H4' $EO' F343QO' D R
* 34 J ' H&' =3$4C' H4' E 343C' F343 E ' CF$ ' Q3' NHE 3O3D' H4' $CC 2E3D' 43N 3D' CF$ '
H' 8 C' P $(3C O ' 8 C' 8 3 4C' H4' ?-NN3CCH4C' H4' H' $' * 4- C 33' H4' Q3' $C' $ D' $C'
* -C 33C' &H4' 8 C' P $(3C O ' 8 C' 8 3 4C' H4' ?-NN3CCH4C' -ED34' F3' &' E4H 3D' E'
- FH4 O' H&' F3' C$ D' N ' H&' F3' * 3E F' =3$4' H&' F3' ' 3 2E' H&' 8 C' 8 C' P $(3C O C'
$ 3' P $(3C O ' H4' H&' $EO' H F34' N ' CF$ ' F3E' CH' E4H 3D' $C' F343 ER @H-4 C' $'
Q3&H43' D 43N 3D' FH- ' $EO' E4H J 3E ' H4' N+EH 3D2 J 3E ' F343H&' 9 3C J EC 34
E' $EO' @H-4 ' H4' @H-4 C' H&' >$ ' H4' ; X- O ' H4' $EO' ' 32 C 4O' F343H& '
Q3' $C' 2HHD' $ED' $ $ $Q 3 ' $ED' H&' F3' && 3' 6H4N3' $ED' ; &&3N ' E' $ '
43C13N C' $ED' H' $ ' E 3E C' $ED' I -41HC3C' $C' &' F3' C$ J 3' F$ D' Q33E' H4'
$C' E4H 3D' E' $EO' H&' 8 C' P $(3C O C' @H-4 C' !1 #1 ! ' H4' $C' &'
$' P 3 J H4 $ ' F$ D' Q33E' 3E 343D' H4' 432 C 343D' E' F3' <&& N3' $11H E 3D' &H4'
432 C 34 E2' G33DC' $ED' H F34' @HE 3O$EN3C' H&' >$EDC' $ED' * 3E3 J 3E C'
E' F3' @H-E O' H4' @H-E 3C' E' F NF' F3' C$ J 3' ; C $ 3C' H4' $EO' H&' F3 J '
$43' C -$ 3 ' $EO' N ' >$ ' I 4$N N3' H4' # C$23' H' F3' NHE 4$4O' E'
$EO C3' EH FC $ED E2

G' WW ' ED

U`M#> ;>P ʻ ʻ @$1

G33DCʻ N34R &3Dʻ QOʻ F3ʻ %33134ʻ H&ʻ F3ʻ '3NH4DCʻ CF$ ʻ Q3ʻ ʻ 43N3 3Dʻ Eʻ ; D3EN3

WW ʻ EDʻ Q3ʻ ʻ &$4 F34ʻ 3E$N 3D ʻ *F$ ʻ F343ʻ $EOʻ G33Dʻ H4ʻ @34 ʻ FN$ 3ʻ '3N3 1 ʻ H4ʻ H F34ʻ EC 4- J 3E ʻ F NFʻ CF$ ʻ $113$4ʻ Hʻ F$ 3ʻ Q33Eʻ J $D3 ʻ 2 3E ʻ H4ʻ 3 3N- 3Dʻ -ED34ʻ F3ʻ - FH4 Oʻ H&ʻ F Cʻ N ʻ H4ʻ H&ʻ $EOʻ N ʻ F343 H&H43ʻ 1$CC3Dʻ 43 $ E2ʻ Hʻ F3ʻ I HCC3CC HECʻ $EDʻ >$EDʻ '3 3E-3Cʻ H&ʻ F3ʻ @4H Eʻ CF$ ʻ F$ 3ʻ 4 3Eʻ F343HEʻ $ʻ P 3 J H4$ED- Jʻ H&ʻ Cʻ F$ E2ʻ Q33Eʻ E4H 3Dʻ Eʻ F3ʻ C$ Dʻ <&& N3ʻ H&ʻ '3NH4DCʻ $EDʻ E4H ʻ J 3E C ʻ $EDʻ C-NFʻ P 3 J H4$ED- Jʻ CF$ ʻ 1-41H4 ʻ Hʻ Q3ʻ C 2E3Dʻ QOʻ F3ʻ %33134ʻ H&ʻ F3ʻ '3NH4DCʻ $EDʻ E4H J 3E C ʻ H4ʻ QOʻ $EOʻ I 34CHEʻ $N E2ʻ $Cʻ F Cʻ G31- Oʻ H4ʻ CC C $E ʻ C-NFʻ P 3 J H4$ED- Jʻ CF$ ʻ Eʻ F3ʻ QC3EN3ʻ H&ʻ ; D3EN3ʻ Hʻ F3ʻ NHE 4$40ʻ Q3ʻ C-&& N 3E ʻ I 4HH&ʻ H&ʻ F3ʻ G33D ʻ @34 & N$ 3ʻ '3N3 1 ʻ H4ʻ H F34ʻ EC 4- J 3E ʻ F$ E2ʻ Q33Eʻ D- Oʻ J $D3 ʻ 24$E 3D ʻ 2 3E ʻ H4ʻ 3 3N- 3Dʻ QOʻ F3ʻ I $4 Oʻ H4ʻ I $4 3Cʻ QOʻ FH Jʻ F3ʻ C$ J 3ʻ CF$ ʻ 1-41H4 ʻ Hʻ F$ 3ʻ Q33Eʻ C 2E3Dʻ H4ʻ 3 3N- 3D ʻ $EDʻ H&ʻ Cʻ F$ E2ʻ Q33Eʻ D- Oʻ E4H 3Dʻ $Cʻ C $ 3Dʻ QOʻ C-NFʻ P 3 J H4$ED- J ʻ $EDʻ H&ʻ F3ʻ I 4H C HECʻ H&ʻ F3ʻ N ʻ -ED34ʻ F NFʻ F3ʻ C$ J 3ʻ CF$ ʻ $113$4ʻ Hʻ F$ 3ʻ Q33Eʻ J $D3 ʻ 24$E 3D ʻ 2 3E ʻ H4ʻ 3 3N- 3D ʻ F$ E2ʻ Q33Eʻ D- Oʻ NH J 1 3Dʻ F ʻ $EDʻ C-NFʻ P 3 J HR 4$ED- Jʻ CF$ ʻ Q3ʻ 43N3 $Q 3ʻ Eʻ ; D3EN3ʻ FH- ʻ I 4HH&ʻ H&ʻ F3ʻ 8 $ED 4 E2ʻ H&ʻ F3ʻ ? 2E$ -43ʻ F343 H

G33DCʻ J$Oʻ Q3ʻ E4H 3Dʻ $& 34ʻ F3ʻ 14H 134ʻ I 34 HDʻ -1HEʻ 2HHDʻ @$-C3ʻ Q3 E2ʻ CFH E

WW ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ Eʻ $ ʻ @$C3Cʻ F343ʻ F3ʻ E4H J 3E ʻ H&ʻ $EOʻ G33Dʻ H4ʻ H F34ʻ EC 4- J 3E ʻ H4ʻ P E- 3ʻ H4ʻ GHN+3 ʻ Q3&H43ʻ F3ʻ %33134ʻ H&ʻ F3ʻ '3NH4DCʻ $EDʻ E4H J 3E C ʻ H4ʻ F3ʻ ; E 40ʻ H&ʻ $EOʻ G33Dʻ H4ʻ H F34ʻ EC 4- J 3E ʻ Eʻ F3ʻ <&& N3ʻ H&ʻ F3ʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ 9 HHDC ʻ 6H43C C ʻ >$EDʻ '3 3E-3C ʻ 9 H4+C ʻ $EDʻ B- D E2C ʻ CF$ ʻ Q3ʻ H J 3Dʻ H4ʻ D3 $O3Dʻ Q3OHEDʻ F3ʻ I 34 HDʻ 14H D3Dʻ &H4ʻ F3ʻ E4H J 3E ʻ $EDʻ ; E 40ʻ F343H&ʻ 43C13N 3 Oʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ F3ʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ 9 HHDC ʻ 6H43C C ʻ >$EDʻ '3 3E-3C ʻ 9 H4+C ʻ $EDʻ B- D E2C ʻ &H4ʻ $EOʻ 43$CHE$Q 3ʻ @$-C3ʻ Hʻ F3 J ʻ CFH Eʻ &H4ʻ F3ʻ < J CC HEʻ H4ʻ G3 $O ʻ $EDʻ F3Oʻ $43ʻ F343QOʻ $- FH4 T3Dʻ $EDʻ 3 J R 1H 343D ʻ Hʻ 134 J ʻ F3ʻ J $+ E2ʻ H&ʻ $EOʻ C-NFʻ E4H J 3E ʻ H4ʻ ; E 40ʻ 'ʻ Zʻ 3#' ʻ $EDʻ F3ʻ C$ J 3ʻ 43C13N 3 Oʻ F3Eʻ J $D3ʻ -ED34ʻ C-NFʻ - FHR 4 Oʻ CF$ ʻ Q3ʻ $Cʻ $FDʻ $EDʻ 3&&3N -$ ʻ $Cʻ &ʻ J $D3ʻ F Eʻ F3ʻ I 34 HD E 3Dʻ &H4ʻ F$ ʻ I -41HC3

E4H J 3E ʻ H&ʻ G33DCʻ CF$ ʻ 6H4N3ʻ -ED34ʻ &H4 J 34ʻ N ʻ

WW >ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ F3ʻ E4H J 3E ʻ H&ʻ $EOG33D -5 EC 4- J 3E ʻ 1-4C-$E ʻ Hʻ F3ʻ I 4H C HECʻ H&ʻ F Cʻ N ʻ CF$ ʻ F$ 3ʻ F3ʻ 6H4N3ʻ $EDʻ ; &&3N ʻ $Cʻ F3ʻ E4H J 3E ʻ F343H&ʻ 1-4C-$E ʻ Hʻ F3ʻ I 4H C HECʻ H&ʻ F3ʻ C$ Dʻ N ʻ H&ʻ F3ʻ *3E Fʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ $ 3 P $(3C Oʻ H- Dʻ F$ 3ʻ F$Dʻ Eʻ N$C3ʻ F Cʻ N ʻ F$Dʻ EH ʻ Q33Eʻ 1$CC3D

%33134ʻ H&ʻ F3ʻ '3NH4DCʻ Hʻ 43ED34ʻ NR NH-E Cʻ Hʻ @H J J CR C HE34Cʻ H&ʻ F3ʻ *43$C-40

WW Wʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ F3ʻ %33134ʻ H&ʻ F3ʻ '3NH4DCʻ $EDʻ E4H 3E C/ʻ CF$ ʻ &4H Jʻ * J 3ʻ Hʻ * J 3 ʻ $Cʻ H& 3Eʻ $Cʻ F343-E Hʻ 43X- 43D ʻ 43ED34ʻ $EDʻ 2 3ʻ Hʻ F3ʻ >H4Dʻ 8 2Fʻ *43$C-434ʻ H4ʻ Hʻ F3ʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ *43$C-40ʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2ʻ $Eʻ NNH-E ʻ H&ʻ $ ʻ P HE 3Cʻ F NFʻ CF$ ʻ &4H Jʻ * J 3ʻ Hʻ * J 3ʻ Q3ʻ 43N3 3Dʻ &H4ʻ 633Cʻ Eʻ F3ʻ C$ Dʻ <&& N3ʻ H&ʻ '3NH4DCʻ $EDʻ E4H J 3E Cʻ $EDʻ H&ʻ $ ʻ G CQ-4C3 J 3E Cʻ J $D3ʻ &H4ʻ I $O J 3E ʻ H&ʻ F3ʻ ?$ $4 3Cʻ $EDʻ H F34 C3 ʻ HEʻ $NNH-E ʻ H&ʻ F3ʻ N$440 E2ʻ HEʻ F3ʻ B-C E3CCʻ H&ʻ F3ʻ C$ Dʻ <&& N3 ʻ $EDʻ F3ʻ P HE 3Cʻ CHʻ 43N3 3D ʻ $EDʻ F NFʻ CF$ ʻ EH ʻ Q3ʻ D CQ-4C3Dʻ $Cʻ $&H43C$ D ʻ CF$ ʻ &4H Jʻ * J 3ʻ Hʻ * J 3ʻ Q3ʻ N$44 3Dʻ Hʻ $EDʻ Q3NH J 3ʻ I $4 ʻ H&ʻ F3ʻ '3 3E-3Cʻ $4 C E2ʻ &4H Jʻ F3ʻ I HCC3CC HECʻ $EDʻ >$EDʻ '3 3E-3Cʻ H&ʻ F3ʻ @4H E

ULM#> ;>P ʻ ʻ @$1 ʻ !

WWW ʻ ED ʻQ3ʻ ʻ&-4 F34ʻ3E$N 3D ʻ*F$ ʻ F Cʻ N ʻH4ʻ$EOʻI$4 ʻ F343H&ʻ J$OʻQ3ʻ
J$Oʻ Q3ʻ $ 343D ʻ $4 3D ʻ H4ʻ4313$ 3Dʻ QOʻ3 EOʻ N ʻ H4ʻ N Cʻ Hʻ Q3ʻ 1$CC3Dʻ
Eʻ F Cʻ143C3E ʻ?3CC HEʻH&ʻI$4 $J3E ʻ 3CC HE

>< , G< , .ʻ I4 E 3DʻQOʻ#+.%/+ʻ6 (+ʻ$EDʻ)*(+,ʻO1.223%, ..*+ʻ
I4 E 34Cʻ Hʻ F3ʻ % E2 Cʻ JHC ʻ ; N3 3E ʻ P$(3C Oʻ ZSU
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E' N ' H' 14H D3' &H4' F3' $+ E2' E' $ED' I $O J 3E '
H&' H- C $ED E2' >H 340' * N+3 C
I B F' 6NK4P 40' ZSU m

> 8 ; ' ; ?' QO' $E' N ' 1$CC3D' E' F3' 6H-4 F' =3$ ' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' ! , (!' F3' 6H-4 F ' E R - 3D' / #' / ' ' ' (# #(' ,' 1' '(!1 ' ' +3 ' , ' 'T' 3' 3H' ,#! ' ,')!' 1!&') ' <, ! !1' ' $C' $E HE2C ' H F34' F E2C' 3E$N 3D ' F$ ' F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' * 43$C-40' CFH- D' F$ 3' &- ' I H 34' $ED' - FH4 O' H' NHE E-3' $ED' $11H E ' N34 $ E' @H J J CC HE34C' H&' >H 340' &H4' F3' I 34 HD' H&' * F433' =3$4C' $& 34' F3' G CNHE E-$EN3' H&' >H 34 3C ' FH' CFH- D' Q3' F343QO' 3E$Q 3D' $ED' $- FH4 T3D' H' $+3' E' F3' &H4 -E$ 3' * N+3 C' H&' $EO' $ED' 3 340' >H 340' $- FH4 T3D' QO' F3' C$ D' 43N 3D' N ' H4' $EO' &H4 J 34' N ' &H4' 24$E E2' H' 8 C' P $(3C O' $' ?- J' H&' P HE3O' H' Q3' 4$ C3D' QO' >H 34 3C ' $ED' H' D3 34' H- ' @34 & N$ 3C' &H4' F3' C$ J 3' H' Q3' E- J Q343D' $ED' J $D3' H- ' E' F3' P $EE34' E' F3' C$ D' N ' J 3E HE3D ' $ED' H' Q3' C 2E3D' QO' F3' J $(H4' I $4 ' H&' F3' C$ D' @H J J CC HE34C' CH' 43 $ E3D' H4' $11H E 3D ' $ED' FD4' ?3N43 $40' &H4' F3' * J 3' Q3 E2' .' ED' F343$C' F3' * J 3' J 3D' QO' F3' C$ D' 43N 3D' N ' &H4' 43 $ E E2' $ED' $11H E E2' F3' C$ D' @H J J CR C HE34C' &H4' F3' I -41HC3' $&H43C$ D' F$C' 3 1 43D ' $ED' F343' O3 ' 43 J $ E' D 34C' H&' C-NF' * N+3 C' $C' $&H43C$ D' H- C $ED E2 ' $ED' ' C' 3 13D 3E ' H' $- FH4 T3' $ED' 3 J 1H 34' F3' @H J J CC HE34C' H&' ? $ J 1C' H' $+3' E' C-NF' * N+3 C ' $ED' H' C 2E' $ED' D3 34' H- ' C-NF' @34 & N$ 3C' $C' $&H43C$ D' &H4' F3' C$ J 3d' Q3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC ' ; N3 3E ' P 3C O ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$ ' $ED' * 3 J 1H4$ ' $ED' @H J J HEC ' E' F C' 143C3E ' I $4 $ J 3E ' $CC3 J Q 3D

; ' $ED

@HJJ CR C HE34C' H&' ?$J1C' H 3 34N C3' F3' I H 34C' &H4R J34 O' 3C 3D' E' >H 34O' @HJJ CR C HE34C

$ED' QO' F3' - FH4 O' H&' F3' C$J3' *F$' &4HJ' $ED' $& 34' F3' 1$CC E2' H&' F C' N' ' CF$' Q3' $ & D' &H4' F3' @HJJ CC HE34C' H&' ?$J1C' H4' $EO' *F433' H&' F3J' $ED' F30' $43' F343QO' 3J1H 343D' $' $EO' * J3' F343R $& 34' H' $+3' E' F3' &H4 -E$3' * N+3 C' H&' $EO' $ED' 3 340' >H 340' $- FH4 T3D' QO' F3' C$D' 43N 3D' N' H4' QO' $EO' &H4 J34' N' &H4' 24$E E2' H' 8 C' P&O3C O' $' ?-J' H&' P HE30' H' Q3' 4$ C3D' QO' >H 34 3C' $ED' $ CH' H' D3 ' H-' @34 & N$ 3C' &H4' F3' C$J3' H' Q3' E-JQ343D' $ED' J$D3' H-' E' F3' P$EE34' E' F3' C$D' 43N 3D' N' J3E HE3D' $ED' H' Q3' C 2E3D' QO' F3' C$D' @HJJ CC HE34C' H&' ?$J1C' H4' $EO' *F433' H&' F3J' JD' $CH' H' DH' $ED' 134&H4J' $' C-NF' H F34' N C' P$ 34C' $ED' *F E2C' F' 43 $ HE' H' F3' $+ E2' E' H&' C-NF' &H4 -E$ 3' * N+3 C' $ED' F3' D3 34 E2' H-' H&' C-NF' @34 & N$ 3C' &H4' F3' C$J3' $C' F3' C$D' @HJJ CC HE34C' H&' >H 340' $ED' F3 4' ?3N43 $40' &H4' F3' * J3' Q3 E2' 343' 43X- 43D' H4' 3J1H 343D' H' DH' $ED' 134&H4J' -ED34' H4' QO' 4 -3' H&' F3' C$D' 43Q 3D' N' F E' F3' * J3' F343QO' J 3D' $C' $&H43C$ D' ($ED' $ ' C-NF' @34 & N$ 3C' CH' H' Q3' J$D3' H-' $ED' C 2E3D' QO' F3' C$D' @HJJ CC HE34C' H&' ?$J1C' H4' $EO' *F433' H&' F3J' $ED' $ CH' $ ' C-NF' N C' P$ 34C' $ED' *F E2C' CH' H' Q3' DHE3' $ED' 134&H4J3D' QO' F3J' $C' $&H43C$ D' CF$' 43C13N 3 O' Q3' H&' F3' +3' $ D O' 6H4N3' $ED' 3N' $C' &' F3' C$J3' F$D' 43C13N 3 O' Q33E' J$D3' H-' $ED' C 2E3D' H4' DHE3' $ED' 134&H4J3D' QO' F3' C$D' @HJJ CC HE34C' H&' >H 340' $ED' F3 4' ?3N43 $40' &H4' F3' * J3' Q3 E2' F E' F3' * J3' J 3D' QO' F3' C$D' 43N 3D' N' $C' $&H43C$ D

N' J$O' Q3' $ 343D' F C' ?3CC HE

' ED' Q3' ' 3E$N 3D' *Q$' F C' N' J$O' Q3' $J3ED3D' $ 343D' H4' 4313$ 3D' QO' ' N' H4' N C' H' Q3' 1$CC3D' E' F C' ?3CC HE' H&' I$4 $J3E

>< , G< , ' ' I4 E 3D' QO' # + . (/ +' & (+' $ED') * (+ , ' O1 . 223% , . . * + ' I4 E 34C' H' F3' % E2 C' JHC' ; N3 3E' P$(3C O' ZSU

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ʻ N ʻ Hʻ $- FH4 T3ʻ F3ʻ 11 N$ HEʻ H&ʻ I $4 ʻ H&ʻ F3ʻ >$EDʻ ' 3 3E - 3ʻ H&ʻ F3ʻ @4H Eʻ &H4ʻ F3ʻ @H J 1 3 HEʻ H&ʻ F3ʻ ' 31$ 4ʻ $EDʻ J 14H 3 J 3E ʻ H&ʻ ʻ
ʻ I S Fʻ ʻ ZSU m

9 8 ; ' ; ?ʻ QOʻ $Eʻ N ʻ 1$CC3Dʻ Eʻ F3ʻ * 3E Fʻ =3$4ʻ $&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 ?ʻ $ 3ʻ P $(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ 6H-4 F ʻ E R - 3Dʻ / #ʻ / ' ʻ ,ʻ ' ,#1,% & !ʻ #&ʻ !#&ʻ) !ʻ < ʻ !% #(ʻ ,ʻ <M ʻN ʻ ! [ʻ) !ʻ # (! !# ʻ #&ʻ $ 5 F! !# ʻ , ʻ 1ʻ U!1 1ʻ , ,&1 ʻ R, !1 1 R, 1 ʻ #&ʻ I) 1!1=ʻ , ʻ) !ʻ < #&ʻ L!0!#3!ʻ , ʻ) !ʻ I , ʻ F) #ʻ) !ʻ +3 0! ʻ , ʻ) !ʻ 8J ') !V3! ʻ #ʻ ; E2 $EDʻ ʻ #&ʻ , ʻ) !ʻ < #&ʻ L!0!#3!ʻ , ʻ) !ʻ I , F#ʻ #ʻ 43 $ED ʻ #&ʻ , ʻ !J !#& #(ʻ ' ! #ʻ * ,0 1 ,#1ʻ !% #(ʻ ,ʻ) !ʻ 1 !ʻ ,ʻ) !ʻ $1%!1ʻ , ʻ P $Eʻ #&ʻ D34E3O ʻ ʻ $Cʻ 3E$N 3D ʻ F$ ʻ & HJʻ $EDʻ $& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ F$ ʻ N ʻ $ ʻ 8 HEH4C ʻ 8 -ED43DC ʻ @$C 3C >H4DCF 1C ʻ P $EH4C ʻ 6H43C C ʻ @F$C3C ʻ 9 HHDC ʻ I $4+C ʻ P 3CC-$23C ʻ >$EDC * F3C ʻ 6 CF34 3C ʻ 64$ENF C3C ʻ ?34 N3C ʻ ' 3E C ʻ $EDʻ H F34ʻ >$EDʻ ' 3R 3E-3C ʻ I HCC3CC HEC ʻ * 3E3 J 3E C ʻ $EDʻ 8 343D $ J 3E Cʻ F$ CH3 34 ^ D H CHECʻ H&ʻ @F-4NF3Cʻ $EDʻ N$4$23Cʻ HE Oʻ 3 N31 3D _ʻ F NFʻ F3Eʻ D Dʻ Q3 HE2ʻ Hʻ 8 Cʻ P $(3C O ʻ H4ʻ F343$& 34ʻ CFH- Dʻ Q3 HE2ʻ Hʻ 8 Cʻ P $(3C O 8 C ʻ 8 3 4Cʻ H4ʻ ? -NN3CCH4C ʻ F Eʻ F3ʻ < 4D34 E2ʻ $EDʻ ? -4 3Oʻ H&ʻ F3ʻ @H-4 ʻ H&ʻ ; NF3X-34ʻ Eʻ 8 #(% #&ʻ H4ʻ %!1 ʻ Eʻ $!% #& ʻ Eʻ F3ʻ $1%!ʻ , ʻ #ʻ $EDʻ Cʻ G313ED3EN 3C ʻ $E ʻ F3ʻ $1%!ʻ , ʻ / %&! #! ʻ F3 F34ʻ Eʻ I HCC3CC HE ʻ ' 3 J $ ED34 ʻ H4ʻ ' 3 34C HE ʻ F NFʻ C$ Dʻ 8 HEH4C ʻ 8 -ED43DC @$C 3C ʻ >H4DCF 1C ʻ P $EH4C ʻ 6H43C C ʻ @F$C3C ʻ 9 HHDC ʻ I $4+C ʻ P 3CR C-$23C ʻ >$EDC ʻ * F3C ʻ 6 CF34 3C ʻ 64$ENF C3C ʻ ?34 N3C ʻ ' 3E C ʻ $EDʻ H F34ʻ >$EDʻ ' 3 3E-3C ʻ I HCC3CC HEC ʻ * 3E3 J 3E C ʻ $EDʻ 8 343D $ J 3E Cʻ

343' F343 E $& 34' &H4' F3' C$+3' H&' G C EN HE' N$ 3D' ` *F3' I HCC3CR
C HEC' $ED' >$ED' '3 3E-3C' H&' F3' @4H E' H' F NF' F C' N' 43 $ 3C C'
CFH- D' Q3' -ED34' F3' PE23 J 3E' H&' F3' F3E' 143C3E' @H J J CC HE34C'
H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' $ED' >$ED' '3 3E-3C' $ED' H&' F3 4'
?-NN3CCH4C' H' Q3' &4H J' * J 3' H' * J 3' $11H E 3D' QO' 8 C' P$(3C O' 8 C'
8 3 4C' $ED' ?-NN3CCH4C' QO' 8 C' H4' * 3 4' >3 3$C' I $ 3E ' $ED' F3' C$ D'
@H J J CC HE34C' $ED' F3 4' ?-NN3CCH4C' CFH- D' NHE E-3' H' F3' N$ 3D'
` *F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' $ED' >$ED'
'3 3E-3C $ED' QO' F3' C$ D' N' N34 $ E' I H 34C' $ED' - FHR
4 3C' 343' 2 3E' H' F3' C$ D' @H J J CC HE34C' &H4' F3' 11 N$ HE' '
H&' $' ?-J C' H' Q3' 43N3 3D' QO' F3 J' -ED34' F3' - FH4 O' H&' F3' '
C$ D' N' &4H J' $EO' ?$ 3C' ' NF$E23C' H4' >3$C3C' H' Q3' J $D3' QO'
F3' C$ D' @H J J CC HE34C' H&' $EO' I $4' H&' F3' 'HO$' 6H43C C' $ED'
&4H J' $EO' ?$ 3C' H&' $EO' H F34' I $4 C' H&' F3' I HCC3CC HEC' $ED' >$ED'
'3 3E-3C' H&' F3' @4H E' H4' &H4' ;X-$ O' H&' ; NF$E23' HE' $EO'
; NF$E23' H&' $EO' H&' F3' C$ D' I HCC3CC HEC' $ED' >$ED' '3 3E-3C'
$ED' QO' F3' C$ D' N' I H 34' $ED' - FH4 O' C' 2 3E' $ED' 24$E 3D' H'
F3' C$ D' @H J J CC HE34C' H' $11 O' CH' J -NF' H&' F3' P HE 3C' H' $4 C3' &4H J'
F3' $EE-$' ENH J 3' H&' $ ' F3' C$ D' I HCC3CC HEC' $ED' >$ED' '3 3E-3C'
H&' F3' @4H E' H' F NF' F3' C$ D' N' 43 $ 3D' EN -D E2' 6 E3C' HE'
>3$C3C' H4' H F34 C3' &H4' H4' E' 43C13N' H&' F3' C$ D' I HCC3CC HEC' $ED'
>$ED' '3 3E-3C' ^3 N31' &4H J' ?$ 3C' H4' ; NF$E23C_' $C' F3' >H4D' 8 2F'
*43$C-434' H4' F3' @H J J CC HE34C' H&' 8 $' P$(3C O C' *43$C-4O' &H4' F3'
* J 3' Q3 E2' CFH- D' &4H J' * J 3' H' * J 3' F E+' 14H134' H $4DC' F3'
I $O J 3E' $ED' G CNF$423' H&' F3' @HC C' @F$ J 3C' $ED' ; 13EN3C' H&' F3'
'31$ 4C' 34$ HEC' $ED' J 14H 3 J 3E C' H&'+3'%' #() * % '!' $ED' F3'
B- D E2C' <&& N3C' $ED' <4H-EDC' $1134 $ E E2' $ED' Q3 HE2 E2' F343 H'
14H D3D' F$' F3' ?-J' H' Q3' CH' $11 3D' -ED34' F3' C$ D' N' H' C-NF'
'31$ 4C' 34$ HEC' $ED' J 14H 3 J 3E C' CFH- D' EH' 3 N33D' F3' ?-J'
H&' <E3' F-ED43D' $ED' & & O' FH-C$ED' I H-EDC' H 34' $ED' $QH 3' F3' ?-J'
H&' *F433' F-ED43D' $ED' &H4 O C ' FH-C$ED' I H-EDC' F NF' F$D' Q33E'
F3E' $ 43$DO' $11 3D' F343 H' 143 H-C' H' F3' 1$CC E2' H&' F$' N '
$ED' C-Q(3N' H' F3' 11 N$ HE' $&H43C$ D' $ED' N34 $ E' H F34' 11 N$R
HEC' J 3E HE3D' E' F3' C$ D' N' F3' C$ D' $EE-$' ENH J 3' $C' F343QO'
D 43N 3D' H' Q3' N$44 3D' H' $ED' J $D3' I $4' H&' F3' @HECH D$ 3D' 6-ED' .2
F3' #E 3D' % E2DH J' H&' ! '" #' $ED' $!% #&' ED' F343$C' F3'
C$ D' ?-J' H&' <E3' F-ED43D' $ED' & & O' FH-C$ED' I H-EDC' J 3E HE3D' E'
F3' C$ D' 43N 3D' N' F$ F' Q33E' $11 3D' -ED34' F3' G 43N HE' H&' F3'
@H J J CC HE34C' H&' 8 C' P$(3C O C' *43$C-4O' H $4DC' F3' I $O J 3E' $ED'
G CNF$423' H&' F3' @HC C' @F$423C' $ED' ; 13EN3C' H&' F3' '31$ 4C' 34$R
HEC' $ED' J 14H 3 J 3E C' H&' "3') #(? ' * % '!' $ED' F3' B- D E2C'
<&& N3C' $ED' M4H-EDC' $1134 $ E E2' $ED' Q3 HE2 E2' F343 H' Q-' C-NF'
'31$ 4C' 34$ HEC' $ED' J 14H 3 J 3E C' $43' EH' O3' NH J 1 3 3D' $ED'
& E CF3D' $ED' ' ' Q3' E3N3CC$4O' H' $O' H-' $ED' 3 13ED' F3' &-4 F34'
?-J' H&' ?3 3E O 3 2F' FH-C$ED' C3 3E' F-ED43D' $ED' & & O' I H-EDC' E' F3'
NH J 1 3 E2' H&' C-NF' '31$ 4C' 34$ HEC' $ED' J 14H 3 J 3E C' $C' $&H43R
C$ D' : ED' F343$C' ' C' 3 13D 3E' F$' F3' 8343D $4O' '3 3E-3C' Q3R
HE2 E2' H 8 C' P$(3C O' E' ' 2F' H&' 8 C' @4H E' CFH- D' Q3' J $D3' $11 R
N$Q 3' QO' $ED' F' F3' @HEC3E' $ED' 114HQ$ HE' H&' F3' @H J J CC HE34C'
H&' 8 C' P$(3C O C' *43$C-4O' H&' F3' #E 3D' % E2DH J' H&' ! '" #'
$ED' $!% #&' H' F3' I -41HC3' H&' D3&4$O E2' F3' @HC C' @F$T 23C' $ED'
; 13EN3C' H&' NH J 1 3 E2' $ED' & E CF E2' F3' '31$ 4C' 34$ HEC' $ED'
J 14H 3 J 3E C' H&' "3' #() ' * % '!' $ED' F3' B- D E2C' <&& N3C
' $ED

$EDʿ M4H-EDCʿ $1134 $ E E2ʿ $EDʿ Q3 HE2 E2ʿ F343 H.ʿ B3ʿ ʿ F343&H43ʿ
3E$N 3Dʿ QOʿ F3ʿ % E2 Cʿ JHC ʿ ; N3 3E ʿ P$(3C O ʿ QOʿ $EDʿ Fʿ F3ʿ
D N3ʿ $EDʿ @HEC3E ʿ H&ʿ F3ʿ >H4DCʿ ?1 4 -$ ʿ $EDʿ *3 J 1H4$ ʿ $EDʿ @H J R
J HEC ʿ Eʿ F Cʿ 143C3E ʿ I $4 $ J 3E ʿ $CC3 J Q 3D ʿ $EDʿ QOʿ F3ʿ - FH4 Oʿ H&ʿ
F3ʿ C$ J 3 ʿ *F$ ʿ ʿ CF$ ʿ Q3ʿ $ &- ʿ &H4ʿ F3ʿ C$ Dʿ @H J J CC HE34Cʿ H&ʿ
8 Cʿ P$(3C O Cʿ *43$C-4O ʿ H4ʿ $EOʿ *F433ʿ H&ʿ F3 J ʿ &4H J ʿ * J 3ʿ Hʿ * J 3ʿ
Hʿ D 43N ʿ $EDʿ $- FH4 T3ʿ F3ʿ @H J J CC HE34Cʿ H&ʿ 8 Cʿ P$(3C O Cʿ 9 HHDC
6H43C C ʿ $EDʿ >$EDʿ ' 3 3E-3Cʿ Hʿ 1$Oʿ $EDʿ $11 Oʿ $EOʿ ?- J ʿ H4ʿ ?- J Cʿ
H&ʿ P HE3O ʿ I $4 ʿ H&ʿ F3ʿ >$EDʿ ' 3 3E-3Cʿ H&ʿ F3ʿ @4H Eʿ -ED34ʿ F3 4ʿ
@$43ʿ $EDʿ P E23 J 3E ʿ F3 F34ʿ $4 C E2ʿ &4H J ʿ ?$ 3Cʿ H&ʿ I H4 HECʿ H&ʿ
F3ʿ C$ Dʿ >$EDʿ ' 3 3E-3Cʿ H&ʿ F3ʿ @ H E ʿ H4ʿ &4H J ʿ F3ʿ ' 3E Cʿ H&ʿ F3ʿ
@4H Eʿ >$EDC ʿ H4ʿ H F34 C3 ʿ $Cʿ F3Oʿ CF$ ʿ F E+ʿ E3N3CC$4Oʿ $EDʿ 3 13R
D 3E ʿ H $4DCʿ F3ʿ I $O J 3E ʿ $EDʿ G CNF$423ʿ H&ʿ F3ʿ @HC C ʿ @F$423C ʿ $EDʿ
; 13EN3Cʿ H&ʿ NH J 1 3 E2ʿ $EDʿ & E CF E2ʿ F3ʿ ' 31$ 4C ʿ 34$ HEC ʿ $EDʿ
J 14H 3 J 3E Cʿ H&ʿ "3' #() ʿ * % '!ʿ $EDʿ F3ʿ B- D E2C ʿ <& N3C ʿ $EDʿ
M4H-EDCʿ $1134 $ E E2ʿ $EDʿ Q3 HE2 E2ʿ F343 H ʿ 14H D3Dʿ F$ ʿ F3ʿ ?- J ʿ
Hʿ Q3ʿ CHʿ $11 3Dʿ -ED34ʿ F Cʿ N ʿ CF$ ʿ EH ʿ 3 N33Dʿ F3ʿ ?- J ʿ H&ʿ ?3 3E O ʿ
& 3ʿ FH-C$EDʿ I H-EDCʿ &H4ʿ F3ʿ @H J 1 3 HEʿ H&ʿ C#NFʿ ' 31$ 4C ʿ 34$ HEC ʿ
$EDʿ J 14H 3 J 3E C ʿ $EDʿ F3ʿ ?- J ʿ H&ʿ *F433ʿ FH-C$EDʿ C3 3Eʿ F-ED43Dʿ
$EDʿ & & Oʿ I H-EDCʿ &H4ʿ F3ʿ @F$423Cʿ H&ʿ F3ʿ 4NF 3N ʿ $ 3ED$E ʿ -1HEʿ
C-NFʿ 9 H4+C ʿ 7

@H J J C ʿ C H 34Cʿ H&ʿ 3ʿ *43$C-4Oʿ J $Oʿ $- FH4 T3ʿ F3ʿ 11 N$ HEʿ H&ʿ I $4 ʿ H&ʿ F3ʿ >$EDʿ ' 3 3R E-3Cʿ H&ʿ F3ʿ @4H Eʿ H $4DCʿ F3ʿ ' 31$ 4Cʿ $EDʿ J 14H 3R J 3E Cʿ H&ʿ B-N+ E2F$ J ʿ I $ $N3

ʿ EDʿ Q3ʿ ʿ &-4 F34ʿ 3E$N 3D ʿ *F$ ʿ F3ʿ I $O J 3E ʿ H&ʿ C-NFʿ ?- J ʿ H4ʿ ?-4& ʿ 11 ʿ
?- J Cʿ H&ʿ P HE3Oʿ F343 E Q3&H43ʿ $- FH4 T3Dʿ Hʿ Q3ʿ J $D3ʿ CF$ ʿ Q3ʿ 14 H4ʿ Hʿ
$EDʿ $+3ʿ I 43N3D3EN3ʿ H&ʿ F3ʿ I $O J 3E ʿ H4ʿ 11 N$ HEʿ H&ʿ $EOʿ ?- J ʿ H4ʿ H&ʿ $ &H F34C ʿ
?- J Cʿ H&ʿ P HE3Oʿ $4 C E2ʿ &4H J ʿ F3ʿ C$ Dʿ >$EDʿ ' 3 3E-3Cʿ &H4ʿ F3ʿ & 41HC3C ʿ ʿ
H&ʿ F3ʿ @HECH D$ 3Dʿ 6-ED ʿ Q- ʿ F3ʿ C$ Dʿ W $EDʿ ' 3 3E-3Cʿ CF$ ʿ E3 34R
F3 3CCʿ 43 J $ Eʿ C-Q(3N ʿ $EDʿ $Q 3ʿ Hʿ F3ʿ @HC Cʿ $EDʿ @F$423Cʿ $ 3ED E2ʿ
F3ʿ P E23 J 3E ʿ F343H& ʿ $EDʿ F3ʿ I $O J 3E ʿ H4ʿ G CNF$423ʿ H&ʿ $EOʿ ?- J ʿ
H4ʿ ?- J Cʿ H&ʿ P HE3Oʿ F NFʿ J $Oʿ Q3ʿ EH ʿ $ 43$DOʿ NF$423Dʿ F343HE ʿ H4ʿ Hʿ
F3ʿ I $O J 3E ʿ F343H&ʿ F3ʿ C$ J 3ʿ EH ʿ $43ʿ H4ʿ J $Oʿ F343$& 34ʿ Q3NH J 3ʿ
$Q 3ʿ -ED34ʿ H4ʿ QOʿ 4 -3ʿ H&ʿ $EOʿ N ʿ H4ʿ N Cʿ 43 $ E2ʿ Hʿ F3ʿ C$ Dʿ
>$EDʿ ' 3 3E-3C ʿ $EOʿ N ʿ H4ʿ N Cʿ 43 $ E2ʿ Hʿ H4ʿ NHEN34E E2ʿ F3 C$ Dʿ
' 3 3E-3Cʿ Hʿ F3ʿ NHE 4$4Oʿ F343H&ʿ Eʿ $EO C3ʿ EH FC $ED E2

>< , G< , : I 4 E 3Dʿ QOʿ # + . (/ +ʿ & (+ʿ $EDʿ) * (+ , ʿ O1 . 223% , . . * + ʿ
I 4 E 34Cʿ Hʿ F3ʿ % E2 Cʿ J HC ʿ ; N3 3E ʿ P $(3C O ʿ ZS

, , <' ? ; @# , G<

M*** *6 * P *' ' ' ; M ?

@ I '

E' N ' &H4' JH43' 3&&3N -$ O' 143 3E E2' ; J Q3TT 3R J3E C' QO' I 34CHEC' 3 J 1 HO3D' E' F3' I -Q N' ?34 N3' H&' 8 C' P$(3C O' I S F' R!4 3 ' BSU m

> 8 ; ' ; ?' QO' $E' N ' 1$CC3D' E' F3' 6 & 3 F' =3$4' H&' F3' ' 3 2E' H&' ;&C' $ 3' P $(3C O' % E2' !, (!' F3' * F 4D ' E R - 3D' 5IE' / ' ' , ' , !' !U !' 3 %% ' 5 !1!# #(') !' 8 4! %! ' 78/ 9 7: ' !# ' , ' ,#! ' , ' +!'3 !1' , ' ,#! ' 4!%,#(#(' ,') !' *34% ' ' 4 ' # ' I ,%%!' , ' L!'! 0! ' , ' ,) ! ' * ! 1,#' !# 31 !&' C,)') !' L!'! 5 I !' , ' # (! !#') ! !, ' ' C' 3E$N 3D ' F$ ' &' $EO' I 34CHE' H4' I 34CHEC' H' FH J ' $EO' P HE3O' H4' ?3N-4 3C' &H4' P HE3O' CF$ ' Q3' CC-3D' &H4' I -Q N' ?34 N3C' CF$ ' 3 J Q3TT 3' C-NF' P HE3O ' H4' E' $EO' P $EE34' &4$-D- 3E O' $11 O' F3' C$J 3' H' F C' H E' #C3' H4' B3E3& ' H4' &H4' $EO' I -41HC3' F$ 3 34' 3 N31 ' &H4' I -Q N' ?34 N3C ' 3 34O' C-NF' I 34CHE' CH' H&&3ED E2 ' $ED' Q3 E2' F343H&' D- O' NHE N 3D' $NNH4D E2' H' >$ ' F' $EO' I $4 ' H&' F3' #E 3D' % E2DH J ' CF$ ' Q3' $D(-D23D' 2- O' H&' $' P C ' D3 J 3$EH4 ' $ED' CF$ ' Q3' C3E 3EN3D' H' Q3' 4$EC1H4 3D' Q3OHED' F3' ?3$' H4' H' 43N3 3' C-NF' H F34' I -E C 3E3 ' $C' J $O' QO' >$ ' Q3' E& N 3D' HE' I 34CHEC' 2- O' H&' P CD3 J 3 H4C ' $ED' $C' F3' @H-4 ' Q3&H43' F NF' C-NF' <&&3E K4C' J $O' Q3' 4 3D' $ED' NHE N 3D' CF$ ' $D(-D23' .' ED' F343$C' ' C' 3 13 J 3E ' F$ ' &-4 F34' I 4H C HE' CFH- D' Q3' J $D3' F' 432$4D' H' ; J Q3TT 3 J 3E C' QO' I 34CHEC' 3 J 1 HO3D' E' F3' I -Q N' ?34 N3' H&' 8 C' P $(3C O.' B3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$ ' $ED' * 3 J 1H4$ ' $ED' @H J J HEC ' E' F C' 143C3E ' I $4 $ J 3E ' $CC3 J Q 3D M' ' $ED

I$4 ' H&' 43N 3D' N ' 4313$ 3D

$ED' QO' F3' - FH4 O' H&' F3' C$ J 3' *F$ ' CH' J -NF' H&' F3' C$ D' N ' $C' C' F3 3 - Q3&H43' 43N 3D' CF$ ' Q3' $ED' F3' C$ J 3' C' F343QO' 4313$ 3D' 3 N31 ' $C' H' $EO' <&&3EN3C' 2 EC ' F3' C$ J 3' NH J J 3D' Q3&H43' F3' 1$CC E2' Y&' F C' N ' / 9F NF' <&&3EN3C' CF$ ' Q3' D3$ ' F' $ED' 1 -E CF3D' $C' &' F C' N ' F$D' EH ' Q33E' 1$CC3D ' $ED' F$ ' &4H J' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' &' $EO' I 34CHE' 3 J 1 HO3D' E' F3' I -Q N' ?34 N3' H&' 8 C' P 3C O ' $ED' 3E 4-C 3D' QO' 4 -3' H&' C-NF' ; J 1 HO J 3E ' F' F3' ' 33D1 ' @-C HDO ' P E23 J 3E ' H4' @HE 4H ' H&' $EO' @F$ 3 ' P HE30 ' <' $ -$Q 3' ?3N-4 O' CF$ ' 3 J Q3TT 3' F3' C$ J 3 ' H4' $EO' I $4 ' F343H&' H4' E' $EO' P $EE34' &4$-D- 3E O' $11 O' H4' D C1HC3' H&' F3' C$ J 3' H4' $EO' I $4 ' F343H&' H' P C' H E' #C3' H4' B3E3& ' H4' &H4' $EO' I -41HC3' F$ CH3 34' 3 N31 ' &H4' F3' I -Q N' ?34 N3' 3 340' C-NF' <&&3ED34' CF$ ' Q3' D33 J 3D' H' F$ 3' ? H 3E' F3' C$ J 3 ' $ED' CF$ ' E' 8#(% #&' $ED' $!% #&' Q3' D33 J 3D' 2- O' H&' ; 3 HEO ' $ED' E' +' , % #&' H&' $' F 2F' @4 J 3 $ED' <&&3EN3 ' $ED' HE' Q3 E2' F343H&' NHE N 3D' E' D-3' 6H4 J' H&' >$ ' CF$ ' Q3' $Q 3 ' $ ' F3' G CN43 HE' H&' F3' @H-4 ' H' Q3' 4$EC1H4 3D' Q3OHED' F3' ?3$C' &H4' $EO' *34 J ' EH ' 3 N33D E2' 6H-4 33E' =3$4C' EH4' 3CC' F$E' ?3 3E' =3$4C ' H4' H' Q3' J 14+HE3D' F' H4' FH- ' F$4D' >$QH-4 ' $C' H' F3' @H-4 ' CF$ ' C33 J' J 33 ' &H4' $EO' *34 J' EH ' 3 N33D E2' *F433' =3$4C

I34CHEO' E' F3' I -Q N' ?34 N3' 3 J R Q3TT E2' $EO' P HE3O' H4' $ -$Q 3' ?3R N-4 3C' F' F NF' F3O' $43' 3E 4-C 3D' H' Q3' D33 J 3D' 2- O' H&' 63 HEO ' KN

' ED' Q3' ' 3E$N 3D ' *F$ ' 3 340' *$ O ' <4D34 ' H4' H F34' ?3N-4 O' F$ CH3 H4' 3E F2' H4' 3 D3EN E2' F3' * 3' H&' $EO' I 34CHE' H4' BHDO' @H41H4$ 3' H' $EO' ?F$43' H4' E 343C ' E' $EO' I -Q N' ? HN+' H4' 6-ED ' F3 F34' H&' F3' #E 3D' % E2DH J ' H4' H&' ! ' " # ' H4' H&' $!% #&' H4' H&' $EO' 6H43 2E' ? $ 3 ' H4' H' $EO' ?F$43' H4' E 343C ' E' $EO' 6-ED' H&' $EO' BHDO' @H41H4$ 3 ' @H J 1$EO ' H4' ?HN 3 O ' H4' H' $EO' G31HC ' E' $EO' ?$ E2C' B$E+' $ED' 3 340' G3Q3E -43 ' G33D ' BHED ' B ' , H 3 ' 9 $4R 4$E ' <4D34 ' H4' H F34' ?3N-4 O' F$ CH3 34' &H4' P HE30' H4' &H4' I $O J 3E ' H&' P HE30 ' F3 F34' H&' F C' % E2DH J' H4' H&' $EO' 6H43 2E' ? $ 3 ' $ED' 3 340' 9 44E ' H4' <4D34' &H4' F3' G3 340' H4' *4$EC&34' H&' $EO' MHHDC' H4' $ -$Q 3' *F E2 ' CF$ ' F4H-2FH- ' F C' N ' Q3' D33 J 3D' &H4' 3 340' I -41HC3' H' Q3' ED-D3D' -ED34' $ED' D3EH 3D' QO' F3' 9 H4DC' `' $ -$Q 3' ?3N-4 O' c' $ED' F$ ' &' $EO' I 34CHE' CH' 3 J 1 HO3D' $ED' 3E 4-C 3D' $C' $&H43C$ D' CF$ ' 3 J Q3TT 3' H4' &4$-D- 3E O' $11 O' H4' D C1HC3' H&' $EO' C-NF' $ -$Q 3' ?3N-4 O' $C' $&H43C$ D ' F3' CF$ ' Q3' D33 J 3D' H' F$ 3' C H 3E' F3' C$ J 3' F E' F3' E 3E ' $ED' P 3$E E2' H&' F C' N ' $ED' CF$ ' Q3' 1-E CFR $Q 3' F343QO' E' F3' C$ J 3' P $EE34' $C' &' F3' F$D' C H 3E' $EO' @F$ 3 ' H&' +3' $F 3' F' F3' ?F$43 ' E 343C ' <4 G31HC ' H' 9 F NF' C-NF' ?3N-4 O' J $O' 43 $ 3 ' H4' F' F3' P HE30' D-3' HE' C-NF' ?3N-4 O' H4' C3N-43D' F343QO' $ED' 43 J $ E E2' -EC$ C& 3D ' H4' F' F3' $ -3' H&' F3' MHHDC' H4' H F34' $ H$F 3' * F E2' J 3E HF3D' E' C-NF' ?3N-4 O

9 F$ ' H' Q3' EN -D3D' -ED34' F3' 9 H4DC' /' $ -$Q 3' ?3N-4 3C c

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> 8 ; ' ; ?ʻ $Eʻ N ʻ $Cʻ 1$CC3Dʻ Eʻ F3ʻ I $4 $ J 3E ʻ , ʻ$! #&ʻ Eʻ F3ʻ , E3 33E Fʻ $EDʻ * 3E 3 Fʻ = 3$4Cʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ P $(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ * F 4D ʻ E - 3Dʻ / #ʻ / ' ʻ , ʻ ʻ ʻ ʻ ʻ) !ʻ L ! % ! ʻ , ʻ 1ʻ U!1 1ʻ & ? 3%ʻ L3% ! ' 1ʻ) !ʻ L , !1 # ʻ 11!# ʻ ^ _ ! 1ʻ , ʻ) 1ʻ #(&, ʻ #&ʻ ,ʻ !5! %ʻ ʻ I % 31!ʻ #ʻ) !ʻ / ' ʻ , ʻ) !ʻ + ! ' , #&ʻ , ʻ Y3! !#ʻ EE3ʻ # 3%!&ʻ 7 / #ʻ / ' ʻ ,ʻ 5 !0!# ʻ) !ʻ 3) ! ʻ ,)ʻ , ʻ L , 5! ʻ 1ʻ ʻ 1ʻ) !ʻ 1 !ʻ !% !1ʻ ,ʻ) !ʻ * , !1 # ʻ 2 11!# ! 1ʻ F343QO ʻ $& 34ʻ 43N E2ʻ $ʻ N34 $ Eʻ @ $ - C3ʻ H&ʻ $Eʻ N ʻ J $D3ʻ Eʻ F3ʻ C$ Dʻ I $4 $ J 3E ʻ , ʻ$!% #&ʻ Eʻ F3ʻ ?3NHEDʻ = 3$4ʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 34ʻ P $R (3C Oʻ \ - 33Eʻ / ##! ʻ E - 3Dʻ / #ʻ / ' ʻ ,ʻ 5 !0!# ʻ) !ʻ 3) ! ʻ , F)ʻ , ʻUʻ Jʻ ^ _ * , 5! ʻ ʻ $Cʻ 3E$N 3D ʻ F$ ʻ $ ʻ $EDʻ 3 34Oʻ I 34CHEʻ H4ʻ I 34CHEC ʻ Q3 E2ʻ I 4H 3C $E C ʻ CFH - Dʻ $EDʻ J 2F ʻ F$ 3 ʻ FH D ʻ $EDʻ 3E(HOʻ $EOʻ <&& N3ʻ - 4ʻ <&& N3C ʻ @ ʻ H4ʻ P $40 ʻ $EDʻ 43N3 3ʻ $EOʻ I $O ʻ ?$ $40 ʻ 633 ʻ H4ʻ 9 $23Cʻ Q3 HE2 E2ʻ Hʻ H4ʻ QOʻ 43$CHEʻ H&ʻ C - NFʻ <& ?N3ʻ H4ʻ I $N3 ʻ EH FC $ED E2ʻ F3ʻ CF$ ʻ EH ʻ 43N3 3ʻ H4ʻ F$ 3ʻ 43N3 3Dʻ F3ʻ ?$N4$ J 3E ʻ H&ʻ F3ʻ ; H4D Cʻ ? - 1134 ʻ $Cʻ Eʻ F3ʻ C$ Dʻ 43N 3Dʻ @ $ - C3ʻ Cʻ 143CN4 Q3D ʻ FH - ʻ EN - 44 E2ʻ $EOʻ H&ʻ F3ʻ I 3E$ 3Cʻ Eʻ F3ʻ C$ Dʻ N ʻ H4ʻ $EOʻ H F34ʻ 3 ʻ 3E$N 3D ʻ &H4ʻ H4ʻ Eʻ 43C13N ʻ H&ʻ F Cʻ , 32 3N ʻ H&ʻ 43N3 E2ʻ F3ʻ C$ J 3. EDʻ F343$Cʻ QOʻ $Fʻ N ʻ J $D3ʻ Eʻ F3ʻ C$ Dʻ I $4 $ J 3E ʻ H&ʻ $!% #&ʻ Eʻ F3ʻ * F 4 0 F 4Dʻ = 3$4ʻ H&ʻ F3ʻ

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'3 2E' H&' 8 C' C$ D' P$(3? (' % E2' !, (!' F3' *F 4D' E - 3D' /#' /'' ,' ! Z0!' 1, !' 2,34 1' !15!' #('*! 1,#1' #' 6 '!' #(')!'+ ' [!# % 7!1 ' ' $C' D3N $43D' $ED' 3E$N 3D' F$' F3' C$ D' N 'H&' F3' , E3 33E F' $ED' * 3E 3 F' =3$4C' H&' 8 C' P$(3C O' % E2' !, (!' F3' *F 4D' D D' EH '$ED' DH F' EH '3 3ED '$ED' CF$ 'EH 'Q3' D33 J 3D' $+3E' $ED' NHEC 4-3D' H' F$ 3' 3 3ED3D' H' I4H 3C $E C' H&' F3' @F-4NF' H&' $!% #&' $C' QO' >$ ' 3C $Q CF3D' Q- ' H' I4H 3C $E ' G CC3E 34C' HE O.' ED' F343$C' ' C' EH '3 13D 3E' F$' I4H 3C $E C' Q3 E2' P3 J Q34C' H&' F3' ;C $Q CF3D' @F-4NF' CFH- D' Q3' C-Q(3N 3D' H' $EO' *3C '&4H J' F NF' I4H 3C $E 'G CC3E 34C' $43' 3 3 J 1 ' Q3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC' ; N3 3E' P$(3C O' QO' $ED' F' F3' D N3' $ED' @HEC3E 'H&' F3' >H4DC' ?1 4 -$ '$ED' *3 J 1H4$ ' $ED' @H J J HEC' E' F C' 143C3E 'I$4 $ J 3E '$CC3 J Q 3D '$ED' QO' F3' - FH4 O' H&' F3' C$ J 3 '*F$' F3' C$ D' 43N 3D' N '1$CC3D' E' F3' *F 4 O F 4D' =3$4' H&' F3' '3 2E' H&' 8 C' P$(3C O' % E2' M3H423' F3' *F 4D' CF$ ' Q3' $ED' F3' C$ J 3' C' F343QO' 4313$ 3D' &4H J' $ED' $& 34' D 3' 1$CC E2' H&' F C' N

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>' ED' Q3' '&-4 F34' D3N $43D' $ED' 3E$N 3D' *F$' F3' C$ D' N 'H&' F3' , E3 33E F' $ED' * 3E 3 F' =3$4C' H&' F3' '3 2E' H&' 8 C' P$(3C O' ' E2' !, (!' F3' *F 4D' DH F' $ED' CF$ ' Q3' D33 J 3D' $ED' $+3E' $ED' NHEC 4-3D' H' 3 3ED' $ED' H' F$ 3' 3 3ED3D' H' I4H 3C $E C' H&' F3' @F-4NF' H&' $!% #&' $C' QO' > $ '3C $Q CF3D' $ED' H' I4H 3C $E 'G CC3E 34C $ +3

I34CHEC' EH ' E' IHCC3CC HE' H&' $EO' <&& N3' F NQF343 H' &H43' 43X- 43D' F3 $+ E2' H&' F3' ?$N4$R J 3E 'NHER &4 J 3D' E' C-NF' IHCC3CC HE' ' $ED' ED3 J E ' &3 '&4H J' I3E$ 3C

' ED' Q3' '&-4 F34' 3E$N 3D' *F$ '$ ' I34CHEC' Q3 E2' I4H 3C $E C' H&' F3' ;C $Q CF3D' @F-4NF' $ED' EH ' E' F3' $N -$' IHCC3CC HE' H&' $EO' <&& N3' @H J J $ED' I $N3' *4-C '?34 N3' H4' ; J 1 HO J 3E 'H4' E' F3' '3N3 1 'H&' $EO' I$O' ?$ $40' 633 'H4' 9 $23C' E' 43C13N 'H&' H4' $C' $' \ -$ R & N$ HE' &H4' F NF' QO' 4 -3' H&' H4' -ED34' F3' Q3&H43 J 3E HE3D' N 'H&' F3' ?3NHED' =3$4' H&' F3' '3 2E' H&' 8 34' P$(3C O' \ -33E' /##! 'H4' $EO' H F34' N 'H4' N C' F30' 43C13N 3 O' H-2F ' H' F$ 3' F343 H&H43' $+3E' H4' H-2F 'F343$& 34' H' 43N3 3' F3' C$ D' ?$N4$ J 3E 'H&' F3' >H4D C' ?-1134' H4' H' & 3' $' @34 & N$ 3' F343H&' CF$ ' Q3' $ED' F30' $43' F343QO' NHE& 4 J 3D' E' F3' IHCC3CC HE' $ED' ; E(HO J 3E 'H&' F3' C$ D' C3 34$' <&& N3C' @H J J $EDC' I $N3C' *4-C C' ?34 N3C' ; J 1 HO J 3E C' I$O' ?$ $4 3C' 633C' $ED' 9 $23C' 43C13N 3 O' EH FC $ED E2' F3 4' < J CC HE' H4' , 32 3N' H' $+3' H4' 43N3 3' F3' ?$N4$ J 3E 'H&' F3' >H4D C' ?-1134' H4' H' & 3' C-NF' @34 & N$ 3' F343H&' $ED' CF$ 'Q3' $ED' $43' F343QO' ED3 J E & 3D' &433D' $ED' D CNF$423D' &4H J' $ ' EN1N 3C' G C$Q 3C' 6H4&3 -43C' $ED' I3E$ 3C' F$ CH3 34' $ 43$DO' EN-4 3D' H4' F NF' J 2F ' F343$& 34' Q3' EN-443D' E' NHEC3X-3EN3' H&' $EO' C-NF' < J CC HE' H4' , 32 3N ' $ED' F$' EH' ; 3N HE' H&' H4' N 'DHE3' H4' H' Q3' DHE3' QO' $EO' C-NF' I34CHE 'H4' -ED34' F C' - FH4 O '$ED' EH 'O3 ' $ H D3D' CF$ ' Q3' F343$& 34' X-3C HE3D' H4' $ H D3D' QO' 43$CHE' H&' $#O' C-NF' < J CC HE' H4' , 32 3N 'Q- ' F$' 3 34O' C-NF' ; 3N HE' $ED' N 'CF$ 'Q3' $C' 2HHD' $ D' $ED' 3&&3N -$' $C' &' C-NF' I34CHE' F$D' D- O' 43N3 3D' F3' C$ D' ?$N4$ J 3E 'H&' F3' >H4D C' ?-1134' $ED' & 3D' C-NF' @34 & N$ 3' E' F3' * J 3' $ED' P $EE34' 143CN4 Q3D' QO' F3' C$ D' N ' H&' F3' ?3NHED' =3$4' H&' F3' '3 2E' H&' 8F4' P$(3C O' \ -33E' /##!'=' $EO' F E2' E' F3' C$ D' N ' H4' E' $EO' H F34' N 'H4' N C' H' F3' NHE 4$4O' F343H&' EH FC $ED E2

> < , G < , .' I4 E 3D' QO' # +. (/ +' &(+' $ED') * (+ , ' 0 1 . 2 2 3 % , . . * + ' I4 E 34C' H' F3' % E2 C' J HC' ; 33 3E' P$(3C O' Z??

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9 ; ʿ = H-4ʿ P $(3C O Cʿ J HC ʿ D- &- ʿ $EDʿ HO$ ʿ ?-Q(3N C ʿ F3ʿ @H J J HECʿ H&ʿ F3ʿ # E 3Dʿ % E2DH J ʿ H&ʿ ! ʿ " #ʿ $EDʿ $!% #&ʿ Eʿ I $4 $ J 3E ʿ $CC3 J Q 3D ʿ H $4DCʿ 4$ C E2ʿ F3ʿ E3N3CC$4Oʿ ?-11 3Cʿ Hʿ D3&4$Oʿ = H-4ʿ P $(3C O Cʿ 1-Q Nʿ ; 13EN3C ʿ F$ 3ʿ &433 Oʿ $EDʿ H -E $4 Oʿ 43CH 3Dʿ Hʿ 2 3ʿ $EDʿ 24$E ʿ -E Hʿ = H-4ʿ P $(3C Oʿ F3ʿ G - 3Cʿ F343 E $& 34ʿ J 3E HE3Dʿ .ʿ EDʿ F343$Cʿ QOʿ $Eʿ N ʿ 1$CC3Dʿ Eʿ F3ʿ * F 4 O 3 2F Fʿ = 3$4ʿ H&ʿ F3ʿ ' 3 2E H&ʿ 8 Cʿ P $(3C Oʿ % E2ʿ ! , (!ʿ F3ʿ * F 4D ʿ E - 3 D / ' ʿ , ʿ #(ʿ 5! 5! 3 %ʿ ! ' ʿ , ʿ L !&! 5 ʿ SZʿ [ʿ S ʿ 3 ʿ Y [ʿ , #ʿ #&ʿ * 3 ') !ʿ #ʿ) !ʿ ##! ʿ) ! ! # 1 !& ʿ) !ʿ 1!0! %ʿ +3 1ʿ , ʿ , #! ʿ) , Fʿ ') (!&ʿ #ʿ M43$ ʿ B4 $ Eʿ 1ʿ ʿ " #&ʿ 7 Jʿ , ʿ 6#!ʿ H! ʿ , ʿ) !ʿ 7 F !# ʿ) ʿ " ʿ , ʿ P $4NFʿ 6#!ʿ) , 31 #&ʿ 1!0!#ʿ) 3#& !&ʿ #&ʿ # #! ! ( ) ʿ F3ʿ C3 34$ ʿ $EDʿ 43C13N 3ʿ ?- J Cʿ H&ʿ P HE3Oʿ NF$423Dʿ QOʿ 4 -3ʿ H&ʿ $Eʿ N ʿ H&ʿ F3ʿ C$ J 3ʿ ?3CC HEʿ H&ʿ I $4 $ J 3E ʿ E - 3Dʿ / #ʿ / ' ʿ SZʿ M ʿ S ʿ N ʿ ! ʿ , ʿ (# #(ʿ #ʿ / &ʿ , ʿ 1ʿ U!1 ʿ) ʿ ʿ) #&ʿ 7 Jʿ , ʿ) !ʿ 1!&ʿ #ʿ M43$ ʿ B4 $ E ʿ , ʿ) !ʿ +! 0 ' !ʿ , ʿ) !ʿ H! ʿ 6#!ʿ) , 31 #&ʿ 1!0!#ʿ) 3#& !&ʿ #&ʿ # #! ! ( ) ʿ HEʿ $EOʿ P $EH4C ʿ P 3CC-$23C ʿ >$EDC ʿ * 3E3 J 3E C ʿ H4ʿ 8 343D $ J 3E Cʿ Eʿ ! ʿ " # ʿ $43 ʿ $& 34ʿ F3ʿ * 3E O & & Fʿ G$Oʿ H&ʿ ') ʿ < E3ʿ FH-C$EDʿ C3 3Eʿ F-ED43Dʿ $EDʿ E E3 O E E3 ʿ NHE E - 3Dʿ >ʿ ʿ ʿ $ED

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$ED' J$D3' 13 13 -$ ' F' $' I4H CHE' F$' F3' C3 34$' ?-JC' H&' PHE30' NF$423D' -1HE' ;C $ 3C' E' 43$DO' PHE30 G3Q C' MHHDC' 9$43C' P34NF$ED T3' H4' I34CHE$' ;C $ 3C' H4' -1HE' $EO' I34CHE' H4' I34CHEC' E' 43C13N' H&' $EO' I-Q N' <&BN3' H4' ; J1 HO J3E' H&' I4H& ' H4' $EO' ?$ $R 4 3C' M4$ - 3C' BH-E O' PHE 3C' '3 $4DC' 633C' I4H& C' I34X- C 3C' D $E $23?(' I3EC HEC' EE- 3C' ? 13EDC' H4' O3$4 O' I$0 J3E C' E' F3' C$ D' N' J3E HE3D' CFH- D' $& 34' F3' * 3E O & & F' G$O' , ' ')' <E3' FH-C$ED' C3 3E' F-ED43D' $ED' E E3 O E E3' Q3' $CN34 $ E3D' 4$ C3D' 3 3D' NH 3N 3D' $ED' 1$ D' $NNH4D E2' H' F3' G 43N HEC' H&' $EO' N' H4' N C' H' Q3' 1$CC3D' &H4' F$' I-41HC3.' ED' F343$C' F3' ?-JC' H&' PHE30' $ED' G- 3C' $C' J3E HE3D' F$ 3' Q33E' &4H J' * J3' H' * J3' NHE E-3D' QO' D 34C' N C' H&' I$4 $ J3E ' $ED' $43' EH ' E' &H4N3' -E ' F3' * 3E O & & F' G$O' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F4 O H' ' F343&H43' 93' =H-4' P$(3C O C' JHC' D- &-' $ED' HO$' ?-Q(3N C' F3' @H J JHEC' H&' F3' #E 3D' % E2DH J' H&' ! ' " #' $ED' $!% #&' E' I$4 $ J3E' $CC3 J Q 3D' DH' JHC' F- J Q O' Q3C33NF' =H-4' P$(3C O' F$' ' J$O' Q3' 3E$N 3D' $ED' Q3' ' 3E$N 3D' QO' F3' % E2 C' JHC' ; N3 3E ' P$(3C O' QO' $ED' F' &F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$' $ED' *3 J 1H4$ ' $ED' @H J JHEC' E' F C' 143C3E' I$4 $ J3E' $CC3 J Q 3D' $ED' QO' F3' - FH4 O' H&' F3' C$ J3' *F$' F3' C3 34$' $ED' 43C13N 3' ?-JC' H&' PHE30' $ED' G- 3C' F NF' CF$ ' F$ 3' Q33E' H4' CF$ ' Q3' NF$423D' -1HE' ;C $ 3C' E' 43$DO' PHE30' G3Q C' MHHDC' 9$43C' P34NF$ED T3' @F$ 3 C' H4' H F34' I34CHE$' ;C $ 3' QO' 4 -3' H&' F3' C$ D' N' 1$CC3D' E' F3' *F 4 O 3 2F F' =3$4' H&' F3' '3 2E' H&' 8 C' C$ D' P$(3C O' &H4' 24$E E2' $E' D' H' 8 C' P$(3C O' QO' $ >$ED' *$ ' $ED' $ CH' F3' C3 34$' ?-JC' H&' PHE30' $ED' G- 3C' F NF' QO' 4 -3' H&' F3' C$ D' 43N 3D' N' J$D3' E' F3' *F 4 O 3 2F F' =3$4' H&' F3' '3 2E' H&' 8 C' C$ D' P$(3C O' &H4' 24$E E2' $E' D' H' 8 C' P$(3C O' QO' $' >$ED' *$ ' 9343' NF$423D' E' 43C13N' H&' $EO' I-Q N' <&& N3C' H4' ; J1 HO J3E C' H4' $EO' EE- 3C' I3EC HEC' ? 13EDC' H4' H F34' $EE-$' I$0 J3E C' $ED' F NF' F$ 3' Q33E' NHE E-3D' $ED' $43' E' &H4N3' -E ' F3' * 3E O & & F' G$O' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F4 O H' CF$ ' Q3' NHE E-3D' $ED' 4$ C3D' 3 3D' NH 3N 3D' $ED' 1$ D' -E H' 8 C' 143C3E' P$(3C O' F E' F3' ?1$N3' H&' <E3' =3$4' &4H J' F3' C$ D' * 3E O' & & F' G$O' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F4 O H

* 3' G- 3C' NF$423D' -1H' I34CHE$' ;C $ 3C' <&& N3C' $ED' I3HC HEC(' QO' 43N 3D' N C' &-4' F34' NHE ' <-3D

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' F3' C3 34$' IH 34C' $ED' I4H CHEC' NHE $ E3D' E' $E' N' 1$CC3D' E' F3' ? F' =3$4' H&' F3' '3 2E' H&' 8 C' $ 3' P$(3C O' % E2' !, (!' F3' 6H-4 F(' E - 3D' ?#' / ' ' , ' ',# #3 #(' ,' 1' U!1 , ' 6#!' H! ' '! #' O# !1' ,# *! 1,# %' 81 !1' 6 '!1' #&' *!#1 ,#1' #' ; E2 $ED' #&' %1,' , ' (# #(' I! # 2 3 !1' 6# +3(' 5, !&' U' , ')!' +! 0 '!' , ')!' H! ' 6#!'),31 #&' ! ( ) ')3#& !&' #&' F!# ' 0! ' &H4' F3' $CN34 $ E E2' $CC3CC E2' $ E2' 432- $ E2' 1$0 E2' $ED' $NNH-E E2' &H4' F3' G- 3C' HE' I34CHE$' ;C $ 3C' <&& N3C' $ED' I3EC HEC' CF$ ' 3 3ED' $ED' Q3' NHEC 4-3D' H' 3 3ED' H' F3' G- 3C' HE' I34CHE$' ;C $ 3C' <&& N3C' $ED' I3EC HEC' F343QO' 24$E 3D' $ED' NHE E-3D' 3 N31 ' F343' H F34' I4H C HEC' $43' J$D3' QO' F C' N ' $ED' F$' F3' C3 34$' IH 34C' $ED' I4H C HEC' E' F3' C$ D' N' NHE $ E3D' F NF' 43 $ 3' H4' 43&34' H' $EO' G$O' H4' * J3' F E' H4' D-4 E2' H4' Q3&H43' H4' $& 34' F3' =3$4' NH J J3EN E2' &4H J' F3' * 3E O & & F' G$O' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' 3E O' & 3' CF$ ' 3 3ED' $ED' Q3' NHEC 4-3D' H' 43 $ 3' H' F3' +3' G$OC' $ED' * J 3C' F E' H4' DH4 E2' H4' Q3&H43' H4' $& 34' F3' =3$4' NH J J3EN E2' &4H J

*F3' C3 34$' @ $-C3C' H&' Y' M' ' 3' V' &H4' $CN34 $ ER E2' $ED' 432-R $ E2' F3' G- 3C' 3 R 3ED3D' H F C' N

F3' * 3E O & & F' G$O H&' P$4N <(3' F@P C$ED' 3 2F ' F-ED43D' $ED' F 4 O H ' E' +3' P$EE34' $C' QO' F3' C$ D' 43N 3D' N ' C' D 43N 3D' F' 43&343EN3' H' F3' =3$4' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' 3E O & O3 ' $ED' $C' &' F3' C3 34$ ' I H 34C' $ED' I 4H C HEC' E' F3' C$ D' 43N 3D' N ' NHE $ E3D' 343' 4313$ 3D' $ED' 43 3E$N 3D' E' F C' 143C3E ' N

8 ' I 4H D3D' $ $OC ' $ED' Q3' ' &-4 F34' (3E$N 3D ' * F$ ' EH' CC3CC ' , H' CC3CCR J 3E ' CF$ ' Q3' J $D3' QO' $EO' @N J CC HE34' H4' @H J J CC HE34C ' CC3CCH4' CQ$ (3' H4' CC3CCH4C' H&' F3' * $ED' * $ 'H4' H F34 C3 ' &H4' H4' E' 43C13N ' H&' F3' G- 3C' F343QO' 24$E 3D ' H4' &H4' H4' E' 43C13N ' H&' F3' C3 34$ ' G- 3C' H&' G- 3C' HE' <E3' ?F E2' $ED' H&' ? 13EN3' E' F3' I H-ED' 43C13N 3 O' NF$423D' $ED' I 3EC HEC ' K3' 1$O$Q 3' H' 8 C' P $(3C O' -ED34' F3' C3 34$ ' N C' E' &H4N3' HE' EE- 3C ' 1OQ 3' H- ' I 3EC HEC ' ? 13EDC ' ?$ $4 3C ' 9 $23C ' H $EN3C ' H4' H F34' O3$4 O' ')&3E-3 Q- ' I $O J 3E C' F$ 3 34 ' F343' F3' C$ J 3' $43' 1$O$Q 3' H- ' & ' F3' I -Q N' CEHQ B- 3C ' 3 3E-3' H&' F3' ' 3N3 1 ' H&' 3' ; NF3X-34' H4' 3 C3 F343' E' ' CQ$ Q$ " #' QO' $EO' <&& N34' H4' <&& N3 J O' Q- ' F$ ' $ ' $ED' 3 34O' C-NF' NF$423D' $C EE- 3C ' I 3EC HEC ' ? 13EDC ' ?$ $4 3C ' 9 $23C ' H $EN3C ' H4' H F34' O3$4 O' I $O J 3E C' CF$ ' $ED' $43' F343QO ' D3N $43D' H' Q3' NF$423D' $ED' $11 H$Q 4 H $CC3CC3D' H' F3' C$ D' G- 3C' 43C13N 3 O' H' F3' C$ J 3' $EE-$ ' J H-E ' F3' I $O J3E ' $C' F343 H&H43' 4$ 3D ' NF$423D ' H4' $CC3CC3D' -ED34' $EO' N ' H4' N C' ($ED' I 3E ' $ ' P HE 3C' $11 N$Q 3' H' F3' I $O J 3E ' H&' C-NF' EE- 3C ' I 3EC H1C ? 13EDC ' ?$ $4 3C ' 9 $23C ' H $EN3C ' H4' H F34' O3$4 O' I $O J 3E C' OF3' -Q-4E' CF$ ' Q3' CC-3D ' 1$ D ' $ED' D CNF$423D' 3CC' QO' F3 J H-E ' H&' F3' C$ D' H&' C-NF' G- 3C' H' $ ' E 3E C' $C' &' F3' C$ J 3' 343' NHE E-3D' H' Q3' NF$423D' QO' 5 4 3C' $EE-$ ' CC3CC J 3E ' $ED' F343QO' $- FH4 T3D' H' Q3' C H113D' $ED' D3 ' D-N 3D' $C' G- 3C' 1$O$Q 3' H' 8 C' P $(3C O ' $EO' F E2' E' F C' N ' H4' $EO' &H4 J 34' N ' <4 N C' NHE $ E3D' H' F3' NHE 4$4O' EH FC $ED E2. I 4H D3D' $ CH ' F$ ' F343' $EO' <& N34' FH' CF$ ' Q3' E' 43N3 1 ' H&' $EO' 14H CH&H4' C-NF' EE- O ' I 3EC HE ' ? 13ED ' 7?$ $4O ' 9 $23C ' H $EN3 ' H4' J F34' ?$ $E3C' 1$O ' O3$4 O' I $O J 3E ' 1$O$Q 3' $ ' F3' ; NF3X-34' H4' 3 C3 F343' E' ! ' 7 &3 E1$4 ' " # ' H- ' H&' F3' I -Q N' ' 3 3E-3' $K $&H43C$ D ' CF$ ' $ CH' Q3' E' HE O' H- ' H&' 43N3 1 ' H&' I 34X- C 3C ' 633C ' M4$ - 3C ' 9 $23C ' H $EN3C ' H4' H F34' F ' I -Q +' I 4H& C' EH ' CH' 1OQ 3 ' Q- ' F NF' $43' NF$423$Q 3' F' F3' C$ D' G- 3C ' 3 3E-3 ' ' CF$ ' Q3' $ &- ' &H4' F3' >H4DC' @H J J CC HE34C' H&' F3' * @$C-4O' H' $- FH4 T3' C-NF' $C J 3E HE3D' G- 3C ' #E 3CC' H F34 C3' 1$ D ' H' Q3' C H113D' H4' D3 $ E3D' &4H J ' F3' J H-E ' H&' F3' ?$ $4O' H4' H F34' ($4 O' 1$O J 3E ' J $D3' H' $EO' C-NF' <&& N34

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F343' CF$ ' Q3' 14H D3D' $ED' ' 32 C 3 ' H' +31 ' E' F3' <&& N3' H&' F3' -D H4' H&' F3' ' 3N3 1 ' H&' 8 C' P $(3C O C' (3' +31 ' H&' $ ' ; NF3X-34' $ ' !1 #1 ! ' <E3' BHH+' H&' ' 32 C 34 ' E' F NF' $ ' F3' P HE3O' 1$ D' P HE3O' F$ ' CF$ ' Q3' 1$ D' E H' F3' C$ D' ; NF3X-34' &H4' F3' C$ D' ' $ 3C' E H' F3' ;?C' $ED' G- 3C' F343QO' 24$E 3D' H4' NHE E-3D' HE' I 34CHE$ ' ; C $ 3C ' $ED' HE' NF3X-34' &H4' <&& N3C' $ED' ; J 1 HO J 3E C' H&' I 4H& ' I 3EC HEC ' EE- 3C ' $ED' ? 13EDC ' F3' G- 3C' CF$ ' Q3' 3E 343D' $ED' 432 C 343D' $1$4 ' $ED' D C EN ' &4H J ' $ ' H F34' F343QO' P HE 3C' 1$ D' $ED' 1$O$Q 3' H' 8 C' P $(3C O ' $ED' CF$ ' Q3' N$44 3D' H' 24$E 3D F3' @HECH D$ 3D' 6-ED' H&' F3' #E 3D' % E2DH J ' H&' ! ' " #' $ED' $!% #&=' $-D' ' CF$ ' Q3' $ &- ' &H4' F3' @H J J CC HE34C' H&' 8 C' P $R 43$C-4O' H (3C O C' * 43$C-4O' H&' F3' #E 3D' % E2DH J ' H&' ! ' " #' & ' $!% #&' $11 O' F3' H' CC-3' $ED' $11 O' F3' C$ J 3' &4H J ' * J 3' H' * J 3' H' C-NF' ?34 N3C' $C' P HE3O' &4H J ' CF$ ' F3E' F$ 3' Q33E' H 3D' QO' F3' @H J J HEC' H&' F3' #E 3D' % E2DH J ' * J 3' H H&' ! ' " #' $ED' $!% #&' E' F C' 143C3E ' ?3CC HE' H&' I $4 $ J 3E * J3

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F3' C$ D' BH$4D' E' F3' ; 3N- HE' H&' F3' I H 34C' QO' F3' C$ D' N ' 3C 3D' ' E' ' $ED' ' C' &-4 F34' 3E$N 3D' F$ ' $F' ?- J C' H&' P HE3O' CH' H' Q3' $D $EN3D' CF$ ' Q3' 4$ C3D' QO' I 43C3E J 3E C' H' Q3' J $D3' QO' F3' M4$ED' 5-4 3C ' $ED' 4$ C3D 'H&&' F3' @H-E O' H4' @H-E O' H&' $' @ O' H4' * H E' E' F NF' C-NF' ; 13EN3C' CF$ ' Q3' EN-443D' ' ED' F343$C' $EH F34' N ' $C' 1$CC3D' E' F376 & O E E F' =3$4' H&' 8 C' C$ D' P $(3C O' % E2' !, (!' F3' * F 4D' ' E - 3D' / #' / ' ' ,' !1 4% 1)' L ! (3% ,#1' , ' 5 !0!# #(' ' ,# (,#1' 2 1! 1!1' #' 43 $ED ' QO' F NF' $C J 3E HE3D' N ' E' H4D34' H' 14H D3' &H4' $ED' C3N-43' NHEC $E ' 3E HE' H' F3' 8 3$ F' $ED' @H J &H4 C' H&' F3' EF$Q $E C' H&' $!% #&' I 4H C HE' $C' J $D3' &H4' F3' $EE-$ ' ; 3N HE' H&' <&& N34C' H&' 8 3$ F' E' 3$NF' $ED' 3 34O' I $4 CF' E' 3 34O' @ O' $ED' * H E' E' $!% #&' F NF' CF$ ' NHE $ E' < E3' FH-C$ED' EF$Q $E C' H4' -1 $4DC ' $ED' E' 3 34O' @ O' $ED' $423' * H E' F343' F3' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&' $!% #&' CF$ ' F E+' & ' H' D 43N ' F$ ' C-NF' EH 43N E2' N ' CF$ ' Q3' N$44 3D' E H' 3&&3N C ' CH' E' $EO' I $4 CF ' * H E ' H4' I $N3' F$ 3 34' E' $!% #&' F3' EF$Q $E ' 8 H-C3FH D34C' F343H&' E' 3C 4O' $CC3 J Q 3D' CF$ ' F E+' & ' $ED' 3 13D 3E ' H' 3 3N ' C-NF' <&& N34C' H&' 8 3$ F ' $ED' ' C' &-4 F34' 14H D3D' QO' F3' C$ D' $C 43N E2' N ' F$ ' $ ' ; 13EN3C' H' Q3' EN-443D' F343-ED34 ' EH ' 3 N33D E2' C-NF' ?- J C' $C' CF$ ' Q3' C13N & 3D' $ED' D3 34 J E3D' HE' $ED' J 3D' $ED' D 43N 3D' $ ' F3' 3C 4O' H' Q3' $CC3 J Q 3D' &H4' F3' @FH N3' H&' F3' C$ D' <&& N34C' H&' 8 3$ F ' H4' $ ' $EO' C-QC3X-3E ' 3C 4O' -Q3' N$ 3D' QO' F3' C$ D' <&& N34C ' CF$ ' Q3' 4$ C3D' $ED' 3 3D' HE' F3' EF$Q $E C' H&' C-NF' I $4 CF' E' C-NF' P $ER E34' $ED' 6H4 J ' $C' H F34' I $4HNF $ ' CC3CC J 3E C' $43' 4$ C3D' $ED' 3 3D.' ED' F343$C' F3' I 4H C HEC' H&' QH F' F3' C$ D' 43N 3D' N C' $43' J 3D' H' @$C3C' H&' NHE $2 H-C' G C 3 J 134' H4' G C3$C3 ' $ED' ' C' 3 13D 3E ' F$ ' F3' C$ J 3' Q3' 3 3ED3D' H' $ ' @$C3C' H&' G C3$C3 ' F3 F34' 31 D3 J N ' H4' NHE $2 H-C ' H4' H&' DH-Q &- ' @F4N 34.' ED' F343$C' F3' C$ D' I 4H C HE' H&' F3' C$ D' N ' H&' F3' 6 & O 3 2F F' =3$4' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' !, (!' F3' * F 4D' $43' J 3D' H' @$C3C' E' F NF' $EO' 63 34' H4' NHE $2 H-C' G C 3 J 134' CF$ ' $113$4' H4' Q3' +EH E' H' 3 C ' $ED' ' C' 3 13D 3E ' H' 3 3ED' C-NF' I 4H C HEC' CH' $C' H' 2-$4D' 2 EC ' F3' <NN-443EN3' H&' G C3$C3' $C' 3 ' $C' H' 143 3E ' F3' C143$D E2' F343H&.' ED' F343$C' F3' I 4H C HEC' H&' F3' C$ D' N ' H&' F3' 6 & O E E F' =3$4' H&' F3' ' 3 2E' H&' 8 C' C$ D' P $(3C O' % E2' !, (!' F3' * F 4D' J $O' E' J $EO' @$C3C' Q3' E3&&3N -$ ' QO' 3$CHE' H&' F3' 6-EDC' E3N3CC$4O' &H4' F3' ' I -41HC3C' H&' C-NF' $C ' J 3E HE3D' N ' Q3 E2' 4$ C3$Q 3' HE O' $ ' 3C 4 3C' E' F3' P $EE34' H&' I $4HNF $ ' ' $ 3C ' $ED' F3' C$ 13' J $O' &4H J ' F3' G3 $O' $ED' G && N- O' $ 3ED E2' F3' @H 3N HE' H&' C-NF' ' $ 3C ' Q3' EH ' $ $ $Q 3' &H4' F3 4' E 3ED3D' <Q(3N C' CH' 14H J 1 O' $C' F3' # 423ENO' H&' @ 4N- J C $EN3C' J $O' 43X- 43 ' $ED' ' C' F343&H43' 3 13D 3E ' F$ ' I 4H C HE' CFH- D' Q3' J $D3' &H4' F3' J J 3D $ 3' ?-11 O' H&' P HE3O' &H4' F3' I -41HC3C' H&' F3' C$ D' $C J 3E HE3D' N ' E' +3' P $EE34' $C' &H4' F3' I -41HC3C' H&' F3' C$ D' & 4C J 3E HE3D' N ' $ED' ' C' 3 13D 3E ' F$ ' F3' I H 34C' N43$ 3D' QO' F3' C$ D' N ' H&' F3' 6 & O E E F' =3$4' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' K E2' !, (!' F3' * F 4D' CFH- D' Q3' J $D3' J H43' $ J 1 3' $ED' 3&& N$N H-C

; E$N J 3E C' >H4DC' ?1 4 -$ ' $ED' * 3 J 1H4$ ' $ED' @H J J HEC ' E' F C' 143C3E H&' 43N 3D' I $4 $ J 3E ' $CC3 J Q 3D ' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3 ' * F$ ' $ ' N C' $ED' F C' ; E$N J 3E C' 43 $ 3' H' F3' I 43 3E HE' H4' P 2$ HE' H&' 63 34' H4' N ' &H4' I 43 ' ' V ' NHE $2 H-C

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H4 H J 2$ 3 H4 143 3E ' F3 C143$D E2 H& $EO 63 34 H4 31 D3 J N , '
NHE $2 H-C G C3$C3 ' F3 F34 QO 3 P 3$EC E F3 C$ D $C J 3E HE3D 6H134&H4CH
N 'C13N & 3D ' H4 QO F3 ?-11 O H& P 3D N E3C ' , H-4 CF J 3E ' @ H F3C '
H4 H F34 , 3N3CC$4 3C ' H4 QO $EO H F34 P 3$EC 14H134 &H4 143 3E E2 '
$443C E2 ' N-4 E2 ' H4 J 2$ E2 $EO C-NF 63 34 H4 31 D3 J N H4
NHE $2 H-C G C3$C3 ' H4 2-$4D E2 2 EC ' F3 114H$NF H4 <NN-443EN3
F343H&

' ED Q3 '&-4 F34 3E$N 3D ' *F$ ' 'CF$ ' $ED J $O Q3 $ &- ' H >H4D > 3-R
$ED &H4 F3 >H4D > 3- 3E$E ' H4 H F34 @F 3& MH 34EH4 H4 MH 34EH4C 3E$E ' J $O
H& $!% #& ' F3E $ED $C 11 N$ HE J $O Q3 J $D3 H F J ' <4 F3 J ' $D $EN3
&H4 F$ ' I-41HC3 ' H H4D34 C-XF ?- J ' H4 ?- J C H& P HE3O $C Q3 H4 F3O P HE3O H- 'H&
CF$ ' F E+ 14H134 H Q3 &4H J ' * J 3 H * J 3 $D $EN3D ' H- ' H& F3 F3 @HECH R
I 4HD-N3 H& F3 @HECH D$ 3D 6-ED H& F3 #E 3D % E2DH J ' H& ! ' D$ 3D 6-ED
" # $ED $!% #& 1 #(' CY $!)#& ' ,' $EO <&& N34C H& 8 3$ F H <&& N34C H&
3 3N 3D H4 H Q3 3 3N 3D H4 $11H E 3D -ED34 F3 C$ D 43N 3D N ' H& 8 3$ F &H4
F3 F3 I-41HC3C
F343H&

F3ʻ 6 & O 1 E Fʻ =3$4ʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ P $(3C Oʻ % E2ʻ !, (!ʻ F3ʻ *F 4D ʻ H4ʻ -ED34ʻ F Cʻ N ʻ Hʻ Q3ʻ QOʻ F3 Jʻ 3 J 1 HO3Dʻ Eʻ F3ʻ ; 3N- HEʻ H&ʻ C-NFʻ I H 34Cʻ H4ʻ G- 3Cʻ $Cʻ QOʻ F3ʻ C$ Dʻ $C J 3E HE3D ʻ N ʻ H4ʻ QOʻ F Cʻ N ʻ F3Oʻ J $Oʻ Q3ʻ $- FH4 T3Dʻ H4ʻ 43X- 43Dʻ Hʻ 3 3N- 3

@F 3&ʻ ?3N43R $4OʻCF$ ʻN34R &Oʻ Hʻ F3ʻ @F-4NFʻ $X(3ECʻ F3ʻ JH-E ʻ CHʻ $D $FN3D

ʻ EDʻ Q3ʻ ʻ3E$N 3D ʻ 7) ʻ) !ʻ @F 3&ʻ ?3N43 $4Oʻ H&ʻ F3ʻ >H4Dʻ > 3-R 3E$E ʻ H4ʻ H F34ʻ @F 3&ʻ MH 34EH4ʻ H4ʻ MH 34EH4Cʻ H&ʻ $!% #&ʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2 ʻ 34ʻ F3ʻ #ED34ʻ ?3N43 $4O ʻ C $ ʻ N34 &Oʻ Hʻ F3ʻ @F-4NFR $4D3Eʻ H4ʻ @F-4NF $4D3EC ʻH4 ʻ Eʻ N$C3ʻ F343ʻ CF$ ʻ Q3ʻ EHʻ @F-4NF $4D3E ʻ Hʻ $EOʻ * Hʻ EF$Q $E Cʻ H&ʻ $EOʻ I $4 CFʻ H4ʻ I $N3ʻ F343 Eʻ C-NFʻ P HE3Oʻ CHʻ $D $EN3Dʻ $Cʻ $&H43C$ Dʻ H- ʻ H&ʻ F3ʻ @HECH D$ 3Dʻ 6-EDʻ CF$ ʻ F$ 3ʻ Q33Eʻ 3 13ED3D ʻ F3ʻ J H-E ʻ CHʻ $D $EN3D ʻ ʻ $EDʻ ʻ CF$ ʻ $EDʻ J $Oʻ Q3ʻ $ &- ʻ& 4ʻ C-NFʻ @F-4NF $4D3Eʻ H4ʻ @F-4NF $4D3ECʻ H4ʻ EF$Q $E C ʻ $Cʻ F3ʻ @$C3ʻ J $Oʻ Q3 ʻ $EDʻ F3ʻ H4ʻ F3Oʻ $43ʻ F343QOʻ 43X- 43D ʻ -1HEʻ F3ʻ ' 3N3 1 ʻ H&ʻ C-NFʻ @34 & N$ 3 ʻ Hʻ N$ ʻ $ʻ 3C 4Oʻ H&ʻ C-NFʻ I $4 CF ʻ F343$ ʻ C-NFʻ ?- Jʻ H4ʻ ?- J Cʻ H&ʻ P HE3Oʻ $Cʻ $43ʻ C $ 3Dʻ Eʻ C-NFʻ @34 & N$ 3ʻ CF$ ʻ Q3ʻ 4$ C3Dʻ $EDʻ 3 3Dʻ HE F3ʻ EF$Q $E Cʻ H&ʻ C-NFʻ I $4 CFʻ Eʻ C-NFʻ 6H4 Jʻ $EDʻ P $EE34ʻ $Cʻ H F34ʻ I $4HN 1$ ʻ CC3CC J 3E Cʻ $43ʻ 4$ C3Dʻ $EDʻ 3 3D

$EDʻ @F-4NFR $4D3ECʻ CF$Bʻ $CC3CCʻ F3ʻ C$ J 3ʻ HEʻ F3ʻ I $4 CF

5-C N33ʻ H&ʻ % E2 Cʻ B3ENFʻ H4ʻ 5-D ʻ H&ʻ CC T3ʻ J $Oʻ H4D34ʻ $ʻ >3 Oʻ H&ʻ F3ʻ DR $EN3ʻ HEʻ F3ʻ I $4 CFʻ Eʻ D3&$- ʻ $&ʻ CC3CC J 3E

ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ *F$ ʻ Eʻ N$C3ʻ C-NFʻ @F-4NF $4D3Eʻ H4ʻ C-NFʻ @F-4NF $4D3ECʻ H4ʻ EF$Q $E C ʻ $Cʻ F3ʻ @$C3ʻ J $Oʻ Q3 ʻ CF$ ʻ E32 3N ʻ Hʻ N$ ʻ C-NFʻ 3C 4O ʻ H4ʻ Eʻ N$C3ʻ $EOʻ 3C 4Oʻ CHʻ N$ 3Dʻ CF$ ʻ D3N E3ʻ H4ʻ E32 3N ʻ Hʻ J $+3ʻ $EOʻ C-NFʻ CC3CC J 3E C ʻ ʻ CF$ ʻ $EDʻ J $OQ3ʻ $ &- ʻ &H4ʻ F3ʻ 5-C N3Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ @H-4 ʻ H&ʻ % E2 Cʻ B3ENFʻ Eʻ $!% #& ʻ Eʻ N$C3ʻ H&ʻ F3ʻ @H-E Oʻ H4ʻ @ Oʻ H&ʻ 234% # ʻ $EDʻ &H4ʻ $EOʻ 5-D23ʻ H&ʻ CC T3ʻ Eʻ $EOʻ H F34ʻ @H-E O ʻ @H-E Oʻ H&ʻ $ʻ @ O ʻ H4ʻ @H-E Oʻ H&ʻ $ʻ *H E ʻ -1HEʻ $ʻ P H HEʻ &H4ʻ F$ ʻ I -41HC3ʻ J $D3 ʻ Hʻ H4D34ʻ F$ ʻ F3ʻ J H-E ʻ H&ʻ $EOʻ C-NFʻ D $EN3ʻ CF$ ʻ Q3ʻ 4$ C3Dʻ H &ʻ C-NFʻ I $4 CFʻ $Cʻ &ʻ F3ʻ C$ J 3ʻ F$Dʻ Q33Eʻ D- Oʻ $CC3CC3Dʻ $NNH4D E2ʻ Hʻ F3ʻ I 4H C HECʻ H&ʻ F Cʻ N ʻ $EDʻ C-NFʻ <4D34ʻ CF$ ʻ F$ 3ʻ F3ʻ +3ʻ 6H4N3ʻ $EDʻ ; &&3N ʻ $Cʻ $EOʻ H 3ʻ H&ʻ 3C 4Oʻ H4ʻ CC3CC J 3E ʻ J $D3ʻ -ED34ʻ Cʻ N ʻ $EDʻ CF$ ʻ Q3ʻ Hʻ $ ʻ E 3E Cʻ $EDʻ I -41HC3Cʻ D33 J 3D ʻ NHEC D343D ʻ $EDʻ $N 3Dʻ -1HEʻ $Cʻ C-NFʻ H 3ʻ /H4 CR C3CC J 3E ʻ QOʻ $ ʻ $EDʻ 3 34Oʻ I 34CHEʻ H4ʻ I 34CHECʻ FHC3ʻ <& KN3ʻ H4ʻ G- Oʻ ʻ H- Dʻ F$ 3ʻ Q33Eʻ Hʻ HQ3Oʻ $EDʻ N$44Oʻ C-NFʻ H 3ʻ H&ʻ 3C 4Oʻ H4ʻ CC3CC ʻ J 3E ʻ E Hʻ 3&&3N

?3N-4 3Cʻ H&ʻ I 34CHECʻ 3E2$23Dʻ Eʻ NH 3N E2ʻ I $4 CFʻ @3CCʻ Hʻ 3 3EDʻ H P HE3Oʻ 4$ C3Dʻ -ED34ʻ F Cʻ N ʻ $EDʻ Q3g P HE3Oʻ 4$ C3Dʻ Hʻ Q3ʻ 1$ Dʻ H 34ʻ Hʻ @H 3N H4ʻ H&ʻ 5? N C3-& F3ʻ G C 4 N

ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ *F$ ʻ F3ʻ 43C13N 3ʻ I 34CHECʻ 3 J 1 HO3Dʻ Eʻ F3ʻ @H P3N +J ʻ ' 3N3 ʻ H4ʻ @-C HDOʻ H&ʻ I $4 CFʻ @3CCʻ CF$ ʻ Q3ʻ $ +3ʻ $EC 34$Q 3ʻ &H4 ʻ $EDʻ F$ ʻ $ ʻ ?3N-4 3Cʻ QOʻ C-NFʻ I 34CHECʻ 3E 343Dʻ Eʻ 43C13N ʻ H&ʻ C-N ʻ ; J 1 HO J 3E ʻ CF$ ʻ 43C13N 3 Oʻ 3 3EDʻ Hʻ $ ʻ P HE 3Cʻ 3 3Dʻ QOʻ I $4HNF $ʻ CC3CC J 3E ʻ H4ʻ H F34 C3 ʻ $Cʻ F3ʻ @$C3ʻ J $Oʻ Q3 ʻ -ED34ʻ F Cʻ N ʻ&ʻ $EDʻ F$ ʻ $ ʻ P HE 3Cʻ 4$ C3Dʻ QOʻ C-NQ CC3CC J 3E ʻ H4ʻ H F34 C3 ʻ -ED34ʻ F3ʻ - FH4 Oʻ H&ʻ F Cʻ N ʻ CF$ ʻ &H4ʻ 4 3ʻ I -41HC3ʻ H& ʻ 431$O E2ʻ C-NFʻ D $EN3Cʻ H- ʻ H&ʻ F3ʻ @HECH D$ 3Dʻ 6-ED ʻ Q3ʻ 1$ Dʻ H 34ʻ Hʻ F3ʻ @H 3N H4ʻ H&ʻ ; N C3ʻ H&ʻ B"3ʻ G C 4 N ʻ Hʻ Q3ʻ $NH J E ʻ &H4ʻ QOʻ F Jʻ $Cʻ $EOʻ H F34ʻ I -Q Nʻ P HE3Oʻ Eʻ F Cʻ 8 $EDC ʻ $EDʻ F343-1HE ʻ $Cʻ Hʻ $ ʻ D $EN3Cʻ J 3E HE3Dʻ Eʻ C-NFʻ @34 & N$ 3ʻ $Cʻ $&H43C$ D ʻ C-NFʻ I $4 CFʻ 43C13N 3 Oʻ CF$ ʻ Q3ʻ D33 J 3Dʻ Hʻ Q3ʻ D CNF$423D

(H4Dʻ > 3-R 3E$E ʻ J $Oʻ 43X- 43ʻ F3ʻ 11H E J 3E ʻ H ʻ <&& N34Cʻ H&

ʻ EDʻ F343$Cʻ F3ʻ EF$Q $E Cʻ H&ʻ J $EOʻ I $4 CF3C ʻ *H EC ʻ H4ʻ I $N3Cʻ NHE $ E E2ʻ &3 34ʻ F$Eʻ <E3ʻ FH-C$EDʻ EF$Q $E C ʻ Q- ʻ F343 Eʻ F3ʻ ; 3N HEʻ H&ʻ <&& N34Cʻ H&ʻ 8 3$ Fʻ H- D ʻ F$ 3ʻ Q33Eʻ 14H134ʻ $EDʻ E3N3CC$4O ʻ F$ 3ʻ E32 3N 3Dʻ Hʻ 3 3N ʻ C-NFʻ <&& N34Cʻ $Cʻ F3Oʻ $43ʻ 3 J 1H 343D

1H 343D' H' DH' QO' F3' C$ D' 43N 3D' N ' H&' F3' 6 & O E E F' =3$4' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' ! , (!' F3' *FF D' $ED' ' C' F343&H43' 3 13D 3E ' H' 3 3ED' H' ?-NF' @$C3C' F3' I H 34C' EH ' 3C 3D' E' F3' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&' $!% #&' &H4' 43X- 4 E2' C-NF' ; 3N HE' H&' <&& N34C' H&' 8 3$ F' H' Q3' J $D3' E' @ 3C' $ED' $423' * H EC ' Q3' ' F343&H43' 3E$N 3D ' * F$ ' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' F3' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&' $!% #&' E' $ ' @$C3C' F343' ' CF$ ' C33 J ' H' F J ' H4' F3 J ' & ' H4' E3N3CC$4O ' H' D 43N ' $ED' 43X- 43' F$ ' F3' EF$Q $E ' 8 H-C3R FH D34C' H&' $EO' I $4 CF ' * H ' H4' I $N3' E' $!% #&' $CC3 J Q 3D' $ ' 3C 4O ' CF$ ' 3 3N ' <&& N34C' H&' 8 3$ F' &H4' C NF' I $4 CF ' E' 6H4 J ' $ED' P $EE34 ' $ED' C-Q(3N ' H' F3' C$ J 3' ' 32- $ HEC ' $ED' F' F3' +3' I H 34C ' G- 3C ' $ED' > $Q 3C ' $C' QO' F3' C$ D' $C 43N 3D' N ' 14HR D3D' E' F3' @$C3' H&' @ 3C' $ED' $423' * H EC ' $ED' E' D3&$- ' H&' C-NF' ; 3N HE' ' CF$ ' Q3' $ &- ' &H4' F3' 5-C N3C' H&' F3' I 3$N3' $CC3 J Q 3D' $ ' F3' \ -$4 34' ?3CC HEC ' H4' $EO' ^ ' H-4E J 3E ' F343H&' &H4' F3' @H-E O @ O ' H4' * H E' F E' F NF' C-NF' I $4 CF' CF$ ' Q3' C -$ 3 ' $ED' F3' C$ D' 5-C N3C' $43' F343QO' $- FH4 T3D' $ED' 43X- 43D ' H' J $+3' C-NF' 11H E R J 3E ' E' 6H4 J ' $ED' P $EE34' $C' F3O' $43' 43X- 43D' H' DH' QO' F3' C$ D' $C 43N 3D' N ' E' N$C3' H&' F3' EF$Q $E C' H&' I $4 CF3C' E' @ 3C' $ED' $423' * H EC' J $+ E2' $' C J $4' G3&$-

W ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' F3' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&' $!% #&' $ ' $EO' I 34 HD' H&' F3' =3$4' H' D 43N ' $ED' 43X- 43' F3' J J 3D $ 3' ; 3N HE' H&' <&& N34C' H&' 8 3$ F' E' $EO' @ O ' * H E ' I $4 CF ' H4' I $N3 ' $ED' <&& N34C' H&' 8 3$ F' CF$ ' Q3' D- O' 3 3N 3D' 1-4C-$E ' H' F3' * 3EH4' H&' C-NF' <4D34 ' $EO' F E2' E' F3' C$ D' N ' H&' F3' 6 & O E E F' =3$4' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' ! , (!' F3' * F 4D ' J E2' F3' I 34 HD' &H4' C-NF' ; 3N HE ' EH FC $ED E2.' I 4H D3D' $ $OC ' F$ ' C-NF' <&& N34C' H&' 8 3$ F' F3ECH3 34' 3 3N 3D ' CF$ ' NHE E-3' E' <&& N3' HE O' -E ' F3' * 3E O & & F' H&' ')' E3 ' 3EC- E2' F3 4' ; 3N HE ' $ED' -E ' E3 ' <&& N34C' H&' 8 3$ F' CF$ ' Q3' 3 3N 3D' &H4 ' F3 bC$ J 3' @ O ' * H E ' I $4 CF ' H4' I $N3 ' 1-4C-$E ' H' F3' I 4H C HEC' H&' F3' C$ D' 43N 3D' N ' $ED' F C' N

>H4D' > 3-R 3E$E ' J $O' D 43N ' F3' J J 3D $ 3' ; 3N HE' H&' <&& N34C' <&' 8 3$ F' $ ' $EO' I 34 HD' H&' F3' =3$4

W ' ED' Q3' ' 3E$N 3D ' * F$ ' F343' $EO' <&& N34' H4' <&& N34C' H&' 8 3$ F' 3 3N 3D' H4' $11H E 3D' -ED34' F3' I 4H C HEC' H&' F3' C$ D' 43N 3D' N ' H&' F3' 6 & O E E F' =3$4' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' ! , (! F3' * F 4D ' H4' -ED34' F C' N ' CF$ ' D3N E3' H4' 43&-C3' H' $N ' H4' Q3' H4' Q3NH J 3' EN1Q 3' H&' $N E2 ' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' F3' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4' H&' $!% #&' H' $11H E ' E' F C' H4' F3 4' ' HH J ' H4' ? 3$D' C-NF' H F34' I 34CHE' H4' I 34CHEC' $C' C-NF' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&' $!% #&' CF$ ' F E+' 14H134 ' $ED' F3' I 34CHE' H4' I 34CHEC' CH' $11H E 3D' CF$ ' Q3' D33 J 3D' $ED' NHEC D343D' E' $ ' 43C13N C' $E' <&& N34' H4' <&& N34C' 3 &' 8 3$ F' $C' &' D DO' 3 3N 3D' ED34' F3' C$ D' 43N 3D' N ' H&' F3' 6 & O E E F' =3$4' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' ! , (!' F3' * F 4D

$ED' X N$C3' FHC3' 3 3N 3D' N1Q 3' H' $H ' ' $O

W >' I 4H D3D' $ $OC ' $ED' Q3' ' 3E$N 3D ' * F$ ' EH F E2' E' F C' N ' * F C' O' EH ' NHE $ E3D' CF$ ' Q3' D33 J 3D' H4' NHEC 4-3D' H' ' $Q4 D23 ' $EE- ' <4 E' $EO C3' E 34&343' F' $EO' I H 34C ' ' 2F C ' G- 3C ' <Q 2$ HEC ' 3C 4 3C' O

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> $Q 3C ' H4' - FH4 3C' QO' F3' C$ D' N ' H&' F3' 6 & O E E F' =3$4' H&' % E2' ! , (!' F3' * F 4D' NHE&3443D' H4' J 1HC3D' - 1HE' $EO' 3C 4O' E' $!% #& ' F343' C - NF' 3C 4O' CF$ ' 43CH 3' H' 3 34N C3' $EO' C - NF' ' 2F C ' I H 34C ' H4' - FH4 3C ' Q - ' F3' C$ J 3' CF$ ' 43 J $ E' $ED' NHE E - 3' E' & - ' 6H4N3' $ED' ; &&3N ' $C' 3 ' F' 43C13N ' H' I $4HNF $ ' CC3CC J 3E C' $C' E' H F34' 43C13N C ' $C' & - O' H' $ ' E 3E C' $ED' I - 41HC3C' $C' &' F C' N ' F$D' EH ' 1$CC3D

@HE E-$EN3' H&' N ' — W ' I 4H D3D' $ $OC ' $ED' Q3' ' 3 $N 3D ' * F$ ' F C' N ' CF$ ' NHE E - 3' $ED' Q3' E' &H4N3' &4H J' F3' 1$CC E2' F343H&' &H4' * H' =3$4C ' $ED' H' F3' ; ED' H&' F3' F3E' E3 ' ?3CC HE' H&' I $4 $ J 3E ' $ED' EH' HE234

N ' J$O' Q3' $ 343D' F C' ?3CC HE — W ' ED' Q3' ' 3E$N 3D ' * F$ ' F C' N ' J $O' Q3' $ 343D ' $ J 3ED3D ' H4' 4313$ 3D' QO' $EO' N ' H4' N C' H' Q3' 1$CC3D' E' F3' 143C3E ' ?3CC HE' H&' I $4 $ J 3E

> < , G < , : I 4 E 3D' QO' # + . (/ +' & (+' $ED') * (+ , ' 01 . 223% , . . * + '
I 4 E 34C' H' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' ZSU

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Eʻ N ʻ&H4ʻ F3ʻ I 43 3E HE ʻ $Cʻ &$4ʻ $Cʻ J $Oʻ Q3ʻ 1HCC Q 3 ʻ
Hʻ&ʻ F3ʻ G C3$C3ʻ N$ 3Dʻ F3ʻ @FH 34$ ʻ H4ʻ ?1$C J HD Nʻ
H4ʻ ʻ @FH 34$ ʻ Eʻ)

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> 8 ; ' ; ?ʻ ʻ F$Cʻ 1 3$C3Dʻ J 2F Oʻ MHDʻ Hʻ C ʻ F3ʻ #E 3Dʻ % E2DH J ʻ Fʻ F3ʻ G C3$C3ʻ N$ 3Dʻ F3ʻ @FH 34$ ʻ H4ʻ ?1$C J HD Nʻ H4ʻ $#& #ʻ @FH 34$.ʻ EDʻ F343$C ʻ Fʻ $ʻ 3 ʻ Hʻ 143 3E ʻ $Cʻ &$4ʻ $Cʻ J $Oʻ Q3ʻ 1HCC Q 3 ʻ QOʻ F3ʻ G E3ʻ B 3CC E2 ʻ F3ʻ C143$D E2ʻ H&ʻ F3ʻ C$ Dʻ G C3$C3 ʻ J $Oʻ Q3ʻ E3N3CC$4Oʻ F$ ʻ ' - 3Cʻ $EDʻ ' 32 - $ HECʻ CFH - Dʻ &4H J ʻ * J 3ʻ Hʻ * J 3ʻ Q3ʻ 3C $Q CF3Dʻ F Eʻ @ 3C ʻ *H EC ʻ H4ʻ G C 4 N Cʻ $&&3N 3Dʻ Fʻ H4ʻ F NFʻ J $Oʻ Q3ʻ F43$ 3E3Dʻ QOʻ F3ʻ C$ Dʻ G C3$C3 ʻ Q- ʻ ʻ J $Oʻ Q3ʻ J 1HCC Q 3ʻ Hʻ 3C $Q CFʻ C-NFʻ ' - 3Cʻ $EDʻ ' 32 - $ HECʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ I $4 $ J 3E ʻ Fʻ C-&& R N 3E ʻ I 4H J 1 -D3ʻ Hʻ J 33 ʻ F3ʻ ; 23ENOʻ H&ʻ $EOʻ C-NFʻ @$C3ʻ $Cʻ ʻ J $Oʻ HNN - 4 ʻ B3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ J HC ʻ ; N3 3E ʻ P $(3C Oʻ 9 ʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3E ʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ ʻ $EDʻ *3 J 1H4$ ʻ $EDʻ @H J J HEC ʻ Eʻ F Cʻ 143C3E ʻ I $4 $ J 3E ʻ $CC3 J Q 3D ʻ $EDʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$ J 3 ʻ *F$ ʻ ʻ CF$ ʻ $EDʻ J $Oʻ Q3ʻ $ &- ʻ &H4ʻ F3ʻ >H4DCʻ $ED ʻ H F34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ P H$ ʻ 8 HEH-4$Q 3ʻ I 4 Oʻ @H-EN ʻ H4ʻ $EOʻ * Hʻ H4ʻ J H43ʻ H&ʻ F3 J ʻ ^H&ʻ FH J ʻ F3ʻ >H4Dʻ I 43C D3E ʻ H&ʻ F3ʻ @H-EN ʻ H4ʻ < E3ʻ H&ʻ 8 Cʻ P $(3C O Cʻ I 4 EN 1$ ʻ ?3N43 $4 3Cʻ H&ʻ ? $ 3ʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2ʻ CF$ ʻ $ 3 OCʻ 4 ! ʻ < E3_ ʻ QOʻ $EOʻ <4D34ʻ H4ʻ <4D34Cʻ Hʻ Q3ʻ QOʻ F3 J ʻ &4H J ʻ * J 3ʻ Hʻ * J 3ʻ J $D3 ʻ Hʻ 3C $Q CF ʻ $EDʻ 2 Eʻ &4H J ʻ * J 3ʻ Hʻ * J 3 ʻ QOʻ $EOʻ C-NFʻ <4D34ʻ H4ʻ <4D34C ʻ Hʻ 43 H+3 ʻ 43E3 ʻ $ 34 ʻ $EDʻ $4Oʻ $ ʻ C-NFʻ ' - 3Cʻ $EDʻ ' 32 - $ HEC ʻ H4ʻ Hʻ C-QC - 3ʻ $EOʻ C-NFʻ

<ʻ ʻ E3

>H4Dʻ I 43R C D3E ʻ H&ʻ @H-EN ʻ K[ʻ 3 J 1H 343Dʻ Hʻ CC ʻ 3ʻ <4D34Cʻ $ ʻ $EOʻ * J 3ʻ Hʻ 143 3E ʻ F3ʻ C143$D E ʻ H&ʻ @FH 34$ʻ Eʻ ʻ ; E2 $ED

E3 ʻ ' - 3C $ED ' 32- $ HEC $C H F3 J J $O $113$4 E3N3CC$4O H4 3 13D 3E ʻ &H4 F3 I43 3E HE ʻ $C &$4 $C J $O Q3 1HCC Q 3 ʻ H& F3 C143$D E2 H& F3 C$ D G C3$C3 N$ 3D F3 @FH 34$ ʻ H4 ?1$C J HD N H4 $#& # @FH 34$ ʻ E 8#(% #& $ED 1 H4 $EO I$4 ʻ F343H& ʻ H4 &H4 F3 ' 3 3& H& $EO I34CHEC C-&&34 E2 -ED34 H4 +3 O H Q3 $&&3N 3D QO F3 C$ D G C3$C3 ʻ $ED &H4 F3 C$&3 $ED C133DO E 34 J 3E ʻ H& $EO I3 CHE H4 134CHEC FH J $O D 3 H& F3 C$ D G C3$C3

H4D34C H(!#)?)(< IB & (!; +? F3 "!)2B + &H) 1 & < !(H()2(< &A 2)<(H(

ʻ ED Q3 ʻ &-4 F34 3E$N 3D ʻ *F$ ʻ 3 34O C-NF <4D34 $C $&H43C$ D CF$ ʻ Q3 N34 & 3D -ED34 F3 8 $ED H& <E3 H& F3 @ 34+C E <4D E$4O H& 8 C P$(3C O C I4 O @H-EN ʻ $ED F$ ʻ F3 I-Q N$ HE H& $EO C-NF <4D34 E F3] #&,# ! ! CF$ ʻ &H4 $ ʻ E 3E C $ED I-41HC3C ʻ Q3 $+3E ʻ $D J 3D ʻ $ED 43N3 3D E $ ʻ @H-4 C ʻ $ED QO $ED Q3&H43 $ ʻ 5-D23C ʻ 5-C N3C ʻ P$2 C 4$ 3C ʻ $ED H F34C ʻ $C 2HHD $ED C-&& N 3E ʻ ; D3EN3 H& F3 J $+ E2 $ED H& F3 G$ 3 $ED @HE 3E C H& $EO C-NF < D 4

"(& #B ?+2)+ &#)+ ʻ +? !<(!A

ʻ HD Q3 ʻ &-4 F34 3E$N 3D ʻ *F$ ʻ $EO I34CHE FH CF$ ʻ H4 J $O H $ 3 H4 &- O $ED +EH E2 O E&4 E23 F3 I4H C HEC H& $EO C-NF <4D34 ʻ H4 FH CF$ ʻ H4 J $O 43&-C3 H4 &- O E32 3N ʻ H4 H J ʻ H $N ʻ E HQ3D 3EN3 H H4 E NHE&H4 J O F $EO C-NF <4D34 ʻ H4 FH CF$ ʻ 43C C ʻ H11HC3 ʻ H4 HQC 4-N ʻ F3 $ &- ʻ ; 3N- HE F343H& ʻ CF$ ʻ &H4 3 34O C-NF <&&3EN3 Q3 $ED Q3 D33 J 3D 2- O H& $ P CD3 J 3$EH4 ʻ $ED CF$ ʻ $ CH EN-4 $ED Q3NH J 3 $Q 3 H $ I3E$ O EH ʻ 3 N33D E2 6 3 IH-EDC EH4 3CC F$E <E3 IH-ED ʻ H Q3 43NH 343D E F3 P$EE34 F343 E $& 34 J 3E HE3D: I4H D3D $ $OC ʻ F$ ʻ EH I34CHE 2 EC ʻ FH J $EO C-NF I3E$ O CF$ ʻ Q3 CH 43NH 343D ʻ H4 CF$ ʻ F$ 3 C-&&343D F3 J 14 CHE J 3E ʻ $ $4D3D &H4 , 1E1$O J 3E ʻ F343H& ʻ CF$ ʻ Q3 $Q 3 H Q3 ED N 3D H4 14HN33D3D 2 EC ʻ E 43C13N ʻ H& F3 C$ J 3 <&&3EN3 $C &H4 $ P CD3 J 3$EH4

(H+2(!B +? "(& #)(A

ʻ ED Q3 ʻ &-4 F34 3E$N 3D ʻ *F$ ʻ $ ʻ C-NF I3E$ 3C $C $&H43R C$ D CF$ ʻ Q3 43NH 343D QO $EO I34CHE H4 I34CHEC FH CF$ ʻ C-3 &H4 F3 ?$J 3 Q3&H43 ʻ $EO * H 5-C N3C H& F3 I3$N3 F$ E2 5-4 CD N H4 ʻ >)#J) ʻ F3 @H-E O ʻ ' D E2 ʻ @ O ʻ H4 I $N3 E F NF F3 <&&3EN3 CF$ ʻ F$ 3 Q33E NH J J 3D ʻ $ED F$ ʻ F3 J H-E ʻ H& I3E$ 3C H Q3 E& N 3D -11E $EO C-NF <&&3ED34C ʻ CF$ ʻ F E F3 > J C F343 ER Q3&H43 143CN4 Q3D ʻ Q3 E F3 G CN43 HE H& C-NF 5-C N3

"!+H((<) *A) ʻ H&A(+? ?+!)&#)+ 1 4H

ʻ ED Q3 ʻ &-4 F34 3E$N 3D ʻ *F$ ʻ ʻ CF$ ʻ Q3 $ &- ʻ &H4 $EO 5-C N3 H& F3 I3$N3 ʻ E $ ʻ @$C3C F343 $EO E&H4 J $ HE CF$ ʻ Q3 $ D Q3&H43 F3 J ʻ HE <$ F ʻ H& $EO C-XF <&&3EN3 $C $&H43C$ D ʻ $ED F3O $43 F343QO 43X- 43D ʻ H CC-3 F3 4 ?- J J HEC H $EO I34CHE H4 I34CHEC FH J F3O J $O F$ 3 43$CHE H C-11HC3 N$1$Q 3 H& 2 E2 $EO J $ 34 $ ʻ ; D3EN3 HE F3 F3$4 E2 H& C-NF E&H4 J $ HE ʻ 43X- 4 E2 3 34O C-NF I34CHE D4 I34CHEC H $113$4 $ED H 2 3 ; D3EN3 $ $ * J 3 $ED I $N3 H Q3 C13N & 3D E C-NF ?- J J HEC ʻ $ED & $EO I34CHE CH C-JR J HE3D CF$ ʻ EH ʻ $113$4 Q3&H43 C-NF 5-C N3C $ ʻ F3 *FE3 $ED I $N3 CH C13N & 3D E F3 ʻ C$ D ?- J J HEC ʻ H4 CF$ ʻ EH ʻ H&&34 $EO 43$CHE$Q 3 ; N-C3 &H ʻ C-NF G3&$- ʻ H F3 ?$ C&$N HE H& F3 C$ D 5-C N3C ʻ H4 $113$4 E2 CF$ ʻ EH ʻ C-Q J ʻ H Q3 3 $ J E3D $C $ 9 E3CC ʻ F3E $ED E 3 34O C-NF @$C3 ʻ CF$ ʻ Q3 $ &- ʻ &H4 F3 C$ D 5-C N3C ʻ $ED F3O $43 F343QO $- FH4 T3D ʻ ^ I HH& HE <$ ʻ E F3 @$C3 H& $EO 5I34CXE EH ʻ $1.

ʻ(&!) *

1q$4 E2ʻ Hʻ C-NFʻ ?- J JHECʻ F$O E2ʻ Q33Eʻ & 4Cʻ J$D3ʻ Q3&H43ʻ C-NFʻ 5-C N3Cʻ H&ʻ F3ʻ D-3ʻ ?34 N3ʻ H&ʻ C-NFʻ ?- E J HECʻ HEʻ C-NFʻ I34CHEʻ 4 ʻD3 34 E2ʻ F3ʻ C$J3ʻ Hʻ F Jʻ H4ʻ F34ʻ H4ʻ QOʻ 3$ E2ʻ F3ʻ C$J3ʻ $ʻ F Cʻ H4ʻ F34ʻ -C-$ʻ I $N3ʻ H&ʻ QHD3 _ʻ QOʻ 9$44$Eʻ -ED34ʻ F3ʻ 8$EDCʻ $EDʻ ?3$ Cʻ H&ʻ C-NFʻ 5-C N3Cʻ HʻNHJ J ʻ$EOʻ C-NFʻ I34CHEʻ CHʻ J$+ E2ʻ G3&$- ʻ $Cʻ $&H43C$ Dʻ Hʻ CHJ3ʻ M$H ʻ 8H-C3ʻ H&ʻ @H443N HEʻ H4ʻ B4 D3 3ʻ F Eʻ F3ʻ 5-4 CD N HEʻ H&ʻ F3ʻ C$ Dʻ 5-C N3Cʻ F343ʻ Hʻ 43J$ Eʻ FH- ʻB$ ʻH4ʻ P$ -(4 T3ʻ &H4ʻ $EOʻ * J3ʻ EH ʻ3 N33D E2ʻ 6H-4 33Eʻ G$OCʻ H4ʻ -E ʻC-NFʻ I34CHEʻ CF$ ʻC-QJ ʻ Hʻ Q3ʻ 3 $EDE3Dʻ $EDʻ 2 3ʻ ; D3EN3

ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3F$3 3Dʻ *F$ʻ $ʻ 5 -C N3Cʻ X&ʻ F3ʻ I3$N3ʻ 3GA#)H(Aʻ Hʻ CF$ʻ $EDʻ $43ʻ F343QOʻ 3J1H 343Dʻ HEʻ F3ʻ @HE N HEʻ H&ʻ $EOʻ I34CHEʻ "(&% Q3&H43ʻ F3Jʻ &H4ʻ $EOʻ C-NFʻ <&&3EN3ʻ $Cʻ $&H43C$ Dʻ Eʻ D3&$- ʻH&ʻ I$OJ3E H&ʻ $EOʻ C-NFʻ I3E$ Oʻ $Cʻ $&H43C$ Dʻ HʻN$-C3ʻ F3ʻ C$J3ʻ Hʻ Q3ʻ 3 3Dʻ QOʻ G C 43CCʻ $EDʻ ?$ 3ʻ H&ʻ F3ʻ MHHDCʻ $EDʻ @F$ 3 Cʻ H&ʻ F3ʻ <&&3EDQ4ʻ QOʻ 9$44$Eʻ -ED34ʻ F3ʻ 8$EDCʻ $EDʻ ?3$ Cʻ H&ʻ C-NFʻ 5-(N3Cʻ H23 F34ʻ Fʻ F3ʻ 43CHEQ 3ʻ @HC Cʻ H&ʻ C-NFʻ G C 43CCʻ $EDʻ ?$ 3ʻd $EDʻ Eʻ N$C3ʻ ʻ CF$ʻ $113$4ʻ Hʻ F3ʻ ?$ C&HN HEʻ H&ʻ C-NFʻ 5-C N3Cʻ3 F34ʻ QOʻ F3ʻ @HE&3CC CEʻ H&ʻ F3ʻ <&&3ED34ʻ H4ʻ QOʻ F3ʻ <$ Fʻ H&ʻ <E3ʻ H4ʻ JH43/ʻ N43D Q 3ʻ 9 E3CCʻ H4ʻ 9 E3CC3Cʻ F$ʻ C-NFʻ <&&3ED34ʻ Q$ Fʻ HʻMHHDCʻ $EDʻ @F$ 3 Cʻ F Eʻ F3ʻ 5-4 CD N HEʻ H&ʻ C-NFʻ 5-C N3Cʻ C-&& N 3Eʻ F343HEʻ Hʻ 3 ʻ$EOʻ ?-NFʻ @HC Cʻ $EDʻ @F$423Cʻ C-NFʻ 5-C N3Cʻ J$Oʻ FH- ʻ CC- E2ʻ $EOʻ 9$44$Eʻ H&ʻ G C 43CCʻ NHJ J ʻ C-NFʻ <&&3ED34ʻ Hʻ $EOʻ C-NFʻ M$H ʻ 8H-C3ʻ H&ʻ @H4R 43N HEʻ H4ʻ B4 D3 3ʻ $Cʻ $&H43C$ Dʻ &H4ʻ $JOʻ * J3ʻ EH ʻ 3 N33D E2ʻ 6H-4 33Eʻ 8$OCʻ -E 3CCʻ C-NFʻ I3E$ Oʻ @HC Cʻ $EDʻ @F$423Cʻ Q3ʻ CHHE34ʻ 1$ Dʻ Eʻ C-NFʻ P$EE34ʻ $Cʻ &ʻ $ʻ 9$44$Eʻ H&ʻ G C 43CCʻ Q$Dʻ Q33Eʻ CC-3Dʻ $EDʻ $ʻ '3 -4Eʻ H&ʻ, - $ʻ QHE$ʻ J$D3ʻ F343HEʻ Eʻ F NFʻ @$C3ʻ $ CHʻ ʻCF$ʻ Q3ʻ $ &- ʻ&H4ʻ C-NFʻ 5-C N3Cʻ Hʻ NHJ J ʻ $EOʻ C NFʻ <&&3ED34ʻ &H4ʻ C-NFʻ *34Jʻ H&ʻ 6H-4 33Eʻ G$OCʻ H4ʻ &H4ʻ $EOʻ CFH4 34ʻ I34 HDʻ Hʻ $EOʻ C#NFʻ I4 CHEʻ $Cʻ $&H43C$ D

ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ʻ $ʻ C-NFʻ I3E$ 3Cʻ $Cʻ $&H43ʻ '' H&#)<&ʻ C$ Dʻ CF$ʻ Q3ʻ $11 3Dʻ Eʻ H4ʻ H $4DCʻ F3ʻ '3 3&ʻ]&ʻ F3ʻ IH<4ʻ H&ʻ F3ʻ H&I3E$5D3Cʻ I$4 CFʻ H4ʻ I $N3ʻ Eʻ F NFʻ $EOʻ <&&3EN3ʻ $Cʻ $&H43C$ Dʻ J$Oʻ F$ 3ʻ Q33Eʻ NHJ J 3D

8 ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ʻ $ ʻ$EDʻ 3 34Oʻ F3ʻ ; 13EN3Cʻ <E3 5-C N3ʻ F NFʻ J$Oʻ Q3ʻ 43$CHE$Q Oʻ H4ʻ 14H134 Oʻ EN-443Dʻ Eʻ N$44O E2ʻ E Hʻ 3&&3N ʻ $EOʻ <4D34ʻ H4ʻ <4D34Cʻ H&ʻ F3ʻ >H4DCʻ H&ʻ 8 Cʻ P$(3C O Cʻ PHCʻ 8HEH-4$Q 3ʻ '&!(#ʻ+?ʻ I4 Oʻ @H-EN ʻCHʻ Hʻ Q3ʻ <$D3ʻ $Cʻ $&H43C$ Dʻ CF$ ʻ Eʻ F3ʻ & 4Cʻ EC $ENOʻ PH(3C& ʻ -ED34ʻ $EDʻ QOʻ 4 -3ʻ H&ʻ $#ʻ <4D34ʻ H4ʻ <4D34Cʻ Eʻ 9 4 E2ʻ H&ʻ <E3ʻ 5-C N3ʻ H&ʻ "G!'+A(Aʻ+?ʻ F3ʻ I3$N3ʻ D 3 E2ʻ Eʻ H4ʻ E3$4ʻ F3ʻ I$4 CFʻ H4ʻ G C HEʻ $EDʻ F NFʻ C$ Dʻ N ʻ <4D34ʻ H4ʻ <4D34Cʻ $EOʻ C-NFʻ 5-C N3ʻ Cʻ F343QOʻ 3J1H 343Dʻ $EDʻ D 43N 3Dʻ Hʻ J$+3ʻ &4H Jʻ * J3ʻ Hʻ * J3ʻ $Cʻ <NN$C HEʻ ʻ43X- 43ʻ NHJ J$ED E2ʻ F3ʻ @F-4NF $4D3ECʻ < 34C334Cʻ H4ʻ M-$4D $ECʻ H&ʻ F3ʻ I<H4ʻ &H4ʻ F3ʻ * &3ʻ Q3J2ʻ Hʻ 1$Oʻ $ʻ N34 $ Eʻ C-&& N 3Eʻ ?- Jʻ H&ʻ PHE3Oʻ &H4ʻ C-NFʻ I-41HC3Cʻ Hʻ Q3ʻD3&4$O3Dʻ H- ʻH&ʻ F3ʻ '$ 3Cʻ &H4ʻ F3ʻ '3 3&ʻ H&ʻ F3ʻ IHH4ʻ X&ʻ F3ʻ I$4 CF *H ECF 1ʻ H4ʻ ; 4$ 1$4HN 9 Dʻ I&3N3ʻ J$ E $ E E2ʻ 3ʻ H Eʻ IHH4ʻ Eʻ F NFʻ F3ʻ C$J3ʻ CF$ʻ Q3ʻ CHʻ EN-443Dʻ $EDʻ Eʻ H F34ʻ ; 4$ 1$4HNF $ʻ I $N3Cʻ H- ʻH&ʻ F3ʻ IHH4 Cʻ '$ 3ʻ H&ʻ F3ʻ I$4 CFʻ E3$43Cʻ $D(H E E2

Wʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ʻ ʻ CF$ʻ Q3ʻ $ &- ʻ&H4ʻ F3ʻ <E3IN4CHE Eʻ >H4Dʻ I43C D3E ʻ&H4ʻ F3ʻ * J3ʻ Q3 E2ʻ H&ʻ 8 Cʻ P$(3C O Cʻ PHCʻ 8HEH-4$Q 3 I4 Oʻ b`

E(##(!Aʿ& <ʿ "&H;(#Aʿ ?!+@ʿ E+ <+ ʿ?!((ʿ ?!+@ʿ $G#B1ʿ <G!) *ʿAGHJʿ)) ?ʿ+ Bʿ&Aʿ #J)AʿK H# H+ #) G(ʿ)" +'(!&#)+

I4 Oʿ @H-EN ʿ Hʿ $- FH4 T3ʿ $EDʿ D 43N ʿ <E3ʿ I34CHEʿ Eʿ F3ʿ I4 Oʿ @H-E&N ʿ <& ?N3ʿ ^ FHC3ʿ , $ J 3ʿ CF$ ʿ Q3ʿ &4H Jʿ * J 3ʿ Hʿ * J 3ʿ 4$EC J 3Dʿ Hʿ F3ʿ ?3N43 $4 3Cʿ H&ʿ F3ʿ M3E34$ʿ IHC ʿ <&& N3ʿ Eʿ <,#&,#ʿ $EDʿ 2 34% #Aʿ Hʿ C3EDʿ >3 3&Cʿ $EDʿ I$N+3 Cʿ QOʿ F3ʿ M3E34$ʿ IHC ʿ &4H Jʿ <,#&,#ʿ Hʿ I $N3Cʿ F Eʿ F3ʿ #E 3Dʿ % E2DH Jʿ &433ʿ &4H Jʿ F3ʿ G- Oʿ H&ʿ IHC $23ʿ D-4 E2ʿ C-NFʿ * J 3ʿ HE Oʿ $Cʿ F3ʿ 34$ʿ @ $-C3Cʿ $EDʿ ; E$N J 3E Cʿ F343 Eʿ NHE $ E3Dʿ CF$ ʿ NHE E-3ʿ $EDʿ Q3ʿ Eʿ H134$ HE ʿ $EDʿ EHʿ HE234ʿ(14HR D3Dʿ $ ʿ C-NFʿ >3 34Cʿ $EDʿ I$N+3 Cʿ CF$ ʿ 43 $ 3ʿ CH 3 Oʿ $EDʿ 3 N -C 3 Oʿ Hʿ F3ʿ ; 3N- HEʿ H&ʿ F Cʿ N ʿ $EDʿ H&ʿ F3ʿ G 43N HEC ʿ IH 34C ʿ $EDʿ - FH4 3Cʿ F343 Eʿ NHE $ E3D ʿ $EDʿ CF$ ʿ Q3ʿ Eʿ @H 34Cʿ Fʿ F3ʿ 9 H4DCʿ <Eʿ 8 Cʿ ?34 N3 ʿ @H-EN ʿ <&& N3 cʿ 14 E 3Dʿ HEʿ F3ʿ C$ J 3 $EDʿ Q3ʿ C 2E3Dʿ H4ʿ C-QCN4 Q3Dʿ HEʿ F3ʿ <- C D3ʿ F343H&ʿ -ED34ʿ C-NFʿ 9 H4DC ʿ Fʿ F3ʿ , $ J 3ʿ H&ʿ F3ʿ I34CHEʿ CHʿ Hʿ Q3ʿ $- FH4 T3Dʿ $Cʿ $&H43C$ D ʿ Eʿ F Cʿ H Eʿ 8 $ED 4 E2 ʿ $EDʿ 14H D3Dʿ $ ʿ C-NFʿ I$N+3 Cʿ CF$ ʿ Q3ʿ C3$ 3Dʿ Fʿ F3ʿ ?3$ʿ H&ʿ F3ʿ C$ Dʿ <&& N3 ʿ $EDʿ F3ʿ I34CHEʿ CHʿ Hʿ Q3ʿ $- FH4 T3Dʿ Cʿ F343QOʿ C 4 N Oʿ &H4Q DD3Eʿ CHʿ Hʿ C-QCN4 Q3ʿ $EDʿ C3$ ʿ $EOʿ >3 34ʿ H4ʿ I$N+3 ʿ F$ 3 34 ʿ3 N31 ʿ C-NFʿ HE Oʿ NHEN34E E2ʿ F NFʿ F3ʿ $ ʿ 43N3 3ʿ D 3ʿ C13N $ʿ G 43N HECʿ H&ʿ F Cʿ C-134 H4ʿ <&& N34 ʿ H4ʿ F NFʿ F3ʿ CF$ ʿ F J C3 &ʿ+EH ʿ Hʿ 43 $ 3ʿ CH 3 Oʿ $EDʿ 3 N -C 3 Oʿ Hʿ F3ʿ ; 3N- HEʿ H&ʿ F Cʿ N ʿ $EDʿ F3ʿ G 43N HEC ʿ IH 34C ʿ $EDʿ - FH4 3Cʿ F343 Eʿ NHE $ E3D ʿ $EDʿ &ʿ C-NFʿ $- FH4 T3Dʿ I34CHE ʿ H4ʿ $EOʿ H F34ʿ I34CHE ʿ CF$ ʿ C3ED ʿ H4ʿ N$-C3ʿ H4ʿ 134 J ʿ Hʿ Q3ʿ C3E ʿ -ED34ʿ $EOʿ C-NFʿ @H 34 ʿ $EOʿ >3 34 ʿ I$134 ʿ H4ʿ 9 4 E2 ʿ H4ʿ $EOʿ EN HC-43 ʿ H F34ʿ F$Eʿ F$ ʿ CF$ ʿ 43 $ 3ʿ Hʿ F3ʿ ; 3N- +J ʿ H&ʿ F Cʿ N ʿ $EDʿ F3ʿ G 43N HEC ʿ IH 34C ʿ $EDʿ - FHR 4 3Cʿ F343 Eʿ NHE $ E3D ʿ 3 34Oʿ I34CHEʿ CHʿ H&&3ED E2ʿ CF$ ʿ &H4&3 ʿ $EDʿ 1$Oʿ F3ʿ ?- J ʿ H&ʿ <E3ʿ F-ED43Dʿ IH-EDC ʿ $EDʿ Q3ʿ D C J CC3Dʿ &4H Jʿ F Cʿ <&& N3

<4D34Cʿ H&ʿ @H JN ʿ HʿQ3ʿ + Dʿ Q3&H43ʿ I$4ʿ $ J 3E ʿ

W ʿ EDʿ Q3ʿ ʿ&-4 F34ʿ 3E$N 3D ʿ * F$ ʿ3 34Oʿ <4D34ʿ F NFʿ J $Oʿ Q3ʿ CHʿ J $D3ʿ $Cʿ 4DQ43C$ Dʿ QOʿ F3ʿ >H4DCʿ H&ʿ 8 Cʿ P$(3C O Cʿ I4 Oʿ @H-EN ʿ H4ʿ QOʿ H4ʿ J H43ʿ H&ʿ F3 J ʿ CF$ ʿ Q3ʿ &H4 F Fʿ $ Dʿ Q3&H43ʿ QH Fʿ 8 H-C3C I$4 $ J 3E ʿ &ʿ I$4 $ J 3E ʿ CF$ ʿ Q3ʿ F3Eʿ C E2 ʿ $EDʿ F$ ʿ C-NFʿ <4D34Cʿ $Cʿ CF$ ʿ Q3ʿ CHʿ J $D3ʿ F3Eʿ I$4 $ J 3E ʿ CF$ ʿ EH ʿ Q3ʿ C E2ʿ CF$ ʿ Q3ʿ $ Dʿ Q3&H43ʿ QH Fʿ 8 H-C3Cʿ H&ʿ I$4 $ J 3E ʿ F Eʿ 6H-4 33Eʿ G$OCʿ E3 ʿ $& 34ʿ F3ʿ @H J J 3EN3 J 3E ʿ H&ʿ F3ʿ & 4C ʿ ?3CC HEʿ F NFʿ CF$ ʿ 3EC-3ʿ -1HEʿ F3ʿ G$ 3ʿ H&ʿ $EOʿ C-NF ʿ <4D34

@HE E-$EN3ʿ H&ʿ N ʿ

W ʿ EDʿ Q3ʿ ʿ &-4 F34ʿ 3E$N 3D ʿ * F$ ʿ F Cʿ N ʿ CF$ ʿ NHE E-3ʿ Eʿ &H4N3ʿ -E ʿ F3ʿ * F 4 0 & 4C ʿ G$Oʿ H&ʿ 2 ! ' ! 4! ʿ <E3ʿ FH-C$EDʿ 3 2F ʿ F-ED43Dʿ $EDʿ F 4 0 Hʿ $EDʿ &4H Jʿ F3EN3ʿ #E ʿ F3ʿ ; EDʿ H&ʿ F3ʿ F3Eʿ E3 ʿ ?3CC HEʿ <&ʿ I$4 $ J 3E

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W ʿ EDʿ Q3ʿ ʿ &-4 F34ʿ 3E$N 3D ʿ * F$ ʿ F Cʿ N ʿ J $Oʿ Q3ʿ $ 343D ʿ $ J 3ED3D ʿ H4ʿ 4313$ 3Dʿ QOʿ $EOʿ N ʿ H4ʿ N Cʿ Hʿ Q3ʿ 1$CC3Dʿ Eʿ F Cʿ 143C3E ʿ ?3CC HEʿ H&ʿ I$4 $ J 3E

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E' N '&H4' F3' I 43 3E HE ' $C' &$4' $C' J $O' Q3' 1HCC Q 3 '
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9 8 ; ' ; ?' ' F$C' 1 3$C3D' J 2F O' MHD' H' C ' F3' #E 3D' % E2DH J ' F' F3' G C3$C3' N$ 3D' F3' @FH 34$ ' H4' ?1$C J HD N' H4' $#& #' @FH 34$.' ED' F343$C ' F' $' 3 ' H' 143 3E ' $C' &$4' $C' J $O' Q3' 1HCC Q 3 ' QO' F3' G E3' B 3CC E2 ' F3' C143$D E2' H&' F3' C$ D' G C3$C3 ' ' J $O' Q3' E3N3CC$4O' F$ ' ' - 3C' $ED' ' 32- $ HEC' CFH- D' &4H J ' * J 3' H' * J 3' Q3' 3C $Q CF3D' F E' @ 3C ' * H EC ' H4' G C 4 N C' $& 3N 3D' F' H4' F NF' J $O' Q3' F43$ 3E3D' QO' F3' C$ D' G C3$C3' ' Q- ' ' J $O' Q3' J 1HCC Q 3' H' 3C $Q CF' C-NF' ' - 3C' $ED' ' 32- $ HEC ' QO' F3' - FH4 O' H&' I $4 $ J 3E ' F' C-&& N 3E ' I 4H J 1R -D3' H' J 33 ' F3' ; 23ENO' H&' $EO' C1NF' @$C3' $C' ' J $O' HNN-4.' B3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC ' ; N3 3 4 ' P $(3C O ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$ ' $ED' * 3 J 1H4$ ' $ED' @H J J HEC ' E' F C' 143C3E ' I $4 $ J 3E ' $CC3 J Q 3D ' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3 ' * F$ ' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' F3' >H4DC' $ED' H F34C' H&' 8 C' P $(3C O C' P HC ' 8 HEH-4$Q 3' I 4 O' @H-EN ' H4' $EO' * H' H4' J H43' H&' F3 J ' ^H&' FH J ' F3' >H4D' I 43C D3E ' H&' F3' @H-EN ' H4' <E3' H&' 8 C' P $(3C O C' I 4 EN 1$ ' ?3N43 $4 3C' H&' ? $ 3' &H4' F3' * J 3' Q3 E2' CF$ ' $ $OC' Q3' <E3_ ' QO' $EO' <4D34' H4' <4D34C' H' Q3' QO' F3 J ' ' H J ' * J 3' H' * J 3' J $D3 ' H' 3C $Q CF ' $ED' 2 E' &4H J ' * J 3' H' * J 3 ' QO' $EO' C-NF' <4D34' H4' <4D343 ' H' 43 H+3 ' 43E3 ' $ 34 ' $ED' $4O' $ ' C-NF' ' - 3C' $ED' ' 32- $ HEC' $C' H' F3 J ' J $O' $113$4' E3N3CC$4O' H4'
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3 13D 3E ʻ &H4ʻ F3ʻ I43 3E HE ʻ $Cʻ &$4ʻ $Cʻ J $Oʻ Q3ʻ 1HCC Q 3 ʻ H&ʻ F3ʻ C143$D E2ʻ H&ʻ F3ʻ C$ Dʻ G C3$C3ʻ N$ 3Dʻ F3ʻ @FH 34$ʻ H4ʻ ?1$C J HD Nʻ H4ʻ $#& #ʻ @FH 34$ʻ F Eʻ +', % #&ʻ H4ʻ $EOʻ I $4 ʻ F343H&ʻ H4ʻ &H4ʻ F3ʻ ' 3 3&ʻ H&ʻ $EOʻ I 34CHECʻ C-&&34 E2ʻ -ED34ʻ H4ʻ +3 Oʻ Hʻ Q3ʻ $&&3N 3Dʻ QOʻ F3ʻ C$ Dʻ G C3$C3ʻ $EDʻ &H4ʻ F3ʻ C$&3ʻ $EDʻ C133DOʻ E 34 J 3E ʻ H&ʻ $EOʻ I 34CHEʻ H4ʻ I 34CHECʻ FHʻ J $Oʻ D 3ʻ H&ʻ F3ʻ C$ Dʻ G C3$C3ʻ Fʻ I H 34ʻ $ CHʻ Hʻ F3ʻ C$ Dʻ 8 HEH-4$Q 3ʻ I 4 Oʻ @H-EN ʻ Hʻ $11H E ʻ I 34CHECʻ 43C D3E ʻ Eʻ +', % #& Hʻ C-134 E 3EDʻ $EDʻ $CC C ʻ Eʻ F3ʻ ; 3N- HEʻ H&ʻ F Cʻ N ʻ $EDʻ Hʻ 3C ʻ C-NFʻ I 34CHECʻ Fʻ C-NFʻ I H 34Cʻ $EDʻ - FH4 3Cʻ &H4ʻ F Cʻ I -41HC3ʻ $Cʻ Hʻ F3 J ʻ J $Oʻ C33 J ʻ &

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ʻ EDʻ Q3ʻ &ʻ &-4 F34ʻ 3E$N 3D ʻ * F$ ʻ 3 34Oʻ C-NFʻ <4D34ʻ $Cʻ $&H43C$ Dʻ CF$ ʻ Q3ʻ N34 & 3Dʻ -ED34ʻ F3ʻ 8 $EDʻ H&ʻ <E3ʻ H&ʻ F3ʻ @ 34+Cʻ Eʻ <4D E$4Oʻ H&ʻ 8 Cʻ P $(3C O Cʻ I 4 Oʻ @H-EN ʻ $EDʻ F$ ʻ F3ʻ I -Q N$ HEʻ H&ʻ $EOʻ C-NFʻ <4D34ʻ Eʻ F3ʻ <,#&,#ʻ ! !ʻ CF$ ʻ &H4ʻ $ ʻ E 3E Cʻ $EDʻ I -41HC3C ʻ Q3ʻ $+3E ʻ $D J 3D ʻ $EDʻ 43N3 3Dʻ Eʻ $ ʻ @H-4 C ʻ $EDʻ QOʻ $EDʻ Q3&H43ʻ $ ʻ 5-D23C ʻ 5-C N3C ʻ P $2 C 4$ 3C ʻ $EDʻ H F34C ʻ $Cʻ 2HHDʻ $EDʻ C-&& N 3E ʻ ; D3EN3ʻ H&ʻ F3ʻ J $+ E2ʻ $EDʻ H&ʻ F3ʻ G$ 3ʻ $EDʻ @HE 3E Cʻ H&ʻ $EOʻ C-NFʻ <4D34

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ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ * F$ ʻ $EOʻ I 34CHEʻ FHʻ CF$ ʻ H4ʻ J $Oʻ H $ 3ʻ H4ʻ &- Oʻ $EDʻ +EH E2 Oʻ E&4 E23ʻ F3ʻ I 4H C HECʻ H&ʻ $EOʻ C-NFʻ <4D34 ʻ H4ʻ FHʻ CF$ ʻ H4ʻ J $Oʻ 43&-C3ʻ H4ʻ &- Oʻ E32 3N ʻ H4ʻ H J ʻ Hʻ $N ʻ Eʻ HQ3D 3EN3ʻ Hʻ H4ʻ Eʻ NHE&H4 J Oʻ Fʻ $EOʻ C-NFʻ <4D34 ʻ H4ʻ CF$ ʻ 43C C ʻ H11HC3 ʻ H4ʻ HQC 4-N ʻ F3ʻ $ &- ʻ ; 3N- HEʻ F343H& ʻ CF$ ʻ &H4ʻ 3 34Oʻ C-NFʻ <&&3EN3ʻ Q3ʻ $EDʻ Q3ʻ D33 J 3Dʻ 2- Oʻ H&ʻ $ʻ @4 J 3ʻ 1-E CF$Q 3ʻ QOʻ 6 E3ʻ $EDʻ J 14 CHE J 3E ʻ $EDʻ CF$ ʻ $ CHʻ EN-4ʻ $EDʻ Q3NH J 3ʻ $Q 3ʻ Hʻ $ʻ I 3E$ Oʻ EH ʻ 3 N33D E2ʻ 6 3ʻ I H-EDCʻ EH4ʻ 3CCʻ F$Eʻ <E3ʻ I H-ED ʻ Hʻ Q3ʻ 43NH 343Dʻ Eʻ F3ʻ P $EE34ʻ F343 E $& 34ʻ J 3E HE3Dʻ. I 4H D3Dʻ $ $OC ʻ F$ ʻ EHʻ I 34CHEʻ 2 EC ʻ FH J ʻ $EOʻ C-NFʻ I 3E$ Oʻ CF$ ʻ Q3ʻ CHʻ 43NH 343Dʻ CF$ ʻ Q3ʻ $Q 3ʻ Hʻ Q3ʻ ED N 3Dʻ H4ʻ 14HN33D3Dʻ 2 EC ʻ Eʻ 43C13N ʻ H&ʻ F3ʻ C$ J 3ʻ <&&3EN3ʻ $Cʻ &H4ʻ $ʻ @4 J 3

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ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ * F$ ʻ $ ʻ C-NFʻ I 3E$ 3Cʻ $Cʻ $&H&3 ʻ C$ Dʻ CF$ ʻ Q3ʻ 43NH 343Dʻ QOʻ F3ʻ I 4HN-4$ H4ʻ 6 CN$ ʻ H&ʻ @H-4 ʻ H4ʻ $EOʻ I 34CHEʻ H4ʻ I 34CHECʻ FHʻ CF$ ʻ C-3ʻ &H4ʻ F3ʻ C$ J 3 ʻ Q3&H43ʻ $EOʻ * Hʻ 5-C N3Cʻ H&ʻ F3ʻ I 3$N3ʻ F$ E2ʻ 5-4 CD N HEʻ F Eʻ F3ʻ @H-E O ʻ @ O ʻ B-42F ʻ H4ʻ I $N3ʻ Eʻ F NFʻ F3ʻ <&&3EN3ʻ CF$ ʻ F$ 3ʻ Q33Eʻ NH J J 3D ʻ H4ʻ Q3&H43ʻ F3ʻ ?F34 &&ʻ H&ʻ $EOʻ C-NFʻ @H-E O ʻ $EDʻ F$ ʻ F3ʻ J H-E ʻ H&ʻ F3ʻ I 3E$ 3Cʻ Hʻ Q3ʻ E& N 3Dʻ -1HEʻ $EOʻ C-NFʻ <&&3ED34Cʻ CF$ ʻ F Eʻ F3ʻ ; J Cʻ F343 E Q3&H43ʻ 143CN4 Q3D ʻ Q3 ʻ Eʻ F3ʻ G CN43 HEʻ H&ʻ C-NFʻ 5-C N3ʻ H4ʻ ?F34 & ʻ $11 3Dʻ Hʻ F3ʻ I -41HC3Cʻ H&ʻ F Cʻ N

?F34 &&Cʻ KN ʻ 3 J 1H 343Dʻ Hʻ D3 34 E 13ʻ @H J 1 $ E C

ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ * F$ ʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ F3ʻ ?F34 &&ʻ H4ʻ 5-C N3Cʻ Q3&H43ʻ FH J ʻ $EOʻ @H J 1 $ E ʻ &H4ʻ F3ʻ ' 3NH 34Oʻ H&ʻ C-NFʻ I 3E$ 3Cʻ J $Oʻ Q3ʻ Q4H-2F ʻ Hʻ 14HN33Dʻ Eʻ $ʻ C- J J $4Oʻ 9 $O ʻ $EDʻ Hʻ 24$E ʻ 9 44E ʻ &H4ʻ Q4 E2 E2ʻ F3ʻ I $4 3Cʻ NH J 1 $ E3Dʻ -1HEʻ J J 3D $ 3 Oʻ Q3&H43ʻ F3 J ʻ $EDʻ HEʻ I 4HH&ʻ HFʻ <$ Fʻ QOʻ <E3ʻ H4ʻ J H43ʻ N43D Q 3ʻ 9 E3CC3C ʻ H4ʻ H F34ʻ 32$ʻ ; D3EN3 ʻ &H4 F Fʻ Hʻ D3 34 J E3ʻ $EDʻ 2 3ʻ 5-D2 J 3E ʻ Eʻ C-NFʻ @H J 1 $ E ʻ FH- ʻ $EOʻ 4 3Eʻ I 3$D E2Cʻ H4ʻ ' 3NH4Dʻ H&ʻ ; D3EN3 ʻ $EDʻ Hʻ 24$E ʻ 9 44E ʻ &H4ʻ F3ʻ ' 3NH 34Oʻ H& ʻ $ ʻ I 3E$ 3Cʻ $EDʻ ; 13EN3Cʻ D3N34E3Dʻ &H4 ʻ &$ E2ʻ I $O J 3E ʻ F Eʻ ; 2F ʻ G$OCʻ $& 34ʻ @HE N HE ʻ QOʻ I H ED E2 ʻ $EDʻ J 14 CHE J 3E ʻ &H4ʻ $ʻ I 34 HD $

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9 8 ; ' ; ?ʻ F3ʻ P $OH4ʻ B$ &&Cʻ $EDʻ @HJ JHEʻ @H-EN ʻ HEʻ Q3F$ &ʻ H&ʻ F3ʻ P $OH4ʻ B$ &&Cʻ $EDʻ B-&23CC3Cʻ H&ʻ F3ʻ *H Eʻ H&ʻ < 0! 5, , %ʻ Eʻ F3ʻ =3$4ʻ <E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ 3E O C3 3Eʻ -ED34 HH+ʻ Hʻ 3 13EDʻ F3ʻ ?- Jʻ H&ʻ <E3ʻ F-ED43Dʻ $EDʻ C3 3E O & 3ʻ FH-C$EDʻ IH-EDCʻ Eʻ F3ʻ ; 43N HEʻ H&ʻ $ʻ B- D E2ʻ F NFʻ ʻ CFH- Dʻ NHE $ Eʻ NNHJ JHD$ HEʻ &H4ʻ F3ʻ G31$4 J3E Cʻ H&ʻ F3ʻ @-C HJC ; N C3ʻ IHC ʻ $EDʻ ? $J1ʻ <&& N3Cʻ -1HEʻ $ʻ ? 3ʻ H&&343Dʻ &H4ʻ F$ʻ I -41HC3ʻ Eʻ 1$4ʻ QOʻ F3ʻ C$ Dʻ @H41H4$ HEʻ $EDʻ Eʻ 1$4ʻ QOʻ F3ʻ *4-C 33Cʻ H&ʻ FDʻ < 0! 5, , %ʻ GHN+Cʻ $EDʻ F3ʻ @HJ J CC HE34Cʻ H&ʻ 8 Cʻ P bC O Cʻ *43$C-4Oʻ 3E2$23Dʻ Hʻ 1$Oʻ Hʻ F3ʻ ?$ Dʻ @H41H4$ HEʻ <E3ʻ F-ED43Dʻ $EDʻ & & Oʻ FH-R C$EDʻ IH-EDCʻ H $4DCʻ D3&4$O E2ʻ C-NFʻ ; 13EN3ʻ. EDʻ F343$Cʻ F3ʻ C$ Dʻ B- D E2Cʻ F$ 3ʻ Q33Eʻ NHJ J3EN3Dʻ $EDʻ $43ʻ Eʻ 14H243CCʻ $EDʻ $Eʻ EC $ R J3Eʻ H&ʻ * 3E O & 3ʻ FH-C$EDʻ IH-EDCʻ F$Cʻ Q33Eʻ 1$ Dʻ -ED34ʻ F3ʻ - FH4 Oʻ H&ʻ $Eʻ Nʻ 1$CC3Dʻ Eʻ F3ʻ 6 4Cʻ $EDʻ ?3NHEDʻ =3$4Cʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ 143C3Eʻ P $(3C Oʻ E - 3Dʻ / #ʻ / ' ʻ ,ʻ 55% ʻ) !ʻ +3 ʻ, ʻ Kʻ U 9 ʻ 6#!ʻ %% ,#ʻ ! ( ) ʻ)3#& !&ʻ) ,31 #&ʻ * ,3#&1ʻ ,3ʻ , ʻ) !ʻ I ,#1,% & !&ʻ Nʻ ! ʻ R3#&ʻ ,ʻ) !ʻ +! 0 ' !ʻ , ʻ) !ʻ H! ʻ 6#!ʻ) ,31 #&ʻ ! ( ) ʻ) 3#& !&ʻ #&ʻ) ʻ ,#!ʻ #&ʻ ,ʻ 55 ,5 !ʻ) !ʻ +355% !1ʻ (# !&ʻ #ʻ) 1ʻ +!11 ,#1ʻ , ʻ * % [!#ʻ ʻ EDʻ F343$Cʻ ʻ Cʻ 3 13D 3Eʻ Hʻ $- FH4 T3ʻ F3ʻ I$OJ3Eʻ H&ʻ F3ʻ 43J$ E E2ʻ EC $ J3E Cʻ H&ʻ F3ʻ C$ Dʻ ?- Jʻ H&ʻ <E3ʻ F-ED43Dʻ $EDʻ & & Oʻ FH-C$EDʻ IH-EDCʻ H- ʻ H&ʻ F3ʻ @HECH D$ 3Dʻ 6-EDʻ H&ʻ F3ʻ #E 3Dʻ % E2ʻ ?ʻ DHJ

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#' 43 $ED.' ED' F343$C' $E' N ' 1$CC3D' E' F3' %4C ' =3$4' H&' F3' ' 3 2E'
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>$ C' EH ' E' &H4N3' F3' I HC J $C 34' M3E34$ ' &H4' F3' * J 3' Q3 E2' C'
$- FH4 T3D' H' C3 3' $ED' 3C $Q CF' $E' <&& N3 ' H' Q3' N$ 3D' F3' I 3EEO'
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*' @HEC3E

$ ʻM # > ; > P ʻ ʻ @$1ʻ !

IHC J$C 34ʻ M3E34$ʻ J$Oʻ C3 3ʻ$EDʻ 3?" $Q CQʻ I3EEOʻ IHC <&& N3? ʻ 43 $EDʻ F343ʻ F3ʻ CF$ ʻ NHER C D34ʻ F3ʻC$J3ʻ E3N3CC$4Oʻ$EDʻ NHEO3E 3E&

@HEC3E ʻH&ʻ F3ʻ >H4DCʻ ?1 4 -$ʻ $EDʻ *3 J 1H4$ ʻ $EDʻ @H J JHECʻ Eʻ F Cʻ 143C3E ʻ I$4 $J3E ʻ $CC3 J Q 3Dʻ $EDʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$J3ʻ *F$ ʻ$& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ 8 Cʻ P $(3C O Cʻ IHC J$C 34ʻ M3E34$ʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2 ʻ$EDʻ F Cʻ G31- Oʻ$EDʻ G31- 3C ʻ 23E ʻ$EDʻ 23E Cʻ QOʻ F Jʻ F343-E Hʻ C-&& N 3E Oʻ $- FH4 T3Dʻ J $Oʻ C3 3ʻ $EDʻ 3C $Q CFʻ $E <&& N3ʻ Hʻ Q3ʻ N$Q 3Dʻ F3ʻ I3EEOʻ IHCʻ <&& N3ʻ Eʻ $EOʻ @ Oʻ *H Eʻ H4ʻ $23ʻ $EDʻ F3ʻ ?-Q-4QCʻ F343H&ʻ $EDʻ I $N3Cʻ $D($N3E ʻ F Eʻ $!% #&ʻ $&H43C$ Dʻ F343ʻ C-NFʻ IHC ʻ CF$ ʻ QOʻ F3ʻ IHC J$C 34ʻ M3E34$ʻ Q3ʻ $D(-D23Dʻ E3N3CC$4Oʻ $EDʻ NHE 3E 3E ʻ $EDʻ J $Oʻ D3 J $EDʻ $EDʻ $+3ʻ &H4ʻ F3ʻ IHC $23ʻ $EDʻ @HE 30$EN3ʻ H&ʻ$ ʻ >3 34Cʻ $EDʻ I $N+3 Cʻ NHE 3O3Dʻ QOʻ C-NFʻ 13EEOʻ IHC ʻ F3ʻ ?- J ʻ H&ʻ <E3ʻ I3EEO

@F$423ʻ HE "3 34Cʻ33E ʻ &4HJʻ F3ʻM3 EWD IHC O $EO I3EEO ʻ 1HC ʻ ʻ

ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ ʻ$ ʻ>3 34Cʻ $EDʻ I $N+3 Cʻ F NF CF$&ʻ Q3ʻ C3E ʻ Hʻ H4ʻ D3 343Dʻ &4H Jʻ $EOʻ M3E34$ʻ IHC ʻ <&& N3ʻ QOʻ $EOʻ I3EEOʻ IHC ʻ CF$ ʻ Q3ʻ NF423Q 3ʻ Fʻ F3ʻ I3EEOʻ IHC ʻ ʻ $ 3ʻ $&H43C$ Dʻ b 34ʻ $EDʻ $QH 3ʻ F3ʻ ʻ $ 3Cʻ H&ʻ IHC $23ʻ H&ʻ C-NFʻ >3 34Cʻ H4ʻ I $N+3 Cʻ QOʻ F3ʻ M3E34(Dʻ IHC

*F3ʻ I3EEOʻ IHCʻ ʻ$ 3Cʻ Hʻ I$4 ?4o3ʻ IHC ʻ <&& N3ʻ ;3 3E-3ʻ

8 ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ ʻ F3ʻ P HE 3Cʻ Hʻ $4 C3ʻ &4H Jʻ F3ʻ C$ Dʻ ʻ $ 3ʻ H&ʻ <E3ʻ I3EEOʻ CF$ ʻ$& 34ʻ D3&4$O E2ʻ F3ʻ ; 13EN3Cʻ EN-443Dʻ D3 3Dʻ I$4 ʻH&ʻ F3ʻ ʻ3 3E-3ʻ H&ʻ F3ʻ M3E34$ʻ IHC ʻ <&& N3ʻ Eʻ $!% #&ʻ $11 3Dʻ Eʻ C-NFʻ P $EE34ʻ $Cʻ F3ʻ 143C3E ʻ ʻ $ 3Cʻ H&ʻ IHC $23ʻ E $!% #&ʻ $43ʻ QOʻ >$ ʻ$11 N$Q 3

%Hʻ >3 34ʻ H4ʻ I $N+3 ʻ3 ʻ <-EN3C

ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ ʻEHʻ >3 34ʻ H4ʻ I $N+3 ʻ CF$ ʻ Q3ʻ &H4 $4D3Dʻ QOʻ $EOʻ I3EEOʻ IHC ʻ CHʻ Hʻ Q3ʻ 3C $Q CF3Dʻ F NFʻ CF$ ʻ3 N33Dʻ 9 3 2F ʻH&ʻ6H-4ʻ <-EN3C ʻH F34ʻ F$Eʻ C-NFʻ $Cʻ F$ 3ʻ & 4C ʻNH J 3ʻ QOʻ F3 M3E34$ʻ IHC ʻ <&& N3ʻ H4ʻ CF$ ʻ Q3ʻ 1$CC E2ʻ QOʻ F3ʻ I3EEOʻ IHC ʻ-E Hʻ F3ʻ M3E34$ʻ IH?

Hʻ F3ʻ C3E ʻ FOʻ I3EEOʻ IHC ʻ

9 F3Eʻ C-NFʻ I3EEOʻ IHC ʻ)ʻ 3C $Q CF3Dʻ EHʻ I34CHEʻ Hʻ NH 3N ʻ ʻ C3EDʻ H4ʻ NHE ʻ O3Oʻ >3 34Cʻ FH- ʻ F3ʻ > N3EN3ʻ H&ʻ F3ʻ IHC ʻ ʻ4H$C 34ʻ M3 ʻ 34$

ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ ʻ F3Eʻ $EOʻ C-NFʻ I3EEOʻ IHC ʻ <&& N3ʻ CF$ ʻ Q3ʻ 3C $Q CF3Dʻ $Cʻ $&H43C$ Dʻ 3 34Oʻ I34CHEʻ FHʻ CF$ ʻ &H4ʻ $EOʻ 8 43ʻ ʻ3 $4Dʻ H4ʻ ; JH -J3E ʻ NH 3N ʻ H4ʻ 43N3 3ʻ >3 34Cʻ H4ʻ I $N+3 Cʻ &H4 G3 34Oʻ H4ʻ C3EDʻ H4ʻ NHE 3Oʻ $EOʻ 3 34Cʻ H4ʻ I $N+3 Cʻ &4H Jʻ H4ʻ Hʻ $EOʻ @ Oʻ *H Eʻ $23ʻ ?-Q-4Qʻ H4ʻ I $N3ʻ H4ʻ ? 433ʻ F ʻ H4ʻ E3$4ʻ Hʻ $EOʻ C-NFʻ I3EEOʻ IHC ʻ <&& N3ʻ FH- ʻ F3ʻ > N3EN3ʻ H&ʻ F3ʻ IHC J$C 34ʻ M3E34$ʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2 ʻ CF$ ʻ Q3ʻ C-Q(3N ʻ Hʻ $ ʻ F3ʻ I3E$ 3Cʻ $EDʻ 6H4&3 -43Cʻ Eʻ &H4N3ʻ 43 $ E2ʻ Hʻ I34CHECʻ NH 3N E2ʻ 43N3 E2ʻ C3ED E2ʻ N$440 E2ʻ 43 N$440 E2ʻ $EDʻ D3 34 E2ʻ >3 34Cʻ NHE 4$4Oʻ Hʻ $EOʻ N ʻ H4ʻ N Cʻ H&ʻ I$4 $J3E ʻ Eʻ &H4N3ʻ $Cʻ Hʻ F3ʻ IHC <&& N3ʻ Eʻ $!% #&

IHC J$C 34ʻ M3E34$ʻ J$Oʻ #ED34 $+3ʻ F3ʻ @HE 3OR $EN3ʻ H&ʻ >3 34Cʻ Hʻ $EDʻ &4H Jʻ 1 $N3Cʻ Eʻ 43 $EDʻ EH ʻ Q3 E2ʻ IHC ʻ *H ECʻ &H4ʻ C-NFʻ ?- J Cʻ $C J $Oʻ Q3ʻ $2433Dʻ -1HE

ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ ʻ$& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ 8 Cʻ P $(3C O Cʻ IHC J$C 34ʻ M3E34$ʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2ʻ J $Oʻ -ED34 $+3ʻ $ ʻ F3ʻ ; 13EN3ʻ H&ʻ F3ʻ ʻ3 3E-3ʻ H&ʻ F3ʻ IHC ʻ <&& N oʻ H&ʻ $!% #&ʻ F3ʻ @HE 30$EN3ʻ $EDʻ G3 34Oʻ H&ʻ >3 34Cʻ $EDʻ I $N+3 Cʻ D 43N 3Dʻ Hʻ I34CHECʻ $Q D E2ʻ Eʻ *H ECʻ $23Cʻ $EDʻ I $N3Cʻ Eʻ $! &ʻ nEH ʻQ3 E2ʻ IHC ʻ *H EC_ &4H Jʻ F3ʻ 43C13N 3ʻ IHC ʻ *H ECʻ Hʻ F NFʻ C-NFʻ >3 34Cʻ CF$ ʻ Q3ʻ N$44 3Dʻ QOʻ F3ʻ IHC ʻ Eʻ F3ʻ -C-$ʻ P$EE34 ʻ$EDʻ $ CHʻ F3ʻ @H R 3N HEʻ $EDʻ @HE 30$EN3ʻ H&ʻ >3 34Cʻ $EDʻ I $N+3 Cʻ Eʻ $EDʻ &4H Jʻ C-NFʻ *H ECʻ $23Cʻ $EDʻ I $N3Cʻ Eʻ H4D34ʻ Hʻ Q3ʻ C3E ʻ QOʻ F3ʻ IHC ʻ $EDʻ $ CHʻ F3ʻ @H 3N HE ʻ@HE 30$EN3ʻ $EDʻ G3 34Oʻ H&ʻ >3 34Cʻ $EDʻ I $N+3 Cʻ Eʻ &4H Jʻ $EDʻ Hʻ *H ECʻ $23Cʻ$EDʻ I $N3Cʻ Eʻ $!% #&ʻ ^EH ʻQ3 E2

U ʻM #> ;>P ʻ ʻ @$1 !ʻ !

43C13N 3 Oʻ I HC ʻ *H EC _ʻ $EDʻ Hʻ $+3ʻ C-NFʻ ?-Jʻ $EDʻ ?-J C H&ʻ P HE3O ʻ &H4ʻ F3ʻ #C3ʻ H&ʻ 8 Cʻ P$(3C O ʻ 8 Cʻ 83 4Cʻ $EDʻ ?-NN3CCH4C ʻ &H4ʻ C-NFʻ ?3 ʻ N3C ʻ $Cʻ CF$ ʻ &4H Jʻ * J 3ʻ Hʻ * J 3ʻ Q3ʻ J - -$ Oʻ $2433Dʻ -1HEʻ Q3 33E ʻ F3ʻ I HC J $C 34ʻ M3E34$ ʻ $EDʻ F3ʻ EF$Q $E Cʻ H&ʻ C-NFʻ *H EC ʻ = $23C ʻ $EDʻ I $N3Cʻ 43C13N 3 O ʻ

ʻ I 4H D3Dʻ $ $OC ʻ $EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ EH F E2ʻ Q- F3 E ʻ F343 E Q3&H43ʻ NHE $ E3Dʻ CF$ ʻ 3 3EDʻ H4ʻ Q3ʻ NHEC 4-3Dʻ Hʻ 3 3EDʻ Hʻ F$Q $E Cʻ H&ʻ F ED34ʻ H4ʻ 143 3E ʻ F3ʻ EF$Q $E Cʻ H&ʻ $EOʻ C-NFʻ *H EC ʻ # $23C ʻ $EDʻ I $N3C 1 $N3Cʻ 43C13N 3 Oʻ &4H Jʻ N$440 E2ʻ H4ʻ 43 N$440 E2 ʻ H4ʻ 3 J 1 HO E2ʻ $EOʻ P 3CC3E234 ʻ ?34 $E ʻ H4ʻ H F34ʻ I 34CHEʻ Hʻ N$440ʻ H4ʻ 43 N$440 ʻ $EOʻ >3 34C H4ʻ I $N+3 Cʻ Hʻ H4ʻ &4H Jʻ F3ʻ I HC ʻ *H ECʻ Eʻ C-NFʻ P $EE34ʻ $Cʻ F3Oʻ F$ 3ʻ F343 H&H43ʻ Q33Eʻ $NN-C H J 3Dʻ $EDʻ $43ʻ QOʻ >$ ʻ $- FH4 T3D

ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ F3ʻ P HE 3Cʻ Hʻ $4 C3ʻ $EDʻ Q3ʻ P HE 3Cʻ HQ3 43N3 3Dʻ &H4ʻ C-NFʻ ?34 N3Cʻ $Cʻ $C ʻ $&H43C$ Dʻ CF$ ʻ $& 34ʻ 1$O E2ʻ F3ʻ 11 3Dʻ $C ; 13EN3Cʻ EN-443D ʻ Q3ʻ $11 3Dʻ Eʻ C-NFʻ P $EE34ʻ $Cʻ F3ʻ 143C3E ʻ ʻ $ 3C H&ʻ I HC $23ʻ Eʻ $!% #&ʻ $43ʻ QOʻ >$ ʻ $11 N$Q 3 ʻ3 &NE-3

Wʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ $& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ I HC J $C 34ʻ 8 Cʻ P $(3C O Cʻ I HC J $C 34ʻ M3E34$ ʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2ʻ J $O ʻ Eʻ F Cʻ M3E34$ ʻ J $Oʻ G CN43 HE ʻ 3E 34ʻ E Hʻ $EOʻ 2433 J 3E ʻ H4ʻ 2433 J 3E Cʻ F ʻ H4ʻ $+3 $2433ʻ Fʻ ?3N-4 Oʻ &4H J ʻ $EOʻ I 34CHEʻ H4ʻ I 34CHECʻ $11 O E2ʻ Hʻ F J ʻ &H4ʻ F$ ʻ $EOʻ I 34CHEʻ I -41HC3 ʻ &H4ʻ ED3 J E &O E2ʻ 8 Cʻ P $(3C O ʻ 8 Cʻ 83 4Cʻ $EDʻ ?-NN3CCH4C ʻ &^ ʻ ED3 EE ʻ &O E2ʻ 8 C Eʻ FH 3ʻ H4ʻ Eʻ 1$4 ʻ $EDʻ &H4ʻ C-NFʻ * J 3ʻ $Cʻ F3ʻ I HC J $C 34ʻ M3E34$ ʻ J $Oʻ F E+ʻ E3N3CC$4O ʻ 2 EC ʻ F3ʻ ; 13EN3Cʻ F NFʻ CF$ ʻ H4ʻ J $Oʻ Q3ʻ 2 EC ʻ F3ʻ ; 13EX3C EN-443Dʻ Q3OHEDʻ F3ʻ ʻ $ 3Cʻ H&ʻ I HC $23ʻ QOʻ 3 3ED E2ʻ F3ʻ @HER ʻ F NFʻ J $Oʻ Q3ʻ 3O$EN3ʻ H&ʻ >3 34Cʻ $EDʻ I $N+3 Cʻ QOʻ I HC ʻ Hʻ H4ʻ &4H J ʻ $EOʻ I $N3ʻ EN-443D H4ʻ I $N3Cʻ Eʻ $!% #& ʻ F343ʻ C-NFʻ @HE 3O$EN3ʻ CF$ ʻ Q3ʻ 3 3ED3Dʻ Q3OHEDʻ F3ʻ $ ʻ F3ʻ B3X-3C ʻ H&ʻ C-NFʻ I 34CHEʻ H4ʻ I 34CHEC ʻʻ $EDʻ ʻ CF$ ʻ $113$4ʻ ʻ $ 3Cʻ H& DH-Q &- ʻ Hʻ F3ʻ I HC J $C 34ʻ M3E34$ ʻ F3 F34ʻ QOʻ 3 3ED E2ʻ F3ʻ C$ Dʻ @HE 3O$EN3ʻ $Eʻ $DD HE$ ʻ ; 13EN3ʻ Hʻ F3ʻ ʻ 3 3E-3ʻ J $Oʻ EH ʻ Q3ʻ EN-443D

W ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ 8 Cʻ P $(3C O ? I HC J $C 34ʻ I HC J $C 34ʻ M3E34$ ʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2 ʻ $EDʻ F Cʻ G31- Oʻ $EDʻ G31- 3Cʻ QOʻ F J ʻ M3E34$ ʻ J $Oʻ F343-E Hʻ C-&& N 3E Oʻ $- FH4 T3D ʻ J $Oʻ NHE 4$N ʻ $EDʻ $2433ʻ &H4ʻ F3ʻ NHE 4$N ʻ &H4ʻ @HE 3O$EN3ʻ H&ʻ P $ Cʻ H&ʻ >3 34Cʻ QOʻ $EOʻ " 1) ʻ ?F 1Cʻ H4ʻ 3CC3 Cʻ Hʻ H4ʻ @HE 3O$EN3 ʻ &4H J ʻ $EOʻ I H4 ʻ H4ʻ I $N3ʻ F$ CH3 34 ʻ $EDʻ Hʻ &H4 $4Dʻ F 3ʻ C$ J 3ʻ H&ʻ P $ Cʻ QO $NNH4D E2 O ʻ $EDʻ Hʻ D3 J $EDʻ $EDʻ $+3 ʻ &H4ʻ F3ʻ #C3ʻ H&ʻ 8 Cʻ P $(3C O ʻ 8 Cʻ B4 CFʻ ?F 1C ʻ 83 4Cʻ $EDʻ ?-NN3CCH4C ʻ &H4ʻ C-NFʻ @HE 3O$EN3 ʻ F3ʻ +3ʻ ʻ $ 3Cʻ H&ʻ $EDʻ &H4 $4Dʻ I HC $23 ʻ $EDʻ Hʻ 3 34N C3ʻ $EDʻ 3E&H4N3ʻ F3ʻ +3ʻ I H 34Cʻ &H4ʻ NH J 13 E2ʻ F3ʻ C$ J 3ʻ $ ʻ I $O J 3E ʻ H&ʻ F3ʻ C$ J 3 ʻ $Cʻ &ʻ ?-NFʻ >3 34Cʻ $EDʻ I $N+3 Cʻ F$Dʻ Q33Eʻ I $N+3 ʻ ʻ $ 3C NHE 3O3DʻQOʻ 432- $4ʻ I $N+3 ʻ BH$ C H&ʻ I HC $23

W ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ 3 34Oʻ I 34CHEʻ FHʻ CF$ ʻ C 3$ ʻ ? 3$ E2ʻ B$2C H4ʻ -E $ &- Oʻ $+3ʻ $ $Oʻ $EOʻ B$2ʻ H4ʻ P $ ʻ H&ʻ >3 34Cʻ C3E ʻ H4ʻ Hʻ Q3ʻ H4 P$ Cʻ]& C3E ʻ QOʻ $EOʻ ?F 1ʻ H4ʻ 3CC3 ʻ CHʻ Hʻ Q3ʻ 3 J 1 HO3Dʻ &H4ʻ F3ʻ @HE 3O$EN3ʻ H&ʻ H4 P $ Cʻ H&ʻ >3 34Cʻ $EDʻ I $N+3 Cʻ $Cʻ $C ʻ $&H43C$ D ʻ H4ʻ CF$ ʻ C 3$ ʻ H4ʻ >3 34Cʻ H- ʻ -E $ &- Oʻ $+3ʻ $EOʻ >3 34ʻ H4ʻ I $N+3 ʻ H- ʻ H&ʻ $E(4ʻ C-NFʻ B$2ʻ H4ʻ P $ ʻ H&ʻ C-NFʻ B$2C H4ʻ CF$ ʻ -E $ &- Oʻ H13Eʻ $EOʻ C-NFʻ B$2ʻ H4ʻ P $D ʻ CF$ ʻ -1HEʻ Q3 E2ʻ H ʻ P$ Cʻ NHE N 3Dʻ F343H& ʻ Q3ʻ $D(-D23Dʻ 2- Oʻ H&ʻ 63 HEO ʻ $EDʻ CF$ ʻ Q3ʻ $Q 3 $ ʻ F3ʻ G CN43 HEʻ H&ʻ F3ʻ @H-4 ʻ HʻQXʻ 4$EC1H4 3Dʻ Q3OHEDʻ F3ʻ ?3$Cʻ &H4 $EO

Y UcM#> ;>P ʻ ʻ @$1ʻ !

$EOʻ *34 Jʻ EH ʻ3 N33D E2ʻ 6H-4 33Eʻ =3$4Cʻ EH4ʻ 3CCʻ F$Eʻ ?3 3Eʻ =3$4Cʻ H4ʻ HʻQ3ʻ J14 CHE3Dʻ &H4ʻ $EOʻ *34 Jʻ EH ʻ3 N33D E2ʻ *F433ʻ =3$4Cʻ $EDʻ F3Eʻ -EOʻC-NFʻ 63 HEOʻ CF$ ʻQ3ʻ NH J J 3Dʻ F Eʻ F3ʻ 5-4 CD N HEʻ H&ʻ F3ʻ D J 4$ Oʻ, ʻ?8#(% #&ʻ F3ʻ C$J3ʻ CF$ ʻQ3ʻ D3$ ʻ Fʻ EX- 43Dʻ H&ʻ 4 3Dʻ $EDʻ D3 34 J E3Dʻ Eʻ F3ʻ C$J3ʻ P$EE34ʻ $Cʻ $EOʻ H F34ʻ 63 HEOʻ NH J J 3Dʻ F Eʻ F$ʻ -4 CD N HE

I3E$ OʻHEʻ I34CHECʻ NHER 30 E2ʻ H4ʻ &H4 O$4D E2ʻ >3 34Cʻ QOʻ EO-3Qʻ ?F 1ʻ H F34 C3ʻ F$Eʻ F4H-2Fʻ F3ʻ IHCʻ <5& N3

W ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ʻ $& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ Nʻʻ EH634C $ʻ ʻ BHDOʻ I D Nʻ H4ʻ @H41H4$ 3ʻ Eʻ $EOʻ I$4ʻ H&ʻ F3ʻ #E 3Dʻ % E2DH Jʻ H&ʻ ʻ" #ʻ H4ʻ $;% #&ʻ CF$ ʻ43N3 3ʻ $+3ʻ -1ʻ D3C1$ NFʻ NHE 30ʻ N$440ʻ H4ʻ D3 34ʻ H4ʻ CF$ ʻC3EDʻ H4ʻ N$-C3ʻ HʻQ3ʻ C3Eʻ H4ʻ NHE 303Dʻ <4 3ED34ʻ <4 D3 34ʻ Eʻ H4D34ʻ Hʻ Q3ʻ C3Eʻ H4ʻ NHE 303Dʻ ^H F34 C3ʻ F$Eʻ QOʻ F3ʻ 1HCʻ H4ʻ QOʻ $EDʻ Fʻ F3ʻ - FH4 Oʻ $EDʻ @HEC3Eʻ H&ʻ 8 Cʻ P$(3C O Cʻ IHC J$C 34ʻ M3E34$ʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2ʻ H4ʻ F Cʻ G31- Oʻ H4ʻ ; 31- 3C_ʻ $EOʻ >3 34ʻ H4ʻ >3 34Cʻ I$N+3ʻ H4ʻ I$N+3 Cʻ QOʻ $EOʻ ?F 1ʻ H4ʻ 3CC3ʻ QOʻ F NFʻ 8 Cʻ P$(3C O Cʻ IHC J$C 34ʻ M3E34$ʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2ʻ H4ʻ F Cʻ G31- Oʻ H4ʻ G31- 3Cʻ CF$ ʻ NHE 4$Nʻ H4ʻ $2433ʻ &H4ʻ F3ʻ &H4 $4D E2ʻ H&ʻ $EOʻ P$ʻ H4ʻ P$ Cʻ H&ʻ >3 34Cʻ -ED34ʻ H4ʻ QOʻ 4 -3ʻ H&ʻ F3ʻ - FH4 Oʻ F343 Eʻ NHE $ E3Dʻ HEʻ 1$ Eʻ H&ʻ &H4&3 E2ʻ &H4ʻ 3$NFʻ $EDʻ 3 34Oʻ >3 34ʻ F3 F34ʻ C-NFʻ >3 34ʻ CF$ ʻ Q3ʻ 43N3 3Dʻ $+3Eʻ -1ʻ H4D343Dʻ D3C1$ NF3Dʻ NHE 303Dʻ N$44 3Dʻ N$: D3 343Dʻ H4ʻ C3Eʻ H4ʻ N$-C3Dʻ Hʻ Q3ʻ C3Eʻ H4ʻ NHE 303Dʻ H4ʻ 3ED343Dʻ H4ʻ D3 343Dʻ Eʻ H4D34ʻ Hʻ Q3ʻ C3Eʻ H4ʻ NHE 303Dʻ C31$4$ 3 Oʻ H4ʻ QOʻ C3 &ʻ H4ʻ H23 F34ʻ Fʻ $EOʻ H F34ʻ >3 34ʻ H4ʻ >3 34Cʻ H4ʻ H F34ʻ P$ 34ʻ H4ʻ *F E2ʻ F$ CH3 34ʻ F3ʻ ?- Jʻ H&ʻ 6 3ʻ IX-EDC

, Hʻ H3 3EDʻ Hʻ >3 3 Jʻ C3Eʻ 43 $ E2ʻ Hʻ MHHDCʻ HEʻ QH$4Dʻ CD@Q ?F 1C

W ʻ I4H D3Dʻ $ $OCʻ $EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ʻ EH F E2ʻ $C Oʻ F343 E Q3&H43ʻ NHE $ E3Dʻ CF$ ʻ 3 3EDʻ Hʻ C-Q(3Nʻ $EOʻ I34CHEʻ H4ʻ BHDOʻ I H Nʻ H4ʻ @H41H4$ 3ʻ Hʻ $EOʻ C-NFʻ I3E$ Oʻ H4ʻ 6H4&3 -43ʻ Eʻ 43C13Nʻ H&ʻ $EOʻ >3 34ʻ H4ʻ >3 34Cʻ F NFʻ CF$ ʻ Q3ʻ C3Eʻ Fʻ H4ʻ CF$ ʻ43 $ 3ʻ Hʻ $EOʻ MHHDCʻ HEʻ QH$4Dʻ ʻ$EOʻ C-NDʻ ?F 1ʻ H4ʻ 3CC3 ʻ $EDʻ 3E 343Dʻ HEʻ F3ʻ ? 1 Cʻ P$E &3C

GA#+@ʻ +GA(ʻ /

W ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ʻ $EOʻ @H 3N H4ʻ @H J 1 4H 34ʻ H4ʻ H F34ʻ <&& N34ʻ H&ʻ 8 Cʻ P$(3C O Cʻ @-C H J Cʻ $ʻ $EOʻ IH4ʻ H4ʻ I $N3ʻ F$ CH3 34ʻ J $Oʻ $EDʻ F3Oʻ $43ʻ F343QOʻ $- FH4 T3Dʻ $EDʻ 43X- 43Dʻ Hʻ C3$4NFʻ 3 34Oʻ ?E 1ʻ H4ʻ 3C ʻ Eʻ $EOʻ 6H4ʻ H4ʻ I $N3ʻ &H4ʻ >3 34Cʻ H4ʻ I$N+3 Cʻ F NFʻ J $Oʻ Q3ʻ HEʻ QH$4Dʻ NHE 4$4Oʻ Hʻ F3ʻ I4H C HECʻ H&ʻ F Cʻ N ʻ$EDʻ HʻC3 T3ʻ $EDʻ $+3ʻ $ ʻC-NFʻ >3 34Cʻ $EDʻ I$N+3 Cʻ $EDʻ Hʻ &H4 $4Dʻ F3ʻ C$J 3ʻ Hʻ F3ʻ IHC J $C 34ʻ M3E34$ʻ H4" F Cʻ G31- Oʻ $ʻ F3ʻ IH4ʻ H4ʻ I $N3

13E$ 3Cʻ 3ʻ Q3ʻ 43NH 343Dʻ &4H Jʻ F3ʻ I3&ʻ CH ʻH4ʻ I34R CHECʻ 4 E2ʻ C3ED E2ʻ H4ʻ NHE 30 E2ʻ C-NFʻ >3 34C

W ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ʻ Eʻ $ ʻ@$C3Cʻ H&ʻ C-NFʻ ?3 T-43ʻ F3ʻ I3E$ Oʻ H4ʻ I3E$ 3Cʻ J 1HC3Dʻ QOʻ F Cʻ Nʻ Eʻ 43C13Nʻ H&ʻ $EOʻ C-NFʻ >3 34Cʻ H4ʻ I$N+3 Cʻ F NFʻ J $Oʻ Q3ʻ &H-EDʻ HEʻ QH$4Dʻ $EOʻ C-NFʻ ?F 1Cʻ H4ʻ 3CC3 Cʻ NHE 4$4Oʻ Hʻ F3ʻ I4H C HECʻ H&ʻ Cʻ N ʻCF$ ʻ $EDʻ J $Oʻ Q3ʻ 43NH 34$Q 3ʻ &4H Jʻ F3ʻ I34CHEʻ H4ʻ I34CHECʻ 4 E2ʻ H4ʻ C3ED E2ʻ H4ʻ N$44O E2ʻ $EOʻ C-NFʻ >3 34ʻ H4ʻ I$N+3 ʻ H4ʻ &4H Jʻ F3ʻ < E34ʻ H4ʻ < E34Cʻ H4ʻ @H J R J $ED34ʻ H&ʻ $EOʻ C-Dʻ ?F 1ʻ H4ʻ 3CC3 ʻ $ʻ F3ʻ <1 HEʻ H&ʻ F3ʻ I34CHEʻ H4ʻ I34CHECʻ C- E2ʻ &H4ʻ F3ʻ C$J 3ʻ $EDʻ Eʻ $ʻ @$C3Cʻ H&ʻ C-NFʻ ?3 T-43ʻ F3ʻ I4HH&ʻ CF$ ʻ 3ʻ HEʻ F3ʻ I34CHEʻ H4ʻ I34CHECʻ CHʻ 14HN33D3Dʻ 2 ECʻ F$ʻ F3ʻ I4H C HECʻ H&ʻ F Cʻ N ʻF$ 3ʻ Q33Eʻ NH J 1 3Dʻ F

W ʻ ED

U`M#> ;>P ʻ ʻ @$1 !

W ʻ EDʻQ3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ*F$ʻ HE3ʻ PH3 Oʻ H&ʻ F3ʻ C3 34$ʻ
13N-E $4Oʻ I3E$ 3Cʻ F343 E Q3&D43/ʻ J1HC3Dʻ CF$ʻ Q3ʻ 1$0$Q3ʻ Hʻ F3ʻ
#C3ʻ H&ʻ 8 Cʻ P$(3C Oʻ 8 Cʻ 83 4Cʻ $EDʻ?-NN3CCH4Cʻ $EDʻ F3ʻ H F34ʻ PH3 Oʻ
,ʻ F3ʻ #C3ʻ H&ʻ F3ʻ I34CHEʻ FHʻ CF$ʻ E&H4 Jʻ H4ʻ C-3ʻ &H4ʻ F3ʻ C$J3ʻ Hʻ Q3ʻ
C-3Dʻ &H4ʻ $EDʻ 43NH 343Dʻ Fʻ &- ʻ@HC Cʻ H&ʻ ?- ʻ QOʻ $EOʻ I34CHEʻ FHʻ
CF$ ʻ$EDʻ ʻ E&H4 Jʻ $EDʻ C-3ʻ &H4ʻ F3ʻ C$J3ʻ Eʻ $EOʻ H&ʻ 8 Cʻ P$(3C O C
@H-4 Cʻ H&ʻ ʻ3NH4Dʻ $ʻ !1 #1 ! ʻ&H4ʻ <&&3EN3Cʻ NH J J 3Dʻ F Eʻ F$ʻ
I$4ʻ H&ʻ F3ʻ #E 3Dʻ % E2DH Jʻ H&ʻ ! ʻ" #ʻ $EDʻ $!% #&ʻ N$ 3Dʻ
8#(% #& ʻ$EDʻ Eʻ $EOʻ H&ʻ 8 Cʻ P$(3C O Cʻ @H-4 Cʻ H&ʻ ʻ3NH4Dʻ Eʻ 234% #ʻ
&H4ʻ <&&3EN3Cʻ NH J J 3Dʻ Eʻ $!% #&ʻ $EDʻ Q3&H43ʻ F3ʻ ?F34 &&ʻ H4ʻ ? 3 $4Dʻ
@H-4ʻ H&ʻ F3ʻ ?F 43ʻ H4ʻ ? 3 $4 4Oʻ F Eʻ F NFʻ F3ʻ I$4 3Cʻ H&&3ED E2ʻ
CF$ ʻ 43C D3ʻ H4ʻ F3ʻ <&&3EN3ʻ CF$ ʻ Q3ʻ NH J J 3Dʻ &H4ʻ <&&3EN3Cʻ NH J R
J 3Dʻ Eʻ +ʻ, % #&

<Eʻ PH3 Oʻ H&ʻ F3ʻ I3R E$ 3Cʻ HʻQ3ʻ 1$0$Q3ʻ Hʻ F3ʻ #C3ʻ H&ʻ 8 Cʻ P$(3C Oʻ $EDʻ F3ʻ H F34ʻ PH3 Oʻ Hʻ F3ʻ E&H4 J34

W ʻ EDʻ F343$Cʻ $Eʻ Nʻ1$CC3Dʻ Eʻ F3ʻ 6 & O F 4Dʻ =3$4ʻ H&ʻ F3ʻ
ʻ3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P$(3C Oʻ % E2ʻ !, (!ʻ F3ʻ *F 4Dʻ E - 3Dʻ /#ʻ
/ʻʻ ,ʻ !5! %ʻ! #ʻ L !1ʻ #&ʻ 23 !1ʻ 35,#ʻ "! ! 1ʻ #&ʻ L,ʻ)! 1ʻ
1!#ʻ 4ʻ)!ʻ *,1ʻ , ʻ, ʻ ,ʻ G-(Eʻ ,ʻ,ʻ , ʻ)!ʻ 1!0! %ʻ *,1ʻ
7,F#1ʻ #ʻ 43 $EDʻ #&ʻ ,ʻ (#ʻ,)! ʻ L !1ʻ #&ʻ 23 !1ʻ #ʻ %!3ʻ
)! !, =ʻ #&ʻ ,ʻ !ʻ 3)! ʻL!(3% ,#1ʻ , ʻ1!ʻ3 #(ʻ)!ʻ 23 !1ʻ,#ʻ
<! ! 1ʻ #&ʻ * ʻ ! 1ʻ 1!#ʻ 4ʻ)!ʻ *,1ʻ #ʻ 43 $ED. EDʻ F343$Cʻ $Eʻ
Nʻ1$CC3Dʻ Eʻ F3ʻ 6 & Fʻ =3$4ʻ H&ʻ F3ʻ ʻ3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P$(3C Oʻ % E2ʻ
!, (!ʻ F3ʻ 6H-4 Fʻ E - 3Dʻ /#ʻ /ʻʻ ,ʻ !(3% !ʻ)!ʻ I,#0! #ʻ!ʻ, ʻ
* ʻ ! 1ʻ ʻ,# ##(ʻ ! 113 4%!ʻ I,3# ʻ " #ʻ E, !1ʻ 4ʻ)!ʻ *,1ʻ
#&ʻ ,ʻʻ) (!ʻ L !1ʻ , ʻ*,1 (!ʻ)! !,#=ʻ ,ʻ5 !0!#ʻ "! ! 1ʻ #&ʻ
* ʻ ! 1ʻ 4! #(ʻ1!#ʻ,)! F 1!ʻ) #ʻ4ʻ)!ʻ *,1 =ʻ ,ʻ53# 1)ʻ*! 1,#1ʻ ! ʻ
)!# % (ʻ5 # !&ʻ * ,ʻ!!& #(1ʻ #ʻ* % !#ʻ , ʻ E!F15 5! 1ʻ= #&ʻ,ʻ
%%,Fʻ)!ʻ * !1 &!#ʻ, ʻ)!ʻ I, 11 ,#! 1ʻ, ʻL!0!#3!ʻ $#V3 ʻ ,ʻ 1!#&ʻ
#&ʻ !ʻ! 0!ʻ <! ! 1ʻ #&ʻ * ʻ ! 1ʻ !!ʻ , ʻ)!ʻ 23 ʻ , ʻ*,1 (!ʻ
EDʻ F343$Cʻ GH-Q Cʻ F$ 3ʻ $4 C3Eʻ F3 F34ʻ CHʻ J-NFʻ H&ʻ F3ʻ C$ Dʻ Nʻ
1$CC3Dʻ Eʻ F3ʻ 6 & O F 4Dʻ =3$4ʻ H&ʻ F3ʻ ʻ3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P$(3C Oʻ % E2ʻ
!, (!ʻ F3ʻ *F 4Dʻ $Cʻ 43 $ 3Cʻ Hʻ $EDʻ J1HC3Cʻ I3E$ 3Cʻ HEʻ I34CHEC ʻEHʻ
32$ Oʻ $- FH4 T3Dʻ 43N3 E2ʻ $+ E2ʻ -1ʻ N$440 E2ʻ H4ʻ 43 N$440 E2ʻ
NN1 30 E2ʻ H4ʻ D3 34 E2ʻ >3 34Cʻ H4ʻ I$N+3 Cʻ H4ʻ C3 E2ʻ -1ʻʻH4ʻ 3 J R
1 HO E2ʻ $EOʻ 6HH ʻ 8H4C3ʻ H4ʻ H F34ʻ IHC ʻ H4ʻ $EOʻ @$ 4 $23ʻ H4ʻ 3CC3 ʻ
&H4ʻ C-NFʻ I-41HC3ʻ QOʻ ?3$ʻ H4ʻ >$EDʻ H4ʻ HEʻ $EOʻ ʻ 34ʻ H4ʻ @$E$ ʻ H4ʻ Eʻ
$EOʻ ? $23ʻ @H$NFʻ H4ʻ I-Q Nʻ @$44 $23ʻ F$Cʻ EHʻQ33Eʻ 4 -$ Oʻ 4313$ 3Dʻ
QOʻ F3ʻ C$ Dʻ Nʻ 1$CC3Dʻ Eʻ F3ʻ 6 & Fʻ =3$4ʻ H&ʻ F3ʻ ʻ3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ
P$(3C Oʻʻ% E2ʻ !, (!ʻ F3ʻ 6H-4 Fʻ ʻ $EDʻ ʻ Cʻ 3 13D 3Eʻ F$ʻ C-NFʻ
GH-Q Cʻ CFH- Dʻ Q3ʻ 43 J H 3Dʻ Q3ʻ ʻ F343&H43ʻ D3N $43Dʻ $EDʻ 3E$N 3Dʻ
*F$ʻ F3ʻ C$ Dʻ 43N 3Dʻ Nʻ J$D3ʻ $EDʻ 1$CC3Dʻ Eʻ F3ʻ 6 & Fʻ =3$4ʻ H&ʻ F3ʻ
ʻ3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P$(3C Oʻ % E2ʻ !, (!ʻ F3ʻ 6H-4 Fʻ $EDʻ F3ʻ C$ Dʻ
I4H C HECʻ $EDʻ I3E$ 3Cʻ F343 Eʻ NHE $ E3Dʻ &H4ʻ F3ʻ I4H 3N HEʻ H&ʻ F3ʻ
ʻ$ 3Cʻ $EDʻ G- 3Cʻ H&ʻ IHC $23ʻ CF$ ʻ EHʻ Q3ʻ D33 J 3Dʻʻ NHEC 4-3Dʻ H4ʻ
$D(-D23Dʻ Hʻ F$ 3ʻ Eʻ $EO C3ʻ 43 H+3Dʻ $ 343Dʻ $EE- 3Dʻ H4ʻ $4 3Dʻ
Q-ʻ F$ʻ F3ʻ C$J3ʻ CF$ ʻ Eʻ $ ʻ 43C13N Cʻ Q3ʻ Eʻ &- ʻ &H4N3ʻ 4 -3ʻ $EDʻ
3&&3N ʻ Eʻ $!% #&ʻ $Cʻ &ʻ F3ʻ C$ Dʻ 43N 3Dʻ Nʻ1$CC3Dʻ Eʻ F3ʻ 6 & Fʻ =3$4ʻ
H&ʻ F3ʻ ʻ3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P$(3C Oʻ % E2ʻ !, (!ʻ F3ʻ 6H-4 Fʻ F$Dʻ EHʻ
Q33Eʻ 1$CC3Dʻʻ $EDʻ F$ʻ $ ʻ $EDʻ C E2- $4ʻ F3ʻ IH 34Cʻ $EDʻ - FH4 3Cʻ
QOʻ F3ʻ C$ Dʻ Nʻ 1$CC3Dʻ Eʻ F3ʻ 6 & O F 4Dʻ =3$4ʻ H&ʻ F3ʻ ʻ3 2Eʻ H&ʻ 8 Cʻ
$ 3ʻ P$(3C Oʻ % E2ʻ !, (!ʻ F3ʻ *F 4Dʻ 2 3Eʻ Hʻ H4ʻ 3C 3Dʻ Eʻ F3ʻ
IHC J$C 34ʻ M3E34$ʻ H&ʻ 4N&$ Dʻ EH J E$ 3Dʻ H4ʻ $11H E 3Dʻ -ED34ʻ F3ʻ
C$ Dʻ Nʻ 1$CC3Dʻ QOʻ F3ʻ I$4 E3Eʻ &ʻ $!% #&ʻ Eʻ F3ʻ * 3E O F 4D
.ʻ ʻ ć #ʻ $ED

*F3ʻ Nʻ !ʻ Mʻ ʻNʻU[ʻ CF$ʻ EHʻQ3ʻ D33 J 3Dʻ Hʻ F$ 3ʻ 431"3$ 3D F3ʻ I3E$ 3Cʻ $EDʻ IH 34C J1HC3Dʻ $EDʻ 24$E 3Dʻ QO F3ʻ !SM S @ !Z

Z UcM#> ;>P ʿ ʿ @$1ʿ !

$EDʿ * 3E O &H-4 Fʿ =3$4Cʿ H&ʿ F3ʿ '3 2Eʿ H&ʿ 8 Cʿ $ 3ʿ P $(3C Oʿ % E2ʿ !, (!ʿ F3ʿ *F 4Dʿ CF$ ʿ Eʿ $ ʿ 43C13N Cʿ 3C ʿ Eʿ $EDʿ Q3ʿ 3 34N C$Q 3ʿ QOʿ 8 Cʿ P 3C O Cʿ I HC & $$C 34ʿ ^(3E34$ ʿ &H4ʿ F3ʿ * J 3ʿ Q3 E2ʿ $11H E 3Dʿ H4ʿ Hʿ Q3ʿ $11H E 3Dʿ & ED34ʿ H4ʿ QOʿ 4 -3ʿ H&ʿ F3ʿ C$ Dʿ N ʿ 1$CC3Dʿ Eʿ F3ʿ 6 4C ʿ =3$4ʿ H&ʿ F3ʿ '3 2Eʿ H&ʿ 8 Cʿ 143C3E ʿ P $(3C Oʿ % E2ʿ %% ʿ F3ʿ 6H-.

Eʿ N HECʿ KNʿ Q4H-2Fʿ &H4ʿ 32$ Oʿ C3ED E2ʿ H4ʿ NHE 30 E2ʿ >3 3 ?(I4HH&ʿ Hʿ 3ʿ HEʿ F3ʿ G3&3ED$E

W ʿ EDʿ Q3ʿ ʿ&-4 F34ʿ 3E$N 3D ʿ *F$ ʿ Eʿ $EOʿ N HE ʿ ?- ʿ B 8 $ E ʿ H4ʿ E&H4 J $ HEʿ F NFʿ CF$ ʿ $ ʿ $EOʿ * J 3ʿ $& 34ʿ F3ʿ 1$CC E2ʿ H&ʿ F Cʿ N ʿ Q3ʿ NH J J 3EN3D ʿ Eʿ ! ʿ" #ʿ H4ʿ $!% #& ʿ 2 EC ʿ $EOʿ I 34CHEʿ H4ʿ I 34CHEC ʿ &H4ʿ 43N3 E2 ʿ $+ E2ʿ -1 ʿ H4D34 E2 ʿ D3C1$ NF E2 ʿ NH 3N E2 ʿ N$44O E2 ʿ NHE 3O E2 ʿ D3 34 E2 ʿ H4ʿ C3ED E2 ʿ H4ʿ N$-C E2ʿ Hʿ Q3ʿ C3E ʿ H4ʿ NHE 303D ʿ H4ʿ 3ED34 E2ʿ H4ʿ D3 34 E2ʿ Eʿ H4D34ʿ Hʿ Q3ʿ C3E ʿ H4ʿ NHE 303D ʿ H F34 C3ʿ F$Eʿ QOʿ F3ʿ I HC ʿ $EOʿ >3 34ʿ H4ʿ I $N+3 ʿ >3 34Cʿ H4ʿ I $N+3 C ʿ NHE 4$4Oʿ Hʿ F3ʿ I 4H C HECʿ Eʿ $Eʿ N ʿ J $D3ʿ Eʿ F3ʿ , E Fʿ =3$4ʿ H&ʿ F3ʿ

Vʿ ! ʿNʿ ʿ '3 2Eʿ H&ʿ 8 34ʿ $ 3ʿ P $(3C Oʿ \ -33Eʿ / ##! ʿ E - 3Dʿ / #ʿ / ' ʿ , ʿ !1 4[% 1) #(ʿ ʿ !#! %ʿ * ,1 ʿ 6 '!ʿ , ʿ %%ʿ ! ʿ U!1 1ʿ 2, # ,#1ʿ #&ʿ , ʿ 1! % #(ʿ ʿ !! % ʿ +3 ʿ ,3ʿ , ʿ)!ʿ "! !#3!ʿ)! !, ʿ , ʿ)!ʿ +! 0 '!ʿ , ʿ)!ʿ ʿ #&ʿ ,)! ʿ ! ʿ '(!1 1ʿ 6 ' ' 1 ,#1ʿ H4ʿ NHE 4$4Oʿ Hʿ F3ʿ I 4H C HECʿ H&ʿ F3ʿ C$ Dʿ 43N 3Dʿ N Cʿ H&ʿ F3ʿ * 3E O F 4Dʿ $EDʿ * 3E O &H-4 Fʿ =3$4Cʿ D&ʿ F3ʿ '3 2Eʿ H&ʿ 8 Cʿ $ 3ʿ P $(3C Oʿ % E2ʿ !, (!ʿ F3ʿ *F 4D ʿ H4ʿ NHE 4$4Oʿ Hʿ F3ʿ I 4H C HECʿ NHE $ E3Dʿ Eʿ $Fʿ N ʿ 1$CC3Dʿ Eʿ F3ʿ 6H4 O C3NHEDʿ =3$4ʿ H&ʿ F3ʿ '3 2Eʿ H&ʿ 8 Cʿ C$ Dʿ $ 3ʿ P $(3C Oʿ % E2ʿ !, (!ʿ F3ʿ *F 4D ʿ E - 3Dʿ

U dNSʿ Kʿ /)ʿ / ' ʿ , ʿ !#& #(ʿ 1,ʿ 3')ʿ , ʿ #ʿ / ' ʿ5 11!&ʿ #)!ʿ +!0!#)ʿ H! ʿ , ʿ)!ʿ L! (#ʿ , ʿ 1ʿ U!1 ʿ 1ʿ !% !1ʿ ,ʿ)!ʿ 1!' ! #(ʿ ! 4! % #(ʿ , ʿ &!1 , #(ʿ @ ʿ <! ! ʿ , ʿ * ' ! ʿ 1!#ʿ 4 ʿ)!ʿ * ,1 ʿ #&ʿ , ʿ)!ʿ 4! ! ʿ * , !' ,#ʿ , ʿ1 Oʿ <! ! 1ʿ #&ʿ * ' ! 1ʿ #&ʿ , ʿ , !ʿ ! !' 3 %% ʿ5 ![0!# #(ʿ <! ! 1ʿ #&ʿ * ' ! 1ʿ 4! #(ʿ 1!# ʿ ,)! F 1!ʿ) #ʿ 4 ʿ)!ʿ * ,1 ʿ H4ʿ NHE 4$4Oʿ Hʿ F3ʿ I 4H C HECʿ H&ʿ F3ʿ C$ Dʿ 43N 3Dʿ N Cʿ H&ʿ F3ʿ 6 & O F 4Dʿ =3$4ʿ H&ʿ F3ʿ '3 2Eʿ H&ʿ 8 Cʿ $ 3ʿ P $(3C Oʿ % E2ʿ !, (!ʿ F3ʿ *F 4Dʿ $EDʿ F3ʿ 6 & Fʿ =3$4ʿ H&ʿ F3ʿ '3 2Eʿ H&ʿ 8 Cʿ $ 3ʿ P $(3C Oʿ % E2ʿ !, (!ʿ F3ʿ 6H-4 F ʿ H4ʿ $EOʿ H4ʿ 3 F34ʿ H&ʿ F3 J ʿ <4 NHE 4$4Oʿ Hʿ F3ʿ I 4H C HECʿ H&ʿ $EOʿ H4ʿ 3 F34ʿ H&ʿ F3ʿ C3 34$ ʿ N Cʿ H&ʿ I $4 $ J 3E ʿ Eʿ F3ʿ C$ Dʿ $C J 3E HE3Dʿ N Cʿ 43N 3Dʿ H4ʿ 43&3443Dʿ H ʿ H4ʿ NHE 4$4Oʿ Hʿ F3ʿ I 4H C HECʿ H&ʿ F Cʿ 3 ʿ F3ʿ I 4HH&ʿ F$ ʿ F3ʿ >3 34ʿ H4ʿ I $N+3 ʿ >3 34Cʿ H4ʿ I $N+3 C ʿ $Cʿ H4ʿ 343ʿ 43N3 3D ʿ $+3Eʿ -1 ʿ H4D343D ʿ D3C1$ NF3D ʿ NH 3N 3D ʿ N$44 3D ʿ NHE 303D ʿ D3 343D ʿ H4ʿ C3E ʿ H4ʿ 3ED343Dʿ H4ʿ D3 343Dʿ Eʿ H4D34ʿ Hʿ Q3ʿ C3E ʿ H4ʿ NHE 303D ʿ $NNH4D E2ʿ Hʿ F3ʿ I 4H C HECʿ NHE $ E3Dʿ Eʿ F3ʿ C$ Dʿ $C ʿ J 3E HE3Dʿ N Cʿ <4 <E3ʿ H&ʿ F3 J ʿ H4ʿ $NNH4D E2ʿ Hʿʿ F3ʿ I 4H C HECʿ NHER $ E3Dʿ Eʿ F Cʿ 143C3E ʿ N ʿ $Cʿ F3ʿ @$C3ʿ J $Oʿ 43X- 43 ʿ CF$ ʿ 3ʿ HEʿ F3ʿ I 34CHEʿ H4ʿ I 34CHECʿ 2 EC ʿ 9FH Jʿ C-NFʿ N HE ʿ ?- ʿ B ʿ I $ E ʿ H4ʿ E&H4 J $ HEʿ CF$ ʿ Q3ʿ Q4H-2F ʿ &H4ʿ 43N3 E2 ʿ $+ E2ʿ -1 ʿ H4D34 E2 ʿ D3C1$ NF E2 ʿ NH 3N E2 ʿ NHE 3O E2 ʿ D3 34 E2 ʿ H4ʿ C3ED E2 ʿ H4ʿ 3ER D34 E2ʿ H4ʿ D3 34 E2ʿ F3ʿ C$ J 3

?H J -NFʿ H& $Cʿ 43 $ 3Cʿ H >3 34Cʿ H& J&!)#& I (EC - HEC "

W W ʿ EDʿ Q3ʿ ʿ&-4 F34ʿ 3E$N 3D ʿ *F$ ʿ CHʿ J ENFʿ $EDʿ C-NFʿ I $4 Cʿ H&ʿ F3ʿ C$ Dʿ 43N 3Dʿ N ʿ H&ʿ F3ʿ 6 & O E E Fʿ =3$4ʿ H&ʿ F3ʿ '3 2Eʿ H&ʿ 8 Cʿ $ 3ʿ P $(3C Oʿ % E2ʿ !, (!ʿ F3ʿ *F 4Dʿ $Cʿ 43 $ 3Cʿ Hʿ F3ʿ I HC $23ʿ $EDʿ @HER 3O$EN3ʿ H&ʿ 14 E 3Dʿ , H N3C ʿ >3 34C ʿ $EDʿ I $134Cʿ QOʿ F3ʿ I HC ʿ 43 $ E2ʿ Hʿ F3ʿ &&$ 4Cʿ H&ʿ $EOʿ @F$4 $Q 3ʿ EC - HEʿ H4ʿ ?HN 3 Oʿ Eʿ $!% #& ʿ $ ʿ 43D-N3Dʿ ' $ 3Cʿ H&ʿ I HC $23 ʿ CF$ ʿ Q3ʿ $EDʿ F3ʿ C$ J 3ʿ Cʿ $EDʿ $43ʿ F343QOʿ 4313$ 3D

WW ʿ ED

WW ' ED' F343$C' -ED34' $ED' QO' 4 -3' H&' D 34C' N C' H&' I$4 $J3E ' F3' C3 34$' I-Q N' <&& N34C ' @HJJ CC HE34C ' $ED' I34CHEC' '$!% #&' J3E HE3D' H4' 43&3443D' H' E' $ED' QO' F3' ?NF3D- 3' F343-E H' $EE3 3D' ^CHJ3' H&' F3J' -ED34' N34 $E' I32- $ HEC ' $ED' '3C 4N HEC_' F$ 3' 3 34N C3D' F3' I4 323' H&' C3ED E2' $ED' 43N3 E2' >3 34C' $DD' I$N+3 C' QO' F3' IHC '&433' &4HJ' F3' _- O' H&' IHC $23.' ED' F343$C' ' C' 3 13)' D 34 ' F$ ' F3' I4 323' H&' I4$E+ E2' QO' I-Q N' <&& N34C' E' $!% #&' CFH- D' Q3' 1 $N3D' -ED34' &-4 F34' '32- $ HEC ' Q3' ' F343&H43' 3E$N 3D *F$ ' $& 34' F3' 1$CC E2' H&' F C' N ' F3' I4 323' H&' C3ED E2' $ED' 43N3 E2' >3 34C' $ED' I$N+3 C' QO' F3' IHC ' &433' &4HJ' F3' G- O' H&' IHC $23' F343 H&H43' 24$E 3D' H '$ED' EH 'H4' $ 3 O' -C3D' $ED' 3 34N C3D' QO ' F3' C3 34$' $ED' 43C13N 3' I-Q N' <&& N340 ' @HJJ CC HE34C ' $ED' I34CHEC' J3E HE3D' <4 43&3443D' H' E' F3' ?NF3D- 3' F343-E H '$EE3 3D' H4' $EO' H&' F3J ' CF$ ' Q3' $ED' F3' C$J3' C' F343QO' 4313$ 3D

*F3' I4 323' H&' 64$E+ E2' 3E(HO3D' QO' ' F3' C3 34$' I-Q N' <&& R N34C' $ED' H F34C' J3ER HE3D' G F3' ?NF3D- 3' 4313$ 3D'

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' 8 ?' P$(3C O C' > 3- 3E$E ' I4 323' H M3E34$ ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&' $!% #&' ' $ED' F C' H4' F3 4' @F 3&' ?3N43 $40' #ED34' ?3N43 $40' $ED' I4 $ 3' ?3N43 $40' $? C?3N43 ' 43C13N 3 O ' $ED' F3' ?3N43 $40' H&' 8 C' P$(3C O C' IHC J$C 34' M3E34$ ' $ ' F E' $!% #&' &H4' F3' * J3' Q3 E2 ' J$O' C3ED' $ED' 43N3 3' >3 34C' $ED' I$N+3 C' QO' F3' M3E34$ ' IHC '&433' &4HJ' F3' G- O 'H&' IHC $23' H' $ED' &4HJ' I $N3C' F E' F3' #E 3D' W E2DHJ

$4&3CC D H F3' ?3N43 $40'

WW >' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' F3' >H4D' @F$EN3 H4' H&' $!% #&' &H4' F3' * J3' Q3 E2 ' $ED' F3' ?-4 3OH4C' H&' F3' IHC ' <&& N3' E' $!% #&' 43C13N 3 O' &H4' F3' * J3' Q3 E2 ' J$O' C3ED' $ED' 43N3 3' >3 34C' $ED' I$N+3 C' QO' F3' M3E34$ ' IHC ' H' $ED' &4HJ' I $N3C' F E' $!% #&' '&433' &4HJ' F3' G- O' H&' IHC $23'

H#J(' E+!<' $ED 43' ?-4 H4C' +?' #J(' "+A#' <&& N3'

WW 8 >' I4H D3D' $ $OC' $ED' Q3' '&-4 F34' 3E$N 3D' *F$ 'EH' >3 34' H4' I$N+3 ' F$ CH3 34' C3E ' O' $EO' I-Q N' <&& N34' H' FHJ' F3' I4 323' H&' 64$E+ E2' C' 24$E 3D' QO' F C' N ' CF$ ' Q3' 3 3J1 ' &4HJ' F3' I$OJ3E 'H&' IHC $23' -E 3CC' F3' FH 3' ?-134CN4 1 HE' -1HE' 3 340' C-NF' >3 34' H4' I$N+3 'CH' C3E ' CF$ ' Q3' H&' F3' 8$ED 4 E2' H&' F3' <&& N34' H4' I34CHE' C3ED E2' F3' C$J3' $ED' CF$ ' F$ 3' EDH4C3D' F343HE' F3' ,$J3' H&' C-NF' <&& N34' H23 F34' F' F3' ,$J3' H&' F3' IHC ' *H E' &4HJ' F NF' F3' C$J3' C' E 3ED3D' H' Q3' C3E ' $ED' F3' G$O ' PHE F' $ED' =3$4' -1HE' F NF' F3' C$J3' CF$ 'Q3' H' Q3' 1- ' E H' F3' IHC '<&& N3' F3' G$O' H&' F3' PHE F' H' Q3' E' 9H4DC' $' >3E2 F' $ED' $ CH' -E 3CC' 3 340' C-NF' >3 34' H4' I$N+3 'CF$ 'Q3' 1- ' E H' F3' M3E34$ ' IHC '<&& N3' H4' H F34' IHC '<&& N3' H4' E H $EO' '3N3 E2' 8H#C3 H4' I $N3' $11H E 3D' QO' 8 C' P$(3C O C' IHC J$C 34' M3E34$ ' &H4' F3' '3N3 1 'H&' >3 34C' $ED' I$N+3 C' H' Q3' &H4 $4D3D' QO' F3' I#C ' HE' F3' G$O' H&' F3' G$ 3' 1- ' -1HE' C-NF' >3 34' H4' I$N+3 '$ED' -E 3CC' F3' <&& N34' FHC3' ,$J3' CF$ ' F3' EDH4C3D' F343HE' CF$ '$N -$ O' Q3' E' F3' IHC ' *H E' E H' F3' IHC ' <&& N3' H&' F NF' 3 340' C-NF' >3 34' H4' I$N+3 ' CF$ ' Q3' 1- 'H4' F E' * 3E O' P 3C' H&' C-NF' IHC ' *H E' HE' F3' G$O' H4' HE' F3' G$O' Q3&H43' ' F3' G$O' HF' F NF' ?-NF' >3 34' H4' I$N+3 ' CF$ ' Q3' 1- ' E H' F3' IHC ' <&& N3

B $ (HEC' 43X- 43D' H Q3' HQC34 3D' QO' I-Q N' <&& N34C' 3ER (HO E2' F3' I4 323' H&' 64$E+ E2

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' 'CF$ ' Q3' $ &- '&H4' F3' J(' J)(?' @F 3&' ?3N43 $40' H&' 8 C' P$(3C O C' > 3- 3E$E ' M3E34$ ' H4' H F34' @F 3&' MH 34EH4' H4' MH 3 JH4C' H&' $!% #&' H' $- FH4 T3' $ED' D 43N ' <E3' I34CHE E

F3' >H4D' > 3- 3E$E

J$Oʿ$11H Eʿ F3ʿ <&& N3ʿ H&ʿ C-NFʿ @F 3&ʿ ?3N43 $4Oʿ Eʿ &4$E+ʿ <&& N $ʿ >3 34Cʿ &4H Jʿ >HEDHEʿ Hʿ I $N3Cʿ F Eʿ + E2DH J &433 H&ʿ IHC $23ʿ -ED34ʿ N34" Eʿ

Eʿ F3ʿ <&& N3ʿ H&ʿ C#NFʿ @F 3&ʿ ?3N43 $4Oʿ Eʿ <,#&,#ʿ ^ FHC3ʿ ,$J3ʿ CF$ ʿ * J3ʿ Hʿ * J3ʿ 4$ECJ 3Dʿ QOʿ F3ʿ C$Dʿ @F 3&ʿ ?3N43 $4Oʿ H ?3N43 $4 3Cʿ H&ʿ F3ʿ M3E34$ʿ IHC ʿ <&& N3ʿ Eʿ <,#&,#ʿ $EDʿ 234% # 43C13N 3 O_ʿ Hʿ C Dʿ >3 34Cʿ $EDʿ I$N+3 Cʿ QOʿ F3ʿ M3E34$ʿ IHC ʿ&4H Jʿ WH 3&H ʿ Hʿ I $N3Cʿ F Eʿ F3ʿ #E 3Dʿ % E2DH Jʿ &433ʿ H&ʿ IHC $23ʿ 14b DD3Dʿ F$ʿ $ ʿ C-NFʿ >3 34Cʿ $EDʿ I$N+3 Cʿ CF$ ʿ 43 $ 3ʿ CH 3 Oʿ $EDʿ 3 N -C 3 Oʿ Hʿ F3ʿ B-C E3CCʿ H&ʿ F3ʿ C$Dʿ @F 3&ʿ ?3N43 $40 Cʿ <&& N3ʿ $EDʿ CF$ ʿ Q3ʿ Eʿ @H 34Cʿ Fʿ F3ʿ 9 H4DCʿ 77 <Eʿ 8 Cʿ P$(3C O Cʿ ?34 N3ʿ >H4Dʿ > 3- 3E$E Cʿ @F 3&ʿ ?3N43 $40 Cʿ <&& N3ʿ <,#&,#ʿ> 14 E 3Dʿ HEʿ F3ʿ C 2E3Dʿ H4ʿ C-QCN4 Q3Dʿ HEʿ F3ʿ <- C D3ʿ F343H&ʿ -ED34 C-NFʿ 9 H4DCʿ Fʿ F3ʿ ,$J3ʿ H&ʿ F3ʿ I34CHEʿ CHʿ Hʿ Q3ʿ $- FH4 T3Dʿ $Cʿ $&H43C$ Dʿ "ʿ &$Cʿ H Eʿ 8$ED 4 E2ʿ $EDʿ 14H D3Dʿ $ ʿC-NFʿ >3 34Cʿ $EDʿ 6$N+3 3ʿ CF$ ʿQ3ʿ C3$ 3Dʿ Fʿ F3ʿ ?3$ʿ H&ʿ F3ʿ C$Dʿ <&& N3ʿ ʿ $EDʿ F3ʿ 634CHEʿ CHʿ Hʿ Q3ʿ ʿ$- FH4 T3Dʿ Cʿ F343QOʿ C 4 N Oʿ &H4Q DD3Eʿ CHʿ Hʿ C-QCN4 Q3ʿ $EDʿ C3$ʿ$EOʿ >3 34ʿ H4ʿ I$N+3ʿ F$ 3 34ʿ 3 N31 ʿ C-NFʿ HE Oʿ @HEN34E E2ʿ F NFʿ FNʿ CF$ ʿ 43N3 3ʿ F3ʿ C13N $ʿ G 43N HEʿ H&ʿ F Cʿ C-134 H4ʿ <&& N34ʿ H4ʿ F NFʿ F3ʿ CF$ ʿ F J C3 &ʿ +EH ʿ Hʿ 43 $ 3ʿ CH 3 Oʿ $EDʿ 3 N -C 3 Oʿ Hʿ F3ʿ B-C E3CCʿ H&ʿ F Cʿ <&& N3ʿ ʿ $EDʿ &ʿ C-NFʿ $- FH4 T3Dʿ I34CHEʿ H4ʿ $EOʿ H F34ʿ I34CHEʿ CF$ ʿ C3EDʿ H4ʿ N$-C3ʿ H4ʿ 134 J ʿ Hʿ Q3ʿ C3E ʿ -ED34ʿ $EOʿ C-NFʿ @H 34ʿ $EOʿ >3 34ʿ I$134ʿ H4ʿ 9 4 E2ʿ H4ʿ $EOʿ ;EN HC-43ʿ H F34ʿ F$Eʿ F$ʿ CF$ ʿ 43 $ 3ʿ Hʿ F3ʿ I -Q Nʿ B-C E3CCʿ H&ʿ F Cʿ G31$4 J3E ʿ 3 34Oʿ I34CHEʿ CHʿ H&&3ED E2ʿ CF$ ʿ &H4&3 ʿ $EDʿ 1$Oʿ F3ʿ ?- Jʿ H&ʿ <E3ʿ F-ED43Dʿ IH-EDCʿ $EDʿ Q3ʿ D C J CC3Dʿ &4H Jʿ F Cʿ <&& N3

@34 $ Eʿ I -Q Nʿ <&& ʿ N34Cʿ Eʿ 43 $EDʿ J$Oʿ $11H Eʿ I 34CHECʿ Eʿ F3 4ʿ <&& N3Cʿ H4ʿ G31$4 ʿ J3E Cʿ Hʿ C3EDʿ $EDʿ &4$E+ʿ <&& N $ʿ >3 34Cʿ &4H H G-Q Eʿ Hʿ I $N3Cʿ Eʿ 43 $EDʿ &433 H&ʿ IHC $23ʿ -ED34ʿ N34 $ Eʿ BDA- $ HHCʿ $EDʿ %3C 4 N ʿ HEC

WW ʿ EDʿ Q3ʿ ʿ&-4 F34ʿ 3E$N 3Dʿ *F$ʿ ʿCF$ ʿQ3ʿ $ &- ʿ&H4ʿ F3ʿ @H J J$ED34ʿ Eʿ @F 3&ʿ H&ʿ 8 Cʿ P$(3C O Cʿ 6H4N3Cʿ Eʿ $!% #& ʿ F3ʿ N3ʿ *43$C-434ʿ H&ʿ$!% #&ʿ F3ʿ G31- Oʿ D(- $E ʿM3E34$ʿ H&ʿ 8 Cʿ P$(3C O Cʿ 6H4N3Cʿ F3ʿ G31- Oʿ \-$4 34 J$C 34ʿ M3E34$ʿ H&ʿ 8 Cʿ P$(3C O Cʿ 6H4N3Cʿ F3ʿ @F 3&ʿ <&& N34ʿ H&ʿ 8 Cʿ P$(3C O Cʿ <4DE$EN3ʿ ?-4 3Oʿ ^$ ʿ F Eʿ $!% &ʿ &H4ʿ F3ʿ * J3ʿ Q3 E2ʿ 43C13N 3 O_ʿ Hʿ $- FH4 T3ʿ $EDʿ D 43N ʿ <E3ʿ I34CHEʿ Eʿ 3$NFʿ H&ʿ F3 4ʿ G31$4 J3E Cʿ 43C13N 3 Oʿ $EDʿ &H4ʿ 8 Cʿ P$(3C O Cʿ IHC J$C 34ʿ M3E34$ʿ Hʿ $- FH4 T3ʿ $EDʿ D 43N ʿ <E3ʿ I34CHEʿ Eʿ F3ʿ M3E34$ʿ IHC ʿ<&& N3ʿ Eʿ 234% #ʿ $EDʿ &H4ʿ F3ʿ @F 3&ʿ ?3N43 $4Oʿ H&ʿ ; Cʿ P$(3C O Cʿ > 3- 3E$E ʿM3E34$ʿ H4ʿ H F34ʿ @F 3&ʿ MH 34EH4ʿ H4ʿ MH 34EH4Cʿ H&ʿ $!% #&ʿ Hʿ $- FH4 T3ʿ $EDʿ D 43N ʿ * Hʿ I34CHECʿ HE3ʿ Eʿ F3ʿ @ ʿ G31$4 J3E ʿ$EDʿ F3ʿ H F34ʿ Eʿ F3ʿ P $4Oʿ G31$4 J3E ʿ H&ʿ C-NFʿ @F 3&ʿ ?3N43 $40 Cʿ <&& N3ʿ Eʿ 234% #ʿ F3ʿ ,$J3ʿ $EDʿ ,$J3Cʿ H&ʿ F NFʿ C$Dʿ C3 34$ʿ $EDʿ 43C13N 3ʿ I34CHECʿ CF$ ʿ Q3ʿ &4H Jʿ * J3ʿ Hʿ * J3ʿ 4$ECJ 3Dʿ QOʿ F3ʿ 43C1 3ʿ <&& N34Cʿ $&H43C$ Dʿ Hʿ F3ʿ ?3N43 $4Oʿ H&ʿ F3ʿ M3E34$ʿ IHC ʿ <&& N3ʿ Eʿ 234% #ʿ Hʿ C3EDʿ >3 34Cʿ $EDʿ I$N+3 Cʿ QOʿ F3ʿ M3E $ʿ IHC ʿ&4H Jʿ 234% #ʿ Hʿ I $N3Cʿ $!% #&ʿ &433 H&ʿ IHC $23ʿ 14H D3Dʿ $ ʿ C-NFʿ >3 34Cʿ $EDʿ I$N+3 Cʿ CF$ ʿ 43 $ 3ʿ CH 3 Oʿ $EDʿ 3 N -C 3 Oʿ Hʿ F3ʿ B-C E3CCʿ H&ʿ F3ʿ C$Dʿ 43C13N 3ʿ G31$4 J3E Cʿ $EDʿ CF$ ʿ Q3ʿ Eʿ @H 34Cʿ Fʿ F3ʿ 9 H4DCʿ ``<Eʿ 8 Cʿ P$(3C O Cʿ ?34 N3ʿ @H J J$ED34ʿ Eʿ @F 3& Cʿ <&& N3 cʿ `ʿ N3ʿ *43$C-434 Cʿ <&& N3 cʿ `ʿ D(- $E ʿ M3E34$ Cʿ <&& N3 cʿ `ʿ \-$4 34 J$C 34ʿ M3E34$ Cʿ <&& N3 cʿ `ʿ <4DE$EN3ʿ ?-4 3Oʿ <&& N3 cʿ /ʿ M3E34$ʿ IHC ʿ <&& N3 cʿ `ʿ @F 3&ʿ ?3N43 $40 Cʿ <&& N3ʿ @ ʿ G31$4 J3E cʿ H4ʿ `ʿ @F 3&ʿ ?3N43 $40 Cʿ <&& N3ʿ P $4Oʿ G31$4 J3E cʿ $Cʿ F3ʿ @$C3ʿ J$Oʿ Q3ʿ 14 E 3Dʿ HEʿ F3ʿ C$J3ʿ $EDʿ Q3ʿ C 2E3Dʿ H4ʿ C-QCN4 Q3Dʿ HEʿ F3ʿ <- C D3ʿ F343H&ʿ -ED34ʿ C-NFʿ 9 H4DCʿ Fʿ F3ʿ ,$J3Cʿ H&ʿ F3ʿ I34CHECʿ CHʿ Hʿ Q3ʿ $- FH4 T3Dʿ $Cʿ $&H43C$ Dʿ Eʿ F3 4ʿ H Eʿ 8$ED 4 E2ʿ $EDʿ 14H D3Dʿ $ ʿ C-NFʿ >3 34Cʿ $EDʿ I$N+3 Cʿ CF$ ʿ Q3ʿ C3$ 3D

C3$ 3D' F' F3' ?3$' H&' F3' C$ D' <&& N3C' 43C13N 3 O ' $ED' $ ' F3' C$ D' I 34CHEC' CH' H' Q3' $- FH4 T3D' $43' F343QO' C 4 N O' &H4Q DD3E' CH' H' C-QR CN4 Q3' $ED' C3$' $EO' >3 34' H4' I $N+3 ' F$ 3 34' 3 N31 ' C-NF' HE O' NHEN34E E2' F NF' F3O' CF$ ' 43N3 3' F3' C13N $' G 43N HE 'H&' F3 4' C-134 H4' <&& N34' H4' F NF' F3O' CF$ ' F3 J C3 3C' +EH ' H' 43 $ 3' CH 3 O' $ED' 3 N -C 3 O' H' F3' B-C E3CC' H&' F3 4' 43C13N 3' G31$4 J 3E C' $ED' &' $EO' $-NF' $- FH4 T3D' I 34CHE' H4' $EO' H F34' I 34CHE' CF$ ' C3ED ' H4' N$-C3' H4' 134 J ' H' Q3' C3E ' -ED34' $EO' C-NF' @H 34' $EO' >3 34' I $134' H4' 9 4 E2' H4' $EO' ; EN HC-43' H F34' F$E' F$' CF$ ' 43 $ 3' H' F3' I -Q N' B-C E3CC' H&' F3 4' 43C13N 3' G31$4 J 3E C' 3 34O' I 34CHE' CH' H&&3ED E2' CF$ ' &H4&3 ' $ED' 1$O' F3' ?- J' H&' <E3' F-ED43D' I H-EDC' $ED' Q3' D C J CC3D' &4H J' F C' <&& N3

WW ' ED' Q3' '&-4 F34' 3E$N 3D ' *F$ '$ '>3 34C' $ED' I $N+3 C' C3E ' @34 $ E' I -Q' &4H J' $EO' I $N3C' F E' $!% #&' QO' F3' <3E34$' I HC ' $DD43CC3D' H' F3' 3' <&& N34C' E' @H J J $ED34' 1' @F 3&' H&' 8 C' P$(3C O C' &H4N3C ' F3' G31- O7 D(- $E ' M3E34$' H&' 8 C' P$(3C O C' 6H4N3C' F3' G31- O' $4 34 J $C 34' M3E34$' D$ 34C' H&' 8 C' P$(3C O C' 6H4N3C' F3' P $4O' ?3N43 $4O' H&' 8 C' P$(3C O C' &4H J' I $N3C' 6H4N3C' F3' ?-134 E 3ED$E ' H&' F3' <4DE$EN3' ?-4 3O' $ED7 F3' N3' F E' 43' *43$C-434' H&' $!% #&' $ ' F E' $!% #&' &H4' F3' * J 3' Q3 E2' F3' C$ D' >3 34C' $ED' I $N+3 C' Q3 E2' HE' 8 C' P$(3C O C' ?34 N3' $ED' 43 $ E2' ' ' CH 3 O' H' F3' B-C E3CC' H&' F3 4' 43C13N 3' G31$4 J 3E C' CF$ ' Q3' D3 343D' $ ' F3 4' 43C13N 3' <&& N3C' E' 23O #' &433' &4H J' I HC $23

WW ' ED' Q3' '&-4 F34' 3E$N 3D ' *F$ ' &' $EO' >3 34' I 4 ' H4' *F E2' CF$ ' Q3' C3E ' -ED34' @H 34' H' $EO' &&' F3' C$ D' $C J 3E HE3D' <&& N34C' F3' C$ J 3' EH 'Q3 E2' $N -$ O' $ED'),#&U &!' HE' 8 C' P$(3C O C' ?34 N3' $ED' 43 $ E2' 3 N -C 3 O' H' F3' B-C E3CC' H&' F3 4' 43C13N 3' G31$4 J 3E C' F3' <&& N34C' H' FH J' F3' C$ J 3' CF$ ' Q3' CH' C3E ' $43' F343QO' C 4 N O' 43X- 43D' $ED' 3E(H E3D' H' 4$EC J ' F3' C$ J 3' &H4 F F' H' F3' ?3N43 $4O' H&' F3' I HC ' <&& N3' E' 234% #' F' F3' @H 34C' -ED34' F NF' F3' C$ J 3' 343' C3E ' E' H4D34' F$ ' F3' @HE 3E C' F343H&' J $O' Q3' NF$423D' F' F3' &- ' ' $ 3C' H&' I HC $23

F P O'14 $ 3' >3 34' Q3' C3E ' -ED34' @H 34' H' $EO' H&' C-NF' <&& N34C' F3' C$ J 3' H' Q3' 4$EC J 3D' H' F3' I HC ' <&& N3

WW >' ED' Q3' '&-4 F34' 3E$N 3D ' *F$ '$8' >3 34C' $ED' B$N+3 C' C3E ' &4H J' $EO' I $N3C' F E' F3' #E 3D' % E2DH J' QO' F3' M3E34$' I HC ' $DD43CC3D' H' F3' @F 3&' @ 34+' E' F3' <&& N3' E' <,#&,#' H&' F3' C$ D' @F 3&' ?3N43 $4O' H&' 8 C' P$(3C O C' > 3- 3E$E ' M3E34$' <4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&' $!% #&' F3' C$ D' >3 34C' $ED' I $N+3 C' Q3 E2' $ ' HE' 8 C' P$(3C O C' ?34 N3' $ED' 43 $ E2' CH 3 O' H' F3' B-C E3CC' H&' F3' C$ D' @F 3&' ?3N43 $4O C' <&& N3' CF$ ' Q3' D3 343D' $ ' C-NF' <&& N3' &433' &4H J' I HC $23

@F 3&' @ 34&N ' E' F3 <&& 33' H&' @F 3&' ?3N43 $4O' E' >HEDHE' J $O' 43N3 3 <&& N $' >3 34C' &433

WW W ' ED' Q3' '&-4 F J ' 3E$N 3D ' *F$ ' &' $EO' >3 34' I $134' H4' *F E2' CF$ 'Q3' C3E ' -ED34' @H 34' H' F3' C$ D' @F 3&' @ 34+' F3' C$ J 3' EH ' Q3 E2' $N -$ O' $ED' 4,#&' ? &!' <E' 8 C' P$(3C O C' ?34 N3' $ED' 43 $ E2' 3 N -C 3 O' H' F3' B-C E3CC' H&' F3' C$ D' @F 3&' ?3N43 $4O C' <&& N3' F3' C$ D' @F 3&' @ 34+' C' F343QO' C 4 N O' 43X- 43D' $ED' 3E(H E3D' H' 4$EC J ' F3' C$ J 3' &H4 F F' H' F3' ?3N43 $4O' H&' F3' M3E34$' I HC ' <&& N3' E' <,#&,#' OD F' F3' @H 34C' -ED34' F NF' F3' C$ J 3' 343' C3E ' E' H4D34' F$ ' F3' @HE 3E C' F343H&' J $O' Q3' NF$423D' F' F3' &- ' ' $ 3C' H&' I HC 3 '

&' $EO' 14 $ 3' >3 34' Q3' C3E ' -ED34' @H 34' H' C-NF' @F 3&' @ 34+' F3' C$ J 3' H' Q3' 4$ECR J 3D' H' F3' I HC ' <&& N3

W WWW ' ED

6H42 E2 F3 8$ED 4 E2 H&'$EO I34CHE E F3 ?-134R CN4 1 HE H& $EO >3 34' H4 $ 34 E2 F3 G$ 3 F343H&' H $ H D F3 I$0 J3E' H&' ' IHC $23' KN' H Q3 D33 J 3D 63 HEO

' WWW ' ED Q3 &- F34 3E$N 3D' *F$' & $EO I34CHE F$ CH3 34 CF$ ' &H423 H4 NH-E 34&3 ' F3 8$ED 4 E2 H& $EO I34CHE FHJR CH3 34 F343QO $- FH4 T3D H &4$E+ $EO >3 34C H4 I$N+3 C' E F3 ?-134CN4 1 HE H& $FO >3 34 H4 I$N+3 ' H Q3 C3E ' QO F3 IHC ' E H4D34 H $ H D F3 I$0 J3E ' H& F3 G- O H& IHC $23' H4 CF$ ' &H423' NH-E 34&3 ' H4 $ 34' H4 CF$ ' 14HN-43 H Q3 &H423D' NH-E 34&3 3D' H4 $ 343D' F3 G$ 3 H& F3 ?-134CN4 1 HE H& $EO C-NF >3 34 H4 I$N+3 ' H& CF$ ' & 4 3 H4 C3ED QO F3 IHC ' H4 N$-C3 H Q3 4 3E H4 ?3E ' QO F3 IHC ' $EO >3 34 H4 I$N+3 ' F3 ?-134CN4 1 HE H4 @H ' F343H& CF$ ' Q3 &H423D H4 NH-E 34&3 3D' H4 F3 G$ 3 -1HE C-NF ?-134C$ 1 HE H4 @H 34 $ 343D' E H4D34 H $ H D F3 I$OR J3E ' H& F3 G- O H& IHC $23' +EH E2 F3 'C$J3 H Q3 &H423D' NH-E 34&3 3D' H4 $ 343D' 3 34O I34CHE CH H&&3ED E2' $ED Q3 E2 F343H& NHE N 3D E D-3 6H4J' H& >$ ' CF$ ' Q3 D33 J 3D 2- O H& 63 HEO' $ED CF$ ' Q3 4$EC1H4 3D Q3OHED F3 ?3$C &H4 ?3 3E =3$4C'

IHC J$C 34 M3E34$' J$O' EHJ E$ 3'&H4 * H O3$4C4' $EO @F$4 R $Q 3 EC -R HEC E 43 $ED F$' J$O C3ED >3 34C $'$ 43D-N3D '$ 3

WWW ' ED Q3 '&-4 F34 3E$N 3D' *F$' 'CF$ '$ED J$O Q3 $ &-' H $ED &H4 F3' IHC J $C 34 M3E34$' &H4 F3 * J3 Q3 E2' &4HJ' * J3 H * J3 $ED $' $EO * J3 D-4 E2 F3 ?1$N3 H& * H =3$4C &4HJ' $ED $& 34 F3 1$CC E2 H& F C N ' H EHJ E$ 3 $ED $11H E ' $ ' $ED 3 34O C-N F @F$4 $Q 3 EC - HEC H4 ?HN 3 3C E $!% #&' $C F3 IHC J$C 34 M3E34$' J$O E F C G CN43 HE D33 J' ' 3 13D 3E ' CFH- D Q3 134E 3D H C3ED >3 34C $ED I$N+3 C 43 $ E2 CH 3 O H F3 B-C E3CC H& C-NF EC - HEC H4 ?HN 3 3C' QO IHC ' E $!% #&' $' $ 43D-N3D B$ 3 H& IHC $23' F &- ' IH 34 &H4 F3 IHC J$C 34 M3E3 $' &H4 F3 * J3 Q3 E2 &4HJ' * J3 H * J3 H 43 H+3 $ED $EE-' $EO C-NF ,HJ E$ HE H4 11H E J3E ' $ED F3 I4 323 F343QO NHE&3443D

'$ 3 H& @F$423 -1HE >3 34C C3E ' QO $EO EC R - HEC CH ' EHJ E$ 3D QO F3 IHC R J$C 34 M3E3R 4$'&4HJ' H4 H G-Q E $ED $EO IHC' *H EC E 43 $ED

WWW ' ED Q3 '&-4 F34 3E$N 3D' *F$' 'CF$ '$ED J$O Q3 $ &-' H $ED &H4 F3 IHC J$C 34 M3E34$' &H4 F3 * J3 Q3 E2' $ED F C H4 F3 4 G31- O H4 G31- 3C' ?34 $E C' H4 23E C' H $ED &H4 F3 #C3 H& 8 C P$(3C O' 8 C 8 3 4C $ED ?-NN3CCH4C' H D3 J$ED' F$ 3' 43N3 ' $ED $+3 &H4 F3 IHC $23 $ED @HE 30$EN3 H& $ ' >3 34C H4 I$N+3 C F NF CF$ ' 43 $ 3 CH 3 O $ED 3 N -C 3 O H F3 &&$ 4C H4 B-C E3CC H& $EO ?-NF @F$4 $Q 3 EC - HE H4 ?HN 3 O E $!% #&' CH &4HJ' * J3 H * J3 H Q3 EHJ E$ 3D H4 $11H E 3D QO F3 IHC J$C 34 M3E34$' &H4 F3 * J3 Q3 E2 $C $&H43C$ D' $ED F NF CF$ ' $' $EO * J3 F E * H =3$4C &4HJ' $4 D $& 34 F3 1$CC E2 H& F C N ' Q3 D3 343D E H $EO IHC ' <&& N3 E $!% #&' &H D3D $ED D 43N 3D' Q-' FH-' $EO ?3$' H4 9$&34 H4 H F34 P$ 34 H N HC3 H4 &$C 3E F3 ' C$J3' $ED CF$ 'Q3 N$44 3D' NHE 3O3D' H4 C3E ' IHC '&4HJ' F3 M3E34$' IHC ' <&& N3 # 234% # H F3 C3 34$' IHC ' *H EC E $!% #&' $ED &4HJ' F3 C3 34$' IHC '*H EC E $!% #&' H F3 M3E34$' IHC '<&& N3 E 234% #' $' F3 B$ 3 H4 ?-J' H& * H 13EN3 &H4 3 34O C-NF >3 3' H4 I$N+3 ' 14H D3D $ ' $ED 3 34O C-NF >3 34C $ED I$N+3 C CF$ '43 $ 3 CH 3 O $ED 3 N -C 3 O H F3 @F$4 $Q 3 EC - HE H4 ?HN 3 O QO H4 &4HJ' F NF F3 C$J3 CF$ ' Q3 &H4 $4D3D' $ED CF$ ' Q3 C-134CN4 Q3D HE F3 <- C D3 F343H& E C-NF P$EE34 E $ '43C13N C $C F3 IHC J$C 34 M3E34$' &H4 F3 * J3 Q3 E2 J$O' E F C G CN43R HE' &4HJ' * J3 H * J3 $11H E ' 14H D3D F3 C$ D >3 34C H4 I$N+3 C CF$ ' NHE $ E EH @$CF' B$E+' ,H 3' B ' H& ; NF$E23' I4H

'32- $ HEC 43C13N E2 C-NF >3 34C

J CCH4O' , H 3 ' G4$& ' 14' <4D34' &H4' F3' I$0 J 3E ' H&' P HE30 ' H4' H F34'
$ -$Q 3' ?3N-4 O ' $ED' CF$ ' NHE $ E' EH' 9 4 E2 ' @H J J -E N$ HE
P$ 34 ' H4' * F E2' F$ 3 34' H F34' F$E' HE' F3' B-C E3CC' H&' F3' @F$4 R
$Q 3' ?HN 3 O' H4' EC - HE' QO' H4' &4H J' F NF' F3' C$J 3' CF$ ' Q3' &H4R
$4D3D ' $#D' 14H D3D' F$ ' EH' C-NF' B3 34' H4' I$DN3 ' CF$ ' 3 N33D'
FH' 9 3 2F ' H&' $E' < -EN3

WWW ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F3' P HE30C' H' $4 C3' PHE30C
&4H J' F3' C$ D' ' $ 3' H&' * H 13EN3' CF$ ' B3' D33 J 3D' I$4 ' H&' F3' $4 C E2' &4H J'
B3' 3E-3' H&' F3' M3E34$ ' IHC ' <&& N3' #' $!% #& ' $ED' Q3' $11 3D' E'
C-NF' P $EE34' $C' F3' 143C3E ' B$ 3C' <&' IHC $23' E' $!% #&' $43' QO'
>$ ' $11 N$Q 3

WWW ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' $ ' $ED' 3 34O' C-NF' IHC J$C 34
>3 34C' $ED' I$N+3 C' CF$ ' Q3' D3 343D' H' F3' IHC J $C 34' M3E34$ ' H4' M3E34$ ' H
F C' G31- O' H4' G31- 3C' E' F3' M3E34$ ' IHC ' <&& N3' E' 234O#' $
H4' Q3 33E' C-NF' 8 H-4C' E' F3' G$O' $ED' -ED34' C-NF' ; 32- $ HEC' E' F4 ' 3ND1 '
3 34O' 43C13N ' $C' F3' IHC J $C 34' M3E34$ ' &H4' F3' * J 3' Q3 E2' CF$ ' E' $ED # $'
F C' G CN43 HE' &4H J' * J 3' H' * J 3' $11H E ' $ED' ?-NF' >3 34C' $ED'
I $N+3 C' CF$ ' $ CH' QD' ^ 343D' QO' F3' G31- O' E4' G31- 3C' H&' F3' '
IH 3$C 34' M3E34$ ' E' F3' @H-E 4O' -ED34' C-DQ' B32 $ HEC' $ED'
B3C 4 N HEC' $C' F3' IHC J $C 34' M3E34$ ' &H4' F3' * J 3' Q J E2' CF$ '
&4H J' * J 3' H' * J 3' F E+' & ' H' $11H E

WWW ' ED' Q3' ' &-4 Q34' 3E$N 3D ' * F$ ' ' CF$ ' $ED' J$O' Q3' $ D- ' ?-3Q' G3 34C'
H' $ED' &H4' F3' IHC J $C 34' M3E34$ ' $ED' F C' G31- O' $ED' G31- 3C $$O' &33' 43R
?34 $E C' $ED' 23E C ' H' 43 $ E' $EO' ?-NF' >3 34C' H4' I $N+3 C' &H4' $EO' $ E3D' &$4'
?1$N3' H&' * J 3' EH ' 3 N33D E2' * 3E O &H-4' 8 H-4C' $& 34' C-NF' >3 34C'
H4' I $N+3 C' 9 H- D' H F34 C3' E' D-3' J D' 4 ND$4' @H-4C3' F$ 3' Q3 J '
&H4 $4D3D' H4' D3 343D ' $ED' H' <13#' 3 $ J E3 ' $ED' C3$4NF' F3' C$ J 3' !
$ED' E' N$C3' -1HE' ; $ J E$ HE' F343H&' ' CF$ ' Q3' D CNH 343D' H' %@$3F B a'
NHE $ E' $ ' @$CF' B$E+' , H 3 ' B ' H&' ; NF$E23 ' B4H J CCH4O' , H 3 ' KN' $43' @[#
$&4 ' <4 4D34' &H4' F3' I $0 J 3E ' H&' P HE30 ' H4' H F34' $ -$Q 3' ?33 J ' $ B3D ECE3Q'
4 O ' H4' $EO' 9 4 E2 ' @H J E$#E N$ H#' P$ 34 ' H4' * F E2' F$ 3 34' @ 34C ' H4' &'
H F34' F J ' N J' F3' B-C E3CC' H&' F3' @F$4 $Q 3' ?HN 3 O' H4' EC - HE' F3O' CF D'
QO' H4' &4H J' F NF' F3' C$ J 3' CF$8' F$ 3' Q33E' &H4 $4D3D ' H4' &' C-NF' 3 N33D' $E'
>3 34' <4 I $N+3 ' CF$ ' Q3' &H-ED' H' 3 N33D' F3' 9 3 F ' H&' $ E E3 3 ' < -$N3 E' 9 3 2F '
F3E' $ED' E' $EO' C-NF' @$C3' 3 34O' C-NF' >3 34' H4' I $N+3 ' CF$ ' Q3' GH-&3 3G- O'
4F$423D' $ED' NF$423$Q 3' F' GH-Q 3' F3' G- O' H&' IHC $23' H' F NF'
3' C$ J 3' H- D' Q3' $Q 3' -ED34' $EO' N ' H4' N C' EH ' H4' F343$& 34' H'
Q3' E' &H&33' E' $!% #&' =' $ED' &' F3' J H-E ' Q3' EH ' 1$ D' QO' F3' I 34CHE' ' 3NH 34O
H4' I 34CHEC' H' FH J' $EO' C-NF' >3 34' CF$ ' Q3' D&43N 3D ' H4' &' C-NF' F343H&
I $.C ' H4' I 34CHEC' N$EEH ' F3' &H-ED ' F3E' F3' ?3N43 $4O' H&' F3' ?HN 3 O'
H4' EC - J ' QO' H4' &4H J' F NF' F3' C$ J 3' CF$ ' F$ 3' Q33E' &H4 $4D3D'
CF$ ' Q3' $Q 3' H' $ED' NF$423$Q 3' F' F3' I $0 J 3E ' F343H&' ($ED' '
CF$8' $ED' J $O' Q3' $ &- ' H' $ED' &H4' 8 C' P $(3C O C' IHC J $C 34' M3E34$ '
H4' F C' G31- O' H4' G31- 3C' H' 43 $ E' $EO' C-NF' >3 34' H4' I $N+3 ' -E '
C-NF' GH-Q 3' G- O' H&' IHC $23' CQ$& ' Q3' 1$ D' H4' 43NH 343D

WWW ' ED' F343$C' ' &43X-3E O' F$113EC' F$ ' B$2C' H4' P $ C' C3E ' I34CHEC' %
$ED' @HE 303D' QO' F3' I Q NF' J $O' F$ 3' Q33E' C H 3E' H4' $NN D3 J '
$ O' HC ' $ED' $& 34 $4DC' &H-ED' H4' 1 N+3D' -1 ' $43' &- O' D3 $ E3D' QO' B C 4 $ C'
F3' I 34CHEC' & ED E2' F3' C$ J 3' E' F3' ; 13N $ HE' H&' M$ E' H4' B3 $4D' & ' ' ('

U M#5> ;>P P ' @$1' !

2- O'H&' $ P CD3R J3$EH4

H' F3' 243$' ENHE 3E 3EN3' H&' D 34C' H&' 8 C' P $(3C O C' ?-Q(3N C' $ED' F3' I43(-D N3' H&' @HE E34N3d H' 43 #3DO' F343&H43' F3' C$ D' ; ' Q3' '&-4 F34' 3E$N 3D' $ '&4H J' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' &' $EO' I34CHE' H4' I34CHEC' #' $!% #&' CF$ ' &- O' C3N43 3' +331' H4' D3 $ E' <&' Q3 E2' 43X- 43D' H' D3 34' -1' QO' $EO' G31- O' @ 34+' 23E ' >3 34' @$44 34' IHC QHO' ' D34' G4 34' H4' M-$4D' H&' $EO' P $ ' @H$NF H4' $EO' H F3&' < N34' H4' I34CHE' F$ CH3 34' 3 J 1 HO3D' H4' H' Q3' 3 J 1 HO3D' E' $EO' B-C E3CC' 43 $ E2' H' F3' IHC ' <&& N3' CF$ ' 43&-C3' H4' &- O' E32 3N ' H' D3 34' -1' $EO' P $ ' H4' B$2' H&' >3 34C' C3E' H4' NHE 3O3D' H4' J $D3' -1' E' H4D34' H' Q3' C3E' H4' NHE 3O3D' QO' F3' IHC ' H4' $EO' >3 34' H4' >3 34C' I $N+3' H4' I $N+3 C' C3E' H4' NHER 3O3D' QO' F3' IHC ' H4' 1- ' &H4' F$ ' I -41HC3' E H' $EO' IHC ' <&& N3' H4' 8 H-C3' H4' I $N3' &H4' F3' ' 3N3 1 ' H4' G3 34O' H&' >3 34C' H4' I $N+3 C' C3E' H4' H' Q3' C3E' QO' F3' IHC ' $ED' F NF' >3 34' H4' >3 34C' I $N+3' H4' B$N+3 C' B$2' 14' P $ ' H&' >3 34C' CF$ ' F$ 3' Q33E' &H-ED' H4' 1 N+3D' -1' QO' F3' C$ J 3' H4' $EO' H F34' I34CHE' H4' I34CHEC' H4' CF$ ' QO' H4' F4H-2F' NN D3E' H4' P C $+3' F$ 3' Q33E' 3&' F' H4' $' F3' 8 H-C3' H&' F3' C$ J 3' H4' $EO' H F34' I34CHE' H4' I34CHEC' 3$NF' $ED' 3 34O' I34CHE' $ED' I34CHEC' H H&&3ED E2' CF$ ' Q3' D33 J 3D' $ED' $+3E' H' Q3' 2- O' H&' $' P CD3 J 3$EH4' H' Q3' 1-E CF3D' QO' 6 E3' $ED' J 14 CHE J 3E

) '" ' *(+, ' "" ' - ' * ' ' * *.' ' #+(

WWW >' ED' F343$C' ' C' 3 13D 3E' H' 143 3E' <QC 4-N HEC' H11HC 3' F3' M3E34$' IHC ' <&& N3C' E' <,#&,#' $ED' 2 3O #-' Q3' ' F343R &H43' 3E$N 3D' *F$ ' EH' 8 $N+E3O' @$44 $23' H&' $EO' G3CN4 1 HE' F$ 3 34' CF$ ' $' $EO' * J 3' F343$& 34' C $ED' H4' 1 O' &H4' 8 43' E' &4HE' H4' H11HC 3' F3' M3E34$' BHC ' <&& N3' E' + #' # 1' %!' #&' H4' F3' M3E34$' IHC ' <&& N3' E' + ' O %%!' + !! ' 234% #' H4' 3 F34' H&' F3 J ' H4' $EO' I $4' F343H&' 43C13N 3 O' ($ED' $ CH' F$ ' EH' 8 $ +34' , 3 C 3ED34' H4' H F34' I<4CH4' H4' I34CHEC' F$ CH3 34' CF$ ' $' $EO' * J 3' F343$& 34' -EE3N3CR C$4 O' H1' H4' J 34' HE' F3' P $2 $O' H4' I $ 3 J 3E' E' &4HE' H&' F3' C$ D' IHC ' <&& N3C' H4' 3 F34' H&' F3 J ' H4' $EO' I $4' F343H&' 43C13N 3 O' $EO' >$ ' H' F3' NHE 4$4O' E' $EO C3' EH FC $ED E2' $ED' E' N$C3' F3' G4 34' H4' $EO' I34CHE' H4' I34CHEC' F$ E2' F3' P E23 J 3E' H&' $EO' 8 $N+E3O' @$44 $23' CF$ ' 134 J ' F3' C$ J 3' H' C $ED' H4' 1 O' &H4' 8 43' E' &4HE' H&' H4' H11HC 3' F3' M3E34$' IHC ' <&& N3' E' + #' # 1' %!' #&' <,#&,#' H4' F3' M3E34$' IHC ' <&& N3' E' + ' O % ' + !! ' 234% #' H4' 3 F34' H&' F3 J ' H4' $EO' I $4' F343H&' H4' E' N$C3' $EO' 8 $ +34' , 3 C 3ED34' H4' H F34' D 3' H4' D CH4D34 O' I34CHE' CF$ ' -EE3N3CC$4 O' H4' 1-41HC3 O' C H1' H4' J 34' F3' 6 $2 $O' H4' I $ 3 J 3E' E' &4HE' H&' F3' C$ D' M3E34$' IHC ' <&& N3C' H4' 3 F34' H&' F3 J ' H4' $EO' I $4' F343H&' F3' I34CHE' H4' I34CHEC' CH' H&&3ED E2' CF$ ' &H4' 3 34O' C-NF' <&&3EN3' HE' @HE N HE' F343H&' E' $' C- J J $4O' 9 $O' Q3&H43' $' 5-C N3' H&' F3' I 3$N3' &H4&3 ' $ED' 1$O' H' F3' E&H4 J 34' $EO' ?- J' EH' 3 N33D E2' 6 3' IH-EDC' F' @HC C' $ED' &' EH' 1$ D' 3 F34' J J 3D $ 3 O' $& 34' F3' @HE N HE' H4' F E' C-NF' I34 HD' $C' F3' 5-C N3' CF$ ' $' F3' * J 3' H&' F3' @HE N HE' $11H E ' CF$ ' Q3' $ &-' &H4' F3' NHE N E2' 5-C N3' H' NH J J ' F3' <&&3ED34' H' F3' @H J J HE' M$H' H4' 8 H-C3' H&' @H443N HE' F343' H' Q3' J 14 CHE3D' &H4' $EO' * J 3' EH' 3 N33D E2' * H' @$ 3ED$4' P HE FC' F3' @H J J J 3E' H' Q3' D3 34 J E$Q 3' HE' I $O J 3E' H&' F3' J H-E' $ED' @HC C

P $EE34' H&' 14HN33D E2' 2 EC' I34

WWW ' ED' &H4' F3' J H43' 3&&3N -$' I4HC3N- HE' H&' F3' C$ D' $C ' J 3E HE3D' <&&3EN3' Q3' ' 3E$N 3D' *F$ ' F343' $EO' I34CHE' CF$ ' Q3 NF$423D

NF$423D' HE' F3' <$ F' H&' $' N43D Q 3' 9 E3CC' Q3&H43' $EO' 5-C N3' H&' ' ' +,-'
F3' I3$N3' Q' $EO' C-NF' <&&3EN3' F3' 5-C N3' J$O' C-J JHE' F3' *(+, '
I34CHE' NF$423D' H' $113$4' $' $' * J 3' $ED' I $N3' H' Q3' E$J3D' E'
C-NF' ?-J JHEC' $ED' &' F3' H4' CF3' CF$ ' EH ' $113$4' $NNH4D E2 O' F3E'
^-1HE' I4HH&' H&' F3' D-3' ?34 N3' H&' F3' ?-J JHEC' -1HE' C-NF' I34CHE'
QO' D3 34 E2' F3' C$J3' H' F J' H4' F34' 134CHE$ O' H4' QO' 3$ E2' F3'
C$J3' $' F C' H4' F34' -C-$' I $N3' H&' QHD3 _' F3' 5-C N3' J$O' 3 F34'
14HN33D' H' F3$4' $ED' D3 34 J E3' F3' @$C3' !J' ' !' H4' CC-3' F C' 9 $4R
4$E '&H4' $1143F3ED E2' C-NF' I34CHE' $ED' Q4 E2 E2' F J' H4' F34' Q3&H43'
F J C3 &' H4' CHJ3' H F34' 5-C N3' H&' F3' I3$N3' H4' F3' 5-C N3' Q3&H43'
FHJ' F3' @F$423' CF$ ' Q3' J$D3' J$O' ^&' F3' CF$ ' CH' F E+' & _'
FH-'$EO' 143 H-C' ?-J JHEC' CC-3' C-NF' 9 44E ' $ED' F3' 5-C N3'
Q3&H43' FHJ' F3' I34CHE' NF$423D' CF$ ' $113$4' H4' Q3' Q4H-2F' CF$ '
14HN33D' H' F3$4' $ED' D3 34 J E3' F3' @$C3

WWW W' ED' Q3' ' 3E$N 3D' *F$ ' 3 34O' @$44 $23' F' * H' H4' 9 F$' CF$ '
JH43' 9 F33 C' F NF' CF$ 'C $ED' H4' 1 O' &H4' 8 43' E' &4HE 'H&' H4' H11HC 3' Q3' D33 J 3D'
F3' M3E34$' IHC '<&& N3' E' + #' # 1' %!' #&' % I &4#' H4' F3'
M3E34$' IHC ' <&& N3' E' + ')0 %%!' + !! ' 234% #' H4' 3 F34' H&' F3J ' F3I-&-P3C'
H4' $EO' I$4 ' F343H&' H&' F$ 3 34' J$O' Q3' F3' 6H4J' H4' @HEC 4-N HE' F 3H&'
H&' C-NF' @$44 $23' H4' F3' ,-JQ34' H&' I34CHEC' F NF' F3' C$J3' CF$ ' '
Q3' N$N- $ 3D' H' NHE 30' H4' F3' ,-JQ34' H&' 8H4C3C' QO' F NF' F3'
C$J3' CF$ 'Q3' D4$ E' CF$ 'Q3' D33J3D' $ED' $+3E' H' Q3' $' 8 $N+E3O'
@$44 $23' F E' F3' P3$E E2' H&' F C' N ' $ED' E' $ ' I4HN33D E2C'
$' >$ ' H4' H F34 C3' $ED' -1HE' $ ' <NN$C HEC' F$ CH3 34' ' CF$ '
Q3' C-&& N 3E' H' D3CN4 Q3' $E ' C-NF' @$44 $23' $C' $&H43C$ D' F3'
*34J' 8 $N+E3O' @$44 $23' FH-' &-4 F34' H4' H F34 C3' D3CN4 Q E2'
F3' C$J3'

W>' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' F C' N ' J$O' Q3' $ 343D' N' J$O' Q3'
$4 3D' H4' 4313$ 3D' QO' $EO' N ' H4' N C' H' Q3' 1$CC3D' E' F3' 143C3E ' $ 343D' F C'
?3CC HE' H&' I$4 $J3E ' ?3CC HE

UL' M # > ; > P ' ' @$1 ' !

*F3' ?@8 ; G#> ;' H' F NF' F C' N ' 43&34C

' 8 C' P $(3C O C' > 3- 3E$E ' M3E34$ ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C'
H&' 43 $ED
8 C' H4' F3 4' @F 3&' ?3N43 $40
8 C' H4' F3 4' ?3N43 $40' &H4' F3' I 4H EN3C' H&' # C 34' $ED' P - EC 34' E'
43 $ED
*F3' #ED34' ?3N43 $40' &H4' F3' >$ ' G31$4 J 3E ' H&' F3' @F 3&' ?3N43 $40 C'
<&& N3'
*F3' #ED34' ?3N43 $40' $ED' 6 4C ' @ 34+' &H4' F3' P $40' G31$4 J 3E ' H&'
F3' @F 3&' ?3N43 $40 C' <&& N3
*F3' 6 4C ' @ 34+' E' F3' <&& N3' E' 43 $ED' H&' F3' C$ D' ?3N43 $40' &H4' F3'
I 4H EN3C' H&' # C 34' $ED' P - EC 34
*F3' >H4D' 8 2F' *43$C-434' H4' @H J J CC HE34C' H&' F3' *43$C-40
*F3' >H4D' 8 2F' @F$EN3 H4
*F3' @F$EN3 H4' H&' F3' ; NF3X-34
*F3' N3' *43$C-434
*F3' ?3N43 $40' H' F3' *43$C-40
' *F3' ?3N43 $40' H' F3' I HC J $C 34' M3E34$
G 3' D(- $E ' M3E34$
*F3' \ - P 34 J $C 34' M3E34$
*F3' @F 3&' @H J J CC HE34' H&' F3' B44N+' BH$4D
*F3' CC C $E ' #ED34' ?3N43 $40' &H4' F3' >$ ' G31$4 J 3E ' H&' F3' @F 3&'
?3N43 $40 C' <&& N3
*F3' I 4C ' @ 34+' H&' F3' @ ' G31$4 J 3E ' H&' F3' ?3N43 $40 C' <&& N3
*F3' *43$C-434' H4' ' 3N3 34' M3E34$ ' H&' F3' I HC ' <&& N3
)^ *F3' @H J 1 4H 34' H&' F3' ?H4 E2' <&& N3' E' F3' M3E34$ ' I HC ' <&& N3
*F3' ?-4 3OH4C' H&' F3' I HC ' <&& N3
*F3' ' 32 C 4$4' H&' % FE$ EF$ J' 8 HC1 $
*F3' <&& N34C' &H4' $+ E2' F3' I H1- $ HE' ' 3 -4EC
*F3' @H J J CC HE34C' &H4' F3' CC C $EN3' H&' *4$D3' $ED' P $E-&$N -43C
*F3' ?3N43 $40' H&' C-NF' @H J J CC HE34C
*F3' @H J J CC HE34C' &H4' F3' CC-3' H&' ; NF3X-34' B C' $ED' P HE3O' H- '
H&' F3' @HECH D$ 3D' 6-ED' &H4' F3' ; ENH-4$23 J 3E ' H&' I -Q N' 9 H4+C'
' $J ' 6 CF34 3C ' $ED' D 3' I 34CHEC' $11H E 3D' QO' F3 J' H' C 2E' >3 34C' HE'
F3' < - C D3
*F3' ?3N43 $40' H&' C-NF' $C J 3E HE3D' @H J J CC HE34C
G 3' ?13N $' @H J J CC HE34C' &H4' 43N3 E2' 11 N$ HEC' &H4' ' 3 3&' E' N$C3'
H&' 3 #43 J 3' , 3N3CC O' $ED' F3 4' ?3N43 $40
*F3' @H J J CC HE34C' &H4' F3' ; 3EC HE' $ED' I 4H J H HE' H&' I -Q N' 9 H4+C
' $ED' F3' I 34CHE' $11H E 3D' QO' F3 J' H' C 2E' >3 34C' HE' F3' < - C D3
*F3' ?3N43 $40' H&' C-NF' $C J 3E HE3D' @H J J CC HE34C
*F3' @H J 4$ CC HE3 J' &H4' $-D E2' I -Q N' NNH-E C
G C HE$' 5-C N3C'
+ ' @F$4 $Q 3' EC - HEC' H4' ?HN 3 3C

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> 8 ; ' ; ?ˁ QOˁ N34 $ Jˁ N Cˁ 43 $ E2ˁ Hˁ F3ˁ ' 3 3E - 3Cˁ H&ˁ ; N C3ˁ ˁ Cˁ 14H D3Dˁ F$ ˁ N34 $ Eˁ @H J J HD 3Cˁ CF ˁ EH ˁ Q3ˁ 43 J H 3Dˁ &4H Jˁ $EOˁ HE3ˁ I $N3ˁ Hˁ $EOˁ H F3 ˁ I $N3ˁ FH - ˁ $ˁ I 34 J ˁ Hˁ $NNH J 1$EOˁ F3ˁ C$ J 3 ˁ $EDˁ ˁ Cˁ & - 4 F34ˁ 14H D3Dˁ F$ ˁ $ ˁ C - NFˁ I 34 J Cˁ CF$ ˁ Q3ˁ 24$E 3Dˁ $EDˁ CC - 3D ˁ HQ $ E3Dˁ $EDˁ - C3D ˁ - ED34ˁ F3ˁ ' - 3C ˁ ' 32 - $ HEC ˁ $EDˁ I 4H C HECˁ H&ˁ F3ˁ N Cˁ Eˁ &H4N3ˁ &H4ˁ 432 - ˁ $ E2ˁ F3ˁ 24$E E2ˁ $EDˁ CC - E2ˁ H&ˁ I 34 J Cˁ EDˁ F343$Cˁ F3ˁ >$ Cˁ Eˁ &H4N3ˁ Eˁ ! ˁ " #ˁ $EDˁ F3ˁ >$ Cˁ Eˁ &H4N3ˁ Eˁ $!% #& ˁ 43 $ E2ˁ 23E34$ Oˁ Hˁ F3ˁ 24$E E2ˁ $EDˁ CC - E2ˁ H&ˁ I 34 J Cˁ &H4ˁ F3ˁ ' 3 J H $ ˁ $EDˁ I 4H 3N HEˁ H&ˁ MHHDCˁ $EDˁ @H J J HD 3Cˁ &H4ˁ F3ˁ ' 3 J H $ ˁ H&ˁ F NFˁ $ˁ I 34 J ˁ Cˁ QOˁ F3ˁ >$ Cˁ H&ˁ ; N C3ˁ 43X - 43D ˁ NHE $ Eˁ D &&343E ˁ I 4H C HECˁ $EDˁ ' 32 - $ HEC ˁ - ED34ˁ F NFˁ C31$4$ 3 ˁ D C EN ˁ $EDˁ D &&343E ˁ 6H4 J Cˁ H&ˁ I 34 J Cˁ $43ˁ 43X - 43Dˁ Eˁ $!% #&ˁ &4H Jˁ F3ˁ 6H4 Jˁ H&ˁ I 34 J Cˁ Eˁ - C3ˁ Eˁ ! ˁ " #ˁ ˁ EDˁ Q34D$Cˁ ˁ Cˁ 3 13D 3E ˁ F$ ˁ F3ˁ I 4H C HECˁ H&ˁ F3ˁ C$ Dˁ >$ Cˁ CFH - Dˁ Q3ˁ - E &H4 J ˁ $EDˁ CFH - Dˁ Q3ˁ NHECH D$ 3Dˁ $EDˁ $ J 3ED3D.ˁ B3ˁ ˁ F343&H4]ˁ 3E$N 3Dˁ QOˁ F3ˁ % E2 Cˁ J HC ˁ ; N3 3E ˁ P 3C O ˁ QOˁ $EDˁ Fˁ F3ˁ D N3ˁ $EDˁ @HEC3E ˁ H&ˁ F3ˁ >H4DCˁ S1 4 - $ ˁ $EDˁ * 3 J 1H4$ ˁ $EDˁ @H J J HEC ˁ Eˁ F Cˁ 143C3E ˁ I $4 $ J 3E ˁ $CC3 J Q 3D $ED

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I344H C H Q3 $ED QO F3 - FH4 O H& F3 C$E;43 *F$'$ ' I34 J C H Q3 24$E 3D &H4
J$D3 $ED ((2 '3 J H $' H4 @HE 3O$EN3 &$EO @H J J HD 3C' &H4 F3 I 3 J H $' H&
NH4D E2 H F NF $ I34 J ' C H4 CF$ ' Q3 43X- 43D QO $EO N ' H4 N C EH ' E
F3 I4H C HEC &H4N3 H4 F343$& 34 H Q3 1$CC3D 43 $ E2 H F3 ; N C3 ' CF$ ' Q3 J $D3
H& F C N ' $ED 24$E 3D -ED34 F3 I H 34C $ED G 43N HEC H& F C N

@H J J CC HER ' ED Q3 '&-4 F34 3E$N 3D ' *F$' F3 @H J J CC HE34C H& ; N C3
34C H& ; N C3 CF$ ' N$-C3 H Q3 14H D3D P H- DC H4 64$J 3C &H4 F3 J $+ E2 H& I $134
H 14H D3 H Q3 -C3D E ! '" # $ED $!% #& &H4 I 34 J C ' F NF I $134 CF$ '
P3- DC &H4 F$ 3 F3 9 H4DC `' ; N C3 <&& N3 c F $EO H F34 >3 34C ' 6 2-43C '
E P$4+C ' H4 G3 N3C F NF F3 C$ D @H J J CC HE34C CF$ ' D 43N ' C Q 3
I$134 H Q3 E F3 ?-QC $EN3 H& C-NF I $134 ' $ED CF$ ' $ CH N$-C3 H Q3 14H D3D
+ ' &H4 I $ 3C 3E24$ 3D F C-NF P$4+C ' ? $J 1C ' $ED G3 N3C $C H F3 J '
' I $ 3C CF$ ' C33 J ' J 33 ' $ED &4H J ' * J 3 H * J 3 J $O $ 34 H4 $4O $EO C-NF
' *O13C I $ 3C ' $ED J $O $ CH N$-C3 H Q3 14H D3D *O13C N$C ' E $EO 1$4 N- $4
&H4 14 E E2 ' 6H4 J ' &H4 F3 14 E E2 ' C $J 1 E2 ' $ED J $4+ E2 F3 C$ D I $134 ' $ED $ '
I34 J C I34 J C 2 3E QO F3 43C13N 3 <&& N34C H& ; N C3 E F3 # E 3D
% E2 H J ' &H4 F3 ; 3H H $' H4 @HE 3O$EN3 H& $EO @H J J HD O &H4 F3
'3 J H $' H& F D ' $ I34 J ' C QO >$ ' 43X- 43D CF$ ' Q3 14 E 3D '
C $J 13D ' $ED J $4+3D QO F3 C$ D I $ 3 H4 I $ 3C H4 *O13C HE I$134
CH J $D3 $C $&H43C$ D ' 9 F NF C$ D I$134 CF$ ' F3 J $D3 $ED F3 C$ D
I $ 3C 3E24$ 3E $ED *O13C N$C ' QO C-NF I34CHE H4 I34CHEC $C CF$ ' Q3
&H4 F$ ' I -41HC3 &4H J ' * J 3 H * J 3 $- FH4 T3D $ED $11H E 3D QO F3
@H J J CC HE34C H& ; N C3 -ED34 F3 4 8$EDC $ED ?3$ C ' $ED $C 3 '
F3 C$ D I$134 $C F3 C$ D I $ 3C CH 3E24$ 3E $ED *O13C CH N$C ' CF$ '
Q3 +31 ' QO C-NF <&& N34 H4 <&& N34C H4 H F34 I34CHE $C CF$ ' &4H J '
* J 3 H * J 3 Q3 $11H E 3D QO F3 C$ D @H J J CC HE34C &H4 +331 E2
F3 C$ J 3 ' $ED EH I34 J ' CF$ ' Q3 14 E 3D ' C $J 13D ' J $ +3D ' H4
4 3E ' EH4 CF$ ' $EO I34 J ' Q3 24$E 3D ' E $EO I $4 ' H& F3 # E 3D
% E2DH J ' QO $EO <&& N34 H& ; N C3 ' Q- ' HE I $134 CH 14H D3 ' $C
$&H43C$ D

/0 + (% ' ED Q3 ' &-4 F34 3E$N 3D ' *F$' 3 34O I34CHE FH CF$ '
1 ' ' J $+3 ' * ' N$-C3 H4 14HN-43 H Q3 J $D3 ' H4 CF$ ' $ D H4 $CC C ' E F3
2 ' " ' J $+ E2 ' H4 CF$ ' +EH E2 O F$ 3 E F C ' F34 ' H4 F3 4 @-C HDO H4
' 3 ' % I HCC3CC HE ' EH ' Q3 E2 $- FH4 T3D QO F3 C$ D @H J J CC HE34C ' $ED
" ' % FH- ' $ &- ' ; N-C3 ' F3 I 4HH& F343H& CF$ ' 3 HE F3 I34CHE
' ' (NN-C3D ' $EO P H- D H4 64$J 3 H4 H F34 EC 4- J 3E ' F$ E2 F343 E
' ' + ' F3 9 H DC `' ; N C3 <&& N3 ' H4 $EO H F34 9 H4DC ' 6 2-43C ' P$4+C ' H4
)$" *' (' G3 N3C 13N- $4 H $ED $113$4 E2 E F3 ?-QC $EN3 H& F3 I $134 -C3D
+ $ QO F3 C$ D @H J J CC HE34C &H4 I34 J C ' H4 F $EO H4 I $4 ' H& C-NF
$ ' ' 9 H4DC ' 6 2-43C ' P$4+C ' H4 G3 N3C ' H4 $EO H& F3 J ' E 3ED3D H
+ (' J $ 3 H4 1$CC &H4 F3 C$ J 3 ' $ED 3 34O I34CHE ' 3 N31 ' $C Q3&H43
) 3 N31 3D ' FH CF$ ' J $+3 ' H4 N$-C3 H4 14HN-43 H Q3 J $D3 ' H4 $ D H4
$CC C ' E F3 J $+ E2 ' $EO I $134 E F3 ?-QC $EN3 H& F NF F3 9 H4DC
' ; N C3 <&& N3 c H4 $EO H F34 9 H4DC ' 6 2-43C ' P$4+C ' H4 G3 N3C
13N- $4 H H4 $113$4 E2 E F3 ?-QC $EN3 H& F3 I $134 -C3D QO F3
@H J J CC HE34C H& ; N C3 &H4 I34 J C ' H4 $EO I $4 ' H& C-NF 9 H4DC '
6 2-43C ' P$4+C ' H4 G3 N3C ' H4 $EO H& F3 J ' E 3ED3D H J $ 3 $ED
1$CC &H4 F3 C$ J 3 ' CF$ ' Q3 C Q 3 ' $ED 3 34O I34CHE ' 3 N31 ' $C Q3&H43
3 N31 3D ' FH CF$ ' +EH E2 O F$ 3 E F C ' F34 ' H4 F3 4 @-C HDO
H4 I HCC3CC HE ' FH- ' $ &- ' ; N-C3 ' ^ F3 I 4HH& F343H& CF$ ' 3 HE
: Z F3

F3' I34CHE' $NN-C3D_'$EO' I$134' F$ 3 34' -' F3' ?-QC $EN3' H&' F NF'
F3' 9 H4DC' `' ; N C3' <&& N3 c' H4' $EO' H F34' 9 H4DC' 6 2-43C' P$4+C' H4'
G3 N3C' 13N- $4' H' $ED' $113$4 E2' E' F3' ?-QC $EN3' H&' I$134' -C3D' QO'
F3' @H4$J CC HE3 C' H&' ; N C3' &H4' I34J C' H4' $EO' I$4' H&' C-NF' 9 H4DC
6 2-43C' P$4+C' H4' G3 N3C' H4' H&' $EO' H&' F3J ' E 3ED3D' H' J $ 3'
$ED' 1$CC' &H4' F3' C$J3' CF$ ' Q3' C Q 3' $ED' 3 34O' I34CHE' 3 N31 ' $C'
Q3&H43' 3 N31 3D' FH' CF$ ' QO' $EO' 4 ' P OC 34O' H4' @HE 4 $EN3'
N$-C3' H4' 14HN- 3' H4' $ D' '$CC C' E' N$E E2' H4' 14HN-4 E2' F3' 9 H4DC'
`' ; N C3' <&& N3 c' H4' $EO' H F34' 9 H4DC' 6 2-43C' P$4+C' H4' G3 N3C'
13N- $4' H' $ED' $113$4 E2' E' F3' ?-QC $EN3' H&' F3' I$134' -C3D' QO' F3'
@H J J CC HE34C' H&' ; N C3' &H4' I34J C' H4' $EO' H4' I$4' H&' C-NF' 9 H4DC
6 2-43C' P$4+C' H4' G3 N3C' H4' $EO' H&' F3J ' E 3ED3D' H' J $ 3' $ED'
1$CC' &H4' F3' C$J3' H' $113$4' C Q 3' E' F3' ?-QC $EN3' H&' $EO' I$134'
F$ 3 34' ($ED' 3 34O' I34CHE' EH ' $- FH4 T3D' H4' $11H E 3D' $C' $&H43R
C$ D' FH' CF$ ' 3E24$ 3' N$C ' N- ' H4' J$+3' H4' N$-C3' H4' 14HN-43' H' Q3'
3E24$ 3D' N$C ' N- ' H4' J$D3' H&' $ D' H4' $CC C' E' 3E24$ E2' N$C E2'
N- E2' H4' J$+ E2' $EO' I $ 3' *O13' H4' H F34' *F E2' E' J $ HE' H&'
H4' H' 43C3 J Q 3' $EO' I $ 3' H4' *O13' J$D3' H4' -C3D' QO' F3' G 43N HE' H&'
F3' @H J J CC HE34C' H&' ; N C3' &H4' F3' I-41HC3' H&' J$4+ E2' H4' 14 E E2'
3' I$134' H' Q3' -C3D' &H4' I34J C' $ED' 3 34O' I34CHE' 3 N31 ' $C'
Q3&H43' 3 N31 3D' FH' CF$ ' +EH E2 O' F$ 3' E' F C' H4' F34' @ - D O' H4
I HCC3CC HE' FH- ' $ &- ' ; N-C3' I4HH&' F343H&' CF$ ' 3' HE' F3'
I34CHE' $NN-C3D' $EO' C-NF' I $ 3' H4' *O13 ' CF$ ' &H4' 3 34O' C-NF' <D3E@3'
Q3' $D(-D23D' $' 63 HE' $ED' CF$ ' Q3' 4$EC1H4 3D' &H4' F3' *34J' H&' ?3 3E'
=3$4C' 14' CF$ ' Q3' J14 CHE3D' $' F3' G CN43 HE' H&' F3' @H-4' Q3&H43'
FHJ' C-NF' I34CHE' CF$ ' Q3' 4 3D' &H4' $EO' I34 HD' EH ' 3CC' F$E' * H'
*3$4C' '

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' 3 34O' I34CHE' FH' CF$ ' 6H42 E2 *
NH-E 34&3 ' H4' &H423' H4' N$-C3' H4' 14HN-43' H' Q3' NH-E 34&3 3D' H4'
&H423D' H4' $CC C' E' NH-E 34&3 E2' H4' &H42 E2' $EO' I34J ' H4' $EO' I$4' H/ - 34 E2'
H&' $EO' I34J ' H4' CF$ ' NH-E 34 3 ' $EO' J143CC HE' ? $J1' <4 P$4+' &H423D &'
6 2-43' H4' G3 N3' 14H D3D' H4' $11H E 3D' H4' H' Q3' 14H D3D' H4' $1
1H E 3D' QO' F3' @H J J CC HE34C' H&' ; N C3' H' Q3' 1- ' HE' C-NF' I34J '
H4' CF$ ' - 34' 2 3' H4' J$+3' -C3' H&' $EO' NH-E 34&3 3D' H4' &H423D' I34J ' /
+EH E2' F3' C$J3' H4' $EO' I$4' F343H&' H' Q3' NH-E 34&3 3D' H4' &H423D'
H4' CF$ ' - 34' 2 3' H4' J$+3' -C3' H&' $EO' I34J ' F' $EO' C-NF' NH-ER
34&3 3D' J143CC HE' ? $J1' H4' P$4+' 6 2-43' H4' G3 N3' +EH E2' F3'
C$&& 3' H' Q3' NH-E 34&3 3D' ' H4' &' $EO' I34CHE' H4' I34CHEC' CF$ ' +EH 2 O'
H4' E2 O' $NN31 ' H4' 43N3 3' $EO' NH-E 34&3 3D' H4' &H423D' I34J ' H4'.
$EO' I34J ' F' $EO' C-NF' NH-E 34&3 3D' J143CC HE' ? $J1' <4 P$4+
6 2-43' H4' G3 N3' F343HE' + E2' F3' ?$J3' H' Q3' NH-E 34&3 3D'
CF$ ' &H4' 3 34O' C-NF' <&&3EN3' Q3' $D(-D23D' 2- O' H&' $' P CD3J3$EH4'
$ED' CF$ ' Q3' 4$EC1H4 3D' &H4' F3' *34J' H&' ?3 3E' =3$4C' H4' & E3D' $ED'
J14 CHE3D' $' F3' G CN43 HE' H&' F3' @H-4

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' EH' I34J ' CF$ ' Q3' 24$E 3D' QO' ' ' 3X-3C'
$EO' <&& N34' H&' ; N C3' -E ' $' ' 3X-3C' , H 3' ' ' 3X- C HE' E' 9 4 E2
CF$ ' F$ 3' Q33E' D3 343D' QO' H4' E' Q3F$ &' H&' F3' I34CHE' 43X- 4 E2' C-NF' HQ $ E E2' $
I34J ' $ED' 3 34O' I34J ' F NF' CF$ ' Q3' 24$E 3D' FH- ' $' ' 3X-3C' I34J
, H 3' H4' ' 3X- C HE' Q3 E2' D3 343D' E' J$EE34' 43X- 43D' QO' Q C' N&
CF$

CF$ ' Q3' $@$$ O' $ED' CF$ ' EH ' 14H 3N ' $EO' MHHDC ' 9$43C ' H4' P34NF$ED T3 J3E HE3D' E' C-NF' I34J

. 4+ 5 ' H' NHE $E' N34 $E' I$4 ' N- $E

' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' 3 340' ' 3X-3C ' , H 3' &H4' $EO' I34E ' CF$ ' NHE $E' F3' G$ 3' F343H&' $ED' F3' , $J3' H&' F3' I $N3' &4HJ' F NF' $ED' F3' I $N3' H' F NF' F3' @HJJHD 3C' F343 E' J3E HE3D' $43' H' Q3' N$44 3D ' $ED' F3' PHD3' H&' @HE 30$EN3' QO' F NF' C-NF' @HJR JHD 3C' $43' H' Q3' 43JH 3D ' $ED' CF$ ' +3 C3' NHE $E' F3' 43$ ' , $J3' $ED' ?-4E$J3' $ED' I $N3' H&' QHD3' H&' F3' I34CHE' H4' I34CHEC' C3ED E2' C-NF' @HJJHD 3C ' $ED' H&' F3' I34CHE' H' FHJ' F30' $43' H' Q3' C3E ' $ED ' E' N$C3' H&' $ @HJ1$EO' H4' @H1$4 E34CF 1 ' F3' , $J3' H&' F3' 6 4J ' @HJ1$EO ' H4' @H1$4 E34CF 1 ' H23 F34' F' C-NF' H F34' I$4 N- $4C' $C' F3' @HJJ CC HE34C' H&' ; N C3' CF$ ' &4HJ' * J3' H' * J3' D 43N ' H4' $11H E ' H4' $C' CF$ ' Q3' 43X- 43D' QO' $EO' N ' H4' N C' 43 $ E2' H' F3' @HJJHD 3C' E' 43C13N ' H&' FNF' F3' I34J ' CF$ ' Q3' 43X- 43D' ' $ED' 3 340' C-NF' ' 3X-3C ' , H 3' CF$ ' Q3' C 2E3D' QO' F3' I34CHE' 43X- 4 E2' F3' I34J ' H4' QO' F C' H4' F34' +EH E' @ 34+' H4' ?34 $E ' $ED' EH' I34J ' CF$ ' Q3' 24$E 3D' HE' $EO' ' 3X-3C ' , H 3' F NF' CF$ ' EH ' Q3' CH' C 2E3D ' $ED' NHE $E' F3' C3 34$' I$4 N- $4C' $&H43C$ D.' I H D3D' $ $OC ' F$ ' EH' C-NF' ' 3X-3C ' , H 3' H4' ' 3X- C HE' CF$ ' Q3' $Q 3' H' $EO' ? $J1' G- O' F343HE

' HQ3' $' +, -' H&67, ' CF$ ' , '

' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' 3 340' I34J ' H' Q3' 24$E 3D' ' &H4' F3' ' 3JH $ ' H&' $EO' @HJJHD 3C' CF$ ' Q3' J$D3' H- ' E' NHE&H4J O' F' F3' ' 3X-3C ' , H 3' ' $ED' 3 340' C-NF' I34J ' CF$ ' Q3' E' C-NF' 6H4J ' Qb' J$4+3D ' C $J13D ' $ED' 14 E 3D' F' C-NF' ? $J1C ' P$4+C 6 2-43C $ED' G3 N3C ' $ED' CF$ ' NHE $E' C-NF' I$4 N- $4C ' $C' F3' @H4$ ' J CC HE34C' H&' ; N C3' CF$ ' D 43N

"(!@)#' H' &H4' F NF' ' C' H' Q3' E' &H4N3

>' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' 3 340' <&& N34' H&' ; N C3 3J1H 343D' H' 24$E ' I34J C' CF$ ' 3 143CC' $ED' J ' E' 3 340' I34J ' 24$E 3D' QO' F J ' $C' 3 ' F3' * J3' D-4 E2' F NF' C-NF' I34J ' CF$ ' Q3' E' &H4N3' &H4' 43JH E2' F3' @HJJHD 3C' &H4' F NF' F3' I34J ' CF$ ' Q3' HQ $ E3D' &4HJ' $ED' H- ' H&' F3' ? HN+' H&' F3' I34CHE' $+ E2 ' H- ' C-NF' I34J ' $C' $ CH' F3' * J3' F E' F NF' F3' C$J3' @HJR JHD 3C' CF$ ' Q3' D3 343D' $ED' $N -$ O' 43N3 3D' E H' F3' ? HN+' H&' F3' I34CHE' H4' I34CHEC' H' FHJ' F3' C$J3' CF$ ' Q3' CH' 134J 3D' H' Q3' C3E ' $ED' 3 340' I34J ' F NF' CF$ ' EH ' Q3' $N -$ O' -C3D ' $C' D 43N 3D' QO' F C' N ' F E' F3' * J3' 3 143CC3D' $ED' J 3D' E' C-NF' I34J ' CF$ ' F E' F3' C$ D' * J3' Q3' 43 -4E3D' $ED' 43 D3 343D' QO' F3' I34CHE' FH' CF$ ' F$ 3' HQ $ E3D' F3' C$J3' H' F3' 14H134' <&& N34' H&' ; N C3 ' $ED' &' $EO' I34J ' CF$ ' EH ' Q3' CH' 43 -4E3D' $C' $&H43C$ D ' $ED' -1HE' $+ E2' $E' NNH-E ' QO' $EO' <&& N34' H4' <&& N34C' H&' ; N C3 ' H&' F3' ? HN+' 43J$ E E2' E' F3' 8$EDC' H4' @-C HDO' H&' F3' I34CHE' H4' I34CHEC' &4HJ' H4' H- ' H&' FHC3' ? HN+' F3' @HJJHD 3C' J3E HE3D' E' C-NF' I34J ' 343' F343QO' $- FH4 T3D' H' Q3' 43JH 3D ' F343' CF$ ' EH ' $113$4' $' C-&& N 3E ' G3N43$C3' H' $EC 34' F3' ' 3JH $ ' H&' F3' @HJJHD 3C' J3E HE3D' E' C-NF' I34J ' F3E' F3' I34CHE' H4' I34CHEC' &4HJ' H4' H- ' H&' FHC3' ? HN+' F3' @HJJHD 3C' J3E HE3D' E' C-NF' I34J ' 343' F343QO' $- FH4 T3D' H' Q3' 43JH 3D' CF$ ' &H4&3 ' $ED' HC3' F3' +3' \-$E O' H&' @HJJHD 3C' CH' 134J 3D H

H' Q3' 43 J H 3D' $ D' EH ' 43 J H 3D' $NNH4D E2' H' C-NF' I 34 J CC HE ' $ED'
F3' C$ J 3' J $O' Q3' C3 T3D' QO' $EO' <&& N34' H&' ; N C3 ' $ED' E' N$C3'
$EO' @H J J HD 3C' C13N & 3D' E' $EO' I 34 J ' CF$ ' Q3' 43 J H 3D' &4H J'
F3' ? HN+' H&' F3' I 34CHE' $+ E2' H- ' C-NF' I 34 J ' $ED' F3' C$ J 3'
CF$ ' EH ' F E' F3' * J 3' 3 143CC3D' $ED' J 3D' E' C-NF' I 34 J '
Q3' $N -$ O' D3 343D' $ED' 43N3 3D' E H' F3' ? HN+' H&' F3' I 34CHE'
H4' I 34CHEC' H' FH J' F3' C$ J 3' $43' J 3E HE3D' E' C-NF' I 34 J '
H' Q3' C3E ' F3E' $ED' E' 3 340' C-NF' @$C3' $ ' C-NF' @H J J HD 3C'
CH' 43 J H 3D' $C' $&H43C$ D' CF$ ' Q3' D33 J 3D' H' Q3' MHHDC' 43 J H 3D'
H4' 43 J H E2' FH- ' I 34 J ' $ED' CF$ ' Q3' &H4&3 3D' $ED' C3 T3D'
$NNH4D E2 O'

W ' I4H D3D' $ $OC ' $ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' E' N$C3' $EO' ' 1 '
MHHDC' H4' @H J J HD 3C' CF$ ' QO' $EO' -E$ H D$Q 3' NN D3E ' H4' , 3N3CR
C O' Q3' D3 $O3D' $ED' F343QO' Q3' 143 3E 3D' &4H J' Q3 E2' D3 343D' E H'
F3' ? HN+' H4' ? HN+C' H&' F3' I 34CHEC' H' FH J' C-NF' MHHDC' CF$ ' Q3'
C3E ' F E' F3' * J 3' J 3D' $ED' 3 143CC3D' E' F3' I 34 J ' F$ ' F3E'
$ED' E' 3 340' C-NF' @$C3' F3' @H-4 ' H4' 5-4 CD N HE' F343' $EO' E&H4R
J $ HE' CF$ ' Q3' Q4H-2F ' &H4' F3' @HED3 J E$ HE' H&' $EO' C-NF' ?3 T-43'
CF$ ' -1HE' I 4HH&' H&' C#NF' -E$ H D$Q 3' NN D3E ' H4' , 3N3CC O ' D 43N '
F3' MHHDC' H4' @H J J HD 3C' CH' C3 T3D' H' Q3' 43C H43D' H' FH' < E34' '
@ $ J 34' F343H&' $EO' F E2' Q343 E Q3&H43' NHE $ E3D' H' F3' NHE 4$4O'
EH FC $ED E2 '

W ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' 3 340' I 34CHE' FH' CF$ ' $'
43 J H 3 ' D3 34 ' H4' C3ED' H- ' H4' N$-C3' H4' C-&34' H' Q3' 43 J H 3D'
D3 343D' <4 C3E ' H- ' &4H J' F C' ? HN+ ' @-C HDO ' H4' I HCC3CC HE ' $EO'
@H J J HD 3C' &H4' F3' ' 3 J H $ ' F343H&' $' I 34 J ' C' H4' CF$ ' Q3'
43X- 43D ' FH- ' $' 14H134' I 34 J ' $NNH J 1$EO E2' F3' C$ J 3 ' H4' FH'
F$ E2' HQ $ E3D' $' I 34 J ' CF$ ' FH ' C3ED' H- ' F343 F' F3' @H E '
J HD 3C' F343 E' D3CN4 Q3D ' H4' 43 -4E' $ED' 43 D3 34' F3' C$ D' I 34E
H' F3' 14H134' <&& N34' H&' ; N C3' F E' F3' * J 3' F343 E Q3&H43'
43X- 43D ' $ED' 3 340' I 34CHE' FH' $ ' $+3' H4' 43N3 3' H4' C-&&34' H'
(3' $+3E' H4' 43N3 3D' E H ' H4' CF$ ' F$ 3' E' F C ' F34 ' H4' F3 4' ? HN+
@-C HDO ' H4' I HCC3CC HE' $EO' @H J J HD 3C' &H4' F3' ' 3 J H $ ' F343H&' $'
I 34 J ' C' 43X- 43D ' FH- ' $' 14H134' I 34 J ' $NNH J 1$EO E2' D4' F$ E2'
$NNH J 1$E 3D' F3' C$ J 3 ' CF$ ' &H4&3 ' &H4' 3 340' C-NF' <&&3EN3' * H'
F-ED43D' I H-EDC

W ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' $ ' @H J J HD 3C' &H4' &F3
' 3 J H $ ' F343H&' $' I 34 J ' C' 43X- 43D ' F NF' CF$ ' Q3' H4' CF$ ' F$ 3'
Q33E' D3 343D ' 43 J H 3D ' H4' C3E ' H- ' H4' F NF' CF$ ' Q3' &H-ED' 43 '
J H E2 ' N$440 E2 ' H4' NHE 30 E2 ' H4' F NF' CF$ ' Q3' 43N3 3D ' FH- '
$' 14H134' I 34 J ' $NNH J 1$EO E2' F3' C$ J 3 ' CF$ ' Q3' &H4&3 3D ' $ED'
J $O' Q3' C3 T3D' QO' $EO' <&& N34' H&' ; N C3 ' $ED' 3 340' @$44 34 ' P$C 34'
H&' $' 3CC3 ' BH$ J $E ' $ED' H F34' I 34CHE' O F< CF$ ' Q3' &H-ED' H4'
CF$ ' +EH E2 O' F$ 3' Q33E' 3 J 1 HO3D' H4' 3E2$23D' E ' H4' CF$ '
+EH E2 O' $ D' H4' $CC C ' H4' F$ 3' $ D3D' H4' $CC C 3D' E ' D3 34 E2 '
43 J H E2 ' N$440 E2 ' H4' NHE 30 E2' $EO' C-N ' @H J J HD 3C' FH- ' $'
14H134' I 34 J ' $NNH J 1$EO E2' F3' C$ J 3 ' CF$ ' &H4&3 ' * H' F-ED43D'
I H-EDC

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&H4&3 3D'

W 8 ' D' QN' ' &-4 F34' 3E$N 3D' * F$' E' $EO' N HE' H4' ?- ' $' >$ ' H4' E' ; X- O' HE' $EO' BHED' B ' , H 3' H4' H F34' ?3N-4 O' @HE 4$N ' 2433 J 3E ' B4H E C3' H4' # ED34 $+ E2' F343' F3' 9 FH 3' I $4' H&' F3' @HEC D34$ HE' F343H&' CF$ ' Q3' &H4' F3' $ -3 H4' I 4 N3' H&' $EO' @H J J HD 3C' &H4' F3' ' 3 J H $' H&' F NF' $' I 34 J ' C' H4' CF$ ' Q3' 43X- 43D' $ED' &H4' $ED' F' F NF' $' 14H134' I 34 J ' CF$ ' EH ' F$ 3' Q33E' 2 3E' F3' G3&3ED$E ' E' C-NF' N HE' H4' ?- ' J $O' 1 3$D' $ED' 2 3' E' ; D3EN3' F$' C-NF' @H J J HD 3C' 343' D3 R 343D' FH- ' $' I 34 J ' $NNH J 1$EO E2' F3 J ' $ED' &' F3' 5-4O' CF$ ' & ED' F$' C-NF' MHHDC' 343' D3 343D' FH- ' $' 4-3' $ED' $ &- ' ' I 34 J ' F$ E2' Q33E' HQ $ E3D' &H4' F3' ' 3 J H $' F343H&' F3O' CF$ ' & ED' $' 34D N ' &H4' F3' G3&3ED$E ' $ED' &' C-NF' @H J J HD 3C' CF$ ' F$ 3' Q33E' CH D' &H4' 43$DO' P HE3O' H4' &' F3' I 34CHE' C3 E2' F3' C$J3' CF$ ' H F34 C3' F$ 3' Q33E' 1$ D' H4' C$ C& 3D' &H4' F3' $ -3' H4' I 4 N3' F343H&' ' CF$ ' Q3' $ &- ' &H4' F3' I 34CHE' FH' CF$ ' F$ 3 $ D' H4' C$ C& 3D' C-NF' $ -3' H4' I 4 N3' F E' * 3 3' @$ 3ED$4' HE FC' $& 34' I $O J 3E ' H4' ?$ C&$N HE' J $D3' H' 43NH 34' Q$N+' &4H J' F3' ?3 34' H&' C-NF' @H J J HD 3C' F3' J H-E ' H&' F3' $ -3' H4' I 4 N3' H&' C-NF' @H J J HD 3C' H' Q3' C-3D' &H4' $ED' 43NH 343D' QO' N HE' H&' G3Q ' H4' HE' F3' @$C3' E' $EO' H&' 8 C' P $(3C O C' @H-4 C' H&' 8 3NH4D

I 3E$ O' HE'

&H42 E2' H4'

NH-E 34&3 R

E2' ' 3X-3C'

, H 3C' H4'

&4$-D- 3E O'

14HN-4 E2'

I 34 J C' H4'

$ C$11 O E2'

H4' J C-C E2'

F3 J ' ?E<)'

W ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$' 3 34O' I 34CHE' FH' CF$ ' &H423' H4' NH-E 34&3 ' $EO' ' 3X-3C' , H 3' &H4' $' I 34 J ' H4' CF$ ' &H423' H4' NH-E 34&3 ' H4' J $+3' -C3' H&' F3' , $ J 3' H&' $EO' * 4$D34' 3E 3D' H' HQ $ E' I 34 J C' &H4' F3' I -41HC3' H&' &$ C3 O' $ED' &4$-D- 3E O' HQ $ E E2' $' I 34 J ' H4' CF$ ' - 34' H4' 14HD-N3' $EO' &H423D' &$ C3' H4' -E 4-3' ' 3X-3C' , H 3' H' $EO' <&& N34' H&' ; N C3' &H4' F3' I -41HC3' H&' &$ C3 O' $ED' &4$-D-R 3E O' HQ $ E E2' $' I 34 J ' $ED' 3 34O' I 34CHE' FH' CF$ ' EC34' E' $EO' ' 3X-3C' , H 3' F3' , $ J 3' H>' H4' CF$ ' HQ $ E' $' I 34 J ' H' $EO' & N H-C' I 34CHE' $C' F3' I 34CHE' H' FH J' F3' MHHDC' H4' @H J J HD 3C' J 3E HE3D' E' C-NF' ' 3X-3C' , H 3' H4' I 34 J ' $43' H' Q3' C3E ' $ED' 3 34O' I 34CHE' FH' CF$ ' &4$-D- 3E O' $ 34' 34$C3' H4' HQ 34$ 3' $EO' I 34 J ' H4' $EO' I $4' F343H&' $& 34' F3' C$ J 3' CF$ ' F$ 3' Q33E' 24$E 3D' QO' F3' 14H134' <&& N34' H&' ; N C3' H4' CF$ ' +EH E2 O' H4' E2 O' 2 3' $E' $ 343D' 34$C3D' HQ 34$ 3D' &$ C3' H4' -E 4-3' I 34 J ' $ED' 3 34O' I 34CHE' FH' CF$ ' +EH E2 O' H4' E2 O' $NN31 ' H4' 43N3 3' $EO' $ 343D' 34$C3D' HQ 34$ 3D' &$ C3' H4' -E 4-3' I 34 J ' F' H4' &H4' $EO' @H J J HD 3C' $ED' 3 34O' I 34CHE' FH' F$ E2' HQ $ E3D' E' I 34 J ' CF$ ' 43 J H 3' H4' C3ED' H4' D3 34' H4' N$-C3' H4' 14HN-43' H4' C-&&34' H' Q3' 43 J H 3D' C3E ' H4' D 343D' F3' @H J J HD 3C' C13N & 3D' E' $EO' C-NF' I 34 J ' H' $EO' H F34' I 34CHE' F$E' F3' I 34CHE' H' FH J' F3' C$ D' I 34 J ' CF$ ' 134 J ' F3' C$ D' @H J J HD 3C' H' Q3' C3E ' H4' CF$ ' 43 J H 3' H4' C3ED' F' C-NF' I 34 J ' $EO' H F34' @H J J HD 3C' F$E' F3' @H J J HD 3C' C13N & 3D' $ED' D3CN4 Q3D' F343 E' $ED' F343QO' 134 J 3D' H' Q3' 43 J H 3D' H4' $EO' 243$ 34' H4' 3CC34' \ -$E O' H&' C-NF' @H J J HD 3C' ' $ED' 3 34O' I 34CHE' FH' CF$ ' 43X-3C ' HQ $ E' C3 ' 3ED' D3 34' 3 J 1 HO' H4' J $+3' -C3' H&' $EO' I 34 J ' H4' CF$ ' 14HN-43' H4' C-&&34' $EO' I 34 J ' H' Q3' 43X-3C 3D' HQ $ E3D' CH D' 3E ' D3 343D' H4' 3 J 1 HO3D' H4' J $D3' -C3' H&' &H4' $EO' H F34' # C3' H4' I -41HC3' F$ CH3 34' F$E' H' $NNH J 1$EO' F3' $N -$' ' 3 J H $' $ED' G3 34O' H&' F3' @H J J HD 3C' $C' F343 E' 3 143CC3D' H4' CF$ ' 14HD-N3' H4' N$-C3' H4' C-&&34' H' Q3' 14HD-N3D' $EO' C-NF' I 34 J ' H' $EO

$EO' <&& N34' H&' ; N C3' $C' F$ E2' Q33E' 43N3 3D' F' $EO' @H J J HD 3C' H F34' F$E' $C' $&H43C$ D' H4' CF$ ' E' $EO' P $EE34' +EH E2 O' H4' E2 O' -C3' H4' 3 J 1 HO' H4' N$-C3' H4' C-&&34' H' Q3' -C3D' H4' 3 J 1 HO3D' $EO' I34 J ' CH' $C' F$ ' $EO' NNH-E ' H&' $EO' ? HN+' H4' H&' $EO' @H J J HD 3C' +31 ' H4' NF3N+3D' H4' H' Q3' +31 ' H4' NF3N+3D' QO' $EO' <&& N34' H&' ; N C3' QO' C-NF' I34 J ' CF$ ' H4' J $O' Q3' &4-C 4$ 3D' H4' 3 $D3D' CF$ ' &H4' 3 34O' C-NF' < EN3' C3 34$ O' &H4&3 ' F3' ?- J' H&' 6 3' F-ED43D' I H-EDC ' $ED' $ ' @H J J HD 3C' 43 J H E2' H4' 43 J H 3D' F' $EO' C-NF' I34 J ' E' $EO' H&' F3 ' @$C3C' '$&H43C$ D' CF$ ' Q3' &H4&3 3D' $ED' J $O' Q3' C3 T3D' QO' $EO' <&& N34' H&' ; N C3

W ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' F343' $EO' @H J J HD 3C' 9 F343MHHDC' CF$ ' Q3' &H4&3 3D' $ED' $Q 3' H' Q3' C3 T3D' &H4' Q3 E2' H4' F$ E2' Q33E' 7 3 &H4&3 3D' C3E ' 43 J H 3D' N$44 3D' D3 343D' H4' 43N3 3D' FH- ' $' 14H134' I34 J ' $NNH J 1$EO E2' H4' F$ E2' $NNH J 1$E 3D' F3' C$ J 3' H4' &H4' $EO' F3' C$ J 3' $ED' P C-C3' H&' $' I34 J ' H4' B43$NF' H&' $EO' ' 32- $ HE' 43 $ E2' H' F3' @HE 3O' ' I34 J C' $ ' @$C+C' 5$4C' BH 3C' $ED' H F34' 3CC3 C ' @$C3C' BH 3C' 3D' E' ?$N+C' B$2C' $ED' $ ' $ED' 3 34O' I $N+$23' $ED' @H 34 E2' F$ CH3 34' H& 3* $CH E' F NF' C-NF' MHHDC' CF$ ' Q3' &H-ED' $ED' 3 34O' 8 H4C3' $ED' H F34' H' Q3' &H4' B3$C ' H4' @$ 3' $ED' 3 34O' @$44 $23' 9 $22HE' @$4 ' 3CC3 ' BH$ ' &3 3D' H4' H F34' @HE 3O$EN3' -C3D' H4' 3 J 1 HO3D' H4' F NF' CF$ ' F$ 3' Q33E' -C3D' H4' 3 J 1 HO3D' E' N$44O E2' 43 J H E2' H4' NHE 3O E2' C-NF' MHHDC' $ED' @H J J HD 3C' CF$ ' $ CH' Q3' &H4&3 3D' $ED' J $O' Q3' C3 T3D

W ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' 3 34O' <&& N34' H&' ; N C3' FH' I -E CF J 3E ' CF$ ' D3 34' H- ' H4' C-&&34' H' Q3' D3 343D' H- ' $EO' I $134' 1431$43D' D3 34 E2' H<' H4' 14H D3D' H4' $11H E 3D' QO' F3' @H J J CC HE34C' H&' ; N C3' H' Q3' -C3D' &$ C3' I34 J C &H4' I34 J C' E' B $E+' H4' Q3&H43' C-NF' I34 J ' CF$ ' Q3' & #3D' -1' $ED' CC-3D' 2433Q 3' H' $ED' E' NHE&H4 J O' F' $' ' 3X-3C ' , H 3 ' $ED' 3 34O' <&& N34' FH' CF$ ' +EH E2 O' 2 3' H4' 24$E ' $EO' I34 J ' H' $EO' I34CHE' EH ' 3E 3D' H' 43N3 3' F3' C$ J 3' H4' CF$ ' +EH E2 O' 2 3' H4' 24$E ' $EO' &$ C3' H4' -E 4-3' I34 J ' H4' CF$ ' J $+3' $EO' &$ C3' H4' -E 4-3 ; E 4O' E' F3' @H-E 341$4 ' H&' $EO' I34 J ' 2 3E' H4' 24$E&3D' QO' F J ' H4' CF$ ' +EH E2 O' H4' E2 O' 43N3 3' H4' $+3' $EO' MHHDC' H4' @H J R J HD 3C' E H' F3' ? HN+' H&' $EO' I34CHE' H4' I34CHEC' Q4H-2F ' E' F' $EO' &$ C3' H4' -E 4-3' H4' &4$-D- 3E ' I34 J ' H4' CF$ ' +EH E2 O' H4' E2 O' 24$E ' $EO' I34 J ' &H4' F3' ' 3 J H $' H&' $EO' MHHDC' H4' @H J R J HD 3C' H- ' H&' H4' &4H J' F3' ? HN+' H&' $EO' I34CHE' H4' I34CHEC' FH' CF$ ' F$ 3' 43N3 3D' H4' 43 $ E3D' C-NF' MHHDC' H4' @H J J HD 3C' H4' $EO' H&' F3 J ' -ED34' H4' QO' 4 -3' H4' 143 3 ' H&' $EO' &$ C3' -E 4-3' &H423D' H4' &4$-D- 3E ' I34 J ' H4' CF$ ' +EH E2 O' H4' E2 O' 2 3' $EO' &$ C3' @43D ' E' F3' ? HN+' H&' $EO' I34CHE' H4' I34CHEC' Q3OHED' F3' @43D ' H' F NF' C-NF' ? HN+' C' (-C O' $ED' 4- O' 3E 3D' CH' $C' H' 3E$Q 3' C-NF' I34CHE' H4' I34CHEC' &$ C3 O' $ED' &4$-D- 3E O' H' HQ $ E' $' I34 J ' H4' I34 J C' H4' &' $EO' C-NF' <&& N34' CF$ ' +EH E2 O' H4' E2 O' C-&&34' F3' C$ J 3' H' Q3' DHE3' D 43N O' H4' ED 43N O' 3 34O' <&& N34' CH' H&&3ED E2' E' $EO' H&' F3' @$C3C' $&H43C$ D' CF$ ' Q3' 2- O' H&' $' P CD3 J 3$EH4' $ED' HE' @HE N HE' CF$ ' C-&&34' C-NF' I -E CF J 3E ' QO' 6 E3' $ED' J 14 CHE J 3E ' H4' 6 E3' H4' J 14 CHE J 3E ' $C' F3' @H-4 ' CF$ ' $ $4D' $ED' 3 34O' <&& N34' CH' NHE N 3D' CF$ ' &4H J' F3EN3&H4 F' Q3' EN1Q 3' H&' FH D E2' $EO <&& N3

- ' U' Ƃ: =E E ' ' &''

<&& N3' H4' I $N3' E' H4' 43 $ E2' H' $EO' H&' F3' '3 3E-3C' H&' F3' #E 3D' % E2DH J

'32-$ HEC' &H4' 14 4$ 3' I 34CHEC' HQ $ E E2' I 34 J 0

W ' ED' Qa' ' &-4 F34' 3E$N 3D' *F$' F343' $EO' I 34CHE' EH' Q3 E2' $' *4$D34' D-O' 3E 343D' $ED' N3EC3D' $ED' -ED34' F3' ?-4 3O' H&' F3' ; N C3' CF$' F$ 3' <NN$C HE' H' 43 J H 3' &4H J' $EO' HE3' I $4' H&' FD' #E 3D' % E2DH J' H' $EO' H F34' I $4' F343H&' $EO' MHHDC' H4' @HE J HD 3C' &H4' F3' '3 J H $' H&' F NF' $' I 34 J ' C' H4' CF$' Q3' QO' $EO' >$ ' H4' >$ C' H&' ; N C3' 43X-43D' ' CF$' Q3' $ &-' &H4' F3' <&& N34' $- FH4 T3D' H' 24$E' I 34 J C' E' F3' I $N3' &4H J' F3EN3' ? NF' @H J J HD 3C' $43' E 3ED3D' H' Q3' 43 J H 3D' HE' C-NF' I 34CHE' H4' Q C' F34' H4' F3 4' +EH E' ?34 $E' H4' ?34 $E C' D3N $4 E2' H' F3' ?$ C&$N HE' H&' F3' @H J J CC HE34C' H&' ; N C3' H4' H&' F3' @H 3N H4' H4' ?-134 CH4' H&' ; N C3' H&' F3' @H 3N HE' H4' G C 4 N' E' F NF' F3' I $N37&4H J' F3EN3' C-NF' @H J J HD 3C' $43' E 3ED3D' H' Q3' 43 J H 3D' ? C -$ 3' F$' $' F3' G- 3C' &H4' C-NF' @H J J HD 3C' F$ 3' H' F3' Q3C' H&' F3' %EH 3D23' $ED' B3 3&' H&' F3' I 34CHE' 14H E2' F3' C$J3' Q33E' &- O' 1$ D' $ED' E' N$C3' C-NF' @H J J HD 3C' $43' E 3ED3D' H' Q3' C3E' E' $ED' D3 343D' H' $EO' H F34' I 34CHE' F$E' F3' I 34CHE' 43R X-4 E2' F3' I 34 J ' F3E' HE' $' &-4 F34' G3N 4 HE' F$' F3' C$D' MHHDC' H4' @H J J HD 3C' F$ 3' EH' Q33E' CH D' H4' D C1HC3D' H&' H' C-NF' < F34' I 34CHE' #1HE' $' '3X-3C' ,H 3' C3E' $ED' D3 343D' H' C-NF' <&& N3)ĉ CH' $- FH4 T3D' H' 24$E' I 34 J C' H' 2 3' $ED' 24$E' $' I 34 J ' H4' I 34 J C' &H4' F3' '3 J H $' H&' C-NF' @H J J HD 3C

"(&#B' +' ?& A(' $(H &D !&#)+

W ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' &' $EO' C-NF' G3N 4 HE' J $D3' QO' $EO' I 34CHE' &H4' F3' I -41HC3' H&' HQ $ E E2' $' I 34 J ' &H4' F3' '3 J H $' H&' $EO' MHHDC' H4' @H J J HD 3C' CF$' Q3' &$ C3' H4' -E 4-3' E' $EO' I $4 N-$4' H4' '3C13N ' F3' I 34CHE' +EH E2 O' J $+ E2' F3' C$J3' CF$' &H4&3 ' <E3' F-ED43D' I H-EDC

MHHDC' C3 T3D' CF$' Q3' NHE' <(@ (<' +#%' FC $ED E2' $' I 34 J ' J$O' J&2(' I ((' O' 14HD-N3D' EE 3CC' I 4H&' C' J $D3' F$' F3' G- 3C' F$ 3' Q33E' 1$ D'

W ' ED' Q3' ' &$4 F34' 3E$N 3D' *F$' &' $EO' @H J J HD 3C' &H4' F3' '3 J H $' H&' F NF' $' I 34 J ' C' H4' CF$' Q3' 43X-43D' CF$' Q3' C3 T3D' &H4' $EO' B43$NF' H4' H $ HE' H&' $EO' H&' F3' >$ C' H&' ; D C3' C-NF' @H J J HD 3C' CF$' Q3' NHED3 J E3D' $ED' $D(-D23D' &H4&3 3D' EH R FC $ED E2' F$' F3' @ $ J $E' CF$' 14H 3' F$' $' I 34 J ' $C' 14HD-N3D' F3E' C-NF' @H J J HD 3C' 343' 43 J H E2' $ED' NHE 3O E2' H4' F$' $' I 34 J ' $C' 14HD-N3D' $& 34' C-NF' @H J J HD 3C' 343' 43 J H 3D' $ED' 43N3 3D' -E 3CC' F3' @ $ J $E' CF$' $ CH' 14H 3' E' C-NF' @$C3' F$' F3' @H J J HD 3C' CH' C3 T3D' $43' G- O 1$ D' H4' F3' ?$ 3' H&' C-NF' @HE J HD 3C' F$D' QO' 43$CHE' H&' H4' E' NHEC3X-3EN3' H&' $' 6H4&3 -43' $ED' @HED3 J E$ HE' F343H&' H4' F$' F3' C$J3' F$D' Q33E' 43N3 3D' F' $' 4-3' $ED' $ &-' I 34 J ' &4H J' F3' ? HN+' H&' F3' *4$D34' D-O' $- FH4 T3D' H' HQ $ E' $' I 34 J ' &H4' C-NF' MHHDC' $ED' &' HE' F3' *4 $' H&' $EO' E&H4 J $ HE' N HE' ?- ' H4' H F34' I 4HN33D E2' $' >$ ' Q4H-2F' &H4' F3' '3NH 34O' H&' $EO' I 3E$ O' H4' F3' @HED3 J E$ HE' H&' $EO' @H J J HD 3C' H4' 2 EC' $EO' <&& N34' H&' ; N C3' &H4' F3' ?3 T-43' H&' $EO' @H J J HD 3C' $EO' \-3C HE' CF$' $4 C3' F3 F34' $EO' @H J J HD 3C' &H4' F3' @HE 3O$EN3' H4' I 4H 3N HE' H&' F NF' $EO' 134 J ' CF$' Q3' 14H D-N3D' H&' CF$' Q3' $ 323D' H' F$ 3' Q33E' HQ $ E3D' $43' F3' D3E N$' @H J J HD 3C' D3CN4 Q3D' $ED' C13N & 3D' E' C-NF I 34 J

I34J ' I4HH&' H&' C-NF @HJJHD 3C Q3 E2' 43$ O' $ED'),#&U &!' F3'
@HJJHD 3C J3E HE3D' $ED' C13N & 3D' E' C-NF I34J 'CF$ ' 3' -1HE'
F3' < E34' H4' @ $ J34' F343H&' H4' F3' I34CHE' &4HJ' F1J' F3' C$J3'
CF$ ' F$ 3' Q33E' C3 T3D' $C' C-NF < E34' H4' @ $ J34' H4' I34CHE' CF$ 'Q3'
I$4 O' H' F3' ?- '3 F34' $C' G3&3ED$E 'H4' I $ E &&

W W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' F3E3 34' HE' F3' *4 $ ' H&' @H-E 341$4'
$EO' E&H4J$ HE' ?- 'H4' N HE' H F34' I4HN33D E2' $ ' >$ ' ' J$O' Q3' H& I34J ' H'
E3N3CC$4O' H' 14H 3' F3' CC- E2' H&' $EO' I34J 'H4' F3' @HE 3E C' F343H&' ; D3EN3'
F3' @H-E 341$4 ' H&' C-NF I34J ' H23 F34' F' F3' '3X-3C ' , H 3 ' J$O
E' $ ' @$C3C' Q3' $D J 3D' $C' ; D3EN3' $ED' I4HH&' F$ ' C-NF I34J ' $C'
24$E 3D' $ED' CC-3D' $ED' H&' F3' @HE 3E C' F343H&' $NNH4D E2' H' F3'
I-41H4 ' H&' C-NF @H-E 341$4 ' $ED' '3X-3C ' , H 3 ' FH- ' 14HD-N E2'
H4' 43X- 4 E2' F3' I4HD-N & E' H&' F3' H4 2 E$ ' I34J ' $ED' 'CF$ 'EH '
Q3' E3N3CC$4O' H' 14H 3' $EO' <4D34' H&' F3' @HJJ CC HE34C' H&' ; N C3'
$11H E E2' H4' D 43N E2' F3' 6H4J' H&''$EO' C-NF I34J ' H4' H&' $EO'
@H-E 341$4 ' F343H&' 43C13N 3 O

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' CH' J-NF H&' $E' N '1$CC3D' @34 $E' I4HR
E' F3' * 3E O F 4D' =3$4' H&' F3' '3 2E' H&' 8 C' P$(3C O' % E2' !, (!' C HECH&'
F3' *F 4D' E - 3D' /#' / ' ' , ')!' , !' ! !' 3 %%' 5 !0!# #(')!
%%!(%' $ 5, ,#' , 'R, ! (#' +5 1' #&' , '53 #(' ' + ,5' ,')!' '
5 0 !' R 1 %O ,#' " 1) &!' +5 3,31' < V3, 1=' , ' ', 5% ##(' 4313$ 3D'
13')' * ' , ' # / ' ' 5,1 #(' ' 2 3 '35,#' %!' +! 0 # 1' 1' !% !1' ,'
)!' L ( ) ', '/ 55! %' , ')!' ?31 '!1' '5! '!'=' ,' !#&' #&' ! ' '
' 1 !' ' #' #' / ' ' , ')!' % 1' +!11 ,#' * % !#' ' !15! ' '
,')!' L! ,0 %', '7! ' , ' ,#!' * ' , ') 1' #(&, ' ,' ,)! ' * 1'
)! !, =' #&' , '5 !0!# #('0!J ,31' / ' ,#1' (#1' 6 '! 1' , '8J' 1!'
' #(' #'53 13 #'!' , ')!' / 3), '(0!#' 4 ' 8J' 1!' + 3 !1' $ED' H&'
$E' N '1$CC3D' E' F3' 6 & O E E F' =3$4' H&' F3' '3 2E' H&' 8 C' P$(3C O'
% E2' !, (!' F3' *F 4D' E - 3D' / #' / ' ' ,' ',#1,% & !' #&' !#&'
1!0! %' / ' 1' , ' !(3% #(')!' (# #(' , ' *! 1' #&' I! ' !1'
, ')!' I ,#0! #'!' #&' * , !' ,#' , ' '! #' , ,&1' #' 43 $ED' $C'
43 $ 3C' H' I34J C' $ED' $ ' $ED' 3 34O' I4H C HE' E' $EO' N 'H4' N C'
43 $ E2' H' F3' ; N C3' NHE $ E3D' &H4' 4H2H $ $2' F3' 23E34$ '6H4J' $ED'
CC- E2' H&' I34J C' &H4' F3' '3JH $ ' $ED' @HE 3O$EN3' H&' 3 N C3$Q 3'
@HJJHD 3C ' &H4' F NF' C J $4' I4H C HE' C' E' $ED' QO' F C' N ' J$D3'
CF$ ' Q3' $ED' F3' C$J3' C' $ED' $43' F343QO' 4313$ 3D'

WW ' I4H D3D' $ $OC ' $ED' Q3' '&-4 F34' 3E$N 3D' *F$ 'EH F E2' E' I4H C HEC' $C'
F C' N 'CF$ 'Q3' NHEC 4-3D' H' $ 34' 4313$ 'H4' $ O' $EO' N 'QO' F NF' H' I34J C' E'
$' I34J ' C' 43X- 43D' &H4' F3' '3JH $ ' H4' @HE 3O$EN3' H&' $EO' 1$4 N- $4' N C' 432-R
MHHDC' H4' @HJJHD 3C ' H4' $EO' ; E$N J3E C ' I4H C HEC ' '32- $ HEC ' $ E2' F3' 1$4 N- $4'
H4' '3C 4 N HEC' E' $EO' C-NF N ' H4' N C' NHE $ E3D' 43 $ E2' H' F3' *4$D3' EH ' H'
P$ E-&$N -434C' G3$ 34C' E ' H4' '3 $ 34C' H&' C-NF MHHDC' H4' @HJR Q3' $&&3N 3D
JHD 3C ' H4' F3' ?-4 3O' H4' +331 E2' F3' ? HN+C' F343H& ' H4' H' F3'
*4$D34C' 3E 3D' H' 43N3 3' H4' HQ $ E' I34J C' H4' F3' , - JQ34' H4'
I34J C' H' Q3' $+3E' H- ' H4' HQ $ E3D' QO' C-NF *4$D34C ' H4' F3'
\ -$E 3C' H&' MHHDC' H4' @HJJHD 3C' &H4' F NF' $ED' F3' '3C 4 N HEC'
$ED' I4H C HEC' -ED34' F NF' I34J C' $43' H' Q3' HQ $ E3D ' H4' H' F3'
G3 34O' H&' I34J C' H' F3' <&& N34C' H&' ; N C3' QO' I34CHEC' 43N3 E2'
F3' C$J3 ' H4' F3' @43D C' H' F NF' C-NF' I34CHEC' CF$ ' Q3' 3E 3D' E'
B' Q' 43C13N

43C13N ʿ H&ʿ I34 J Cʿ(Q- ʿ$ ʿ $EDʿ 3 34Oʿ C-NFʿ N ʿ $EDʿ N Cʿ 43 $ E2ʿ Hʿ Fʿ3ʿ 1$4 N- $4ʿ *4$D3ʿ H4ʿ B-C E3CCʿ Eʿ $EDʿ Hʿ F3ʿ 1$4 N- $4ʿ MHHDCʿ $EDʿ @H J J HD 3Cʿ &H4ʿ F NFʿ $ʿ I34 J ʿ Cʿ H4ʿ CF$ ʿ Q3ʿ 43X- 43D CF$ ʿ H23 F34ʿ Fʿ $ ʿ ; E$N J 3E C ʿ @ $-C3C ʿ I3E$ 3C ʿ 6H4&3 -43C ʿ I4H C HEC ʿ ' 3 ʿ C 4 N HEC ʿ $EDʿ ' - $ HECʿ F343 E ʿ Fʿ $ ʿ IH 34Cʿ $EDʿ - FH4 3Cʿ Hʿ $EOʿ <&& N34ʿ H4ʿ <& N34Cʿ Hʿ 3 $ J E3ʿ I34 J C ʿ H4ʿ C H1ʿ H4ʿ 3 $ J E3ʿ $EDʿ C3 T3ʿ $EOʿ MHHDCʿ H4ʿ @H J J HD 3Cʿ &H4 ʿ F3ʿ ' 3 J H $ ʿ F343H&ʿ $ʿ I34 J ʿ Cʿ QOʿ $EOʿ ?-NQʿ N ʿ H4ʿ N Cʿ 43X- 43D ʿ H4ʿ $EOʿ I34CHECʿ 43 J H E2ʿ C-NFʿ MHHDC ʿ CF$ ʿ43 J $ Eʿ Eʿ &- ʿ 6H4N3ʿ $EDʿ ; &&3N

N ʿ E$Oʿ Q3ʿ $ 343Dʿ F Cʿ ?3CC H&

WW ʿ EDʿ Q3ʿ ʿ&-4 F34ʿ 3E$N 3D ʿ *F$ ʿ F Cʿ N ʿ J $Oʿ Q3ʿ $ J 3ED3D ʿ 4313$ 3D ʿ H4ʿ $ 343Dʿ QOʿ $EOʿ N ʿ H4ʿ N Cʿ Hʿ Q3ʿ 1$CC3Dʿ Eʿ F Cʿ 143C3E ʿ ?3CC HEʿ H&ʿ I $4 $ J 3E ʿ j

@H J E3GN3 ʿ (E3E ʿ Q&ʿ N

WW ʿ EDʿ Q3ʿ ʿ&-4 F34ʿ 3E$N 3D ʿ *F$ ʿ F Cʿ N ʿ CF$ ʿ NH J J 3EN3 $EDʿ $+3ʿ 3&&3N ʿ HEʿ F3ʿ 6 & Fʿ G$Oʿ H&ʿ / 5 %ʿ <E3ʿ FH-C$EDʿ 3 2F ʿ F-ER D43Dʿ $EDʿ F 4 O H ʿ

> < , G < , ʿ I4 E 3Dʿ QOʿ # + . (/ +ʿ & (+ʿ $EDʿ) * (+ , ʿ O1 . 223% , . . * + ʿ I4 E 34Cʿ Hʿ F3ʿ % E2 Cʿ J HC ʿ ; N3 3E ʿ P $(3C O ʿ ZS

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M#> ; > P ʻ ʻ ' ; M ?

@ ʻ I ʻ W >

E ʻ N ʻ H 4313$ ʻ $E N ʻ 1$CC3D E F3 ?3 3E F =3$4 H& 8 C $ 3 P$(3C O % E2 ! ʻ F3 6H-4 F E - 3D 2 ʻ ʻ ʻ ʻ ʻ + 3 ʻ 'ʻ 43 $ED #% ʻ ʻ ## ʻ ʻ ʻ 'ʻ + #ʻ ʻ(# ʻ $ED H C-QC - 3 H F34 I4H C HEC ʻ E 3- ʻ F343H&ʻ IU F 5&E4N ʻ ZSU m

$! + (+ O ʻ $E N ʻ $C 1$CC3D E F3 ?3 3E F =3$4 H& F3 ' 3 2E H& 8 C $ 3 P $(3C O % E2 ! , (! F3 6H-4 F E - 3D / # / ' ʻ ,ʻ # !#&) ! < ! ʻ , ʻ 43 $ED !1 ! ' #(ʻ - ʻ ʻ K) ! / 11 (# !# ʻ #& +34% ! #(V ʻ< #&1 #& 7!#! !# 1 ʻ ED F343$C ʻ C 3 13D 3E ʻ F$ ʻ F3 C$ D N ʻ CFH- D Q3 4313$ 3D ʻ $ED F$ ʻ C-NF H& F3 I4H C HEC F343H& $C F$ 3 Q33E &H-ED Q3E3& N $ ʻ CFH- D Q3 43 3E$N 3D ʻ F N34 $ E J 3ED J 3E C: B3 ʻ F343&H43 3E$N 3D QO F3 % E2 C J HC ʻ ; N3 3E ʻ P $(3C O ʻ QO $#D F F3 D N3 $ED @HEC3E ʻ H& F3 >14DC ?1 4 -$ ʻ $ED * 3 J 1H4$ ʻ $ED @H J J HEC ʻ E F C 143C3E ʻ I $4 $ J 3E ʻ $CC3 J Q 3D ʻ $ED QO F3 - FH4 O H& F3 C$ J 3 * F$ ʻ F3 C- D 43N 3D N ʻ Q3 $ED F3 C$ J 3 C F343QO 4313$ 3D &4H J $ED $& 34 F3 6 4C ʻ G$O o & ʻ E F3 =3$4 H& H- ʻ >H4D < E3 4313$ 3D FH-C$ED 3 2F ʻ F-ED43D $ED F 4 O H ʻ C$ 3 $ED 3 N31 ʻ $C F343 ER $& 34 H F34 C3 14H D3D

ʻ ED Q3 ʻ 3E$N 3D ʻ * F$ ʻ F343 >$EDC H4 * 3E3 J 3E C E $!% #& 343 >$EDC $43 HE CF$ ʻ Q3 FH D3E QO 4 -3 H& $EO >3$C3 ʻ EC 4- J 3E ʻ H4 2433 ʻ $43 F3 D $E J 3E ʻ (4 E2 ʻ F NF >3$C3 ʻ 2433 3E ʻ H4 EC 4- J 3E ʻ DH F H4 CF$ ʻ (+ #&)@ * ʻ @ʻ N 7 ʻ NHE $ E

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$‘@H 3E$E‘ 2$EC ‘C-QR 3 E2‘EH &- -43‘ Y‘H&‘ F3‘ $-D H4D‘ CF$ ‘ Q3‘ D33 H3D‘ $ 9$ 34‘ 1&‘ C-NF‘ @H 3R E$E ‘-E 3CC‘ F3‘ Q3‘ $‘ I$4 O‘ H‘ F3‘ EC 4-R J3E ‘H&‘ C-QR 3 E2‘ H4‘ F C‘ @HEC3E‘ Q3‘ 2 3E‘ E‘ 9 4 E2

MH4 $E‘ $EO‘ @ ED HE‘ @ $-C3‘ H4‘ @H 3E$E‘ 14HF Q E2‘ NHE 4H E2‘ H4‘ 432- $ E2‘ F3‘ CC 2E J 3E‘ H4‘ ?-Q 3 E2‘ H&‘ F3‘ >$EDC‘ H4‘ *3E3R J 3E C‘ D3 J C3D‘ H4‘ $2433D‘ H‘ Q3‘ D3 J C3D‘ F343QO‘ H4‘ H&‘ $EO‘ I $4‘ F343H&‘ EH‘ N ‘ P$ 34‘ D4‘ *F E2‘ F$ 3 34‘ F343$& 34‘ H‘ Q3‘ DHE3‘ H4‘ $NX- 3CN3D‘ E‘ QO‘ F3‘ >3CCH4‘ H4‘ >3CCH4C‘ I 34CHE‘ H4‘ I 34CHEC‘ NHE 4$N E2‘ H‘ 3$C3‘ QO‘ C-NF‘ G33D‘ EC 4- J 3E‘ H4‘ 2433 J 3E‘ H4‘ QO‘ F C‘ H4‘ F3 4‘ 583 4C‘ ; 3N- H4C‘ D J E C 4$ H4C‘ H4‘ CC 2EC‘ CF$ ‘ Q3‘ D33 J 3D‘ $+3E‘ H4‘ NHEC 4-3D‘ E‘ $EO‘ @H-4‘ H&‘ >$ ‘ H4‘ ; X- O‘ H‘ Q3‘ H4‘ $ J H-E‘ H $‘ 9$ 34‘ H&‘ F3‘ B3E3& ‘ H&‘ $EO‘ C-NF‘ @HED HE‘ @ $-C3‘ H4‘ @H 3E$E ‘ $ED‘ F$‘ E‘ $EO‘ N HE‘ H4‘ N HEC‘ &H4‘ F3‘ B43$NF‘ H&‘ $EO‘ C-NF‘ @HED HE‘ @ $-C3‘ H4‘ @H 3E$E ‘ F3‘ B3E3& ‘ H&‘ F NF‘ @HED HE‘ @ $-C3‘ H4‘ @H 3E$E‘ F$C‘ EH ‘Q33E‘ F343 H&H43‘ $ 3D‘ C-NF‘ >3CCH4‘ H4‘ >3CCH4C‘ NHE 4$N E2‘ I $4 O‘ H4‘ I $4 3C‘ $ED‘ F C‘ $ED‘ F3 4‘ 83 4C‘ ; 3N- H4C‘ D J E C 4$ H4C‘ $ED‘ CC 2EC‘ CF$ ‘ Q3‘ 3E 3D‘ H‘ 43NH 34‘ F3‘ I HCC3CC HE‘ H&‘ C-NF‘ $EDC‘ H4‘ *3E3 J 3E C‘ QO‘ 4 -3‘ H&‘ $EO‘ C-NF‘ @HED HE‘ H4‘ $EO‘ I 3E$ O‘ &H4‘ C-NF‘ &- -43‘ B43$NF‘ H&‘ $EO‘ C-NF‘ @HER D HE‘ @ $-C3‘ H4‘ @H 3E$E ‘ $NNH4D E2‘ H‘ F3‘ I 4H C HEC‘ H&‘ F3‘ C$ J 3‘ 43C13N 3 O‘ -E 3CC‘ ‘ CF$ ‘ Q3‘ 3 143CC O‘ 14H 3D‘ F$ ‘ C-NF‘ CC 2E J 3E‘ H4‘ ?-Q 3 E2‘ 9$C‘ J $D3‘ F‘ F3‘ @HEC3E‘ H&‘ C-NF‘ >3CCH4‘ H4‘ >3CCH4C‘ NHE 4$N E2‘ 6$4 O‘ H&‘ I $4 3C‘ F C‘ H4‘ F3 4‘ 83 4C‘ ; 3N- H4C‘ D J E CR 4$ H4C‘ H4‘ CC 2EC‘ 3C & 3D‘ F343‘ C-NF‘ CC 2E J 3E‘ H4‘ ?-Q 3 E2‘ CF$ ‘ Q3‘ QO‘ G33D‘ H4‘ 4 3E‘ EC 4- J 3E‘ QO‘ F C‘ H4‘ F3 4‘ Q3 E2‘ $‘ I $4 O‘ H‘ $ED‘ C 2E E2‘ $ED‘ ?3$ E2‘ C-NF‘ G33 ‘ H4‘ 4 3E‘ EC 4- J 3E‘ H4‘ CH J 3‘ H F34‘ G33D‘ H4‘ EC 4- J 3E‘ NHE $ E E2‘ C-NF‘ @HEC3E ‘ H4‘ F343‘ C-NF‘ CC 2E J 3E‘ H4‘ ?-Q 3 E2‘ CF$ ‘ EH ‘ Q3‘ QO‘ G33D‘ H4‘ 4 3E‘ EC 4-R J 3E ‘ 3C & 3D‘ QO‘ F C‘ H4‘ F3 4‘ @HEC3E‘ E‘ 9 4 E2‘ H4‘ -E 3CC‘ F3‘ B3E3& ‘ H&‘ C-NF‘ @HED HE‘ @ $-C3‘ H4‘ @H 3E$E‘ CF$ ‘ F$ 3‘ Q33E‘ 3 143CC O‘ $ 3D‘ QO‘ CH J 3‘ 9 4 E2‘ C 2E3D‘ QO‘ F3‘ I $4 O‘ H4‘ I $4 3C‘ 3E 3D‘ H‘ F3‘ B3E3& ‘ F343H&‘ $ED‘ 3 34O‘ C-NF‘ CC 2E J 3E‘ H4‘ ?-Q 3 E2‘ $ED‘ 3 34O‘ >3$C3‘ G33D‘ H4‘ EC 4- J 3E‘ H4‘ H F34‘ 2433R J 3E‘ H4‘ I 4HN33D E2‘ F343QO‘ C-NF‘ CC 2E J 3E‘ H4‘ ?-Q 3 E2‘ CF$ ‘ Q3‘ J $D3‘ FH- ‘ C-NF‘ @HEC3E‘ $C‘ $&H43C$ D‘ $ED‘ 3C & 3D‘ $C‘ $&H43C$ D‘ CF$ ‘ Q3‘ $ED‘ Q3‘ D33 J 3D‘ FH O‘ E- ‘ $ED‘ H D‘ H‘ $ ‘ E 3E C‘ $ED‘ I -4R 1HC3C‘ F$ CH3 34‘ $EO‘ >$ ‘ ? $ - 3‘ H4‘ #C$23‘ H‘ F3‘ NHE 4$4O‘ $E‘ $EO C3‘ EH FC $ED E2

I $4 N- $4‘ H4‘ C13N $ ‘ 9$ 34‘ CF$ ‘ EH ‘3 3ED‘ H H F34‘ @$C3C‘ EH4‘ Q3‘ D33 J R 3D‘ $‘ 23E34$‘ 9$ 34

‘ I 4H D3D‘ $ $OC‘ $ED‘ Q3‘ ‘ 3E$N 3D‘ *F$ ‘ F343‘ $EO‘ $N -$‘ 9$ 34‘ CH‘ H‘ Q3‘ J $D3‘ $ED‘ 3C & 3D‘ $C‘ $&H43C$ D‘ H&‘ F3‘ B3E3& ‘ H&‘ $EO‘ @HED HE‘ @ $-C3‘ H4‘ @H 3E$E‘ E‘ $EO‘ >3$C3‘ H4‘ EC 4- J 3E‘ H4‘ 2433 J 3E‘ $C‘ $&H43C$ D‘ H4‘ H&‘ F3‘ B3E3& ‘ H&‘ F C‘ N ‘ HE‘ F3‘ I $4‘ H&‘ F3‘ >3CCH4‘ H4‘ >3CCH4C‘ I $4 O‘ H4‘ I $4 3C‘ NHE 4$N E2‘ H‘ 3$C3‘ H4‘ F C‘ H4‘ F3 4‘ 83 4C‘ ; 3N- H4C‘ D J E C 4$ H4C‘ H4‘ CC 2EC‘ CF$ ‘ Q3‘ 14H 3D‘ H‘ F$ 3‘ $+3E‘ 1 $N3‘ E‘ $EO‘ HE3‘ 1$4 N- $4‘ EC $EN3‘ C-NF‘ $N -$‘ 9$ 34‘ CF$ ‘ EH Q3‘ $CC- J 3D‘ H4‘ D33 J 3D‘ H4‘ NHEC 4-3D‘ H‘ 3 3ED‘ H‘ $EO‘ EC $EN3‘ H4‘ H‘ $EO‘ B43$NF‘ H4‘ B43$NF3C‘ H&‘ @H 3E$E ‘ @ $-C3‘ H4‘ @HED HE‘ H F34‘ F$E‘ F$‘ H‘ F NF‘ C-NF‘ 9$ 34‘ CF$ ‘ C13N $ O‘ 43 $ 3‘ E<4‘ H‘ Q3‘ $‘ 23E34$‘ 9$ 34‘ H&‘ F3‘ B3E3& ‘ H&‘ $EO‘ C-NF‘ @H 3E$E ‘ @ $-C3‘ H4‘ @HED HE‘ H4‘ H&‘ F3‘ B3E3& ‘ H&‘ F C‘ N ‘ ‘

>3CC33‘ C-QR 3 E2‘ F‘ H- ‘ @HEC3E‘ CF$ ‘ E1‘ F$ 3‘ $EO

‘ ED‘ Q3‘ ‘ &-4 F34‘ 3E$N 3D‘ *F$ ‘ E‘ $ ‘ @$C3C‘ F3‘ I 34CHE‘ $CC 2E E2‘ H4‘ C-Q 3 E2‘ NHE 4$4O‘ H‘ F C‘ N ‘ FH- ‘ C-NF‘ @HEC3E‘ C 2E & 3D‘ $C‘ F343 E Q3&H43‘ D 43N 3D‘ CF$& ‘FH ‘ F$ 3‘ H4‘ Q3‘ 3E 3D‘ H‘ $EO‘ 3 J 3DO‘ QO‘ G C 43CC‘ H4‘ H F34 C3‘ &H4‘ F3‘ ‘ 3NH 34O‘ H&‘ $EO‘ ‘ 3E‘ H4 ‘ ?- J

?- J' 43C34 3D' E' $ED' QO' $EO' G33D' 4 3E' EC 4- J3E ' H4' H F34' '3J3DO' &H4
2433J3E 'QO' F NF' C-NF' ?-Q 3 E2' H4' CC 2E J3E 'CF$ 'Q3' J$D3' H4
&H4' F3' <NN-1$ HE' H&' $EO' H&' F3' >$EDC' H4' *3E3J3E C' CH' $CC 2E3D' > D
C-Q 3 3E' E4' &H4' F3' '3NH 340' H&' C-NF' >$EDC' ' $EO' F E2' E' $EO' C-NF
G33D' EC 4- J3E ' H4' 2433J3E ' H4' $EO' >$ '? $ - 3' H4' #C$23' H
F3' NHE 4$40' EH FC $ED E2

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' E' $ '@$C3C' F343' $EO' I3 CHE F34 CHEC' FH DR
H4' I34CHEC' Q3 E2' C3 C3D' H4' 1HCC3CC3D' H&' $EO' >$EDC' H4' *3E3J3E C' E2' >$EDC'
E' $!% #&'^EH 'Q3 E2' C -$ 3' F E' $EO' @ O' H E' H4' BH4H-2F' H4' -ED34' $E'
F3' > Q34 3C' F343H&_' -ED34' $EO' CC 2E J3E ' H4' ?-Q 3 E2' D- O' CC 2E J3E '
J$D3' H&' H4' -ED34' $EO' >3$C3' H4' G3J C3' H' Q3' F343$& 34' J$D3' &H4' $EO' F' @HEC3E'
*34J' EH '3 N33D E2' *F433' > 3C' H4' *F 4 O HE3' =3$4C' &4H J' F3' @HJR H&' >3CCH4'
J3EN3J3E ' F343H&' $ED' -1HE' F NF' $' '3E '3X-$' H' *F433' 6H-4 FC' $ED' 1$O E2'
H&' F3' EE-$' $ -3' H&' F3' D3J C3D' I43J C3C' CF$ 'F$ 3' Q33E' 43C34 3D' '3E' H' F3'
C$ 3' $ED' 3 N31 ' ;NN 3C $C N$' >3$C3C' $ED' >3$C3C' F3 D' -ED34' $EO' I$4 O' C-QR
@H41H4$ HE' $ED' >3$C3C' NHE $ E E2' $EO' @H 3E$E ' H4' @HJ1$N ' &H4' 3 E2' CF$ '
'3E3 $ ' CF$ ' $' $EO' * J3' $& 34' F3' C$ D' 6 4C' G$O' H&' <E3' Q3' $NX- 3D'
FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O H' D- O' 1$O' $ED' C$ C O' F3' 2 EC' F3'
'3E 'D-3' &4H J' C-NF' I34CHE' D4' I34CHEC' F C' H4' F3 4' 83 4C' ; 3N- H4C' >3CCH4' CH
DJ E C 4$ H4C' H4' CC 2EC' H' F3' I34CHE' H4' I34CHEC' H4' F C' H4' F3 4' NHEC3E E2'
83 4C' ; 3N- H4C' DJ E C 4$ H4C' H4' CC 2EC' FH' CF$ ' F$ 3' CH' H4' $EO' I3 CH-'
$CC 2E3D' H4' C-Q 3 ' C-NF' >$EDC' H4' *3E3J3E C' F3' '3N3 1 ' H&' C-NF' D34 E2' * 3'
I34CHE' H4' I34CHEC' CH' $CC 2E E2' H4' C-Q 3 E2' H4' H&' F C' H4' F3 4' 83 4C' -ED34' F J
; 3N- H4C ' DJ E C 4$ H4C' H4' CC 2EC' CF$ 'Q3' $' &- ' $ED' C-&& N 3E '
G CNF$423' H' C-NF' I34CHE' H4' I34CHEC' FH 'CF$ 'F$ 3' 1$ D' C-NF' '3E '
$ED' H' F C' $ED' F3 4' 83 4C' ; 3N- H4C' DJ E C 4$ H4C' H4' CC 2EC' $C'
3 '2 EC' F3' I34CHE' H4' I34CHEC' CH' $CC 2E E2' H4' C-Q 3 E2' $C' $ CH'
2 EC' F3' >3CCH4' H4' >3CCH4C' H4' I34CHE' H4' I34CHEC' NHE 4$N E2' F'
F3' I34CHE' H4' I34CHEC' CH' $CC 2E E2' H4' C-Q 3 E2' $ED' Q3' I34CHE' H4'
I34CHEC' CH' F$ E2' 1$ D' C-NF' '3E ' H4' F C' H4' F3 4' 83 4C' ; 3N- H4 C'
DJ E C 4$ H4C' H4' CC 2EC' H4' Q C' H4' F3 4' MHHDC' @F$ 3 C' H4'
;&& 3N C' >$EDC' H4' *3E3J3E C' CF$ ' EH ' Q3' C-Q(3N ' H4' $Q 3' H' 3'
I$OJ3E ' H&' H4' H' $EO' G C 43CC' H4' H F34' '3J3DO' &H4' $EO' '3E '
D-3' H' C-NF' >3CCH4' H4' >3CCH4C' H4' H' $EO' I34CHE' H4' I34CHEC' D34 E2'
-ED34' F J ' F34' H4' F3J ' C$ 3' $C' F343 E $& 34' J3E HE3D

' I4H D3D' $ $OC' $ED' Q3' '3E$N 3D' *F$' E' $EO' @$C3' E' <E' &$ -43' D'
F NF' $EO' >3CC33' H4' >3CC33C' H&' $EO' C-NF' >3$C3' $C' $&H43C$ D' H4'
F3' 83 4C' ; 3N- H4C' H4' DJ E C 4$ H4C' H&' $EO' C-NF' >3CC33' H4' >&3C' 3' I$4 ' '
C33C' CF$ ' EH ' D- O' 1$O' F3' '3E ' 43C34 3D' E' $ED' QO' F3' >3$C3' H4' $CC 2E E2'
EC 4- J3E ' -ED34' F NF' C-NF' >$EDC' H4' *3E3J3E C' CF$ ' Q3' F3 D' QO' >$ED H D'
C-NF' >3CC33' H4' >3CC33C' H' F3' I$4 O' H4' I$4 3C' 3E 3D' H' 43N3 3' F3'
C$J3' 'CF$ 'Q3' $ &- ' &H4' F3' I$4 O' H4' I$4 3C' 3E 3D' H' C-NF' '3E ' ?-Q 3E$X C
$ '$EO' * J3' F3E' F343' CF$ ' Q3' D-3' H' F J ' F34' H4' F3J ' * H' H4' -' 1$O F3 4'
JH43' &H 'M$ 3C' H4' IH4 HEC' H&' F3' '3E ' 43C34 3D' E' C-NF' >3$C3' H4' '3 C' H
EC 4- J3E ' H' 2 3' ,H N3' E' 9 4 E2' E' F3' 6H4J' NHE $ E3D' E' F3' F J
?NF3D- 3' $EE3 3D' H' F C' N ' H' $ ' $ED' 3 340' I34CHE' H4' I34CHEC'
FH' CF$ 'Q3' F3E' E' HNN-1$ HE' H&' F3' >$EDC' $ED' *3E3J3E C' F NF'
CF$ ' F$ 3' Q33E' $CC 2E3D' H4' C-Q 3 ' $C' $&H43C$ D' 43X- 4 E2' 3$NF' $ED'
3 340' C-NF' I34CHE' $ED' C-NF' I34CHEC' H' 1$O' H' F3' I$4 O' H4' I$4 3C'
2 E2' C-NF' ,H N3' F3' '3E ' 43C34 3D' -1HE' F3' 8H D E2' H4' 8H D E2C'
H&' $EO' $ED' 3 340' C-NF' I34CHE' H4' I34CHEC' 43C13N 3 O

' ED

& 34' C-NF' , H N3' ?-QR 3E$E C' CF$ ' 1$O' H' F3' C-134 H4' $ED H4D' ' $ED' Q ' ' 3R N3 1 ' CF$ ' , Q3' F3 4' G C ' 3 $423' H' $ ' I$4 3C

O ' ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' &4H J' $ED' $& 34' F3' G3 34O' H&' C-NF' , D &33 N ' $EO' I34CHE' H4' I34CHEC' EHNN-1$ HE' H&' $EO' C-NF' >$EDC' H4' *3$3(J 3F C' $C' $&H43C$ D' ^QO' Q3 E2' 3& ' $ ' F3' 8 H-C3' H4' -C-$ ' I $3 'H &' QHD3' H&' $EO '$ED' 3 34O' C-NF' I34CHE' H4' I34CHEC ' 3 F34' F' CE3F' I34CQ$' 34' I34CHEC ' H4' F' CH J 3' H&' F3' 6$ J O' H&' C-NF' I34CHE' H4' I34CHE$' 43& 3N 3 O' $QH 3' F3' 23' H&' ? 33E' = 3$4C _' 3 34O' C-NF' I34CH$' $ED' C-NF' I34CHEC' CF$ ' 1$O' H' F3' >$ED H D' H4' >$ED H4DC' 2 E2' C-NF' , H N3' H4' H' F C' H4' F3 4' 8 3 4C ' ; 3N- H4C ' D J E C 4$ H4C ' H4' CC 2EC ' $ ' $ED' 3 34O' ?- J C' $ED' ?- J ' F$ CH3 34' D-3' H4' H' 24H 'D-3' &H4' ' 3E ' &4H J ' C-NF' I34CHE' H4' I34CHEC' H' F3' >3CC33' H4' >3CC33C' CH' F$ E2' $CC 2E3D' H4' C-Q 3 3E' $C' $&H43C$ D' H4' H' F C' H4' F3 4' 8 3 4C ' ; 3N- H4C ' D J E C 4$ H4C ' H4' CC 2E C ' $ED' &4H J' $ED' $& 34' C-NF' , H N3' $C' $&H43C$ D' $ED' -E ' F3' ?$ C&$N HE' H&' $ ' F3' ?-4$C' D-3' ' H' F3' I34CHE' H4' I34CHEC' 2 E2' C-NF' , H N3' HE' $NNH-E 'H&' $ ' ' 3E ' D-3' &4H J ' C-NF' >3CC33' H4' >3CC33C' F$ E2' CH' $CC 2E3D' H4' C-Q 3 3E' $C' $&H43C$ D ' F3' ' 3N3 1 ' H&' F3' I34CHE' H4' I34CHEC' 2 E2' C-NF' , H N3' H4' F C' H4' F3 4' 8 3 4C ' ; 3N- H4C ' DR J E C 4$ H4C ' H&' CC 2EC ' CF$ ' Q3' $' &- ' $ED' C-&& N 3E ' G CNF$423' H' F3' I34CHE' H4' I34CHEC' E' F3' <NN-1$ HE' H&' C-NF' >$EDC' H4' * 3E3R J 3E C ' FH' CF$ ' F$ 3' 1$ D' C-NF' ' 3E ' $ED' H' F C' $ED' F3 4' 8 3 4C ' ; 3N- H4C ' H4 D E C 4$ H4C ' 2 EC ' Q3' I34CHE' F$ E2' CH' $CC 2E3D' H4' C-Q 3 3E' $C' $&H43C$ D' H4' F C' 8 3 4C ' ; 3N- H4C ' H4' D J E C 4$ H4C

' $ ' Q3' I34CHE' Q4' I34CHEC' CH' F$ E2' 1$ D' C-NF' ' 3E ' H4' F C' H4' F3 4' ; 33- Q4C' H4' D J E C 4$ H4C ' H4' F C' H4' F3 4' MHHDC ' @F$ 3 C ' H4' ; &&3N C ' EDC' H4' * 3E3 J 3E C ' CF$ ' EH ' Q3' C-Q(3N ' H4' $Q 3' H' F3' I$O J 3E ' , ' $EO ' 3E ' H4' H' $EO' G C 43CC' H4' H F34' ' 3 J 3DO' &H4' F3' C$ J 3 ' H' $EO I34CHE' H4' I34CHEC' -ED34' FH J ' C-NF' I34CHE' H4' I34CHEC' J $O' FH D' QO' 43$CHE' H&' $EO' C-NF' CC 2E J 3E ' H4' ?-Q 3 E2' $C"$&H43C$ D' -E ' C-NF' ?$ C&$N HE' $C' $&H43C$ D

>$ED H4D' ' 2 E2' , H N3' CF$ ' F$ 3' IH 34' H 43NH 34 ' 3E C

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W ED Q3 '3E$N 3D *F$ EH FE2 E FC N NHE $E3D CF$ 3 3ED H4 Q3 NHEC 4-3D H 3 3ED H $EO >3$C3 EC 4-J3E H4 2433J3E &H4 $ >3$C3 J$D3 $ $EO * J3 CEN3 F3 :6 4C G$O H& ?3#! <E3 FH-C$ED 3 2F F-ED43D $ED 3E O C H4 H Q3 J$D3 Q3&H43 F3 C$D 6 4C G$O H& <E3 FH-C$ED 3 2F F-ED43D $ED F4 O H $ED F$ $ >3$C3C EC 4-J3E C $ED 2433J3E C J$D3 H4 H Q3 J$D3 E $ED D-4E2 C-NF E34 $ $ED $ '@H 3E$E C @$-C3C $ED @HED HEC NHE $E3D E C-NF >3$C3C EC 4-J3E C $ED 2433J3E C CF$ Q3 $ED 43J$E C-Q(3N H $ED Q3 NHEC 4-3D $ED 2H 34E3D QO F3 I4H CHEC H& F3 C$D 43N 3D N H& F3 ?3 3E F =3$4 H& F3 '3 2E H& 8 C $ 3 P$(3C O

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IH 34C H& 43N 3D N $C H C-NF >3$C3C H 43J$E E &H4N3

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9 8 ; ' ; ?' $E' 3 ' $C' 1$ 3D' E' F3' 6 4C ' =3$4' H&' F3' ' 3 2E H&' 8 C' 143C3E ' P $(3C O ' E - 3D' / #' / ' ' , ') !' L ! (3% ,#' ' ' ' N' ' , ' 1' U!1 1' L , %' #!' R, '!1' F) %!' ,#'+) , !1' F NF' C$ D' N ' $C' H' NHE E-3' E' &H4N3' &H4' N34 $ E' I 34 HDC' F343 E' C13N & 3D.

H' F3' * F & O & 4C ' G$O' H&' ')' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H ' $ED' ' C' F343&H43' 3 13D 3E ' F$ ' F3' C$ D' N ' CFH- D' Q3' NHE E-3D' $C' F343 E $& 34' J 3E HE3D.' B3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' E HC ' ; N3 3E ' P $(3C O ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$ ' $ED' * 3 J 1H4$ ' $ED' @H J J HEC ' E' F C' 143C3E ' I $4 $ J 3E ' $CC3 J Q 3D ' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3 ' * F$ ' F3' '3N 3D' N' C$ D' 43N 3D' N ' $ED' $ ' $ED' 3 34O' F3' @ $-C3C ' I H 34C ' I 4H C HEC I 3E$ 3C ' 6H4&3 -43C ' P $ 34C ' $ED' * F E2C' F343 E' NHE $ E3D ' CF$ ' Q3' I343$ ' 3E $ED' NHE E-3' E' &H4N3' F E' ! Z ' " #' &4H J ' F3' * 3E O & & F' G$O' HE3D' H&' ')' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' -E ' F3' * 3E O & & F' G$O' H&' / 5 %' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' EN -C 3 ' $ED' CF$ ' Q3' $ED' NHE E-3' E' &H4N3' F E' $! % #&' &4H J ' F3' 6 4C ' G$O' H&' / 5 %' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' -E ' F3' 6 4C ' G$O' H&' P $O' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' EN -C 3 ' $ED' CF$ ' Q3' $ED' NHE E-3' E' &H4 3' F E' F3' M$44 CHE' H&'
6' &' 7 ' 4 %

U ` M # > ; > P ʿ ʿ @$1 ʿ V

4 % ʿ$EDʿ Eʿ + #ʿ $EDʿ * , 3(%ʿ &4H J ʿ F3ʿ * 3E O & & Fʿ G$Oʿ H&ʿ ʿ <E3ʿ FH-C$EDʿ 3 2F ʿ F-ED43Dʿ $EDʿ F 4 O Hʿ -E ʿ F3ʿ * 3E O ʿ & & Fʿ G$Oʿ H&ʿ ?3% ʿ \ E3ʿ FH-C$EDʿ 3 2F ʿ F-ED43Dʿ $EDʿ F 4 O Hʿ EN -R C 3 ʿ $EDʿ Eʿ $ ʿ H F34ʿ I $4 Cʿ H&ʿ 8 3 , 5 ! ʿ F343ʿ ' HO$ ʿ P $4 E3ʿ 6H4N3Cʿ J $Oʿ Q3ʿ C34 E2 ʿ $EDʿ F3ʿ ! 1 ʿ $#& ! 1 ʿ $EDʿ E ,) ʿ / ! ' ʿ $EDʿ F3ʿ I 5 ! ʿ ʿ , ʿ , , &ʿ , 5 ! ʿ &4H J ʿ F3ʿ * 3E O & & Fʿ G$Oʿ H&ʿ ?3% ʿ <E3ʿ FH-C$EDʿ 3 2F ʿ F-ED43Dʿ $EDʿ F 4 O Hʿ -E ʿ F3ʿ * 3E O & & Fʿ G$Oʿ , ʿ + ! 5 ! 4 ! ʿ <E3ʿ FH-C$EDʿ 3 2F ʿ F-ED43Dʿ $EDʿ F 4 O Hʿ EN -C 3 ʿ $EDʿ Eʿ $ ʿ H F34ʿ I $N3Cʿ &4H J ʿ F3ʿ * 3E O & & Fʿ G$Oʿ H&ʿ + ! 5 ! 4 ! ʿ <E3ʿ FH-C$EDʿ 3 2F ʿ F-ED43Dʿ $EDʿ F 4 O Hʿ Hʿ F3ʿ * 3E O & & Fʿ G$Oʿ H&ʿ E , 0 ! 4 ! ʿ <E3ʿ FH-C$EDʿ 3 2F ʿ F-ED43Dʿ $EDʿ F 4 O Hʿ EN -C 3 ʿ Eʿ $Cʿ &- ʿ $EDʿ $ J 1 3ʿ P $EE34 ʿ Hʿ ʿ E 3E Cʿ $EDʿ I -41HC3C ʿ $Cʿ &ʿ F3ʿ C$ J 3ʿ 343ʿ 43C13N 3 O ʿ C3 34$#O ʿ $EDʿ C31$4$ 3 Oʿ 4313$ 3Dʿ $EDʿ 43 3E$N 3Dʿ Eʿ F3ʿ BHDOʿ H&ʿ F Cʿ 143C3E ʿ N

N ʿ J$Oʿ Q3ʿ
$ 343Dʿ FCʿ
?3CC HE ʿ :

E ʿ EDʿ Q3ʿ ʿ &-4 F34ʿ 3E$N 3D ʿ * & $ ʿ F Cʿ N ʿ J $Oʿ Q3ʿ $ 343D ʿ $& 3D ʿ H4ʿ 4313$ 3Dʿ QOʿ $EOʿ N ʿ Hʿ Q3ʿ 1$CC3Dʿ Eʿ F Cʿ 143C3E ʿ ?3CC HEʿ H&ʿ I $4 $ J 3E ʿ

> < , G < , :ʿ I 4 E 3Dʿ QOʿ # + . (/ +ʿ & (+ʿ $EDʿ) * (+ , ʿ O1 2 2 3% , . . * + ʿ
I 4 E 34Cʿ Hʿ F3ʿ % E2 Cʿ J HC ʿ ; N3 3E ʿ P $(3C O ʿ ZSU

, , <' ? ; @# , G<

M # > 5 ; > P ' ' ' ; M ?

' ' " '

E' N ' H' 14H D3' &H ' F3' ?$ 3 ' P $E - &$N - 43 ' $ED'
@HEC - J 1 HE' H&' * HQ$NNH' 24H E' E' ' Q3&H43'
F3' 6 4C ' G$O' H&' 2 4 ' ' < E3' FH - C$ED' 3 2F '
F - ED43D' $ED' F 4 O H ' IU F' , 5 ' ZSU m

> 8 ; ' ; ?' QO' $E' N ' 1$CC3D' E' F3' 6 4C ' $ED' ?3NHED'
=3$4C' H&' F3' ' 3 2E' H&' 8 C' 143C3E ' P 3C O ' E - 3D'
/ #' / ' ' , ' !5! %' #' / ' ' , ') !' E #! ! ! #) ' H ' ' , ' ') ' C ' T'
(' M3H423') !' 7) & ' , ' !5! % # (' 1, ' 3') ' , ' 1!0! %' / ' 1=' 1' N' S'
5 ,) 4 ') !' , F) ' #&' * , &3 ' !' , ' 7 , 4 ' ' , ' #' 43 $ED ' #&' , '
5! ') !' $ 5, , #' , ' 7 , 4 ' ' , ' , ') !' ' , F) ' #&' * , &3 ' !' , ' '
) ' # (&, ' # , ' M43$ ' B4 $ E ' N34 $ E' N C' 1$CC3D' E' F3' ' 3 2E'
H&' % E2' I) %!1' F3' ?3NHED ' $ED' $ ' $ED' 3 340' H F34' N ' $ED' N C'
H&' I $4 $ J 3E ' F NF' F$D' C EN3' 1$CC3D' &H4' 14HF Q E2' F3' M4H F'
$ED' I 4HD - N HE' H&' * HQ$NNH ' 343' 43 3D' E' $ED' 3 3ED3D' H'
$!% #&=' $ED' F3' M4H F' $ED' I 4HD - N HE' H&' * HQ$NNH' E' $!% #&'
343' QO' F3' C$ D' 43N 3D' N ' H&' 8 C' P $ (3C O C' ' 3 2E' 14HF Q 3D
ED' F343$C' QO' F3' C$ D' 43N 3D' N ' ' C ' $ J HE2C ' H F34' F E2C '
14H D3D' $ED' & - 4 F34' 3E$N 3D ' F$ ' EH F E2' E' F$ ' N ' NHE $ E3D'
CF$ ' J 13D3' H4' F ED34 ' H4' Q3' D33 J 3D' H4' NHEC 4 - 3D' H' J 13D3' H4'
F ED34 ' F3' ?$ 3 ' P $E - &$N - 43 ' H4' @HEC - J 1 HE' H&' $EO' * HQ$NNH '
F3' M4H F' H&' $!% #& ' F NF' CF$ ' F$ 3' Q33E' $N - $ O' 24H E' E'
$!% #&' Q3&H43' F3' 6 4C ' G$O' H&' ? #3 ' < E3' FH - C$ED' 3 2F '
F - ED43D' $ED' F 4 O H ' Q - ' F$ ' ' CF$ ' Q3' $ & - ' H' C3# ' J $E - R
&$N - 43 ' $ED' NHEC - J 3' $ ' * HQ$NNH' $ 43$DO' 24H E' E' $!% #& ' H4'
F NF' CF$ ' F$ 3' Q33E' $N - $ O' 24H E' E' $!% #&' Q3&H43' F3' C$ D'
M' 2' 6 4C

>9?6':6 '' '&' #)'

6 4C ' G$O' H&' ? #3 ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H'
$C' &' F$' N ' F$D' EH ' Q33E' 1$CC3D.' ED' F343$C' QO' 43$CHE' H&'
GH-Q C' 3E 34 $ E3D' F3 F34 ' Q3 H 3' F3' 1$CC E2' H&' F3' C$ D' 43N 3D'
N ' P$E-&$N -434C' H&' *HQ$NNH' NH- D' 32$ O' J$E-&$N -43' *HQ$NNH'
F3' M4H F' H&' $!% #&' ' F$C' Q33E' &H-ED' D && N- ' H' N$44O' E H'
3&&3N ' F3' C$ D' I4H C HE' &H4' $ H E2' F3' ?$ 3' P$E-&$N -43' $ED'
@HEC-J1 HE' H&' *HQ$NNH' 24H E' E' $!% #&' Q3&H43' F3' 6 4C ' G$O' H&'
?, ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' $ED' ' C'
F343&H43' 3 13D 3E ' H' 14H D3' ' 32- $ HEC' -ED34' F NF' F3' ?$ 3'
P$E-&$N -43' $ED' @HEC-J1 HE' H&' C-NF' *HQ$NNH' J$O' Q3' $ H 3D'
FH-' E(-4O' H' F3' '3 3E-3'.' B3' ' F343&H43' 3E$N 3D' QO' F3'
% E2 C' JHC '; N3 3E ' P$(3C O' QO' $ED' F' F3' D N3' $ED' @HEC3E '
H&' F3' >H4DC' ?1 4 -$ ' $ED' *3 J 1H4$ ' $ED' @H J JHEC ' E' F C' 143C3E '
I$4 $ J 3E ' $CC3 J Q 3D' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3' *F$ ' 3 34O'
M4H F' H4' I4HD-N HE' H&' $!% #&' CF$ ' Q3&H43' F3' 6 & 33E F' G$O' H&'
/5 %' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' 2 3' H4' C3ED'
,H N3' E' 9 4 E2' -ED34'' F C' 8$ED' H' F3' ?-134 CH4' H&' ; N C3'
H&' F3' G C 4 N ' E' F NF' C-NF' I34CHE' CF$ ' 43C D3 ' H4' E' F NF' F C'
*HQ$NNH' CF$ ' Q3' C H43D' H4' +31 ' NHE $ E E2' $' 4-3' $ED' (-C ' NNH-E '
H&' $ ' *HQ$NNH' F3' M4H F' H4' I4HD-N HE' $!% #&' $ED' F3' 9 3 2F '
F343H&' F$ ' C-NF' I34CHE' CF$ ' F3E' F$ 3' E' F C' @-C HDO' H4' IHCC3CC HE '
$ED' CF$ ' $ CH ' E' C-NF' ,H N3' 43X- 43' F3' C$ D' ?-134 CH4' H' $ 3ED '
$ '$' * J 3' $ED' I $N3' H' Q3' F343 E' C13N & 3D ' E' H4D34' H' 3 2F' C-NF'
*HQ$NNH' ($1D' F3' C$ D' ?-134 CH4 ' F$ E2' 43N3 3D' C-N ' ,H N3 '
CF$ ' $ ' F3' * J 3' C13N & 3D ' H4' $C' CHHE' $& 34' $C' F C' H F34' G- 3C' '
134 J ' $ 3ED' $ ' C-NF' I $N3 ' F' <E3' H4' J H43' <&& N34' H4' <&& N34C' H&'
; N C3 ' $C' J $O' Q3' E3N3CC$4O ' $ED' CF$ ' 3 2F' $ED' $+3' $E' NNH-E ' H&'
$ ' C-NF' *HQ$NNH' $C' CF$ ' Q3' 14HD-N3D' H' F J ' ' $ED' F3E' $ ' C-NF'
*HQ$NNH' CF$ ' F$ 3' Q33E' 3 2F3D' $ED' $+3E' $E' NNH-E ' H&' F3'
I34CHE' E' FHC3' @-C HDO' H4' IHCC3CC HE' F3' C$ J 3' CF$ ' Q3' CF$ ' E' F3'
I43C3EN3' H&' F3' ?-134 CH4 ' J $+3' $ED' C 2E' $' G3N 4 HE' E' 9 4 E2'
E' F3' 6H4 J ' &H H E2'.

I34CHEC F$ E2' 4 CF' *HF$N3H E' F3 4' IHCR C3CC HE' H 2 3' ,H N3' F343H&' H F3' ?-134R CH4' H&' ; R N C3' Q3&H43' a F' 14 ' ZSU

G' (!2)A+!' #+' J##(<' & <' > ()*J') # P

$ED' F3' I$4 O' H' J$+3' $ 3N 4 HE' E' IH4E' &H H E2

*' DH' D3N $43' ' *F$ ' F3' *HQ$NNH' 3 2F3D
$ED' $+3E' $E' NNH-E ' H&' QO' ?-134 CH4
H&' ; N C3 ' $ED' Q3 E2' IH-EDC' 9 3 2F ' C' $ ' F3
*HQ$NNH' EH ' E' J O' @-C HDO' H4' IHCC3CC HE ' $ED' F$ ' $ ' F3' C$ D'
*HQ$NNH' C' H&' F3' M4H F' $ED' I4HD-N HE' H&' $!% #&' $ED' $C'
24H E' $ED' 14HD-N3D' Q3&H43' F3' 6 4C ' G$O' H&' ? #3 ' <E3' FH-C$ED'
3 2F ' F-ED43D' $ED' F 4 O H
1' ? 2E3D' F C' <E3' FH-C$ED' 3 2F
' 1' F-ED43D' $ED' F 4 O' ' G3N $43D' E' F3' I43C3EN3' H&
1' ?-134 CH4' H&' ; N C3

?-134 CH4' H' 2 O3' $ N34' & 3$ 3' H&' F3' \-$E O' ED' F343-1HE' C-NF' ?-134 CH4' CF$ ' J $+3' H- ' $ED' D3 34' H' C-NF' I34CHE' $' @34 & N$ 3' E' 9 4 E2' C3 E2' &H4 F' F3' \-$E O' H&' C-NF' WHQ$NNH ' $ED' F$ ' F3' C$ J 3' F$C' Q33E' 3 2F3D' $ED' $+3E' $E' NNH-E ' @34 & N$ 3 ' $ED' 3 34O' I34CHE' FH CF$ ' J $+3' $EO' &$ C3' H4' -E 4-3' G3N 4 HE' E' $EO' I$4 N- $4' CF$ ' &H4&3 ' F3' ?- J ' H&' <E3' F-ED43D' IH-EDC

I34 J C' H' Q3' 2 $E 3D' ?+!' ' ED' Q3' ' & 4 F34' 3E$N 3D ' *F$ ' F3E' $EO' I34CHE' F$ E2' WHQ$NNH' H&' $ 1)' M4H F' E' F C' IHCC3CC HE' CF$ ' Q3' D3C 4H-C' H&
X \ ' 43 J H E2

@ 9 ? 6 ' : 6 ' ' & ' #)

43 J H E2 F3 C$ J 3 ' C-NF I H%HE CF$ ' QO $ ' 3X-3C ' , H 3 ' C13N &O 2 F3 / \ -$E O H& * HQ$NNH H Q3 43 J H 3D ' F3 I 34CHE $ED I $N3 &4H J ' F3EN3 $ED F3 I $N3 H F NF $ED F3 I 34CHE H FH J ' F3 C$ J 3 C H Q3 C3E ' $ED F3 P HD3 H& @HE 3O$EN3 ' 43X- 43 F3 <&& N34 H& ; N C3 H 24$E ' $ I 34 J ' &H4 F3 ' 3 J H $ ' H& F3 C$ J 3 ' $ED CF$ ' H23 F34 F C-NF ' 3X-3C ' , H 3 ' 14HD-N3 H F3 <&& N34 F3 @34 R & N$ 3 H& F3 ?-134 CH4 H& ; N C3 H& F3 \ -$E O H& * HQ$NNH E F3 @-C HDO H4 I HCC3CC HE H& F3 I 34CHE 43X- 4 E2 F3 I 34 J ' $ED F3 <&& N34 H& ; N C3 ' Q3 E2 C$ C& 3D F$ ' F3 I 34CHE 43X- 4 E2 F3 I 34 J ' C 3E 3D H 43N3 3 F3 C$ J 3 ' CF$ ' F343-1HE 24$E ' $ I 34 J ' &H4 F3 ' 3 J H $ ' H& F3 \ -$E O H& * HQ$NNH C13N & 3D E F3 ' 3X-3C ' , H 3 ' $ED CF$ ' $ CH $ ' F3 C$ J 3 * J 3 ' $ED Q3&H43 43D3 34 E2 F3 @34 & N$ 3 H F3 I 34CHE 14HD-N E2 F3 C$&& 3 ' EDH4C3 HE C-NF @34 R & N$ 3 ' E 9 H4DC $ ' >3E2 F ' F3 \ -$E O H& * HQ$NNH &H4 F NF C-NF I 34 J ' C 43X- 43D H4 24$E 3D ' $ED F3 G$ 3 H& C-NF I 34 J . I 4H D3D $ $OC ' F$ ' EH C-NF I 34 J ' CF$ ' Q3 24$E 3D &H4 F3 ' 3 J H $ ' H& $EO C-NF * HQ$NNH H $EO H F34 I 34CHE F$E $ P $E-&$N -434 H& * HQ$NNH D- O 3E 343D $ED N3EC3D E $!% #&

3 * HQ$NNH H $ N3EC3D '

' ED Q3 ' &-4 F34 3E$N 3D ' * F$ ' F3E $ED $C CHHE $C I 34 J C CF$ ' F$ 3 Q33E 24$E 3D &H4 F3 ' 3 J H $ ' H& $ ' F3 * HQ$NNH J 3ER HE3D E $EO C-NF @34 & N$ 3 ' C-NF @34 & N$ 3 CF$ ' N3$C3 H Q3 E &H4N3 ' $ED F3 <&& N34 H& ; N C3 FH CF$ ' 24$E ' F3 $C ' I 34 J ' QO F NF F3 @43D ' H& C-NF @34 & N$ 3 CF$ ' Q3 3 F$-C 3D CF$ ' $& 34 EDH4C E2 F3 C$ J 3 F F3 \ -$E O 134 J 3D ' 43 $ E F3 C$ J 3 ' $ED D3 34 ' H F3 ?-134 CH4 H& ; N C3 ' FH CF$ ' F343-1HE 43 -4E C-NF @34 & N$ 3 H F3 @H J J CC HE34C H& ; N C3

9 F E & 8 3 \ - F O J 3E HE3D E F3 @34R & N$ 3 C 3 F$-C 3D QO I 34 J C ' F3 @34 & N$ 3 H Q3 - ' H& &H4N3

' ED Q3 ' &-4 F34 3E$N 3D ' * F$ ' $ ' * HQ$NNH H& F3 M4H F H& $!% #& ' F NF CF$ ' Q3 43N3 3D E H F3 ? HN+ ' H& $EO P $E-&$NR -434 H& * HQ$NNH ' J $O $ED CF$ ' Q3 J $E-&$N -43D ' CH D ' $ED NHEC- J 3D E F3 C$ J 3 P $EE34 ' $ED -ED34 F3 C$ J 3 ' $ C ' ' - 3C ' $ED ' 32- $R HEC ' $ED C-Q(3N ' H F3 C$ J 3 I 3E$ 3C $ED 6H4&3 -43C ' $C $EO H F34 * DQ$NNH J $O Q3 J $E-&$N -43D ' CH D ' $ED NHEC- J 3D E $!% #&

4 CF * HR Q$NNH H Q3 J $E-&$NR -43D -ED34 C$ J 3B3 ' 2-5$DHEC $C H F34 * HR Q$NNH

' I 4H D3D $ $OC ' $ED Q3 ' &-4 F34 3E$N 3D ' * F$ ' $ ' * HQ$NNH F3 M4H F H4 I 4HD-N HE H& $!% #& CF$ ' Q3 J $E-&$N -43D $ED NHEC- J 3D E $!% #& HE O ' $ED F$ ' EH C-NF * HQ$NNH ' 3 F34 J $E- ' &$N H43D H4 -E J $E-&$N -43D ' J 3D H4 -E J 3D F $EO H F34 * HQ$NNH ' CF$ ' Q3 43 J H 3D E H $EO I $4 ' 5 ' ! ' " # ' H4 3E 343D &H4 ; 1H4 $ HE H 6H43 2E I $4 C ' H4 H 3! #1! ' ?! 1! ' H4 F3 $1%! , ' # ' $C P 34NF$ED T3 ' Q- ' F$ ' $ ' C-NF * HQ$NNH CH 43 J H 3D H4 3E 343D H4 ; 1H4 $ HE CF$ ' Q3 &H4&3 3D ' $ED J $O Q3 C3 T3D QO $EO <&& N34 H& @-C H J C H4 ; N C3 '

' HQ$NNH QC8 M4H F H Q3 NHEC- J 3D E 43 $ED

' ED Q3 ' &-4 F34 3E$N 3D ' * F$ ' &4H J ' $ED $& 34 F3 1$CC E2 H& F C N ' EH * HQ$NNH H& $ 1) ' M4H F CF$ ' Q3 C3E ' H- ' 43 J H 3D ' H4 43N3 3D FH- ' $ I 34 J ' $ED E 3 34O I 34 J ' H Q3 24$E 3D &H4 F3 ' 3 J H $ ' H& $EO C-NF * HQ$NNH ' C-NF * HQ$NNH 1) %% 4! ' &!1 ' 4!& $C $ 1) ' * HQ$NNH ' $ED &4H J ' $ED $& 34 F3 C$ D 6 & 33E F G$O H& 5 ' <E3 FH-C$ED 3 2F ' F-ED43D $ED Q 4 O H $ ' * HQ$NNH F3 M4H F ' , ' I 4HD-N HE H& $!% #& ' F NF CF$ ' Q3 &H-ED E F3 + , ' ' I 31 ,& H4 I HCC3CC HE H& $EO P $E-&$N -434 H& * HQ$NNH ' EH ' F$ E2 4!!# 13E- E H4LH&

' H 4 CF * HQ$NNH H Q3 43 J H 3D ED $EO E Q3 ' &H-ED E Q3 ' I HCC3CC HE , ' 43N3 3D $E H F I 34

CHE FH-'$4 3 3D' 9 F'$' I34J 'H4' E' F3' @-C HDO' H4' IHCC3CC HE' H&' $EO' H F34' I34CHE FH-'$' @34 &N$ 3' C 2E3D' QO' F3' ?-134 CH4' H&' ; N C3 ' CF$ '

H43 3D' &H4&3 3D' $ED' J $O' Q3' C3 T3D' QO' $EO' <&& N34' H&' ; N C3

I3E$ O' Y1& NH-E 34&3 R E2' $ 34 E2' H4' HQ 34$ R E2' $' @34' FN$ 3

' ED' Q3' '&-4 F34' 3E$N 3D' *F$ '3 340' I34CHE FH' CF$ '&H423' H4' NH-E 34&3 '$EO' @34 &N$ 3' H4' FH' CF$ '$ 34' 34$C3' HQ 34$ 3' H4' D3C 4 '$EO' @34 &N$ 3' H4' $EO' I$4' F343H&' H4' FH' CF$ ' 14HD-N3' H' $EO' <&& N34' H&' ; N C3' H4' J$+3' -C3' H&' $EO' &H423D' NH-E 34&3 3D' $ 343D' 34$C3D' H4' HQ 34$ 3D' @34 &N$ 3' CF$ ' &H4&3 ' F3' ?-4$' H&' <E3' F-ED43D' IH-EDC

; J1H 34 E2' F3' *43$C-4O' H' Q-O' -1*H' Q$NNH' H' Q3' D3C 4HO3 ' &' $' $EO' * J3' 'CF$ ' Q3' D33 J 3D' 3 13D 3E' CH' H' DH

' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' &' $ '$EO' * J3' F343$& 34' ' CF$ ' CH3 J' 3 13D 3E' H' F3' >H4DC' @H J J CC HE34C' H&' 8 C' P$(3C O C' *43$C-4O' H&' F3' #E 3D' % E2DH J' H&' ! '" #' $ED' $!% #&' F$' F3' 9 FH 3' H4' $EO' I$4' H&' F3' \-$E O' H&' *HQ$NNH' H&' F3' M4H F' H4' I4HD-N HE' H&' $!% #&' CFH- D' Q3' QH-2F' -1' $ED' D3C 4HO3D' ' CF$ ' Q3' $ &-'&H4' F3' C$ D' >H4DC' @H J J CC HE34C' H&' F3' *43$C-4O' H' $- FH4 T3' F3' @H J J CC HE34C' H&' ; N C3' H' NHE 4$N' $ED' $2433' F' $EO' I34CHE' H4' I34CHEC' &H4' F3' I -4NF$C3' H&' F3' 9 FH 3' H4' $EO' I$4' H&' C-NF' *HQ$NNH' F NF' J $O' F3E' Q3' E' F3' @-C HDO' H4' IHCC3CC HE' H&' $EO' C-NF' I34CHE' H4' I34CHEC' $' $' '$ 3' H4' I4 N3' EH' 3 N33D E2' * H' ?F E2C' 5! ' IH-ED' $ED' H' D 43N' F$' $ ' C-NF' *HQ$NNH' F3E' CH' 1-4NF$C3D ' CF$ ' Q3' D3C 4HO3D

& 34' C' 5$E-$40)ZS ' I$4' H&' F3' 43N 3D' N' H&' '4' > 9' 4313$ 3D' $ED' F C' N' F3E' H' D3 34 J E3

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* F$ ˁ F3ˁ G- 3Cˁ J 1HC3Dˁ HEˁ ?-2$4ˁ $EDˁ P H $CC3C ˁ $EDˁ F3ˁ BH-E 3Cˁ G- 3Cˁ HEˁ
$ H 3Dˁ F343HE ˁ QOˁ $Eˁ N ˁ 1$CC3Dˁ Eˁ F3ˁ 6 4C ˁ =3$4ˁ H&ˁ F3ˁ ' 3 2Eˁ H&ˁ ?-2$4 $EDˁ
8 Cˁ 143C3E ˁ P $(3C O ˁ E - 3Dˁ / #ˁ / ' ˁ , ˁN(# #(ˁ ,ˁ 1ˁ U!1 ˁ (cHC3OQOˁ
3# %ˁ) !ˁR)ˁ ˁH 14 ˁ 6#!ˁ) ,31 #&ˁ ! ( ) ˁ) 3#& !&ˁ #&ˁ) ,#! ˁ ˁ ˁNˁ ! [
' ! #ˁ 2 3 !1ˁ ,#ˁ +3(ˁ 5, !&ˁ # ,ˁ) !ˁ O# !&ˁ #(&, ˁ , ˁ) !ˁ NHE E-3Dˁ
+! 0 ' !ˁ , ˁ) !ˁ H! ˁ 6#!ˁ) ,31 #&ˁ ! ( ) ˁ) 3#& !&ˁ #&ˁ) ˁ $EDˁ F NFˁ -E Dˁ <N HQ34ˁ
F$ 3ˁ Q33Eˁ &-4 F34ˁ NHE E-3Dˁ -E ˁ F3ˁ 6 & Fˁ G$Oˁ H&ˁ / 5 %ˁ < E3ˁ FH-R
C$EDˁ 3 2F ˁ F-ED43Dˁ $EDˁ F 4 O H ˁ CF$ ˁ Q3ˁ $EDˁ F3ˁ C$ J 3ˁ $43ˁ F343QOˁ
&-4 F34ˁ NHE E-3Dˁ -E ˁ F3ˁ * 3E Fˁ G$Oˁ H&ˁ 6 ' ,4! ˁ < E3ˁ FH-C$EDˁ
3 2F ˁ F-ED43Dˁ $EDˁ F 4 O H ˁ ˁ 7
ˁ ˁ ˁ ˁ ˁ ED

"+L(!A'+? !(H)#(< H# (N#(<(<'#+' #J)A' H#

ʻ ED'Q3' ʻ&-4 F34' 3E$N 3D'ʻ*F$ʻ F3' C3 34$ʻIH 34Cʻ I4H C HECʻ P$ 34Cʻ $ED' *F E2C' NHE $ E3D' E' F3' C$ D' 43N 3D' N ʻ CF$ ʻ Q3' 3 3ED3D' H' F C' N ʻ$ED' F3' G- 3C' $ED' BH-E 3C' F343QO' NHE E-3Dʻ E' $C' &- ʻ$ED' $ J 1 3' $' P $EE34' $C' &' F3' C$ J 3' F$D' Q33E' 4313$ 3D' $ED' 43 3E$N 3D' E' F C' N ʻ $ED' J $D3' I $4 ʻ F343H&

PHE 3C' 1$ D' E H' F3' -ED ʻ !,ʻ - ʻ(ʻ C31$4$ 3'&4H J' H F34' I $0ʻ)))(#A

ʻ ED' Q3' ʻ&-4 F34' 3E$N 3D'ʻ*F$ʻ F343' CF$ ʻ F3' 14H D3D' $ED' 5 31' E' F3' <&& N3' 1&' F3' -D H4' H&' F3' ' 3N3 1 ʻ H&' 8 C' P $(3C O C ; NF3X-34' $' !1 #1 ! ' <E3' BHH+' H&' ' 32 C 34' E' F NF' $ ' F3 PHE3O' F$ ' CF$ ' Q3' 1$ D' E H' F3' C$ D' ; NF3X-34' &4H J' CH' J -NF' H&' F3' ?$ D' ' $ NC$ED' G- 3C' F343QO' 24$E 3D' HE' ?-2$4' $C' CF$ ' $4 C3' $ED' ((2' 1$O$Q 3' E' ! ' " #' CF$ ' Q3' 3E 343D' $ED' 432 C 343D' $1$4 $ED' D C EN ' &4H J' $ ' H F34' PHE 3C' 1$ D' $ED' 1$O$Q 3' H' 8 C' P $(3C O $ED' ' CF$ ' Q3' $ &- ' &H4' F3' @H J J CC HE34C' H&' F3' *43$C-4O' H&' F3' #E 3D' % E2DH J' H&' # ! ' " #' $ED' $!% #&' H' CC-3' $ED' $11 O' F3' C$ J 3' &4H J' * J 3' X' * J 3' H' C-NF' ?34 N3C' $C' CF$ ' F3E' F$ 3' Q33E' H 3D' QO' F3' @H J J HEC' H&' F3' #E 3D' % E2DH J' H&' ! ' " #' $ED' $!% #&' E' F C' 143C3E ' ?3CC HE' H&' I $4 $ J 3E ' ' $ED' F$ ' CH' J -NF' H&' F3' C$ D' G- 3C' HE' ?-2$4' $C' CF$ ' $4 C3' $ED' Q3' 1$O$Q 3' E' 543 4$NO' CF$ ' Q3' 1$ D' E H' 3' ' 3N3 1 ' H&' F3' ; NF3X-34' F343 ' $ED' CF$ ' Q3' N$44 3D' H' F3' @HECH D$ 3D' 6-ED' H&' F3' #E 3D' % E2DH J' H&' ! ' " #' $ED' $!% #&

J' (&A#)!B' E4$O' D 43N' ; NF3X-34' B C' H' Q3' $D3' H- ' EH' 3 N33D E2' ![[[[[

ʻ ED' Q3' ʻ&-4 F34' 3E$N 3D' ʻ*F$ʻ ʻ CF$ ʻ Q3' $ &- ʻ &H4' F3' C$ D' @H J J CC HE34C' H&' 8 C' P $(3C O C' *43$C-4O' $' $EO' * J 3' H4' * J 3C' F3E' F3O' CF$ ' F E+' & ' CH' H' DH ' H' N$-C3' H4' D 43N ' $EO' , - J Q34' H&' ; NF3X-34' B C' H' Q3' J $D3' H- ' $ ' F3' ' 3N3 1 ' H&' F3' ; NF3X-34' $' !1 #1 ! ' &H4' $EO' ?- J' H4' ?- J C' H&' PHE3O' EH ' 3 N33D E2' E' F3' FH 3' EN -D E2' $EO' ?- J' H4' ?- J C' H&' PHE3O' CC-3D' H $4DC' F3' DC' H4' ?-11 3C' E' 1-4C-$EN3' H&' F C' N ' F3' ?- J' H&' <E3' J HE' & 3' F-ED43D' FH-C$ED' I H-EDC' E' F3' C$ J 3' H4' +3' P $EE34' 6H4 J' $ED' <4D3 ' $ED' $NNH4D E2' H' F3' C$ J 3' H4' +3' ' - 3C' $ED' G 43N HEC' $C' E43' D 43N 3D' $ED' 143CN4 Q3D' E' $ED' QO' $E' N ' 1$CC3D' E' F3' 6H4 O 3 2F F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' #(' !, (!' F3' *F 4D' E - 3D'

Z' M S' / #' / ' ?4 ' !(3% #(')!' 113 #(' #&' #(' , ', ' 8J')!V3! ' " %%1

IH 34C' H&' ʻ FC N'

ʻ ED' Q3' ʻ&-4 F34' 3E$N 3D' ʻ*F$ ' $ ' $ED' 3 3 O' F3' @ $-C3C' 5 H CH3C' IH 34C' I4 323C' D $E $23C' I3E$ 3C' 6H4&3 -43C' G C$Q 3C' NHE $ E3D' E' F3' C$ D' 43N 3D' N ' 1$CC3D' E' F3 6H O 3 2F F' =3$4' H&' F3' ' 3 2E' H&' 8 C' C$ D' $ 3' P $(3C O' CF$ ' Q3' $11 3D' $ED' 3 3ED3D' H' F3' ; NF3X-34' B C' H' Q3' J $D3' H- ' E' 1-4C-$EN3' H&' F C' N ' $C' &- O' $ED' 3&&3N -$ O ' H' $ ' E 3E C' $ED' I -41HC3C' $C' &' F3' C$ D' C3 34$' @ $-C3C' H4' I4H CH3C' F$D' Q33E' 1$4R N- $4 O' 4313$ 3D' $ED' 43 3E$N 3D' E' F3' BHDO' H&' EC' N

; NF3X-34' B C' H' Q3$4' $E' E 343C '

ʻ ED' Q3' ʻ&-4 F34' 3E$N 3D' ʻ*F$ ʻ F3' ; NF3X-34' B C' H' Q3' J $D3' H- ' E' 1-4C-$EN3' H&' F C' N ' CF$ ' $ED' J $O' Q3$4' $E' E 343C ' EH ' 3 N33D E2' F3' ' $ 3' H&' 6H-4' I H-EDC' -1HE' H4 E' 43C13N ' H&' F3' FH 3' H&' F3' PHE 3C' 43C13N 3 O' NHE $ E3D' F343 E

B$E+' H&' ; E2' ' ' $ED' J $O' $D ' Q'

ʻ ED' Q3' ' D3N $43D' $ED' 3E$N 3D' ʻ*F$ ʻ ʻ CF$ ' Q3' $ &- ' &H4' MH 34EH4' $ED' @H J 1$EO' H&' F3' B$E+' H&' 8#(% #&' H' $D $EN3' H4 P $(3C O ' $ ' F3' ' 3N3 1 ' H&' F3' ; NF3X-34' $' !1 #1 !

H&' FC' ' ' -1HE' F3' @43D ' H&' F3' ; NF3X-34' B C' $- - T3D' QO' F C' N ' $EO ?- J

?-J H4 ?-J C H& P HE3O EH 3 N33D E2 E F3 FH 3 F3 ?-J H& <E3 J HE & 3 F-ED43D FH-C$ED I H-EDC $EO F E2 E $E N J$D3 E F3 6 & F $ED ? F =3$4C H& F3 ' 3 2E H&% E2 %% $ED \ -33E E - 3D / # / ' ' , (# #(, 7) ! U!1 !1 1!0! % L !1 #& 2 3 !1 35 , # 7 , ## (! , +) 51 #& C!11!%1 #& 35 , # " ! ! / %! #& ,) ! < V3 , 1 = #& Z 1!'3 #(' ! # " ! ' , 5!#'!1 #& / &0 #[(!1 #) ! 1 & / ' ' !# 4#!& , '13') * ! 1 , #1 1 1) %% 0 , %3# % &0 #' !) ! +3 , 6#! %% , # 0!) 3#& !&) , 31 #& * , 3#&1 , 0 , &1 ' #(, #) ! (#1 64$EN3 H4 E $EO C-QC3X-3E N H F3 NHE 4$4O F343H& E $EO C3 EH FC $ED E2

+)L #J% 1g

ED Q3 &-4 F34 3E$N 3D * F$ CF$ Q3 $ &- &H4 F3 C$ D @H J J CC HE34C H& F3 * 43$C-4O $ED F3O $43 F343QO $- FH4 T3D $ED 3J1H 343D H N$-C3 C-NF B C $C CF$ Q3 1431$43D QO 4 -3 H& F C N H Q3 1 $N3D $C CH J -NF @$CF E F3 43C13N 3 <&& N3C H& F3 * 3 34C H& F3 C$ D ' 3N3 1 H& ; NF3X-34 3$NF $ED 3 34O H& F NF * 3 34C CF$ Q3 C3 34$ O NF$423D F $ I 4H1H4 HE H& F3 C$ D B C F NF CF$ Q3 CH 1 $N3D E F C <&& N3 43C13N 3 O $EO >$ H4 #C$23 H F3 NH1 4$4O EH FC $ED E2

B C HQ3 ; NF3X-34

W ED Q3 &-4 F34 3E$N 3D * F$ F3 C$ D ; NF3X-34 B C E F3 8$EDC H& F3 C$ D * 3 34C CF$ Q3 HN+3D -1 $ED C3N-43D $C @$CF $NNH4D E2 H F3 @H-4C3 H& F3 ; NF3X-34 $!1 #1 ! $ED CF$ Q3 $+3E $ED 3C 33J3D $C CH J -NF E 1$4 H& F3 ' 3J$ EC E 43$ P HE3O F343 F 3$NF H& F3 C$ D * 3 34C CF$ &4HJ * FE3 H * J3 ? $ED NF$423D E NH J JHE F H F34 F3 PHE 3C E F3 C$ D ; NF3X-34 $EO >$ H4 #C$23 H F3 NHE 4$4O EH FC $ED E2 $ED CF$ Q3 $ &- &H4 F3 ?$ D @H J J CC HE34C H& F3 * 43$C-4O H CC-3 $ED $11 O F3 C$J3 &4H J * J3 H * J3 H C-NF ?34 N3C $C CF$ F3E F$ 3 Q33E H 3D QO F3 @H J J HEC H& F3 #E 3D % E2DH J H& $ED 4N&3 D E F C 143C3E ?3CC HE H& I $4 $J3E

HQ3 NH J JHE F H Q34 PHE 3C

W I4H D3D $ $OC $ED Q3 &-4 F34 3E$N 3D * F$ F3 ; NF3R X-34 B C H Q3 J$D3 &H4 F QO 4 -3 H& F C N H23 F34 F F3 E 343C F$ J$O Q3NH J3 D-3 F343HE $ED F3 @F$423C H& 3 NF$E2 E2 $ED N 4N- $ E2 F3 C$J3 CF$ Q3 $ED F3 C$J3 $43 F343QO J$D3 NF423Q 3 $ED NF$ 23D -1HE F3 ' $ 3C G- 3C $ED CC3CC J3E C 24$E 3D QO F C N $ED CF$ Q3 $ &- &H4 F3 C$ D @H J J CC HE34C H& F3 * 43$C-4O $ED F3O $43 F343QO $- FH4 T3D &4H J * J3 H * J3 H D 43N H Q3 CC-3D H F3 C$ D I $O J $C 34C QO $O H& J 143C $ED -1HE NNH-E C-NF ?-J C H& PHE3O $ED $ C-NF I34 HDC $C F3 ?$ D @H J J CC HE34C CF$ F E+ E3N3CC$4O &H4 H4 H $4DC 1$O E2 H&& $ED D CNF$42 E2 F3 ; NF3X-34 B C F NF CF$ F$ 3 Q33E J$D3 &H4 F QO 4 -3 H& F C N H4 $EO H& F3J $ED &H4 $ED H $4DC 1$O E2 F3 E 343C H Q3NH J3 D-3 HE F3 C$ D B C $ED &H4 $ED H $4DC F3 @F$423 H& 3 NF$E2 E2 $ED N 4N- $ E2 F3 C$J3 B C H4 $EO H& F3J

; NF3X-34 B C H Q3 NF$423D HE F3 G- 3C 24$E 3D QO F C N

W ED Q3 &-4 F34 3E$N 3D * F$ HE F3 6 & F G$O H& / 5 % ' ' , # , <E3 FH-C$ED 3 2F F-ED43D $ED F 4 O F433 H4 F E * 3E G$OC $& 34 F3 C$ D @H J J CC HE34C H& F3 * 43$C-4O H4 $EO * F433 H4 J H43 H& F3 J EH Q3 E2 H4 F3 >H4D 8 2F * 43$C-434 H4 $EO * F433 H4 J H43 H& F3 C$ D @H J J CC HE34C H& F3 * 43$C-4O H& F3 #E 3D % E2R DH J H& ! " # $ED $!% #& &H4 F3 * J3 Q3 E2 CF$ N$-C3 $

B C H Q3 $+3E

4-3' $ED' 134&3N ' NNH-E ' E' 9 4 E2' H' Q3' $+3E' $ED' $ 3C 3D' QO'
F3' 14H134' <&& N34C' H&' F3' JH-E ' H&' $ ' ; NF3X-34' B C' F$ ' CF$ '
F$ 3' Q33E' CC-3D' QO' 4 -3' H&' F C' N ' $ED' FH ' J -NF' F343H&' CF$ '
Q3&H43' F$ ' * J 3' F$ 3' Q33E' 1$ D' H& ' H4' D CNF$423D ' $ED' FH ' J -NF'
F343H&' CF$ ' F3E' 43 J $ E' -ED CNF$423D

PHE 3C' D-3' HE; NF3X-34 W ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F3' P HE 3C' CH' 43 J $ E E2'
-EC$ C& 3D' H4' EH ' D CNF$423D ' F' F3' E 343C ' D-3' H4' H' 24H ' D-3'
F343HE ' $ED' F3' @F$423C' , ' 3 NF$E2 E2' $ED' N 4N- $ E2' F3' C$ J 3 '
F3 E3 ' L' DC' bF$ ' Q3' 1$ D' $ED' C$ C& 3D' H- ' H&' F3' E3 ' D' H4' DC' H' Q3' 24$E 3D'
E' I $4 $ J 3E ' $& 34' F3' C$ D' 6 & F' G $O' H&' <E3' FH-C$ED' 3 2F '
F-ED43D' $ED' F 4 O F433

?-41 -C' PHE 3C' H' Q3' N$44 3D' H @HECH D$ 3D' 6-ED W >' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F3' ?-41 -C' H&' F3' P HE 3C'
$4 C E2' &4H J ' F3' ' $ 3C ' G- 3C ' $ED' CC3CC J 3E C' 24$E 3D' $ED' J 1HC3D'
QO' F C' N ' $& 34' 1$O E2' H&&' $ED' C$ C&O E2' $ ' F3' ; NF3X-34' B C'
CC-3D' QO' 4 -3' H&' F C' N ' H23 F34' F' F3' E 343C ' F$ ' J $O'
Q3NH J 3' D-3' F343HE ' $ED' F3' @F$423C' H&' 3 NF$E2 E2' $ED' N 4N- $ E2'
F3' C$ J 3 ' CF$ ' $C' $' ?-41 -C' H&' $EO' C-NF' P HE 3C' 43C13N 3 O' CF$ '
Q3' 1$ D' E H' F3' ' 3N3 1 ' H&' F3' ; NF3X-34' $ ' !1 #1 ! ' Q3' N$44 3D'
H' $ED' J $D3' I $4 ' H&' F3' @HECH D$ 3D' 6-ED' H&' F3' # E 3D' % E2DH J '
H&' ! ' " #' $ED' $!% #&

* F3' * 43$C ' 4O' H' $ H ' F3' E3N3CC$4O' @F$423C' H&' E$+ E2' &H4 F' E3 ' ; NF3R X-34' B C W ' 14H D3D' $ CH ' $ED' Q3' ' 3E$N 3D ' * F$ ' ' CF$ ' $ED' J $O' Q3'
$ &- ' &H4 ' F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' * 43$C-4O' H4' $EO' * F433'
H4' J H43' H&' F3 J ' EH ' Q3 E2 ' H4' F3' C$ D' >H4D' 8 2F' * 43$C-434' H4' $EO'
* F433' H4' J H43' H&' F3' C$ D' @H J J CC HE34C' H&' F3' * 43$C-4O' &H4' F3'
* J 3' Q3 E2 ' $ED' F3' H4' F3O' C' $ED' $C3' F343QO' $- FH4 T3D' $ED' 3 J R
1H 343D ' H' 1$O' $ED' $ H ' H4' N$-C3' H' Q3' 1$ D' $ED' $ H 3D ' H- ' H&'
F3' P HE 3C ' H' $4 C3' H&' H4' &4H J ' F3' C$ D' ' $ 3C' $ED' G- 3C' F343QO
?$E 3D ' H4' H&' H4' &4H J ' F3' C$ D' @HECH D$ 3D' 6-ED ' &4H J ' * J 3' H'
J 3 ' F3' E3N3CC$4O' @F$423C' H&' J $+ E2' &H4 F' F3' E3 ' ; NF3X-34'
B C' F343QO' $- FH4 T3D' H' Q3' J $D3' &H4 F ' $ED' C-NF' H F34' @F$423C' $C'
CF$ ' Q3' E3N3CC$4 O' EN D3E ' E' H4' &H4' F3' ; 3N- HE' H&' F C' N '
H4' $EO' I $4 ' F343H& ' E' 43 $ HE' H' F3' C$ D' B C' ($EO' F E2' F343 E'
NHE $ E3D' H' F3 ' NHE 4$4O' EH FC $ED E2

H' Q3' 43R 1 $N3D' H- ' H&' F3' & 4C ' ?-11 3C W ' I 4H D3D' $ $OC ' $ED' Q3' ' 3E$N 3D ' * F$ ' F$ 3 34' P HE 3C'
CF$ ' Q3' CC-3D' H- ' H4' F3' C$ D' @HECH D$ 3D' 6-ED' CF$ ' &4H J ' * J 3'
H' * J 3' Q3' 431 $N3D' QO' $ED' H- ' H&' F3' & 4C ' ?-11 34' H' Q3' F3E '
$& 34' 24$E 3D' QO' I $ $4F3E ' $EO' F E2' F343 E' NHE $ E3D' H' F3'
NHE 4$4O' EH FC $ED E2

N ' J $O' Q3' $ 343D' F C' ?3CC HE W ' ED' Q3' ' 3E$N 3D ' * F$ ' F C' N ' J $O' Q3' $ J 3ED3D ' $ 343D '
H4' 4313$ 3D' QO' $EO' N ' H4' N C' H' Q3' 1$CC3D' E' F C' 143C3E ' ?3CC HE'
H&' I $4 $ J 3E

> < , G < , .' I 4 E 3D' QO' # + . (/ +' & (+' $ED') * (+ , ' O1 . 223% , . . * + '
I 4 E 34C' H' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' ZSU

, , <ʻ ? ; @# , G<

M#> ; > P ʻ ʻ ' ; M ?

@ I ʻ WW

E N ʻ &H4 F3 ' 32- $ HE H& 8 C P$(3C O C 'HO 5
P$4 E3 6H4N3C F 3 HE ?FH43

ʻ AVF E ʻ ZSU m

8 ; ' ; ?ʻ ʻ C (-D23D E3N3CC$4O &H4 F3 ?$&3 O H& F3
#E 3D % E2DH J ʻ $ED F3 G3&3EN3 H& F3 I HCC3CC HEC H&
F C ' 3$ J ʻ F$ ʻ $ BHDO H& ' HO$ ʻ P $4 E3 6H4N3C CFH- D
F3 3 J 1 HO3D E 8 C P $(3C O C 6 33 ʻ $ED , $ $ ʻ ?34 N3 ʻ -ED34 F3
G 43N HE H& F3 >H4D 8 2F DJ 4$ ʻ H& ʻ F3 ?$ D #E 3D % E2DH J ʻ
H4 F3 @H J J CC HE34C &H4 3 3N- E2 F3 <&& N3 H& >H4D 8 2F DE$ 4$&
$&H43C$ D : ED F343$C F3 C$ D 6H4N3C J $O &43X-3E O Q3 X-$4 343D
H4 Q3 HE ?FH43 ʻ H4 C3E ʻ H DH G- O HE QH$4D *4$EC1H4 ʻ ?F 1C ʻ H&
P 34NF$E ʻ ?F 1C H4 3CC3 C ʻ H4 ?F 1C H4 3CC3 C H& 8 C P $(3C O EH ʻ
Q3 E2 E @H J J CC HE ʻ H4 H F34 ?F 1C H4 3CC3 C ʻ E F NF F3O #
EH ʻ Q3 C-Q(3N ʻ H F3 >$ C 43 $ E2 H F3 MH 34E J 3E ʻ H& 8 C
P $(3C O C 6H4N3C QO ?3$. ED F343$C EH P $E N$E Q3 &H43(-D23D
H& > &3 H4 > J Q ʻ H4 C-Q(3N 3D E * J 3 H& I 3$N3 H $EO % ED H&
I -E CF J 3E ʻ F E F C ' 3$ J ʻ QO P $4 $ ʻ >$ ʻ H4 E $EO H F34
P $EE34 F$E QO F3 5-D2 J 3E ʻ H& F C I 334C ʻ $ED $NNH4D E2 H F3
+EH E $ED 3C $Q CF3D >$ C H& F C ' 3$ J ʻ O3 ʻ E3 34 F3 3CC ʻ ʻ m E2
43X- C 3 &H4 F3 43 $ E E2 H& C-NF 6H4N3C E F3 4 G- O ʻ F$ ʻ $E 3 $N ʻ
G CN 1 E3 Q3 HQC34 3D ʻ $ED F$ ʻ P $4 E3C FH CF$ ʻ J - EO H4 C 4
-1 ʻ ?3D HE ʻ H4 CF$ ʻ D3C34 ʻ 8 C P $(3C O C ?34 N3 ʻ H4 Q3 2- O H& $EO
H F34 @4 J 3 E Q43$NF H& 2HHD <4D34 $ED G CN 1 E3 ʻ Q3 Q4H-2F ʻ H
$ J H43 3 3 J 1 $4O $ED C133DO I -E CF J 3E ʻ F$E F3 -C-$ ʻ 6H4 J C H& F3
>$ ʻ ʻ $ H : B3 ʻ F343&H43 3E$N 3D QO F3 % E2 C J HC ʻ ; N3 3E ʻ
%ʻ +ʻ P 3C O

@4 J3C ʿ 1-R E CF$Q 3ʿ QO ʿ I3 Q

P$(3C O: QOʿ $EDʿ Fʿ F3ʿ D N3ʿ $EDʿ @HEC3E ʿ H&ʿ F3ʿ >H4DCʿ ?1 4 -$ʿ $EDʿ *3 J 1H4$ ʿ $EDʿ @H J J HEC ʿ Eʿ F Cʿ 143C3E ʿ I $4 $ J 3E ʿ $CC3 J Q 3D ʿ $EDʿ QOʿ F3ʿ - FH4 Oʿ H&ʿ F3ʿ C$ J 3ʿ *F$ ʿ &4H J ʿ $EDʿ $& 34ʿ F3ʿ * 3E O ʿ & & Fʿ Q$Oʿ H&ʿ / 5 %ʿ < E3ʿ FH-C$EDʿ 3 2F ʿ F-ED43Dʿ $EDʿ F 4 O Hʿ &ʿ $EOʿ I 34CHEʿ FHʿ Cʿ H4ʿ CF$ ʿ Q3ʿ NH J J CC HE3Dʿ H4ʿ Eʿ I $Oʿ $Cʿ $Eʿ <&& N34ʿ H&ʿ I HO$ ʿ P $4 E3C ʿ H4ʿ FHʿ Cʿ H4ʿ CF$ ʿ Q3ʿ C 3Dʿ H4ʿ Eʿ I $Oʿ $Cʿ $ʿ , HER NH J J CC HE3Dʿ <&& N34 ʿ G4- J J 34 ʿ H4ʿ I 4 $ 3ʿ P $Eʿ Eʿ 8 Cʿ P $(3C O Cʿ ʿ HO$ ʿ P $4 E3ʿ 6H4N3C ʿ CF$ ʿ $ ʿ $EOʿ * J 3ʿ D-4 E2ʿ F3ʿ @HE E-$EN3ʿ H&ʿ F Cʿ N ʿ F 3ʿ HEʿ ?FH43ʿ Eʿ $EOʿ I $N3ʿ F Eʿ F3ʿ C$ Dʿ % E2DH J ʿ H4ʿ Eʿ $EOʿ H F34ʿ H&ʿ 8 Cʿ P $(3C O Cʿ GH J E HEC ʿ H4ʿ Eʿ 6H43 2Eʿ I $4 Cʿ H- ʿ H&ʿ C-NFʿ GH J E HEC ʿ H4ʿ HEʿ QH$4Dʿ $EOʿ *4$EC1H4 ʿ ?F 1 ʿ H4ʿ P 34NF$E ʿ ?F 1ʿ H4ʿ 3CC3 ʿ H4ʿ $EOʿ ?F 1ʿ H4ʿ 3CC3 ʿ H&ʿ 8 Cʿ P $(3C Oʿ EH ʿ Q3 E2ʿ Eʿ @H J J CC HE ʿ H4ʿ HEʿ QH$4Dʿ $EOʿ @HE N ʿ 8 - +ʿ H4ʿ ?F 1 ʿ H4ʿ $EOʿ H F34ʿ ?F 1ʿ H4ʿ 3CC3 ʿ Q32(ʿ 3 N 3 ʿ N$-C3 ʿ H4ʿ (H Eʿ Eʿ $EOʿ P - EOʿ H4ʿ ?3D HEʿ Eʿ 8 Cʿ P $(3C O Cʿ P $4 E3ʿ H4ʿ H F34ʿ 6H4N3C ʿ H4ʿ CF$ ʿ EH ʿ -C3ʿ F Cʿ - J HC ʿ ; ED3$ H-4Cʿ Hʿ C-1143CCʿ $EOʿ C-NFʿ P - EOʿ H4ʿ ?3D HEʿ ʿ H4ʿ NH J E2ʿ Hʿ F3ʿ %EH 3D23ʿ H&ʿ $EOʿ P - EOʿ H4ʿ E 3ED3Dʿ P - EOʿ CF$ ʿ EH ʿ FH- ʿ G3 $Oʿ 2 3ʿ E&H4 J $ HEʿ F343H&ʿ Hʿ F Cʿ @H J J $ED E2ʿ <&& N34 ʿ H4ʿ CF$ ʿ J CQ3F$ 3ʿ F J C3 &ʿ Q3&H43ʿ F3ʿ ; E3 J O ʿ H4ʿ CF$ ʿ CF$ J 3&- Oʿ QEDHEʿ H4ʿ D3 34ʿ -1ʿ $EOʿ M$44 CHE ʿ 6H4 43CC ʿ I HC ʿ H4ʿ M-$4Dʿ NH J J 3Dʿ Hʿ F Cʿ @F$423 ʿ H4ʿ F NFʿ F3ʿ CF$ ʿ Q3ʿ NH J J $ED3Dʿ Hʿ D3&3ED ʿ H4ʿ CF$ ʿ NH J 13 ʿ F3ʿ MH 34EH4ʿ H4ʿ @H J J $ED E2ʿ <&& N34ʿ H&ʿ $FOʿ M$44 CHE ʿ 6H4 R 43CC ʿ H&ʿ I HC ʿ Hʿ D3 34ʿ -1ʿ Hʿ F3ʿ ; E3 J Oʿ H4ʿ Hʿ QEDHEʿ F3ʿ C$ J 3ʿ H4ʿ CF$ ʿ 3$+ʿ 9 H4DCʿ H4ʿ -C3ʿ $EOʿ H F34ʿ P 3$ECʿ Hʿ ED-N3ʿ C-NFʿ MH 34EH4ʿ H4ʿ @H J J $ED E2ʿ <&& N34ʿ H4ʿ $EOʿ H F34ʿ Hʿ J CQ3F$ 3ʿ Q3&H43ʿ F3ʿ ; E3 J O ʿ <4ʿ CF$ J 3&- Oʿ Hʿ QEDHEʿ H4ʿ D3 34ʿ -1ʿ $EOʿ M$44 CHE ʿ 6H4 43CC ʿ I HC ʿ H4ʿ M-$4Dʿ NH J J 3Dʿ Hʿ F3 4ʿ 43C13N 3ʿ @F$423 ʿ H4ʿ F NFʿ F3ʿ H4ʿ F3Oʿ CF$ ʿ Q3ʿ NH J J $ED3Dʿ Hʿ D3&3ED ʿ H4ʿ CF$ ʿ 3$ 3ʿ F Cʿ I HC ʿ Q3&H43ʿ 43 3 3D ʿ H4ʿ CF$ ʿ Q3ʿ &H-EDʿ C 331 E2ʿ HEʿ F Cʿ I HC ʿ H4ʿ CF$ ʿ FH Dʿ @H443C1HED3EN3ʿ Fʿ H4ʿ 2 3ʿ D N3ʿ H4ʿ E 3 23EN3ʿ Hʿ $EOʿ ʿ 3Q3 ʿ I 4$ 3 ʿ H4ʿ ; E3 J Oʿ ʿ H&ʿ 8 Cʿ P $(3C O ʿ 3 F34ʿ QOʿ >3 34C ʿ P 3CC$23C ʿ ? 2EC ʿ *H+3EC ʿ H4ʿ $EOʿ H F34ʿ 9 $OCʿ H&ʿ P 3$ECʿ F$ 3 34 ʿ H4ʿ CF$ ʿ 43$ ʿ H4ʿ 3E 34ʿ qE Hʿ $EOʿ *34 J Cʿ Fʿ $EOʿ C-NFʿ ʿ 3Q3 ʿ I 4$ 3 ʿ H4ʿ ; E3 J O ʿ FH- ʿ F3ʿ > N3EN3ʿ H&ʿ F3ʿ >H4Dʿ 8 2Fʿ D J 4$ ʿ H&ʿ F3ʿ C$ Dʿ # E 3Dʿ % E2DH J ʿ H4ʿ F3ʿ @H J R J CC HE34Cʿ &H4ʿ 3 3N- E2ʿ F3ʿ <&& N3ʿ H&ʿ >H4Dʿ 8 2Fʿ D J 4$ ʿ $&H43C$ D ʿ &H4ʿ F3ʿ * J 3ʿ Q3 E2 ʿ <4ʿ CF$ ʿ C 4 +3ʿ H4ʿ -C3ʿ $EOʿ H 3EN3ʿ 2 EC ʿ F Cʿ ?-134 H4ʿ <&& N34 ʿ Q3 E2ʿ Eʿ F3ʿ ; 3N- HEʿ H&ʿ F Cʿ <&& N3ʿ H4ʿ CF$ ʿ D CR HQ3Oʿ $EOʿ $ &- (@H J J $EDʿ H&ʿ F Cʿ ?-134 H4ʿ <&& N34ʿ ʿ H4ʿ CF$ ʿ D3C34 ʿ # Cʿ P $(3C O Cʿ ?34 N3 ʿ 3 34Oʿ I 34CHEʿ CHʿ H&&3ED E2ʿ Eʿ $EOʿ H&ʿ F3ʿ P $ 34Cʿ Q3&H43ʿ J 3E HE3Dʿ CF$ ʿ C-&&34ʿ G3$ F ʿ H4ʿ C-NFʿ H F34ʿ I -E CFR J 3E ʿ $Cʿ QOʿ $ʿ @H-4 J $4 $ ʿ CF$ ʿ Q3ʿ $ $4D3D

*F3ʿ <4D E$4O @H-4C3ʿ H&ʿ W$ ʿ EH ʿ Hʿ Q3ʿ E 34&343Dʿ F

ʿ I 4H D3Dʿ $ $OC ʿ $EDʿ Q3ʿ ʿ &-4 F34ʿ 3E$N 3D ʿ *F$ ʿ EH F E2ʿ Eʿ F Cʿ N ʿ NHE $ E3Dʿ CF$ ʿ Q3ʿ NHEC 4-3Dʿ Hʿ 3 3 J 1 ʿ $EOʿ <&& N34ʿ H4ʿ P $4 E3ʿ &4H J ʿ Q3 E2ʿ 14HN33D3Dʿ 2 EC ʿ QOʿ F3ʿ H4D E$4Oʿ @H-4C3ʿ H&ʿ >$ ʿ &H4ʿ @4 J 3Cʿ F343QOʿ NH2E T$Q 3ʿ ʿ $EDʿ $EOʿ @H J J $ED E2ʿ <&& N34ʿ Hʿ CF$ ʿ E32 3N ʿ D4ʿ 43&-C3 ʿ F3Eʿ D-3ʿ 11 N$ HEʿ CF$ ʿ Q3ʿ J $D3ʿ Hʿ F J ʿ &H4ʿ F$ I -41HC3 ʿ Hʿ D3 34ʿ H 34ʿ Hʿ F3ʿ @ ʿ P $2 C 4$ 3ʿ $EOʿ <&& N34ʿ H4ʿ P $4 E3ʿ NF$423Dʿ Fʿ $EOʿ @$1 $ ʿ @4 J 3 ʿ H4ʿ Fʿ $EOʿ H 3EN3ʿ H4ʿ <&&3EN3ʿ 2 EC ʿ F3ʿ I 34CHEʿ H4ʿ I 4H134 Oʿ H&ʿ $EOʿ H&ʿ 8 Cʿ P $(3C O Cʿ ?-QR (3N Cʿ 1-E CF$Q 3ʿ QOʿ F3ʿ +EH Eʿ >$ Cʿ H&ʿ F3ʿ >$ED ʿ H4ʿ FHʿ CF$ ʿ &- Oʿ E32 3N ʿ H4ʿ 43&-C3ʿ Hʿ $CC C ʿ $EOʿ I 3$N3ʿ <&& N34ʿ Eʿ $1143F3ED E2ʿ $EOʿ C-NFʿ <&&3ED34 ʿ CF$ ʿ -1HEʿ @HE N HEʿ F343H&ʿ Eʿ $EOʿ H&ʿ 8 Cʿ

P$(3C O C' @H-4 C' $' !1 #1 ! ' 23O) ,J' 8& #43 ()' Q3' D33 J 3D' H' Q3' 51,' ' ,' N$CF 343D' $ED' CF$ ' Q3' - 34 O' D C$Q 3D' H' FH D' $EO' @ ' H4' P $4O' <&& N3' H4' ; J 1 HO J 3E ' E' 8 C' P$(3C O C' ?34 N3 aED' $' @34 & N$ 3' H&' C-NF' @HE N HE' CF$ ' Q3' 4$EC J 3D' H' F3' ?3N43 $4O' H&' F3' D J 4$ O.' I4H D3D' $ $OC' F$ ' EH' I34CHE' FH' CF$ ' F$ 3' Q33E' 4 3D' Q3&H43' $EO' H&' F3' H4D E$4O' @H-4 C' H&' W$ ' &H4' $EO' @4 J 3' NH2E T$Q 3' E' C-NF' @H-4 C' CF$ 'Q3' F$Q 3' H' Q3' 1-E CF3D' &H4' F3' C$ J 3' QO' $EO' @H-4 J$4 $' H F34 C3' F$E' QO' N$CF 34 E2

8 ' ED' Q3' ' 3E$N 3D' * F$ ' EH' I34CHE' ^3 N31 ' $E' 1143E N3_' 3E C 3D' E' 8 C' P$(3C O C' ?34 N3' $C' $' P$4 E3' CF$ ' Q3' $Q 3' H' Q3' $443C 3D' H4' $+3E' F343&4H J' QO' F3' 9 44E ' H&' $EO' P$2 C 4$ 3' H4' H F34 C3' HE' $NNH-E ' H&' J O' B43$NF' H&' @HE 4$N ' H4' ; E2$23 J 3E ' H' C34 3' H4' H4+' &H4' $EO' ; J 1 HO34' $ED' F$ ' EH' P$4 E3' CF$ 'Q3' $Q 3' H' Q3' $443C 3D' $ED' $+3E' H- ' H&' 8 C' P$(3C O C' ?34 N3' &H4' G3Q 'QO' $EO ' I4HN3CC' H4' ; 3N- HE' F$ CH3 34' -E 3CC' $E' && D$ ' CF$ ' Q3' & 4C' D- O' J $D3' $ED' & 3D' QO' F3' I $ E &&' E' F3' ?- ' H4' QO' CH J 3' HE3' HE' F C' B3F$ &' &H4' F NF' EH' 633' CF$ ' Q3' $+3E ' F$ ' F3' H4 2 E$' G3Q ' &H4' F NF' F3' N HE' F$C' Q33E' Q4H-2F ' $ J H-E C' H' F3' ?- J' H&' * F 4 O' IH-EDC' $' 3$C ' H 34' $ED' $QH 3' $ ' @HC C' E' F$ ' H4' $EO' H F34' N HE ' $' P3 J H4$ED- J' H&' F NF' <$ F' CF$ ' Q3' J $4+3D' HE' F3' B$N+' H&' C-NF' I4HN3CC' $ED' H&' F3' 9 44E ' 24H-ED3D' F343HE ' $ED' E' N$C3' $EO' I34CHE' CF$ ' E3 34 F3 3CC' NHE 4$4O' F343 H' Q3' $443C 3D' ' CF$ ' Q3' $ &- ' &H4' $EO' 5-D23' H&' F3' @H-4 ' H- ' H&' F NF' F3' I4HN3CC' CF$ ' F$ 3' CC-3D' $ED' F3' a' F343QO' 43X- 43D' -1 J' @H J 1 $ E ' J $D3' QO' F3' I34CHE' $443C 3D' H4' QO' F C' ?-134 H4' <&& N34' $ED' -1HE' D-3' I4HH&' F343H&' Q3 E2' J $D3' H' F J' F$ ' C-NF' 443C ' $C' J $D3' NHE 4$4O' H' F3' E 3E ' $ED' P3$E E2' H&' F C' N ' H' D CNF$&23' F3' I34CHE' CH' $443C 3D' H- ' H&' @-C HDO ' $ED' $ CH' H' $ $4D' H' F3' I$4 O' NH J 1 $ E E2' C-NF' @HC C' $C' C-NF' 5-D23' CF$ ' F E+' 43CHEQ 3 ' &H4' F3' ' 3NH 34O' F343H&' F3' CF$ ' F$ 3' F3' +3' ' 3 J 3DO' QO' 9 4 ' H&' ; 3N- HE' $C' F$ ' F NF' F3' I $ E &&' E' F3' ?- ' J 2F ' F$ 3' F$D' E' N$C3' 5-D2 J 3E ' F$D' Q33E' 2 3E' &H4' F J' E' F3' N HE

P$4 E3C' EH ' H Q3' $+3E' &H' G3Q C' -ED34' S['

' ED' Q3' ' 3E$N 3D' * F$ ' ' CF$ ' Q3' $ &- ' &H4' F3' C$ D' >H4D' 8 2F' D J 4$ ' H4' F3' @H J J CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F' D J 4$' $&H43C$ D' H' J $+3' ' - 3C' $ED' 4 N 3C' H&' 9 $4' E 9 4 E2' -ED34' F3' 8 $ED' H&' F3' C$ D' >H4D' 8 2F' D J 4$ ' H4' -ED34' F3' 8 $EDC' H&' $EO' * H' H4' J H43' H&' F3' C$ D' @H J J CC HE34C' &H4' F3' Q3 34' MH 34E J 3E ' H&' 8 C' P$(3C O C' ' HO$' P$4 E3' 6H4N3C' F 3' HE' ?FH43' 3 F34' E' F C' % E2DH J' H4' E' $EO' H F34' H&' 8 C' P$(3C O C' GH J E HEC' H4' E' 6H43 2E' I$4 C' H- ' H&' C-NF' GH J E HEC' H4' 1E' QH$4D' $EO' ?F 1' H4' 3CC3 ' H&' 8 C' P$(3C O' EH ' Q3 E2' E' @H J J CC HE' H4' HE' QH$4D' $EO' * 4$EC1H4 ' H4' P 34NF$E ' ?F 1' H4' 3CC3 ' H4' $EO' @HE N ' ?F 1' H4' 8 - +' &H4' F3' I -E CF J 3E 'H&' P - EO' G3C34 HE ' J J H4$ O' B43$NF' H&' G CN 1 E3 ' , 32 3N ' H&' G - O' $ED' H F34' <&&3EN3C' $ED' &H4' Q4 E2 E2' <&&3ED34C' 2 EC ' F3' C$ J 3' < 5-C N3 ' F NF' ' - 3C' $ED' 4 N 3C' CF$ ' Q3' (-D N $ O' $+3E' EH N3' H&' QO' $ ' 5-D23C' $ED' E' $ ' @H-4 C' F$ CH3 34' $ED' @H1 3C' H&' F3' C$ J 3' CF$ ' $C' CHHE' $C' NHER 3E 3E O' J $O' Q3' $& 34' F3' C$ J 3' CF$ ' F$ 3' Q33E' J $D3 ' Q3' 4$EC J 3D' QO' F3' ?3N43 $4O' H&' F3' D J 4$ O' &H4' F3' * J 3' Q3 E2' ^N34 & 3D' -ED34' F C' 8 $ED_' H' F3' 5-D23C' H&' 8 ?' P$(3C O C' ?-134 H4' @H-4 C' $' !1 [#1 ! ' 234% #' $ED' 8& #43 ()' 43C13N 3 O' $ED' $ CH' H' F3' MH 34EH4C' H&' 8 C' P$(3C O C' GH J E HEC' Q4H$D'.' I4H D3D' $ $OC' F$ ' EH' I34CHE CF$

>H4D' 8 2F' D J 4$ ' KN' J $O' J $+3' 4 N 3C' &H4' F3' I -E CFR J 3E ' H&' P - EO' G3R C34 HE ' KN

CF$ ' Q3' C-Q(3N ' QO' C-NF' %- 3C' $ED' 4 N 3C' H' $EO' I -E CF J 3E ' 3
3ED E2' H' > &3' H4' > J Q' &H4' $EO' @4 J 3' F NF' C' EH ' 3 143CC3D' H' Q3'
CH' 1-E CF$Q 3' QO' F C' N ' EH4' E' $EO' P $EE34 ' EH4' -ED34' $EO' ' 32-R
$ HEC' F NF' CF$ ' EH ' $NNH4D' F' F3' I 4H C HEC' H&' F C' N

>H4D' 8 2F' ' ED' Q< ' 3E$N 3D ' * F$ ' ' CF$ ' Q3' $ &- ' &H4' F3' C$ D' >H4D'
DJ 4$ ' KN' 8 2F' DJ 4$ ' H4' F3' @H J J CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&'
J$O' 24$E ' >H4D' 8 2F' DJ 4$ ' $&H43C$ D' &4H J ' * J 3' H' * J 3' H' 24$E ' @H J J C '
&H4 FDD*E2/ ' #ED34' F3' 8 $ED' H&' F3' C$ D' >H4D' 8 2F' DJ 4$ ' H4' -ED34' F3'
M3E34$ ' 8 $EDC' H&' $EO' * HH4 J H43' H&' F3' C$ D' @H J J CC HE34C ' &H4' F3' FH D E2'
@H-4 C ' H&' M3E34$ ' $ED' H F34' @H-4 C J$4 $ ' F E' F3' #E 3D' % E2DH J ' H&'
J$4 $ ' KN ! ' " #' &' $!% #& ' +3' P $EE34' $C' F$C' Q33E' F343 H&H43'
-C3Dd' $ED' &H4' Q4 E2 E2' <&&3ED34C' 2 EC ' F3' 4 N 3C' H&' 9 $4' H'
5-C N3 ' H' 343N ' $ED' NHEC - 3' @H-4 C J$4 $ ' $C' 3 ' F E' F3' C$ D'
#E 3D' % E2DH J ' $ED' F3' " 1)' C 3C' $C' E' $EO' H&' 8 C' P $(3C O C'
M$44 CHEC' H4' GH J E HEC' H4' 3 C3 F343' Q3OHED' F3' ?3$C ' $ED' H' 24$E '
@H J J CC HEC' H4' 9 44E C' H' F3' <&& N34' H4' <&& N34C' NH J J $ED E2' E'
NF 3&' H4' NH J J $ED E2' &H4' F3' * J 3' Q3 E2' $EO' H&' 8 C' P $(3C O C' ' HO$ '
P $4 E3' 6H4N3C ' $C' 3 ' F E' F3' C$ D' #E 3D' % E2DH J ' $C' 3 C3 F343'
Q3OHED' F3' ?3$C ' &H4' NHE 3E E2 ' $C' 3 ' $C' &H4' $- FH4 T E2' $EO' <&& N34'
EH Q3 H ' F3' G32433' H&' $' 6 3 D' <&& N34' H' NHE 3E3 ' @H-4 C J$4 $ '
$C' <NN$C HE' J $O' 43X- 43' &H4' F3' * 4 $ ' H&' <&&3EN3C' NH J J 3D' QO'
$EO' H&' F3' ' HO$ ' P $4 E3' 6H4N3C' -ED34' F3 4' @H J J $ED ' F3 F34' F3'
C$ J 3' CF$ ' F$ 3' Q33E' NH J J 3D' Q3&H43' H4' $& 34' C-NF' <&& N34' CF$ '
F$ 3' $+3E' 1HE' F J C3 &' C-NF' @H J J $ED= $ED' $EO' I 34CHE' C-Q(3N ' H'
F C' N ' FH' CF$ ' E' $EO' H&' 8 C' P $(3C O C' GH J E HEC' Q3OHED' F3'
?3$C' H4' 3 C3 F343' NH J J ' $EO' H&' F3' <&&3EN3C' &H4' F NF' F3' J $O' Q3'
$Q 3' H' Q3' 4 3D' QO' @H-4 J$4 $ ' QO' 4 -3' H&' F C' N ' J $O' Q3'
4 3D' $ED' 1-E CF3D' &H4' F3' C$ J 3' E' $EO' H F34' I $4 ' H&' 8 C' P $(3C O C'
GH J E HEC' F343' Q3' J $O' F$ 3' NH J 3' $& 34' F3' @H J J CC HE' H&' F3'
<&&3EN3 ' $C' &' F3' <&&3EN3' F$D' Q33E' NH J J 3D' F343' C-NF' * 4 $ ' CF$ '
$+3' 1 $N3

@H J1HC HE' ' ED' Q3' ' 3E$N 3D ' * F$ ' $' M3E34$ ' @H-4 J$4 $ ' NHE 3E3D'
H&' M3E34$ ' E' EO' I $4 ' H&' F3' % E2 C' GH J E HEC ' @ " ! 3& ' / ' ' 1!#&' E ! F'
@H-4 C ' +,3)' %!1' 3 N31 3D _' H4' E' F3' ?3 3 J 3E C' H&' F3' 8 1 ' < & ' @H J R
J$4 $ 1$EO ' H4' 3 C3 F343 ' CF$ ' E' H4D34' H' F$ 3' I H 34' H' 4O' $' @H J J CR
C HE3D' <&& N34 ' H4' H' 1$CC' ?3E 3EN3' H&' G3$ F' H4' * 4$EC1H4 $ HE' HE'
$EO' <&&3ED34 ' NHEC C ' H&' EH ' 3CC' F$E' * F 4 33E' @H J J CC HE3D' <&& N34C '
E' F NF' ?3E 3EN3' H&' G3$ F' , E3' $ ' 3$C ' H&' F3' P 3 J Q34C' H&' $EO'
@H-4 ' NHEC C E2' H&' * F 4 33E' CF$ ' NHEN-4' ' $ED' &H4' F3' * 4 $ ' H&' $EO'
I 34CHE' EH ' H&' F3' ' $E+' H&' $' @H J J CC HE3D' <&& N34 ' F3' @H-4 ' C $ '
NHEC C ' H&' EH ' 3CC' F$E' , E3 ' $ED' C-NF' M3E34$ ' @H-4 C J$4 $ ' NHER
3E3D' E' " ! 3& ' H4' H# ' H&' F3' % E2 C' GH J E HEC ' ^3 N31 E2' / ' '
$ED' E ! F' +,3)' %!1 A' CF$ ' F$ 3' EH ' 3CC' F$E' ?3 3E ' $ED' E' / ' '
#&' E ! F' +,3)' %!1' EH ' 3CC' F$E' 6 3' @H J J CC HE3D' <&& N34C '
$ED' E' $ ' @$C3C' F343' C-NF' M3E34$ ' @H-4 C J$4 $ ' $C' $&H43C$ D' CF$ '
NHEC C ' H&' J H43' H4' &3 34' <&& N34C' F$E' * F 4 33E ' EH' 5-D2 J 3E ' H&'
G3$ F' CF$ ' 1$CC' FH- ' F3' @HEN-443EN3' H&' * H' * F 4DC' $ ' F3' 3$C '
H&' F3' P 3 J Q34C' 143C3E ' $ED' F3' I 43C D3E ' CF$ ' E' EH' @$C3' Q3' F3'
<&& N34' NH J J $ED E2' E' NF 3&' H4' MH 34EH4' H&' F3' M$44 CHE' F343' F3'
<&&3ED34' CF$ ' Q3' 4 3D ' EH4' -ED34' F3' G32433' H&' $' 6 3 D' <&& N34 ' -E 3CC'
F343' $' 6 3 D' <&& N34' N$EEH ' Q3' F$D ' EH4' E' $EO' @$C3' F$ CH3 34'
-ED34' F3' G32433' H&' $' @$1 $ E

' ED

ʻ ED ʻ Q3 ʻ ʻ 3E$N 3D ʻ * F$ ʻ $ ʻ $ED ʻ 3 34O ʻ @H-4 J $4 $ ʻ CF$ ʻ @H-4 C
F$ 3 ʻ I H 34 ʻ $ED ʻ - FH4 O ʻ $ED ʻ C ʻ F343QO ʻ 43X- 43D ʻ H ʻ $D J E C 34 ʻ F3 ʻ
43X- C 3 ʻ < $ F ʻ E ʻ F3 ʻ -C-$ ʻ 6H4 J ʻ H ʻ 3 34O ʻ I 34CHE ʻ FH ʻ CF$ ʻ Q3 ʻ
3 $ J E3D ʻ $C ʻ $ ʻ 9 E3CC ʻ Q3&H43 ʻ $EO ʻ C-NF ʻ @H-4 J $4 $ ʻ 143 H-C ʻ H ʻ F C ʻ
2 E2 ʻ ; D3EN3 ʻ F343$ ʻ

ʻ ED ʻ Q3 ʻ ʻ 3E$N 3D ʻ * F$ ʻ E ʻ C$ ʻ * 4 $ C ʻ QO ʻ M3E34$ ʻ @H-4 C ʻ I 4HN33D E2C ʻ
J $4 $ ʻ H ʻ Q3 ʻ F3 D ʻ QO ʻ 4 -3 ʻ H& ʻ F C ʻ N ʻ 3 34O ʻ P 3 J Q34 ʻ H& ʻ C-NF ʻ @H-4 ʻ H& ʻ @H-4 C ʻ
CF$ ʻ Q3&H43 ʻ $EO ʻ I 4HN33D E2C ʻ Q3 ʻ F$D ʻ F343-1HE ʻ $+3 ʻ F3 ʻ < $ FC ʻ &H4 ʻ J $4 $ ʻ
F$ ʻ I -41HC3 ʻ C3 ʻ &H4 F ʻ E ʻ F3 ʻ ?NF3D- 3 ʻ H ʻ F C ʻ N ʻ $EE3 3D ʻ Q3&H43
F3 ʻ 5-D23 ʻ D HN$ 3 ʻ H4 ʻ I 34CHE ʻ H&& N $ E2 ʻ $C ʻ C-NF ʻ $ED ʻ HE ʻ * 4 $ C ʻ QO ʻ
H F34 ʻ @H-4 C J $4 $ ʻ Q3&H43 ʻ F3 ʻ I 43C D3E ʻ F343H& ʻ FH ʻ $43 ʻ F343QO ʻ
43C13N 3 O ʻ $- FH4 T3D ʻ H ʻ $D J E C 34 ʻ F3 ʻ C$ J 3 ʻ $ED ʻ CH ʻ CHHE ʻ $C ʻ C-NF ʻ
< $ FC ʻ CF$ ʻ F$ 3 ʻ Q33E ʻ $D J E C 343D ʻ H ʻ F3 ʻ 43C13N 3 ʻ P 3 J Q34C ʻ F3 ʻ
I 43C D3E ʻ H& ʻ F3 ʻ @H-4 ʻ ^F$ E2 ʻ F J C3 & ʻ $+3E ʻ F3 ʻ C$ D ʻ < $ F_ ʻ H ʻ Q3 ʻ
$D J E C 343D ʻ H ʻ F J ʻ QO ʻ $EO ʻ C H4E ʻ P 3 J Q34 ʻ C ʻ F343QO ʻ $- FH4 T3D ʻ $ED ʻ
43X- 43D ʻ H ʻ $D J E C 34 ʻ H ʻ F3 ʻ 5-D23 ʻ D HN$ 3 ʻ H4 ʻ F3 ʻ I 34CHE ʻ H&& N $ E2 ʻ
$C ʻ C-NF ʻ F3 ʻ < $ F ʻ E ʻ F3 ʻ ?NF3D- 3 ʻ H ʻ F C ʻ N ʻ &H4 ʻ F$ ʻ I -41HC3 ʻ
$EE3 3D ʻ $ED ʻ F$ ʻ EH ʻ I 4HN33D E2 ʻ <4 * 4 $ ʻ CF$ ʻ Q3 ʻ F$D ʻ -1HE ʻ $EO ʻ
<&&3EN3 ʻ Q- ʻ Q3 33E ʻ F3 ʻ 8 H-4C ʻ H& ʻ ; 2F ʻ H& ʻ F3 ʻ @ HN+ ʻ E ʻ F3 ʻ P H J E2 ʻ
$ED ʻ 6H-4 ʻ E ʻ F3 ʻ & 34EHHE ʻ 3 N31 ʻ E ʻ @$C3C ʻ F NF ʻ J $O ʻ 43X- 43 ʻ $E ʻ
J J 3D $ 3 ʻ ; E1 3 ʻ $ED ʻ 3 N31 ʻ E ʻ 8 1 ʻ $#& !1 ʻ F343 ʻ C-NF ʻ * 4 $ ʻ
J $O ʻ Q3 ʻ F3 D ʻ Q3 33E ʻ F3 ʻ 8 H-4C ʻ H& ʻ ? ʻ E ʻ F3 ʻ P H4E E2 ʻ $ED ʻ 6H-4 ʻ E
F3 ʻ & 34EHHE

W ʻ ED ʻ F343$C ʻ ʻ J $O ʻ Q3 ʻ 3 13D 3E ʻ E ʻ J $EO ʻ @$C3C ʻ F$ ʻ <&& N34C ʻ <&& N34C
H& ʻ F3 ʻ >$ED ʻ 6H4N3C ʻ CFH- D ʻ Q3 ʻ $CCHN $ 3D ʻ F ʻ ' HO$ ʻ P $4 E3 ʻ <&& N34C
&H4 ʻ 3 ʻ I -41HC3 ʻ H& ʻ FH D E2 ʻ @H-4 C J $4 $ ʻ Q3 ʻ ʻ 3E$N 3D ʻ * F$ ʻ F3E ʻ
$ED ʻ $C ʻ H& 3E ʻ $C ʻ ʻ CF$ ʻ Q3 ʻ D33 J 3D ʻ E3N3CC$4O ʻ ʻ CF$ ʻ $ED ʻ J $O ʻ Q3 ʻ C ʻ ENHE ʻ
$ & - ʻ &H4 ʻ <&& N34C ʻ H& ʻ ' HO$ ʻ P $4 E3C ʻ $ED ʻ H& ʻ F3 ʻ >$ED 6H4N3C ʻ H ʻ C ʻ E ʻ (-EN HE ʻ HE
NHE(-EN HE ʻ HE ʻ $EO ʻ @H-4 J $4 $ ʻ H ʻ Q3 ʻ F3 D ʻ -ED34 ʻ F3 ʻ - FH4 O ʻ H& ʻ @H-4 C ʻ
F C ʻ N ʻ $ED ʻ H ʻ 14HN33D ʻ HE ʻ F3 ʻ * 4 $ ʻ H& ʻ $EO ʻ P $4 E3 ʻ <&& N34 ʻ , HE ʻ 7
NH J J CC HE3D ʻ <&& N34 ʻ G4- J J 34 ʻ H4 ʻ I 4 $ 3 ʻ P $E ʻ E ʻ +3 ʻ P $EE34 ʻ , ʻ
$ ʻ E 3E C ʻ $ED ʻ I -41HC3C ʻ $C ʻ & ʻ C-NF ʻ @H-4 J $4 $ ʻ 343 ʻ NH J 1HC3D ʻ H& ʻ
P $4 E3 ʻ <&& N34C ʻ HE O ʻ $ED ʻ F3 F34 ʻ F3 ʻ @H J J $ED E2 ʻ <&& N34 ʻ QO ʻ FHC3 ʻ
<4D34 ʻ C-NF ʻ @H-4 J $4 $ ʻ C ʻ $CC3 J Q 3D ʻ Q3 HE2 ʻ H ʻ F3 ʻ >$ED ʻ H4 ʻ F3 ʻ
P $4 E3 ʻ 6H4N3C ʻ $ED ʻ F3 ʻ <&& N34C ʻ NH J 1HC E2 ʻ C-NF ʻ @H-4 ʻ CF$ ʻ E ʻ C-NF ʻ
@$C3C ʻ $+3 ʻ ' $E+ ʻ $NNH4D E2 ʻ H ʻ F3 ʻ ?3E H4 O ʻ H& ʻ F3 4 ʻ @H J J CC HEC ʻ E
3 F34 ʻ ?34 N3

W ʻ ED ʻ Q3 ʻ ʻ 3E$N 3D ʻ * F$ ʻ $ ʻ M3E34$ ʻ @H-4 J $4 $ ʻ J $O ʻ C3E 3EN3 ʻ M3E34$ ʻ
$EO ʻ P $4 E3 ʻ H ʻ J 14 CHE J 3E ʻ CH $4O ʻ H4 ʻ H F34 C3 ʻ $ED ʻ F ʻ H4 ʻ @H-4 C ʻ
FH- ʻ F$4D ʻ >$QH-4 ʻ E ʻ $EO ʻ 1-Q N ʻ I 4 CHE ʻ H4 ʻ H F34 ʻ I $N3 ʻ F NF
F3 ʻ @H-4 ʻ J $O ʻ $11H E ʻ H4 ʻ H ʻ @H41H4$ ʻ I -E CF J 3E ʻ EH ʻ 3 3ED ʻ H&&3ED34C ʻ H
E2 ʻ H ʻ > &3 ʻ H4 ʻ > J Q ʻ &H4 ʻ J J H4$ O ʻ P CQ3F$ H-4 ʻ H4 ʻ , 32 3N ʻ H& ʻ J 14 CHE ʻ
G - O ʻ $ED ʻ $ ʻ M3E34$ ʻ @H-4 J $4 $ ʻ J $O ʻ E ʻ $DD HE ʻ H ʻ $EO ʻ C-NF ʻ
I -E CF J 3E ʻ $C ʻ $&H43C$ D ʻ C3E 3EN3 ʻ $ O ʻ <&&3ED34 ʻ H ʻ 6H4&3 -43 ʻ H& ʻ $ ʻ
D $E $23 ʻ $C ʻ H ʻ $DD HE$ ʻ I $O ʻ $ED ʻ I 3EC HE ʻ HE ʻ G CNF$423 ʻ $ED ʻ
F3ECH3 34 ʻ $EO ʻ M3E34$ ʻ @H-4 J $4 $ ʻ QO ʻ F NF ʻ $EO ʻ P $4 E3 ʻ CF$ ʻ
F$ 3 ʻ Q33E ʻ 4 3D ʻ $ED ʻ NHE N 3D ʻ H& ʻ $EO ʻ <&&3EN3 ʻ 1-E CF$Q 3 ʻ F ʻ G3$ F ʻ
CF$ ʻ EH ʻ F E+ ʻ F3 ʻ <&&3EN3 ʻ D3C34 E2 ʻ H& ʻ @$1 $ ʻ I -E CF J 3E ʻ C-NF ʻ
@H-4 J $4 $ ʻ J $O ʻ EC 3$D ʻ H& ʻ $ &4$4D E2 ʻ $ ʻ @H41H4$ ʻ I -E CF J 3E ʻ H4 ʻ
J 14 CHE J 3E ʻ $D(-D23 ʻ F3 ʻ <&&3ED34 ʻ $NNH4D E2 ʻ H ʻ F3 ʻ G32433 ʻ H& ʻ
F3 ʻ <&&3EN3 ʻ H ʻ Q3 ʻ 4$EC1H4 3D ʻ $C ʻ /$ 63 HE ʻ &H4 ʻ > &3 ʻ H4 ʻ &H4 ʻ $ ʻ N34 $ E ʻ
> ʻ * 34 J

*34 J ʻ H&ʻ =3$4C ʻ H4ʻ Hʻ 23E34$ ʻ ?34 N3ʻ $Cʻ $ʻ ?H D 34ʻ Eʻ $EOʻ @H41Cʻ $EDʻ Eʻ $EOʻ @H-E 4Oʻ H4ʻ I $N3ʻ F NFʻ 8 Cʻ P $(3C Oʻ CF$ ʻ Q3ʻ 1 3$C3Dʻ Hʻ D 43N ʻ H4ʻ &ʻ C-NFʻ <&&3ED34ʻ CF$ ʻ F$ 3ʻ 3E C 3Dʻ &H4ʻ $EOʻ J 3Dʻ *34 J ʻ J $Oʻ C3E 3EN3ʻ F Jʻ Hʻ C34 3ʻ &H4ʻ > &3ʻ $Cʻ $ʻ ?H D 34ʻ Eʻ $EOʻ @H41Cʻ F NFʻ 8 Cʻ P $(3C Oʻ CF$ ʻ Q3ʻ 1 3$C3Dʻ Hʻ D 43N ʻ($EDʻ C-NFʻ @H-4 ʻ J $O ʻ Eʻ $DD HEʻ Hʻ $EOʻ H F34ʻ I -E CF J 3E ʻ C3E 3EN3ʻ $EOʻ C-NFʻ <&&3ED34ʻ Hʻ &H4&3 ʻ $ ʻ D $E $23ʻ $Cʻ Hʻ EN43$C3ʻ H&ʻ I $O ʻ H4ʻ $Cʻ Hʻ I 3EC HEʻ HEʻ G CNF$423 ʻ F NFʻ J 2F ʻ H F34 C3ʻ F$ 3ʻ $NN4-3Dʻ Hʻ C-NFʻ <&&3ED34 ʻ I 4H D3Dʻ $ $OC ʻ F$ ʻ Eʻ $ ʻ @$C3Cʻ F343ʻ $ʻ @$1 $ ʻ I -E CF J 3E ʻ CF$ ʻ F$ 3ʻ Q33Eʻ $ $4D3Dʻ QOʻ $ʻ M3E34$ ʻ @H-4 J $4 $ ʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ 8 Cʻ P $(3C O ʻ EC 3$Dʻ H&ʻ N$-C E2ʻ C NFʻ ?3E 3EN3ʻ Hʻ Q3ʻ N$44 3Dʻ E Hʻ 3 3N-R HE ʻ Hʻ H4D34ʻ F3ʻ <&&3ED34ʻ Hʻ Q3ʻ 4$EC1H4 3Dʻ $Cʻ $ʻ 63 HE ʻ 3 F34ʻ &H4ʻ > &3 H4ʻ &H4ʻ $ʻ N34 $ Eʻ *34 J ʻ H&ʻ =3$4C ʻ $Cʻ Hʻ 8 Cʻ P $(3C Oʻ CF$ ʻ C33 J ʻ J 33 ʻ $EDʻ &ʻ $EOʻ I 34CHEʻ FHʻ CF$ ʻ F$ 3ʻ Q33Eʻ CHʻ $D(-D23Dʻ H4ʻ H4D343Dʻ Hʻ Q3ʻ 4$EC1H4 3D ʻ F3 F34 ʻ QOʻ F3ʻ ?3E 3EN3ʻ H&ʻ $ʻ @H-4 J $4 $ ʻ H4ʻ Eʻ 1-4C-$EN3ʻ H&ʻ C-NFʻ <4D34ʻ H&ʻ 8 Cʻ P $(3C O ʻ CF$ ʻ $& 34 $4DC ʻ FH- ʻ > N3EN3ʻ &4H J ʻ 8 Cʻ P $(3C Oʻ H4ʻ H F34ʻ $ &- ʻ - FH4 O ʻ 43 -4Eʻ Hʻ H4ʻ Q3ʻ &H-EDʻ $ ʻ $423ʻ Eʻ $EOʻ I $4 ʻ H&ʻ 8 Cʻ P $(3C O Cʻ GH J E HEC ʻ 3 F34ʻ Q4H$Dʻ H4ʻ $ ʻ 8 H J 3 ʻ H F34ʻ F$Eʻ F3ʻ I $N3ʻ Hʻ F NFʻ F3ʻ CF$ ʻ F$ 3ʻ Q33Eʻ $D(-D23Dʻ H4ʻ H4D3 3Dʻ Hʻ Q3ʻ 4$EC1H4 3D ʻ Q3&H43ʻ F3ʻ ; 1 4$ HEʻ H&ʻ F3ʻ *34 J ʻ J 3Dʻ QOʻ C-NFʻ ?3E 3EN3ʻ H4ʻ <4D34 ʻ $EOʻ C-NFʻ <&&3ED34 ʻ Q3 E2ʻ D- Oʻ NHE N 3Dʻ F343H& ʻ CF$ ʻ C-&&34ʻ G3$ Fʻ $Cʻ $ʻ 63 HE

I H 34Cʻ H&ʻ G C 4 N ʻ H4 M$44 CH ʻ_ @H-4 C ʻ- 4$$4 $

W ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ *F$ ʻ $ʻ G C 4 N ʻ H4ʻ M$44 CHEʻ @H-4 J $4 $ ʻ CF$ ʻ NHEC C ʻ H&ʻ EH ʻ 3CCʻ F$Eʻ ?3 3Eʻ @H J J CC HE3Dʻ <&& N34C ʻ 3 N31 ʻ Eʻ "! 3& ʻ / ʻ ʻ $EDʻ E ! Fʻ +,3)ʻ %!1 ʻ F343ʻ ʻ J $Oʻ NHEC C ʻ H&ʻ EH ʻ 3CCʻ F$Eʻ 6 3ʻ @H J J CC HE3Dʻ <&& N34C ʻ $EDʻ F$ ʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ C-NFʻ @H-4 ʻ $ FH-2Fʻ $CC3 J Q 3Dʻ -ED34ʻ F3ʻ - FH4 Oʻ H&ʻ $Eʻ N ʻ H&ʻ F3ʻ 143C3E ʻ ?3CC HEʻ H&ʻ I $4 $ J 3E ʻ &H4ʻ 1-E CF E2ʻ P - EOʻ $EDʻ G3C34 HE ʻ $EDʻ &H4ʻ F3ʻ >3 34ʻ I $O J 3E ʻ H&ʻ F3ʻ 4 J Oʻ $EDʻ F3 4ʻ \ -$4 34C ʻ Hʻ 14HN33Dʻ Hʻ 4Oʻ $EOʻ P $4 E3ʻ H4ʻ P $4 E3Cʻ Q3 H ʻ F3ʻ ' $E+ʻ H&ʻ $ʻ @H J R J CC HE3Dʻ <&& N34ʻ &H4ʻ $EOʻ <&&3EN3ʻ NH J J 3Dʻ QOʻ $EOʻ H&ʻ F3 J ʻ F 3ʻ ʻ C34 E2ʻ Eʻ NHE(-EN HEʻ Fʻ 8 Cʻ P $(3C O Cʻ >$EDʻ 6H4N3C ʻ $EDʻ Hʻ C3E 3EN3ʻ $EOʻ C-NFʻ P $4 E3ʻ Hʻ $EOʻ J 14 CHE J 3E ʻ CH $4Oʻ H4ʻ H F34 C3 ʻ $EDʻ Fʻ H4ʻ FH- ʻ F$4Dʻ >$QH-4 ʻ Eʻ $EOʻ 1-Q Nʻ I 4 CHEʻ H4ʻ H F34ʻ I $N3ʻ F NFʻ C-NFʻ @H-4 ʻ E $Oʻ $11H E ʻ H4ʻ Hʻ @H41H4$ ʻ I -E CF J 3E ʻ EH ʻ 3 3ED E2ʻ Hʻ > &3ʻ H4ʻ > J Q ʻ &H4ʻ J J H4$ O ʻ P CQ3F$ H-4 ʻ H4ʻ , 32 3N ʻ H&ʻ G - O ʻ $EDʻ C-NFʻ @H-4 ʻ J $O ʻ Eʻ $DD HEʻ Hʻ 3 F34ʻ H&ʻ F3ʻ C$ Dʻ I -E CF J 3E C ʻ C3E 3EN3ʻ $ʻ P $4 E3ʻ Hʻ 6H4&3 -43ʻ H&ʻ $ ʻ D $E $23ʻ $Cʻ Hʻ $DD HE$ ʻ I $O ʻ $EDʻ Hʻ I 3EC HEʻ HEʻ G CNF$423 ʻ &H4ʻ D C24$N3&- ʻ ʻ @HED-N ʻ Eʻ &- Oʻ J $ J E2ʻ H4ʻ E(-4 E2ʻ F J C3 &ʻ H4ʻ $EOʻ H F34ʻ P $4 E3ʻ $ ʻ F3ʻ EC $EN3ʻ H&ʻ C-NFʻ P $EE3 ʻ Fʻ E 3E ʻ Hʻ 43ED34ʻ F J C3 &ʻ H4ʻ C-NFʻ H F34ʻ P $4 E3ʻ -E& ʻ &<4 F3ʻ ?34 N3 ʻ Eʻ $ J 134 E2ʻ Fʻ F Cʻ ; O3Cʻ ʻ Eʻ J $ E234 E2 ʻ &3 2E E2ʻ G C3$C3 ʻ $QC3E E2ʻ F J C3 &ʻ &4H J ʻ 8 HC1 $ ʻ F 3ʻ -ED34ʻ P 3D N$ ʻ @$43 ʻ H4ʻ H F34ʻ 24HCCʻ H $ HEʻ H&ʻ F3ʻ ' - 3Cʻ H&ʻ $EOʻ 8 HC1 $ ʻ F343QOʻ &- Oʻ 14HD-N E2ʻ H4ʻ 224 $ E2ʻ G C3$C3ʻ H4ʻ E& 4 J O ʻ H4ʻ &- Oʻ D3 $O E2ʻ F Cʻ @-43 ʻ Eʻ 1-4 H E E2ʻ H4ʻ C3 E2ʻ MH 34E J 3E ʻ ? H43Cʻ ʻ Eʻ C 3$ E2ʻ $EOʻ P HE3Oʻ H4ʻ MHHDCʻ F3ʻ I 4H134 Oʻ H&ʻ $ʻ @H J 4$D3 ʻ H&ʻ $ʻ P $4Oʻ <&& N34 ʻ H4ʻ H&ʻ $EOʻ P $4Oʻ H4ʻ G C HE$ ʻ H4ʻ ' 32 J 3E $ ʻ P 3CC ʻ Eʻ 14HD-N E2ʻ &$ C3ʻ H4ʻ &4$-D- 3E ʻ NNH-E Cʻ H4ʻ ' 3 -4EC ʻ Eʻ 3 J Q3TT E2ʻ H4ʻ &4$-D- 3E Oʻ J C$11 O E2ʻ I -Q Nʻ P HE3Oʻ E 4-C 3Dʻ Hʻ F J ʻ H4ʻ &H4ʻ $EOʻ H F34ʻ D C24$N3&- ʻ @HED-N ʻ Q3 E2ʻ H&ʻ $ʻ N4-3 ʻ ED3N3E ʻ -EE$ -4$ ʻ &3 HE H-C ʻ H4ʻ &4$-D- 3E ʻ , $ -43 ʻ $EDʻ C-NFʻ <&&3ED34ʻ J $Oʻ Q3ʻ &-4 F34ʻ 1- ʻ -ED34ʻ ? H11$23C ʻ EH ʻ 3 N33D E2ʻ * H

$ M#> ;>P ' ' @$1 US' S!

*F 4DC' H&'F C' D$ O' I$O' #E ' F3' J H-E 'Q3' J$D3' 2HHD' H&'$EO' >HCC'
H4' IJ23' $4 C E2' H- ' H&'F C' P CNHED-N ' $ED' &'$EO' P$4 E3' CF$ 'Q3'
NHE N 3D' H&'$EO' C-NF' D C24$N3&- '@HED-N '$ED' CF$ 'Q3' C3E 3EN3D' H'
6H4&3 -43' H&'F C'@ $ J' H' I3EC HE' F3' @H-4 ' J$O' &-4 F34' 43NH J J3ED'
F J' H' Q3' D CNF$423D' F' 2EH J EO' &4H J' 8 C' P$(3C O C' ?34 N3' '$ED'
$EO' C-NF' @H-4 'CF$ 'D314 3' $' P$4 E3' &'NHE N 3D' H&' F3' @F$ 23' H&'
F$Q -$' G4-E+3EE3CC' H&'F C' H $EN3' E' 3-' H&'B334' H4' > X-H4' H4'
H&'$DD HE$' I$O' H4' H&'C-NF' I H4 HE' H&'F $' D$ O' I$O' &H4' $EO' I34 HD'
EH '3 N33D E2' * H' =3$4C' $C' J$O' $NNH4D' F' F3' ' - 3C' $ED' 4 N 3C'
H&' 9 $4' C-Q(3N ' H' '3C H4$ HE' HE' C-QC3X-3E '2HHD' @HED-N ' $ED' E'
$DD HE' H' $EO' C-NF' I-E CF J3E ' F3' @H-4 ' J$O' &' 'CF$ ' F E+' & '
C3E 3EN3' C-NF' <&&3ED34' H' J14 CHE J3E 'H4' H' @H41H4$' I-E CF J3E '
14H D3D' F$' E' $ ' F3' $&H43 E2' @$C3C' F3' ?3E 3EN3' H&' $' G C 4 N '
H4' M$44 CHE' @H-4 J$4 $' CF$ 'Q3' NHE& 4 J3D' QO' F3' M3E34$' <&& N34
MH 34EH4' H4' ?3E H4' <&& N34' E' @H J J$ED' H&' F3' G C 4 N ' M$44 CHE
C $ED' H4' @H HEO ' $ED' F3' I43C D3E 'H&' 3 34O' @H-4 J$4 $' H F34'
F$E' $' M3E34$ '@H-4 J$4 $ 'EH 'Q3 E2' -ED34' F3' '$E+' H&'@$1 $ E'
CF$ 'Q3' $11H E 3D' QO' F3' <&& N34' NHE 3E E2' C-NF' @H-4 J$4 $.' I4HR
D3D' $ $OC' F$' C-NF' @H-4 J$4 $' CF$ ' EH ' F$ 3' IH 34' H' 1$CC'
$EO' ?3E 3EN3' H&' G3$ F' H4' *4$EC1HH4 $ HE

W ' ED' Q3' '3E$N 3D' *F$' E' @$C3C' H&' P- EO' $ED' 24HCC' EC-Q ' G CHE$
H4D E$ HE' H4' $EO' <&&3EN3C' NH J J 3D' HE' F3' > E3' H&' P$4NF' F3'
<&&3EN3' J$O' Q3' 4 3D' QO' $' G CHE$' @H-4 J$4 $ '$ED' F3' ?3E 3EN3'
NHE& 4 J3D' $ED' N$44 3D' E H' 3 3N- HE' HE' D 3' ?1H 'QO' F3' <&& N34' E
F3' J J3D $ 3' @H J J$ED' H&' F3' *4HH1C' 14H D3D' F$' F3' ?3E 3EN3'
CF$ 'EH ' 3 N33D' F$' F NF' $' G CHE$' @H-4 J$4 $' C' NH J13 3E '
H' $ $4D' ' $ED' $' G CHE$' @H-4 J$4 $' J$O' C3E 3EN3' $EO' P$4 E3'
H' J14 CHE J3E ' F' H4' FH- ' F$4D' >$QH-4 ' && 4' $EO' I34 HD' EH '
3 N33D E2' *F 4 O' G$OC' $ED' H' CH $4O' @HE& E3 J3E 'EH ' 3 N33D E2'
* 3E O' G$OC

W ' ED' Q3' ' 3E$N 3D' *F$' 'CF$ 'Q3' $ &-'&H4' $EO' <&& N34' G3 $NF J3E '
NH J J$ED E2' $EO' D C EN ' G3 $NF J3E 'H4' IH4 HE' H&' 8 C' P$(3C O C' @H C'
'HO$' P$4 E3' 6H4N3C' F NF' J$O' $'$EO' * J3' Q3' C34 E2' H- ' H&' 8 C'
P$(3C O C' GH J E HEC' -1HE' @H J1 $ E' J$D3' H' F J' H&' $EO' <&&3EN3'
NH J J 3D' 2 EC' F3' I4H134 O' H4' I34CHE' H&' $EO' EF$Q $E ' H&' H4'
'3C D3E ' E' $EO' C-NF' @H-E 4 3C' QO' $EO' I34CHE' -ED34' F3' J J3D $ 3'
@H J J$ED' H&' $EO' C-NF' <&& N34' H' C- J JHE' $ED' N$-C3' H' Q3' $CC3 J Q 3D
$' @H-4 J$4 $ ' F NF' CF$ ' NHEC C 'H&' EH ' 3CC' F$E' *F433' <&& N34C'
&H4' F3' *4 $ 'H&' $EO' C-NF' I34CHE 'EH FC $ED E2' C-NF' <&& N34' CF$ '
EH 'F$ 3' 43N3 3D' $EO' 9 44E '3 J1H 34 E2' F J' H' $CC3 J Q 3' @H-4 C'
J$4 $ ' $ED' 3 34O' C-NF' @H-4 J$4 $' CF$ ' F$ 3' F3' C$ J3' IH 34C'
E' 432$4D' H' C- J JHE E2' $ED' 3 $ J E E2' 9 E3CC3C' *4 $' H&' $ED'
?3E 3EN3' -1HE' <&&3ED34C' $C' $43' 24$E 3D' QO' F C' N ' H' M3E34$'
@H-4 C J$4 $.' I4H D3D' F$' EH' ?3E 3EN3' H&' $EO' C-NF' @H-4 '
J$4 $' CF$ 'Q3' 3 3N- 3D' -E ' F3' M3E34$' NH J J$ED E2' E' NF 3&'
F3' 4 J O' H&' F NF' F3' G CHE 'B4 2$D3 'G3 $NF J3E 'H4' I$4 O' H'
F NF' $EO' I34CHE' CH' 4 3D' CF$ ' Q3 HE2' CF$ ' F$ 3' $114H 3D' $ED'
NHE& 4 J3D' F3' C$ J3

W ' ED' Q3' '3E$N 3D' *F$ '3 34O' P$4 E3' NHE N 3D' H&' G3C3 7' P$4+ E2' $
HE' QO' $' M3E34$ ' $' G C 4 N ' H4' $' M$44 CHE' @H-4 J$4 $ ' CF$ ' G3C34 34
F343-1HE

F343-1HE &H4&3 $ D $E $23 $C H $DD HE$ I $O $ED H I 3EC HE HE G CNF$423 E $DD HE H $EO H F34 I-E CF J 3E F NF C-NF @H-4 J $O $ $4D ($ED CF$ Q3 $ &- &H4 $EO M3E34$ @H-4 J $4 $ $CC3 J Q 3D H 4O F3 @4 J 3 H& G3C34 HE E $DD HE H $EO H F34 I-E CFE$3E C-NF @H-4 J $O $ $4D H D 43N F$ F3 <&&3ED34 Q3 J $4+3D HE F3 >3& ? D3 * H ENF3C Q3 H F3 4 J I F F3 >3 34 G C-NF >3 34 EH H Q3 3CC F$E 8 $ & $E ENF HE2 $ED H Q3 J $4+3D <E F3 ?+ E F CH J 3 E+ H4 M-E1H D34 H4 H F34 I 431$4$ HE CH $C H Q3 C Q 3 $ED NHEC1 N-H-C $ED EH $Q 3 H Q3 HQ 34$ 3D

*4 $ $ED *$E CF E3E &H4 ; JR Q3TT 3 J 3E W ED Q3 3E$N 3D *F$ 3 34O <&& N34 $ED H F34 I 34CHE 3 J 1 HO3D E F3 @$43 H4 G C 4 Q- HE H& $EO P HE3O I 4H C HEC I H4$23 H4 ? H43C Q3 HE2 E2 H 8 C P $(3C O C ' HO$ P $4 E3 6H4N3C H4 &H4 F3 4 # C3 FH CF$ 3 J Q3TT 3 H4 &4$-D- 3E O J C$11 O H4 N$-C3 H Q3 3 J Q3TT 3D H4 &4$-D- 3E O J C$11 3D H4 CF$ &- O C-&&34 $EO P HE3O I 4H C HEC 6H4$23 4 J C @ H F3C J J-E HE H4 H F34 P $4O H4 ' HO$ P $4 E3 ? H43C H Q3 3 J Q3TT 3D H4 &4$-D- 3E O J C$11 3D H& H Q3 C1H 3D H4 D$ J $23D J $O Q3 4 3D &H4 F3 ?$ J 3 QO $ M3E34$ @H-4 J $4 $ F NF C F343QO 3 J 1H 343D H $D(-D23 $EO C-NF <&&3ED34 H Q3 4$EC1H4 3D $C $ 63 HE &H4 > &3 H4 &H4 $EO N34 $ E *34 J H& =3$4C H4 H C-&&34 C-NF I-E CF J 3E H& 6 E3 J 14 CHE J 3E G C J CC$ &4H J 8 C P $(3C O C ?34 N3 F EN$1$N O H&C34 E2 8 C P $(3C O E $EO <&& N3 @ H4 P $4O $C C-NF @H-4 CF$ F E+ & $NNH4D E2 H F3 , $ -43 $ED G32433 H& F3 <&&3EN3 ($ED F$ C-NF I 34CHE CF$ E $DD HE H $EO H F34 I-E CF J 3E J $+3 2HHD $ F C H E ; 13EN3 F3 >HCC $ED G$ J $23 F343QO C-C $ E3D H Q3 $CN34 $ E3D QO C-NF @H-4 J $4 $ F NF CF$ F$ 3 I H 34 H C3E 3EN3 F3 <&&3ED34 H Q3 J 14 CHE3D -E F3 C$ J 3 $ED $EO 6 E3 F NF J $O Q3 J 1HC3D Q3 1$ D $ED C$ C& 3D H 8 C P $(3C O

9 3CC3C W ED Q3 3E$N 3D *F$ $ 9 E3CC3C F3 F34 P $4O H4 1 F34 C3 D- O C-J J HE3D QO F3 5-D23 D HN$ 3 H4 F3 I 34CHE $1R 1H E 3D H H&& N $ 3 $C C-NF H4 QO F3 I 43C D3E H& $ G C 4 N H4 M$4R 4 CHE @H-4 J $4 $ H 2 3 ; D3EN3 HE $EO @H-4 J $4 $ CF$ D-4 E2 F3 4 E3N3CC$4O 3ED$EN3 E C-NF @H-4 C $ED E 2H E2 H $ED 43 -4ER E2 &4H J F3 C$ J 3 Q3 14 323D &4H J 443C $ED CF$ & E3 34 F3 3CC $443C 3D NHE 4$4O H F3 E 3E H& F C N Q3 &H4 F F D CNF$423D H- H& @-C HDO QO F3 <4D34 H& F3 @H-4 H- H& F NF F3 9 4 H4 I 4N33CC &H4 C-NF 443C $C CC-3D $ED & C-NF @H-4 CF$ EH Q3 F3E C E2 F3E QO F3 <4D34 H& $EO 5-D23 H& F3 @H-4 H& % E2 C B3ENF !1 #1 ! , 234% # H4 H& F3 @H-4 C H& ?3CC HE E +' , % #& H4 @H-4 C H& >$ 3 C3 F343 $C F3 @$C3 J $O 43X- 43 -1HE C Q3 E2 J $D3 $113$4 H C-NF @H-4 H4 5-D23 QO && D$ E $ C-J J $4O 9 $O F$ C-NF 9 E3CC $C $ 43C 3D E 2H E2 H H4 43 -4E E2 &4H J H4 $ 3ED E2 C-NF @H-4 J $4 $ $ED 3 34O I 34CHE CH D- O C-J J HE3D $C $ 9 E3CC FH CF$ EH $ 3ED H4 $ 3ED E2 CF$ 43&-C3 H Q3 C H4E H4 Q3 E2 C H4E CF$ 43&-C3 H 2 3 ; D3EN3 $ $EO C-NF @H-4 J $4 $ H4 H $EC 34 $ C-NF \-3C HEC $C F3 @H-4 J $O 32$ O D3 J $ED H& F J CF$ Q3 $Q 3 H Q3 $ $NF3D 14HN33D3D 2 EC $ED 1-E CF3D E F3 @H J H& % E2 C B3ENF $!1 #1 ! H4 234% # H4 @H-4 H& ?3CC HE H4 H F34 @H-4 H& >$ E +' , % #& H4

H4' 3 C3 F343 ' E' F3' C$J3' P$EE34' $C' I 34CHEC' D CHQ3O E2' F3' ?-Q1H3E$
H' 3C &O' H4' $EO' C J $4' I 4HN3CC' H&' C-NF' @H-4 C' $43' $Q 3' H' Q3' 14HR
N33D3D' 2 EC ' EED' 1-E CF3D

W ' ED' Q3' ' 3E$N 3D ' *F$ ' F3E3 34' 8 C' P$(3C O' CF$ ' E 3ED' *4$EC1H4 '
$EO' ?3E 3EN3' H&' *4$EC1H4 $ HE' H' Q3' N$44 3D' E H' 3 3N- HE ' H4' CF$ ' HE H&'
Q3' 24$N H-C O' 1 3$C3D' H' 3 3ED' 8 C' ' HO$ ' P 34NO ' -1HE' @HED HE' H&' <&&3ED34C'
*4$EC1H4 $ HE ' H' $EO' <&&3ED34' C-Q(3N ' H' F3' I -E CF J 3E ' H&' G3$ F'
QO' F3' ?3E 3EN3' H&' $' M3E34$ ' @H-4 J$4 $ ' C-NF' ?3E 3EN3' ^ H23 F34'
F' 8 C' P$(3C O C' I 3$C-43' -1HE' F3' C$J3' E' @$C3C' H&' @H J J- $ HE'
H&' ?3E 3EN3 _' CF$ ' Q3' EH & 3D' E' 9 4 E2' QO' F3' >H4D' 8 2F' D J 4$ '
H4' QO' $EO' * H' H4' J H43' H&' F3' @H J J CC HE34C' &H4' 3 3N- E2' F3' C$ D'
<&& N3' H&' >H4D' 8 2F' D J 4$ ' &H4' F3' * J 3' Q3 E2' H' $EO' 5-C N3' H&'
F3' % E2 C' B3ENF ' @H J J HE' 8 3$C ' H4' B$4HE' H&' F3' ; NF3X-34 ' $ED'
F343-1HE' C-NF' 5-C N3' H4' B$4HE' CF$ ' J $F3' $E' <4D34' &H4' F3' *4$ECR
1H4 $ HE' H&' C-NF' <&&3ED34' -1HE' F3' *34 J C' $ED' &H4' F3' * J 3' F NF'
CF$ ' Q3' C13N & 3D' E' C-NF' , H & N$ HE ' $ED' CF$ ' $ CH' DH' $ ' C-NF'
H F34' N C' NHEC3X-3E ' -1HE' F3' C$J3' $C' $EO' C-NF' 5-C N3' H4' B$4HE'
C' $- FH4 T3D' H' J $+3' HE' DH' QO' $EO' ? $ - 3' H4' ? $ - 3C' E' &H4N3' $ ' F3'
* J 3' H&' J $+ E2' $EO' C-NF' <4D34C' E' 43 $ HE' H' F3' *4$EC1H4 $ HE' H&'
<&&3ED34C' ' $ED' C-NF' <4D34 ' $ED' H F34' N C' H' F3' CH' J $D3' $ED' DHE3'
$C' $&H43C$ D ' ?F$ ' Q3' HQ3O3D' $ED' 3 3N- 3D' QO' C-NF' I 34CHE' E' FHC3'
@-C HDO' C-NF' <&&3ED34' CF$ ' $ ' F$ ' * J 3' F3 ' $ED' QO' $ ' H F34' I 34R
CHEC' FH J ' ' J $O' NHEN34E ' $ED' CF$ ' Q3' $C' 3&&3N -$ ' $ED' F$ 3' $ ' F3' '
C$J3' @HEC3X-3EN3C $C' $EO' <4D J ' J $D3' -ED34' F3' - FH4 O' H&' $EO'
? $ - 3' F' 43C13N ' H' $EO' <&&3ED34' E' C-NF' ? $ - 3' J 3E H-3D' ' $ED'
3 34O' ?F34 &&' M$H 34' %33134' MH 34EH4 ' H4' ?-134 E 3ED3E ' FH J ' '
J $O' NHEN34E ' $ED' $ ' @HEC $Q 3C' $ED' H F34' I 34CHEC ' CF$ ' Q3' QH-ED'
H' HQ3O' F3' $&H43C$ D' <4D34' $ED' <4D34C ' Q3' $CC C $E ' E' F3' ; 3N- HE'
F343H&' ' $ED' Q3' $Q 3' H' F3' $$J3' I -E CF J 3E ' &Q4' G CHQ3D 3EN3' H4'
E 344-1 E2' F3' ; 3N- HE' H&' F3' C$J3 ' $C' F3O' H- D' Q3' &' F3' C$J3'
F$D' Q33E' J $D3' -ED34' F3' - FH4 O' H&' $EO' H 3*' N ' H&' I $4 $ J 3E '
$ED' 3 34O' I 34CHE' CH' H4D343D' H' Q3' 4$EC1H4 3D' $C' $&H43C$ D' CF$ ' Q3'
C-Q(3N ' 43C13N 3 O' H' $ ' $ED' 3 34O' F3' I 3E$ 3C' $ED' I 4H C HEC'
J $D3' QO' >$ ' $ED' E' &H4N3' NHEN34E E2' I 34CHEC' NHE N 3D' H&' $EO'
@4 J 3 ' $ED' C3E 3EN3D' H' Q3' 4$EC1H4 3D ' H4' 43N3 E2' 8 C' P$(3C O C'
I $4DHE' HE' @HED HE' H&' * $EC1H4 $ HE ' $ED' &4H J ' F3' * J 3' F3E'
C-NF' <4D34' H&' *4$EC1H4 $ HE' CF$ ' Q3' J $D3 ' 3 34d' >$ ' $ED' ? $ - 3'
EH ' E' &H4N3' H-NF E2' F3' ; CN$13' H&' 63 HEC' CF$ ' $11 O' H' C-NF'
<&&3ED34 ' $ED' H' $ ' I 34CHEC' $ D E2 ' $Q3 E2 ' NHE 4 E2 ' H4' $CC C E2'
E' $EO' ; CN$13' H4' E 3ED3D' ; CN$13' H&' $EO' C-NF' <&&3ED34 ' $ED' F3'
5-D23' FH' CF$ ' J $+3' $EO' <4D34' H&' *4$EC1H4 $ HE' $C' $&H43C$ D' CF$ '
D 43N ' F3' , H & N$ HE' H&' 8 C' P$(3C O C' I 3$C-43 ' $ED' F C' H E' <4D34'
J $D3' F343-1HE ' H' Q3' & 3D' $ED' +31 ' H&' ' 3NH4D' E' F3' <&& N3' H&' F3'
@ 34+' H&' F3' @4H E' H&' F3' @H-4 ' H&' % E2 C' B3ENF' ' $QD' F3' C$ D' @ 34+'
CF$ ' F$ 3' $' 633' H&' * H' ?F E2C' $ED' ? 13EN3' HE O' &H4' & E2' F3'
C$J3 ' $ED' CF$ ' HE' 11 N$ HE ' D3 34' $' @34 & N$ 3' E' 9 4 E2' ^EH '
$+ E2' J H43' F$E' * H' ?F E2C' $ED' ? 13EN3' &H4' F3' C$J3_' H' C-NF'
<&&3ED34' H4' H' $EO' I 34CHE' $11 O E2' E' F C' H4' E' 8 C' P$(3C O C' B3F$ &'
CF3 E2' F3' @F4 C $E' $ED' ?-4E$J3' H&' C-NF' <&&3ED34 ' F3' I $N3'
F343' F3' @H-4 ' $C' F3 D' Q3&H43' FH J ' F3' $C' NHE N 3D ' $ED' F3'
@HED HEC' HE' F NF' F3' <4D34' H&' *4$EC1H4 $ HE' $C' 2 3E' ' F NF'
@34 & N$ 3' CF$ ' Q3' C-&& N 3E ' I 4HH&' H&' F3' @HE < HE' $ED' ?3E 3EN3'
P J ' H&

U`M#> B>P ʻ ʻ @$1U!

H&ʻC-NFʻ <&&3ED34ʻ$EDʻE5CH H& Q ʻS) 34JCʻ HEʻ F NFʻ C-NFʻ <4D34ʻ&H4ʻ F Cʻ ʻ
*4$EC1H4 $ HEʻ $Cʻ 2 3Eʻ Fʻ @H-4ʻ $EDʻ Eʻ $EOʻ I4HN33D E2ʻ
F343 Eʻ ʻ J$Oʻ Q3ʻ E3N3CC$4Oʻ Hʻ EX- 43ʻ E Hʻ F3ʻ C$J3

J14 CHER J3Eʻ H&ʻ ʻ<&&3ED34C

W >ʻ EDʻ Q3ʻ ʻ 3E$N 3Dʻ *F$ʻ Eʻ $ʻ @$C3Cʻ H&ʻ $EOʻ I34CHEʻ Q3 HE2 E2ʻ Hʻ F3ʻ 'HO$ʻ P$4 E3ʻ 6H4N3Cʻ Q3 E2ʻ C3E 3EN3Dʻ QOʻ $EOʻ M3E34$ʻ H4ʻ H F34ʻ @H-4 E&&4 $ʻ Hʻ J14 CHE J3Eʻ Eʻ $EOʻ 8H-C3ʻ H&ʻ @H443N HEʻ @H J JHEʻ M$H ʻH4ʻ I-Q Nʻ I4 CHEʻ F3ʻ M$H 34Cʻ $EDʻ %33134Cʻ H&ʻ C-NFʻ 8H-C3Cʻ H&ʻ @H443N HEʻ M$H Cʻ H4ʻ I4 CHECʻ 43C13N 3 Oʻ CF$ʻ 43N3 3ʻ E Hʻ F3 4ʻ @-C HDOʻ 3 34Oʻ C-NFʻ I34CHEʻ -1HEʻ 43N3 E2ʻ $Eʻ <4D34ʻ Eʻ 9 4 E2ʻ &H4ʻ F$ʻ I-41HC3ʻ &4H Jʻ F3ʻ @H J J$ED E2ʻ <&& N34ʻ H&ʻ F3ʻ G C HEʻ $ʻ F NFʻ C-NFʻ @H-4 J$4 $ʻ CF$ʻ F$ 3ʻ Q33Eʻ F3 Dʻ H23 F34ʻ Fʻ $ʻ @H1Oʻ H&ʻ F3ʻ ?3E 3EN3ʻ $ 3C 3Dʻ QOʻ F3ʻ C$ Dʻ @H JR J$ED E2ʻ <&& N34ʻ $EDʻ CF$ʻ D3 $ Eʻ F Jʻ Eʻ @HE& E3 J3Eʻ Eʻ F3ʻ P$EE34ʻ $EDʻ &H4ʻ F3ʻ I34 HDʻ J3E HE3Dʻ E4 C-NFʻ ?3E 3EN3ʻ H4ʻ -E ʻ F3ʻ Q3ʻ D- Oʻ D CNF$423Dʻ H4ʻ D3 34ʻ F Jʻ -1ʻ Hʻ C-NFʻ I34CHEʻ 14HD-N E2ʻ $Eʻ <4D34ʻ Eʻ 9 E2ʻ Hʻ F$ʻ ;&&3Nʻ &4H Jʻ $EOʻ C-NFʻ @H JR J$ED E2ʻ <&& N34ʻ $ FH-2Fʻ F3ʻ &34 QDʻ &H4ʻ F NFʻ F3ʻ $Cʻ NH J J 3Dʻ CF$ʻ EHʻ F$ 3ʻ 3 1 43Dʻ($1Dʻ 3 34Oʻ C-NFʻ M$H 34ʻ H4ʻ %33134ʻ 43&-C E2ʻ H4ʻ E32 3N E2ʻ Hʻ 43N3 3ʻ $EDʻ NHE& E3ʻ $EOʻ C-NFʻ I34CHEʻ 1-4C-$Eʻ Hʻ C-NFʻ ?3E 3EN3ʻ H4ʻ Hʻ D CNF$423ʻ F Jʻ #1HEʻ $EOʻ C-NFʻ <4D34ʻ CF$ ʻ HEʻ Q3 E2ʻ NHE N 3Dʻ F343H&ʻ &H4&3 ʻ &H4ʻ 3 34Oʻ C-NFʻ <&&3EN3ʻ F3ʻ ?-Jʻ H&ʻ <E3ʻ F-ED43Dʻ IH-EDC

I$D3ʻ H&ʻ @HER & E3 J3Eʻ H&ʻ <&&3ED34Cʻ J$Oʻ Q3ʻ NF$E23D

W Wʻ EDʻ Q3ʻ ʻ 3E$N 3Dʻ *F$ʻ F3E3 34ʻ ʻ CF$ʻ Q3ʻ D33 J3Dʻ 3 13D 3Eʻ ʻ CF$ʻ Q3ʻ $ &-ʻ &H4ʻ F3ʻ C$ Dʻ >H4Dʻ 8 2Fʻ D J 4$ʻ H4ʻ F3ʻ @H J J CC HE34Cʻ &H4ʻ 3 3N- E2ʻ F3ʻ <&& N3ʻ H&ʻ >H4Dʻ 8 2Fʻ D J 4$ʻ &H4ʻ F3ʻ * J3ʻ Q3 E2ʻ QOʻ $EOʻ <4D34ʻ Eʻ 9 4 E2ʻ Hʻ Q3ʻ J$D3ʻ &H4ʻ F$ʻ I-41HC3ʻ -ED34ʻ F3ʻ 8$EDʻ H&ʻ F3ʻ C$ Dʻ >H4Dʻ 8 2Fʻ D J 4$ʻ H4ʻ F3ʻ 8$EDCʻ H&ʻ * Hʻ H4ʻ J H43ʻ H&ʻ F3ʻ @H J J CC HE34Cʻ $&H43C$ Dʻ $EDʻ F3ʻ ?3$ʻ H&ʻ F3ʻ <&& N3ʻ H&ʻ D J 4$ Oʻ Hʻ NF$E23ʻ F3ʻ I$N3ʻ H&ʻ @HE& E3 J3Eʻ 3 143CC3Dʻ Eʻ $EOʻ ?3E 3EN3ʻ H&ʻ $ʻ @H-4 J$4 $ʻ Hʻ Q3ʻ F3 Dʻ -ED34ʻ F3ʻ - FH4 Oʻ H&ʻ F Cʻ N ʻ 3 F34ʻ 143 H-Cʻ Hʻ F3ʻ @H J J J3Eʻ H&ʻ 3ʻ <&&3ED34ʻ H4ʻ -ED34ʻ $EOʻ P NFʻ ?3E 3EN3ʻ H4ʻ $ʻ $EOʻ * J3ʻ D-4 E2ʻ F3ʻ I34 HDʻ H&ʻ F Cʻ @HE& E3 J3E ʻ $EDʻ CHʻ &4H Jʻ * J3ʻ Hʻ * J3ʻ $Cʻ H& 3Eʻ $Cʻ ʻ CF$ʻ Q3ʻ D33 J3Dʻ 43X- C 3ʻ(ʻ $EDʻ F3ʻ M$H 34ʻ 4 : H F34ʻ I34CHEʻ F$ E2ʻ F3ʻ @-C HDOʻ H&ʻ C-NFʻ <&&3ED34ʻ CF$ ʻ J J3D $ 3 Oʻ HEʻ F3ʻ '3N3 1ʻ H&ʻ $EOʻ C-NFʻ <4D34ʻ 43 J H 3ʻ $EDʻ NHE 3Oʻ C-NFʻ <&&3ED34ʻ Hʻ F3ʻ M$H ʻ I4 CHEʻ H4ʻ 8H-C3ʻ H&ʻ @H443N HEʻ J3E HE3Dʻ Eʻ F3ʻ C$ Dʻ <4D34ʻ CHʻ Hʻ Q3ʻ J$D3ʻ $Cʻ $&H43C$ Dʻ ^&H4ʻ F3ʻ @F$423Cʻ H&ʻ F NFʻ '3 J H $ʻ $EDʻ @HE 3OR $EN3ʻ F3ʻ CF$ʻ Q3ʻ $ H 3Dʻ $ʻ ?-Jʻ EHʻ 3 N33D E2ʻ <E3ʻ ?F E2ʻ 5!ʻ P 3_ʻ $EDʻ 3 34Oʻ M$H 34ʻ H4ʻ %33134ʻ H&ʻ C-NFʻ $C J3E HE3Dʻ M$Hʻ H4ʻ 8H-C3ʻ H&ʻ @H443N HEʻ CF$ʻ F343-1HEʻ $EDʻ -1HEʻ Q3 E2ʻ &-4E CF3Dʻ Fʻ $ʻ @H1Oʻ H&ʻ F3ʻ ?3E 3EN3ʻ H&ʻ @HE& E3 J3E ʻ $EDʻ H&ʻ C-NFʻ <4D34ʻ H&ʻ '3 J H $ʻ ^C-NFʻ @H1 3Cʻ 43C13N 3 Oʻ Hʻ Q3ʻ $ 3C 3Dʻ QOʻ F3ʻ ?3N43 $4Oʻ H&ʻ F3ʻ D J 4$ Oʻ &H4ʻ F3ʻ * J3ʻ Q3 E2_ʻ 43N3 3ʻ E Hʻ F Cʻ @-C HDOʻ $EDʻ CF$ʻ NHE& E3ʻ 1-4C-$Eʻ Hʻ C-NFʻ ?3E 3EN3ʻ 3 34Oʻ C-NFʻ <&&3ED34ʻ -ED34ʻ F3ʻ +3ʻ I3E$ Oʻ $EDʻ 6H4&3 -43ʻ Eʻ @$C3ʻ H&ʻ '3&-C$ʻ H4ʻ ,32 3Nʻ $Cʻ Cʻ $C Oʻ F343 E Q3&H43ʻ 14H D3D

<&&3EN3Cʻ 2 ECʻ &H4R J34ʻ P- EO

WWʻ EDʻ Q3ʻ ʻ 3E$N 3Dʻ *F$ʻ $ʻ @4 J3Cʻ $EDʻ <&&3EN3Cʻ NH JR J 3Dʻ 2 ECʻ $EOʻ &H4 J34ʻ Nʻ J$D3ʻ &H4ʻ F3ʻ '32- $ HEʻ H&ʻ F3

'HO$' P$4 E3' 6H4N3C' F 3' HE' ?FH43' H4' 2 EC' $EO' H&' F3' ' - 3C' N C J $ Q3'
'32- $ HEC' H4' 4 N 3C' H& 9 $4' J $D3' $ED' 3C $Q CF3D' QO' 4 -3' H&' 4 3D' -ED34'
F3' C$ J 3' J $0' D-4 E2' F3' @HE E-$EN3' H&' F C' N ' Q3' EX- 43D' H&'
$ED' 1-E CF3D' E' +3' P $EE34' $? &' F30' F$D' Q33E' NH J J 3D' 2 EC'
F C' N ' $ED' 3 340' 9 44E' &H4' FH D E2' $EO' @H-4 J $4 $' -ED34' $EO'
&H4 J 34' N ' CF$ ' 43 J $ E' E' &- ' 6H4N3' EH FC $ED E2' F3' ; 1 4$ HE'
H&' ?-NF' N ' $ED' $ ' I 4HN33D E2C' H&' $EO' @H-4 J $4 $' -1HE' $EO'
*4 $' Q32-E' -ED34' F3' - FH&4 O' H&' C-NF' &H4 J 34' N ' CF$ ' EH ' Q3'
D CNHE E-3D' QO' F3' ; 1 4$ HE' H&' F3' C$ J 3.' I 4H D3D' $ $OC' F$' > J $ HE' $'
EH' I 34CHE' CF$ ' Q3' $Q 3' H' Q3' 4 3D' $ED' 1-E CF3D' &H4' $EO' < &3EN3' * J3'
2 EC' $EO' H&' F3' C$ D' N C' H4' 4 N 3C' H&' 9 $4' F NF' CF$ ' $113$4'
H' F$ 3' Q33E' NH J J 3D' J H43' F$E' * F433' =3$4C' Q3&H43' F3' CC- E2'
H&' F3' @H J J CC HE' H4' 9 44E' &H4' C-NF' *4 $ ' -E 3CC' F3' I 34CHE'
$NN-C3D' QO' 43$CHE' H&' F C' F$ E2' $QC3E 3D' F J C3 &' H4' H&' CH J 3' H F34'
J $E &3C' J 13D J J ' CF$ ' EH ' F$ 3' Q33E' $ J 3E$Q 3' H' 5-C N3' F E'
F$' I 34 HD' E' F NF' @$C3' C-NF' I 34CHE' CF$ ' Q3' $Q 3' H' Q3' 4 3D' $'
$EO' * J 3' EH ' 3 N33D E2' * H' =3$4C' $& 34' F3' J 13D J 3E' CF$ ' F$ 3'
N3$C3D' $ED' 14H D3D' $ CH' F$' &' $EO' <&& N34' <4 P $4 E3' E' $EO' I $N3'
Q3OHED' F3' ?3$C' CF$ ' NH J J ' $EO' H&' F3' < & 3EN3C' 1-E CF$Q 3' QO'
@H-4 J $4 $' -ED34' F C' N ' $ED' CF$ ' 3CN$13' $ED' NH J 3' H4' Q3'
Q4H-2F' E H' F C' '3$ J ' Q3' <' F3' Q3' 4 3D' F3' C$ J 3' F3' CF$ '
F3E' $1143F3ED3D' Q3' 4 3D' &H4' F3' C$ J 3' $C' &' C-NF' < &&3EN3' F$D' Q33E'
NH J J 3D' F E' F C' '3$ J

WW ' ED' Q3' ' 3E$N 3D' * F$ ' EH' I 34CHE' 9 FH' CF$ ' F$ 3' Q33E' 113$ '
$NX- 3D' H4' NHE N 3D' H&' $ 9 ' < & 3EN3' $' $EO' @H-4 J $4 $' CF$ ' Q3'
$Q 3' H' Q3' 4 3D' $' ?3NHED' * J 3' &H4' 3' C$ J 3' < &&3EN3' 3 N31 ' E' F3'
@$C3' H&' $E' 113$' &4H J' $' G C HE$' H' $' M3E34$' @H 4 J $4 $'
$ED' F$' EH' ?3E 3EN3' H&' $EO' @H-4 J $4 $' C 2E3D' QO' F3' I 434 D3E' '3 C HE' H&'
F343H&' CF$ ' Q3' $Q 3' H' Q3' 43 C3D' J H43' F$E' HEN3' $ED' EH' 9 E3CC' ?3E 3EN3'
CF$ ' Q3' 3 $ J E3D' EH4' CF$ ' $EO' $DD HE$' ; D3EN3' Q3' 43N3 3D' QO'
F3' @H-4 ' HE' C-NF' '3 C HE

WW ' ED' Q3' ' 3E$N 3D' * F$ ' EH' P $4 E3' CF$ ' Q3' 3E 3D' H' 6H4&3 -43'
43N3 3' I $0' &H4' $EO' I 34 HD' D-4 E2' F NF' F3' CF$ ' F$ 3' Q33E' $QC3E ' H&' I $O
FH- ' D-3' - FH4 O' &4H J' F C' G- O' E' 8 C' P $(3C O C' ?34 N3 ' $ED'
F$ ' 3 340' , HE NH J J CC HE3D' <&& N34' G4- J J 34' H4' I 4 $ 3' P $4 E3'
FH' CF$ ' QO' F3' ?3E 3EN3' H&' $EO' @H-4 ' H&' >$ ' H4' @H-4 J $4 $' H4'
QO' F3' 9 44E' H&' $' 5-C N3' I 3$N3' Q3' -$14 CHE3D' H4' FH' CF$ '
Q3' NHE& E3D' &H4' G3Q ' CF$ ' &H4&3 ' $ ' ' 2F' H' $EO' I $0' &4H J' F3' G$0'
H&' F C' 443C' D-4 E2' F3' * J 3' H&' C-NF' J 14 CHE J 3E ' $ED' F3' M$H 34' ?-QC C 3EN3'
H4' H F34' I 34CHE' E' FHC3' @-C HDO' F3' CF$ ' Q3' CF$ ' 43N3 3' F3' ?-4$' H&' <&&3ED34C
H&' ? 13EN3' 134' G 3 J' H- ' H&' F3' I $0' H&' C-NF' , HE NH J J CC HE3D' F 3' '
<&& N34' H4' I 4 $ 3' P $4 E3' H' QN' $11 3D' &H4' F C' ?-QC C 3EN3' D-4 E2' @-C HD(
F3' * J 3' F3' CF$ ' NHE E-3' E' @-C HDO' ' F NF' C$ D' ?- J' CF$ ' -ED34'
F3' - FH4 O' H&' F3' >H4D' 8 2F' D J 4$ ' H4' F3' @H J J CC HE34C' &H4'
3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F' D J 4$ ' &H4' F3' * J 3' Q3 E2' Q3'
1$ D' H' F3' C$ D' M$H 34' -1HE' F3' 11 N$ HE' E' 9 4 E2' J $D3' H'
F3' ?3N43 $40' H&' F3' D J 4D O' QO' $EO' 5-C N3' &H4' F3' @H-E O' H4' I $N3'
E' F NF' C-NF' M$H' CF$ ' Q3' C -$ 3' $NNH J 1$E 3D' QO' $' @H10' H&' F3'
<4D34' -ED34' F NF' F3' I 4 C#$34' C' NHE& E3D.' I 4H D3D' $ $OC' F$' 443$4C' H&'
' CF$ ' Q3' $ &- ' &H4' F3' C$ D' >H4D' 8 2F' D J 4$ ' H4' F3' C$ D' @H J R I $O
J CC HE34C' &H4' F3' * J 3' Q3 E2' &' F30' CF$ ' F E+' & ' H' H4D34' F3'
CC-3' $ED' I $O J 3E ' H&' $EO' 4 4&$4C' H&' I $O' H4' H&' F3' ?-41 -C' H&' C-NF
I $O

[U`M#> ;>P ' ' @$1 US

I$O ' H4 $EO I H4 HE 343H& ' H H4 HE $NNH-E ' H& C-NF P$4 E3 ' D-4 E2 H4 $& 34 F3 ; 1 4$ HE H& F3 I34 HD H& F C J14 CHE J3E : I4H D3D $ CH ' F$ ' E N$C3 C-NF J14 CHE J3E ' CF$ ' Q3 E $EO I $N3 H& P $4O @HE& E3 J3E ' F3E F3 +3 H $EN3 H& ? 13EN3 ((34 G$O &H4 ?-QR C C 3EN3 CF$ ' F3 J$D3 H F3 P$4 E3 CH J14 CHE3D ' E 3- ' H& $ ' I$O H4 H F34 H $EN3C.' I4H D3D $ CH ' F$ ' E F3 @$ N- $ HE H& F3 I34 HD H 3E 3 $ P$4 E3 H I3EC HE ' H4 EN43$C3D ' $ 3 H& I$O &H4 ?34 N3C ' EH I$4 ' H& F3 * J3 D-4 E2 F NF F3 J$O F$ 3 Q33E J14 R CHE3D CF$ ' Q3 EN -D3D

I$O H& @H J R J CC HE3D <&& N34C NF$423D F @8 J E$ ' <&&3EN3C

WW ' ED Q3 ' 3E$N 3D ' * F$ ' EH @H J J CC HE3D <&& N34 FH CF$ ' Q3 $443C 3D $ED NH J J 3D H I4 CHE -1HE $ @F$423 H& $EO @4 J E$ ' <&&3EN3 CF$ ' 43N3 3 $EO I$4 ' H& F C I$O &4H J ' F3 G$O H& C-NF @H J J J3E ' ' F3 G$O H& F C ' 3 -4E H F3 @H E1$EO H F NF F3 CF$ ' Q3 HE2 <4 F NF F3 CF$ ' Q3 H4D343D H (H E ' ' $ED & F3 CF$ ' Q3 $NX- 3D H& F3 <&&3EN3 &H4 F NF F3 $C NH J J 3D ' F3 CF$ ' -1HE F C ' 3 -4E H F C @H J 1$EO ' F F3 114HQ$ HE H& F3 >H4D 8 2F D J 4$ ' H& F3 @H J J CC HE34C &H4 3 3N- E2 F3 <&& N3 H& >H4D 8 2F D J 4$ ' Q- ' EH ' H F34 C3 ' Q3 3E 3D H 43N3 3 $ ' 443$4C H& 1$O F NF 343 24H E2 D-3 D-4 E2 F3 * J3 H& F C @HER & E3 J3E ' ' Q- ' & F3 CF$ ' Q3 NHE N 3D ' F3 CF$ ' &H4&3 ' $ ' ' 2F ' H $EO I$O &4H J ' F3 G$O H& F C @H J J J3E ' -E ' F3 G$O H& F C ' 3 -4E H F3 @H J 1$EO H E&F NF F3 CF$ ' Q3 HE2 H4 F NF F3 CF$ ' Q3 <4D343D ' H (H E

' 31H4 ' H& I4HN33D E2C H& @H-4 C ' J$4 $

WW ' ED Q3 ' 3E$N 3D ' * F$ ' 3 340 5-D23 D HN$ 3 H4 I34CHE H&& N $ E2 $C C-NF $ ' $EO M3E34$ ' @H-4 J$4 $ ' H4 F3 I43C D3E ' H& $EO H F34 @H-4 4$$4& $F CF$ ' 4$EC J ' F $ ' 43CHEQ 3 ; 13D HE ' F3 H4 2 E$ ' I4HN33D E2C $ED ?3E 3EN3 F343H& H F3 ?3N43 $4O H& F3 D J 4$ O &H4 F3 * J3 Q3 E2 ' ' $ED F$ ' F3 I34CHE 4 3D QO $EO M3E34$ ' @H-4 J$4 $ ' CF$ ' -1HE 11 N$ HE H F3 ?3N43 $4O H& F3 DE4 4$ O ' Q3 3E 3D ' $ ' $EO * J3 $& 34 F3 ; 1 4$ HE H& * F433 @$ 3ED$4 P HE FC &4H J ' F3 G$ 3 H& C-NF ?3E 3EN3 ' Q- ' EH ' CHHE34 F$E * F433 P HE FC ' F3 F34 C-NF ?3E 3EN3 Q3 $114H 3D H4 EH ' H $ @H1O H& F3 I4HN33D E2C $ED ?3E 3EN3 ' #1HE 1$O E2 43CHEQ O &H4 F3 C$ J3 ' $NNH4D E2 D F3 >3E2 F F343H& ' 14H 3D $ ' C-NF G3R J $ED $C $&H43C$ D CF$ ' F$ 3 Q33E J$D3 F E F3 ?1$N3 H& * F433 =3$4C &4H J ' F3 G$ 3 H& F3 114H $ ' H4 < F34 & E$ ' G3N C HE -1HE F3 I4HN33D E2C Q3&H43 C-NF M3E34$ ' @H-4 J$4 $

?-QC3X-3E ' ; E C J3E ' EH I4H 3N HE &4H J ' I -E CFR J3E ' &H4 G3C34 HE

ED Q3 ' 3E$N 3D ' * F$ ' 3 340 P$4 E3 CF$ ' Q3 $Q 3 H Q3 4 3D $ED 1-E CF3D &H4 G3C34 HE &4H J ' $EO @H41C E H F NF F3 J$O F$ 3 3E C 3D ' H4 &4H J ' 8 C P$(3C O C ?34 N3 ' $ FH-2F F3 J$O H& ' ' 2F ' Q3 HE2 H F3 @H41C &4H J ' F NF F3 CF$ ' F$ 3 H4 2 E$ O D3C34 3D ' $ED & C-NF I34CHE ' CF$ ' Q3 N $ J3D $C $ G3C34 34 QO F3 @H41C H F NF F3 H4 2 E$ O Q3 HE23D ' $ED Q3 4 3D $C $ G3C34 34 F343&4H J ' H4 CF$ ' Q3 4 3D $C $ G3C34 34 &4H J ' $EO H F34 @H41C E H F NF F3 J$O F$ 3 3E C 3D ' H4 & F3 CF$ ' Q3 4 3D F 3 $N -$ O ?34 E2 E CH J3 @H41C &H4 G3C34 HE &4H J ' $EO H F34 @H41C ' 3 340 G3C34 HE 143 H-C H4 C-QC3X-3E ' H F$ ' &H4 F NF F3 CF$ ' Q3 -ED34 * 4 $ ' $C 3 ' $C 3 340 143 H-C @HE N 1E &H4 $EO H F34 <&&3EN3 ' J$O Q3 2 3E E ; D3EN3 ' $C $E 224$ $ HE H& F3 @4 J3 &H4 F NF F3 CF$ ' Q3 -ED34 * 4 $ ' $ED E +3 P$EE34 ' -1HE F3 * 4 $ ' H& $EO P$4 E3

UL' M # > ; > P ' ' @$1

P$4 E3' &H4' $EO' <&&3EN3' F$ 3 34' $EO' 143 H-C' @HE N HEC' J$O' Q3' 2 3E' E' ; D3EN3' 2 EC' F J ' 14H D3D' F$' EH' C-NF' ; D3EN3' CF$ ' Q3' 43N3 3D' E' $EO' @$C3' -E ' $& 34' F3' @H-4' CF$ ' F$ 3' &H-ED' F3' I 4 CHE34' 2- O' $ED' F3E' HE O' &H4' F3' I -41HC3' H&' & E2' I -E CFR J 3E ' ' $ED' 14H D3D' F$' E' $ ' @$C3C' 143 H-C' , H N3' CF$ ' F$ 3' Q33E' 2 3E' H' F3' <&&3ED34' H&' F3' E 3E HE' H' 14HD-N3' C-NF' ; D3EN3' -1HE' F C' * 4 $

WW ' ED' Q3' ' 3E$N 3D' * F$' ' CF$ ' Q3' $ &- ' &H4' F3' @HER C $Q 3' H&' $EO' I $N3' F343' $EO' I 34CHE' 43$CHE$Q O' C-C13N 3D' H' Q3' $' G3C34 34' CF$ ' Q3' &H-ED' H4' H&' $EO' $D(H E E2' I $N3' $ED' &' EH' C-NF' @HEC $Q 3' N$E' Q3' J J 3D $ 3 O' J 3& F' F3E' &H4' $EO' <&& N34' P$4 E3' H4' H F34' ?H D 34' E' 8 C' P$(3C O C' ?34 N3' H' $1143F3ED' H4' N$-C3' C-NF' C-C13N 3D' I 34CHE' H' Q3' $1143F3ED3D' $ED' N$-C3' F J' H' Q3' Q4H-2F' Q3&H43' $EO' 5-C N3' E2' E' H4' E3$4' C-NF' I $N3' $ED' $N E2' &H4' F3' C$ J 3' H4' $EO' $D(H E E2' @H-E O' FH' F$ F' F343QO' I H 34' H' 3 $ J E3' C-NF' C-C13N 3D' I 34CHE' $ED' &' QO' F C' @HE&3CC HE' H4' F3' * 3C J HEO' H&' < E3' H4' J H43' 9 E3CC3C' -1HE' <$ F' H4' QO' F3' %EH 3D23' H&' C-NF' 5-C N3' ' CF$ ' $113$4' F$' C-NF' C-C13N 3D' I 34CHE' C' $' P$4 E3' -E $ &- O' $QC3E' &4H J' F C' G- O' C-NF' 5-C N3' CF$ ' &H4 F F' N$-C3' F J' H' Q3' NHE 3O3D' H' F3' E3$43C' E4' J HC' NHE 3E 3E' 1-Q N' I 4 CHE' E' F3' C$ J 3' H4' $EO' E3 ' $D(H E E2' @H-E O' $ED' CF$ ' 4$EC J ' $E' NNH-E' F343H&' E' F3' 6H4 J' 143CN4 Q3D' &H4' F$' I -41HC3' E' F3' ?NF3D- 3' $EE3 3D' H' F C' N ' H' F3' ?3N43 $4O' H&' F3' D J 4$ O' F' $' G3CN4 1 HE' H&' F3' I 34CHE' H&' C-NF' G3C34 34' $ED' F3' , $ J 3' H&' F3' G C HE' H' F NF' F3' CF$ ' Q3 HE2' $ED' $ CH' N34 &O E2' F3' , $ J 3C' H&' F3' I 34CHEC' QO' FH J' F3' G3C34 34' $C' $1143F3ED3D' $ED' &' F3' > H4D' 8 2F' D J 4$ ' H4' F3' @H J J CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' > H4D' 8 2F' D J 4$ ' CF$ Q3' C$ C& 3D' C-NF' $C J 3E HE3D' I 34CHEC' $43' (-C O' 3E 3D' H' $' ' 3 $4D' &H4' C-NF' 1143F3EC HE' F3' C$ D' ?3N43 $4O' CF$ ' E' 43 -4E' 4$EC J ' H' C-NF' 5-C N3' $E' < 4D34' -1HE' F3' 14H134' G31$4 J 3E' &H4' F3' I $OE 3E' H&' F3' ?- J' H&' * 3E O' ?F E2C' $C' $' ' 3 $4D' H' F3' I 34CHEC' CH' N34 & 3D' H' Q3' 3E 3D' F343 H' F NF' ' 3 $4D' CF$ ' Q3' 1$ D' $ED' NF$423D' 2 EC' F3' I $O' $ED' ?-QR C C 3EN3' H&' $EO' C-NF' G3C34 34' $ED' C H113D' H- ' H&' F3' C$ J 3.' I 4HR D3D' $ $OC' F$' EH' 633' H4' ' 3 $4D' CF$ ' Q3' $+3E' QO' $EO' 5-C N3' H4' F C' @ 34+' E' 43C13N' H&' $EO' E&H4 J $ HE' @H J J J 3E ' H4' ' 31H4' E' F3' @$C3' H&' $EO' C-NF' G3C34 34

1143F3ER C HE' H&' G3R C34 34C

WW ' ED' Q3' ' 3E$N 3D' * F$' 3 34O' I 34CHE' FH' CF$ ' H -E' $4 O' C-443ED34' H4' D3 34' F J C3 &' -1' $C' $' G3C34 34' &4H J' 8 C' P$(3C O C' ' HO$' P$4 E3' 6H4N3C' H4' FH' -1HE' Q3 E2' $1143F3ED3D' HE' $EO' @F$423' CF$ ' E' F3' I 43C3EN3' H&' F3' 5-C N3' NHE&3CC' F J C3 &' H' Q3' $' G3C34 34' &4H J' C-NF' 6H4N3C' CF$ ' Q3' D33 J 3D' H' F$ 3' Q33E' D- O' 3E C 3D' $ED' H' Q3' $' P$4 E3' $ED' CF$ ' Q3' $Q 3' H' C34 3' E' F3' C$ D' 6H4N3C' F3 F34' F3' CF$ ' F$ 3' Q334&' 3 34' $N -$ O' 3E C 3D' $C' $' P$4 E3' H4' EH ' $ED' &' F3' I 34CHE' CH' NHE&3CC E2' F J C3 &' H' Q3' $' G3C34 34' CF$ ' $' F3' * J 3' $N -$ O' Q3 HE2' H' F3' ' HO$' P$4 E3' 6H4N3C' F3' CF+ ' Q3' D33 J 3D' H' Q3' $ED' CF$ ' Q3' D3$ ' F' $C' $' G3C34 34' H4' CF$ ' Q3' $Q 3' H' Q3' 1-E CF3D' $C' $' ' H2-3' $ED' 2QHED' H4' J $O' Q3' 14HC3N- 3D' $ED' 1-E CF3D' &H4' HQ $ E E2' P HE3O' -ED34' &$ C3' I 43 3EN3C' $ED' F3' @HE&3CC HE' $ED' 43N3 E2' ?-QC C 3EN3' $C' $' P$4 E3' QO' C-NF' , ' E' I 34CHE

64$-D- 3E' @HE&3CC HE' H&' G3C34 HE

m U' U ' M # > ; > P 4' ' @$1 US

I 34CHE' CF$ 'Q3' C-&& N 3E ' ; D3EN3' , ' F3'&$ C3' I 43 3EN3' $ED' HQ $ E E2'/ P HE30 '

'3 $4D' &H4' $1143F3ED E2' $-*J' E' H' >C34 ' C' WW ' ED' F343$C' 'F$C' Q33E' (-D23D' 3 13D 3E '&H4' F3' I 43 ' 3E HE' H&' G3C34 HE ' H' 3C $Q CF' < - O E2' I $4 3C' E' F3' N E O' H&' 43C13N 3' G C HEC' H&' 'HO$ ' P $4 E3C ' &H4' F3' I -41HC3' H&' E 34 ' N31 E2' C-NF' P 3E' $C' J $O' C 4$22 3' H4' $ 3 J 1 ' H' D3C34 ' &4H J' 8 3$D' ' \-$4 34C ' $ED' ' C' & ' F$ ' ; ENH-4$23 J 3E ' CFH- D' Q3' 2 3E' H' I 34CHEC' NH J 1HC E2' C-NF' I $4 3C' H' Q3' D 23E ' $ED' $N 3' E' F3 4' G- O' E' F C' B3F$F I ' Q3' ' F343&H43' '3E$N 3D ' *F$ ' &H4' $ED' E' 43C13N ' H&' 3 3 O' %HE 3H J J CC HE3D' <&& N34 H4' I 4 $ 3' P $4 E3' CH' C 4$22 E2' H4' $ 3 J 1 E2' H' D3C34 ' FH' J $O' Q3' $1143F3ED3D' $ ' $' 243$ 34' EC $EN3' &4H J' 8 3$D' \-$4 34C' F$E' C' $ H 3D' QO' F3' 4 N 3C' H&' 9 $4' F3' I $4 O' H4' I $4 3C' QO' FH J' F3' CF$ 'Q3' $1143F3ED3D' CF$ 'Q3' 3E 3D' H' $' '3 $4D' H&' *3E' ?F E2C ' H' Q3' 1$ D' -1HE' F3' D3 34 E2' -1' H&' C-NF' P $4 E3 ' F NF' ?- J' H&' *3E' ?F E2C' CF$ ' Q3' NF$423D' 2 EC ' $ED' C H113D' $ED' 43 $ E3D' H- ' H&' F3' I $O' $ED' ?-QC C 3EN3' H&' 3 34O' C-NF' , HE NH J J CC HE3D' <&& N34' $ED' I 4 $ 3' P $4 E3 ' E' +3' P $EE34' $C' F3' '3 $4D' H4' ?- J' H&' * 3E O' ?F E2C' C' F343 E Q3&H43' D 43N 3D' H' Q3' NF$423D' 2 EC ' C H113D ' $ED' 43 $ E3D' H- ' H&' F3' I $O' $ED' ?-QC C 3EN3' H&' 3 34O' G3C34 34

I 3E$ O' &H4' ED-N E2' H4' $CC C E2' H' D3C34 WW W ' ED' Q3' ' 3E$N 3D ' *F$ ' 3 34O' I 34CHE' FH' CF$ ' E' $EO' I $4 ' H&' 8 C' P $(3C O C' GH J E HEC' D 43N O' H4' ED 43N O' 134C-$D3' $EO' P $4 E3' H' D3C34 ' CF$ ' C-&&34' C-NF' I -E CF J 3E 'QO' 6 E3' H4' J R 14 CHE J 3E ' H4' QH F' $C' F3' @H-4 ' Q3&H43' F NF' F3' @HE N HE' J $O' $+3' 1 $N3' CF$ ' $D(-D23 ' $ED' 3 34O' I 34CHE' FH' CF$ ' $CC C ' $EO' G3C34 34' &4H J' 8 C' P $(3C O C' 'HO$ ' P $4 E3' ?34 N3' $' D3C34 E2' H4' E' NHEN3$ E2' F J C3 &' &4H J' ?-NF' ?34 N3 ' +EH E2' F J' H' Q3' C-NF' G3C34 34 ' CF$ ' &H4&3 ' &H4' 3 34O' C-NF' <&&3EN3' F3' ?- J' H&' * 3E O' I H-EDC

@-C HDO' $EDA' ?-QC C 3EN3' H&' G3C34 34C WWW ' ED' Q3' '3E$N 3D ' *F$ ' F3' M$H 34' H4' H F34' I 34CHE' F$ E2' F3' J J 3D $ 3' EC13N HE' H&' $EO' I 4 CHE ' M$H ' H4' 8 H-C3' H&' @H443NR HE ' CF$ ' D 3 ' $ED' C-11 O' 3 34O' P $4 E3' E' F C' @-C HDO' F' 6-3' $ED' H F34' , 3N3CC$4 3C' $NNH4D E2' H' F3' '32- $ HEC' H&' F3' I 4 CHE' H' F NF' F3' CF$ 'Q3' CH' NH J J 3D '$ED' CF$ '43N3 3' QE' $NNH-E 'H&' 3 34O' C-NF' P $4 E3' D-4 E2' F C' J 14 CHE J 3E ' ? 13EN3' 2 ! ' &H4' F C' ?-QC C 3EN3 ' H' Q3' CC-3D' H- ' H&' F3' I $O' H&' C-NF' P $4 E3 ' -1HE' 11 N$ HE' E' 9 4 E2' C 2E3D' QO' $EO' 5-C N3' F E' FHC3' 5-4 CR D N HE' C-NF' I 4 CHE' CF$ ' Q3' HN$ O' C -$ 3D ' H23 F34' F' $' @H1O' H&' F3' <4D34' H&' @H J J J 3E ' $ED' F NF' ?- J' H&' ? 13EN3' 5! ' 2 ! ' CF$ ' Q3' N$44 3D' H' F3' @43D ' H&' F3' 6-ED' &4H J' F NF' F3' ; 13EN3' H&' C-NF' I 4 CHE' C' D3&4$O3D ' $ED' $ ' M$H 34C' $ED' %33134C' H&' I 4 CHEC' CF$ ' $ED' F3O' $43' F343QO' $- FH4 T3D' $ED' 43X- 43D' H' 43N3 3' $ED' NHE& E3' 3 34O' G3C34 34' %H J' F3' 'HO$ ' P $4 E3C' FH' CF$ ' Q3' D3 343D' E H' F3 4' @F$423' QO' $EO' < J N34 ' ?H D 34 ' H4' P $4 E3' NHE 3O E2' $EO' C-NF' G3C34 34' ED34' $ &- ' - FH4 O' QE' F3' I 4HD-N HE' H&' F3' 9 44E ' H4' - FH4 O' HE' F NF' C-NF' G3C34 34 ' CF$ ' F$ 3' Q33E' $+3E' H4' D3 $ E3D ' $ED' 3 34O' M$H 34' H4' %33134' CH' 43N3 E2' $' G3C34 34' CF$ ' Q3' 3E 3D' H' <E3' ?F E2' &H3 F3

F3' ?$&3 @ - C HDO' H&'F J ' F 3' F$ 3D' HE' F3' P $4NF ' $ED' H' C - NF' D$ O'
? - QC C 3EN3' $C' C' F343 E Q3&H43' 14H D3D' &H4' F3' P $ E 3E$EN3' H&'
P $4 E3C' NHE& E3D' - ED34' $EO' ?3E 3EN3' H4' H F34 C3

WWW ' ED' Q3' ' 3E$N 3D ' * F$ ' 3 34O' M$H 34 ' F$ E2' , H N3' F$ ' , H N3' H&'
$EO' I 34CHE' E' F C' @ - C HDO' C' $' P $4 E3' $Q 3' H' C34 3' 8 C' P $(3C O ' ; 14$ HE' H&'
CF$ ' 143 H - C' H' F3' ; 1 4$ HE' H&' F3' I 34 HD' H&' F3' J 14 CHE J 3E
H&' C - NF' P $4 E3 ' 2 3' < E3' P HE F C' , H N3 ' H4' &' F343' CF$ ' EH ' Q3' '
C - && N 3E ' * J 3' &H4' $' P HE F C' , H N3 ' F3E' F3' HE23C ' 14$N N$Q 3'
, H N3' F343H&' H' F3' ?3N43 $4O' H&' F3' D J 4$ O

WWW ' ED' Q3' ' 3E$N 3D ' * F$ ' 3 34O' P $4 E3' < && N34' FH' CF$ ' I 3E$ O' &H4'
FH - ' 9 44E ' &4H J' < E3' H4' (J H43' H&' 8 C' P $(3C O C' 5 - C N3C ' &H4N Q O' &H4N Q 3'
3E 34' E H' H4' Q43$+' H13E' F3' G 3 E2' 8 H - C3' H4' < - FH - C3C' H&' $EO' ; E 4O'
I 34CHE' FH J CH3 34' - ED34' I 43 3EN3' H&' C3$4NF E2' &H4' G3C34 34C ' CF$
- 1HE' D - 3' I 4HH&' F343H&' &H4&3 ' F3' ? - J' H&' * 3E O' I H - EDC

WWW ' ED' Q3' ' 3E$N 3D ' * F$ ' 3 34O' I 34CHE' FH' CF$ ' 43N3 3' ; E C E2' $ED'
; E C E2' P HE3O' H' C34 3' E' F3' ' HO$' P $4 E3C ' &4H J' $EO' I 34CHE' C 3$4 E2' H&'
3 J 1 HO3D' E' F3' ' 3N4 - E2' ?34 N3 ' F3' Q3 E2' $E' < && N34' , HE NH J ' ; 3N4 J C'
J CC HE3D' < && N34 ' H4' $ 3C 3D' P $4 E3 ' CF$ ' Q3' D33 J 3D' H' Q3' 3E C 3D'
$C' $' P $4 E3' E' 8 C' P $(3C O C' ?34 N3 ' $ED' F 3' F3' CF$ ' 43 J $ E'
F' F3' ' 3N4 - E2' I $4 O' CF$ ' Q3' 3E 3D' H' Q3' Q 3 3D ' $ED'
3 34O' I 34CHE' FH' CF$ ' 3E C ' $EO' ' 3N4 - ' CF$ ' & 4C ' $C+' F3' I 34CHE'
H&&34 E2' H' 3E C ' F3 F34' F3' DH3C' H4' DH3C' EH ' Q3 HE2' H' F3' P $'
$ED' CF$ ' N$ - C3' H' Q3' $+3E' DH E' E' 9 4 E2' F3' , $ J 3' $ED' I $N3'
H&' QHD3' H&' C - NF' ' 3N4 - ' $ED' F3E' $EO' I 34CHE' CF$ ' Q3' 3E C 3D'
$C' $' P $4 E3 ' F3' CF$ ' F E' 6H - 4' G$OC' Q - ' EH ' CHHE34' F$E' * 3E O '
&H - 4' 8 H - 4C' $& 34' C - NF' ; E C E2 ' $113$4' H23 F34' F' CH J 3' I 34CHE'
3 J 1 HO3D' E' F3' ' 3N4 - E2' ?34 N3' H&' F3' I $4 O' F' F NF' F3' CF$ '
F$ 3' 3E C 3D ' Q3&H43' $' 5 - C N3' 434 D E2' E' F3' N E O' H&' F3' I $N3 '
$ED' $N E2' &H4' F3' G C HE' H4' G C 4 N ' F343' C - NF' ' 3N4 - ' CF$ '
F$ 3' Q33E' 3E C 3D ' $ED' EH ' Q3 E2' $E' < && N34' E' F3' P $4 E3C ' $ED'
& ' C - NF' ' 3N4 - ' CF$ ' D3N $43' F C' F$ E2' H - E $4 O' 3E C 3D ' F3'
C$ D' 5 - C N3' CF$ ' 1 - ' H' F J' F3' C3 34$ ' \ - 3C HEC' NHE $ E3D' E'
F3' ?NF3D - 3' H' F C' N ' $EE3 3D ' $ED' CF$ ' 43NH4D ' H4' N$ - C3' H' Q3'
43NH4D3D ' E' 9 4 E2 ' F C' EC 34C' F343 - E H' ($ED' F3 ' C$ D' 5 - C N3'
C' F343QO' 43X - 43D' &H4 F F' H' N$ - C3' F3' EC 34C' CH' 43NH4D3D' E'
9 4 E2 ' $ED' F3' * F 4D ' 6H - 4 F ' $ED' 6 & F' 4 N 3C' H&' F3' ?3NHED'
?3N HE' H&' F3' 4 N 3C' H&' 9 $4' 2 EC ' P - EO ' $ED' F3' 6 4C ' 4 N 3'
H&' F3' * F 4D' ?3N HE' H&' F3' C$ D' 4 N 3C' < &' 9 $4' 2 EC ' G3C34 HE '
H' Q3' 43$D' H 34 ' E' F C' H E' I 43C3EN3 ' H' C - NF' ' 3N4 - ' $ED' H' $D J E CR
34' H' C - NF' ' 3N4 - ' F3' < $ F' E' F3' ?NF3D - 3' H' F C' N ' $EE3 3D '
&H4' J 3D' H4' - E J 3D' ?34 N3 ' H4' &H4' ?34 N3' E' F3' 6H4N3C' H&'
F3' 8 1 ' $#& ' @H J 1$EO ' $C' J $O' Q3' $11 N$Q 3' H' F3' @$C3' H&' F3'
' 3N4 - ' $ED' EH' H F34' < $ FC ' $EO' F E2' E' $EO' N C' H' F3' NHE 4$4O'
EH FC $ED E2 ' $ED' F3' C$ D - C N3' C' F343QO' 43X - 43D' H' 2 3'
- ED34' F C' 8 $ED ' F3' @34 & N$ 3' E' F3' ?NF3D - 3' H' F C' N ' $EE3 3D '
$ED' &' $EO' C - NF' ' 3N4 - ' CH' H' Q3' N34 & 3D' CF$ ' 43& - C3' H' $+3' F3'
< $ F' E' F3' ?NF3D - 3' H' F C' N ' $EE3 3D ' Q3&H43' F3' C$ D' 5 - C N3'
' CF$ ' Q3' $ & - ' &H4' F3' < && N34' H4' , HE NH J J CC HE3D' < && N34' F'
FH J ' F3' 3E C 3D' H' D3 $ E' $ED' NHE& E3' C - NF' I 34CHE' - E ' F3' CF$ '
$+3' F3' C$ D' < $ F' H&' 6 D3 O

WWW ' ED

G CC3E '$ED' '3 3&' &4HJ' ;E C J3E

WWW ' ED'Q3' '3E$N 3D' *F$ '$EO' '3N4- '$113$4 E2' $C' $&H43R C$D' Q3&H43' C-NF' 5-C N3' CF$ ' Q3' P' Q34 O' H' D3N $43' F(C' G CC3E ' H' C-NF' ;E C E2' $ED' -1HE' C-NF' G3N 4 HE' $ED' 43 -4E E2' F3' ;E C E2' PHE3O' $ED' $CH' 1$O E2' F3' ?-J' H&' * 3E O' ?F E2C' &H4' F3' @F$423C' 3 13ED3D' #1HE' F J' H23 F34' F' F3' &- ' JH-E' H&' ?-QC C 3EN3' $ED' B334' PHE3O' F NF' CF$ ' F$ 3' Q33E' 1$D' H' C-NF' '3N4- 'C-QC3X-3E' H' F C' ;E%C J3E ' CF$ ' Q3' &H4 F F' D CNF$423D' E' F3' 143C3EN3' H&' C-NF' 5-C N3' Q- ' &' C-NF' I34CHE' CF$ ' 43&-C3' H4' E32 3N ' F E' F3' ?1$N3' H&' * 3E O &H-4' 8H-4C' $& 34' CH' D3N $4 E2' F C' G CC3E ' H' 43 -4E' C-NF' PHE3O' $C' $&H43C$D' F3' CF$ ' Q3' D33J3D' $ED' $+3E' H' Q3' 3E C 3D' $C' &' Q3' F$D' 2 3E' F C' CC3E ' F343 H' Q3&H43' F3' C$D' 5-C N3' $ED' ' CF$ ' $CH' Q3' $ &- ' &H4' $EO' 5-C N3' H' D CNF$423' $EO' I34CHE' FH' CF$ ' F$ 3' 5 O' 3E C 3D' $ED' FH' CF$ ' $11 O' H' F J' H' D3N $43' F C' G CC3E ' F E' C-NF' 6H-4' G$OC' $C' $&H43R C$D' -1HE' I$O J3E' H&' F3' ?-J' H&' PHE3O' 43X- 43D' H' Q3' 1$D' QO' $EO' '3N4- ' D3N $4 E2' F C' G CC3E ' -ED34' F C' N ' EH FC $ED E2' EH' I34CHE' Q3 HE2 E2' H' F3' '3N4- E2' I$4 O' CF$ ' Q3' F' F3' '3N4- ' 14H D3D' 'CF$ '$113$4' H' C-NF' 5-C N3' -1HE' I4HH&' H' F C' ?$ C&$N HE' F$ ' F3' '3N4- E2' I$4 O' F$C' 3& ' F3' I $N3' F343' C-NF' '3N4- ' $C' 3E C 3D' H4' F$ ' F3' '3N4- 'N<- D' FH '14HN-43' $EO' I34CHE' Q3 HE2 E2' H' C-NF' I$4 O' H' 2H' F' F J' Q3&H43' F3' 5-C N3' $ED' F3' ?- #' 1$D' QO' C-NF' '3N4- ' -1HE' F C' G CNF$423' CF$ 'Q3' +31 'Q ' F3' 5-C N3' $ED' 1$D' H' $EO' I34CHE' Q3 HE2 E2' H' F3' '3N4- E2' I$4 O' 3E 3D' F343 H' $ED' D3J $ED E2' F3' C$J3' : I4H D3D' $ $OC' F$ 'EH' '3N4- ' FH' F$C' $N -$ O' FH-2F' 344HE3H-C O' _ 3E' D CNF$423D' QO' F3' 5-C N3' Q3&H43' F3' ; 1 4$ HE' H&' * 3E O &H-4' 8H-4C' $& 34' F3' * J3' H&' F C' ;E C J3E ' CF$ ' Q3' $Q 3' HE' F$ ' NNH-E ' H' Q3' 14HN33D3D' 2 EC ' $C' F$ E2' D3C34 3D' &4HJ' 8 C' P$(3C O C' ?34 N3 ' $ED' F3' 5-C N3' FH' CF$ ' D CNF$ 23' $EO' '3N4- 'CF$ ' E' 3 34O' @$C3' 2 3' H' F J' $' @34 & N$ 3' -ED34' F C' 8$ED' C13N &O E2' F3' @$-C3' F343H&'

1143E N3C' 3E C E2' H' Q3' $Q 3' H' C34 3' $& 34' F3' ; 1 4$R HE' H&' F3 4' 1143E N3R CF 1

WWW ' ED' Q3' '3E$N 3D' *F$ ' $EO' I34CHE' D- O' Q##ED' $C' $E' 1143E N3' FH' CF$ '3E C' E H' 8 C' P$(3C O C' 'HO$' P$4 E3' 6H4N3C' $ED' CF$ 'C $ 3' H' F3' P$2 C 4$ 3' Q H43' FHJ' F3' CF$ ' Q3' $ 3C 3D' F$ ' F3' C' EH '$E' 1143E N3' CF$ ' Q3' D33J3D' 2- O' H&' HQ $ E E2' PHE3O' QO' &$C3' I43 3EN3C' $ED' CF$ ' $& 34' F3' ; 1 4$ HE' H&' Q C' 1143E N3CF 1' F3 F34' F3' CF$ ' F$ 3' Q33E' CH' NHE N 3D' $ED' 1-ER CF3D' H4' EH 'Q3' $Q 3' H' C34 3' $C' $' P$4 E3' $ED' &' HE' F3' ; 1R 4$ HE' H&' F C' 1143E N3CF 1' F3' CF$ 'EH 'D3 34' F JC3 &' -1' H' CHJ3' <&& N34' $- FH4 T3D' H' 43N3 3' '3N4- C' J$O' Q3' $+3E' $C' $' G3C34 34' &4HJ' 8 C' P$(3C O C' 'HO$' P$4 E3' 6H4N3C

I-E CFJ3E' H&' 1143ER N3C' 3E C R E2

WWW ' ED' Q3' '3E$N 3D' *F$ ' EH' 1143E N3' N$ J3D' QO' F C' P$C 34' CF$ ' Q3' $+3E' &4HJ' $EO' G CHE' G3 $NFJ3E ' '3N4- E2' I$4 O' H4' ?F 1' H&' 8 C' P$(3C O' 3 N31 ' -ED34' $' 9$ $E 'H&' $' 5-C N3' 43C D E2' E3$4' $ED' F E' FHC3' 5-4 CD N HE' C-NF' 1143E N3' C $ ' F3E' F$113E' H' Q3 'Q3&H43' FHJ' F3' CF$ ' Q3' N$44 3D' $ED' C-NF' 5-C N3' CF$ ' EX- 43' E H' F3' P$ 34' -1HE' <$ F' ^ F NF' <$ F' F3' C' F343QO' 3J1H 343D' H' $DJ E C 34_' $ED' 43X- 43' F3' I4HD-N HE' $ED' I4HH&' H&' F3 ' ED3E -43' $ED' F$ ' , H N3' H&' F3' C$D' 9 44E' F$C' Q33E' 2 3E' H' $ED' $' @H1O' 3& ' F' F3' <&& N34' -ED34' FHC3' @HJ J$ED' F3' 1143E N3' CF$#' F3E' Q '$ED' F$ ' C-NF' I34CHE' CH' 3E C 3D' D3N $43D' F$ ' F3' $C' EH' 1143E N3' $ED' C-NF' 5-C N3' &' 43X- 43D' QO' C-NF' <&& N34' CF$

NHJJ

NHJJ ' F3' <&&3ED34' H' F3' @HJJHE' M$H' H&' F3' C$D' I $N3' F343'
F3' 1143E N3' CF$ ' Q3' $1143F3ED3D' $ED' CF$ ' +331' F3' ED3E -43'
H' Q3' 14HD-N3D' F3&' 43X- 43D' $ED' CF$ ' Q ED' H 34' C-NF' I 34CHE' $C'
F3' J$O' F E+' 14H134' H' 2 3' ; D3EN3' 2 EC' F3' <&&3ED34' FH'
CF$ ' Q3' 4 3D' $' F3' E3 ' ' E3 ' C-NN33D E2' M3E34$' H4' \-$4 34'
?3CC HEC' H&' F3' @H-E O' G C HE' H4' I $N3' -E 3CC' F3' @H-4' CF$ ' HE'
(-C ' @$-C3' 1-' H&&' F3' *4 $ ' $ED' F3' I 4HD-N HE' H&' F3' ED3E -43'
F' F3' @34 & N$ 3' H&' F3' (-C N3C' F$' F3' C$J3' $C' 14H 3D' CF$ ' Q3'
C-&& N 3E' ; D3EN3' H&' F3' C$D' ED3E -43' ' $ED' 3 340' C-NF' <&&3ED34'
]' +', % #&' J$OQ3' 4 3D' QO' F3' 5-D23' <4D E$40' E' F3' @H-E O' H4'
? 3 $4 40' E' C-NF' $ED' F3' +3' P$EE34' $C' $EO' I 34CHE' J$O' Q3' 4 3D'
E' +', % #&' &H4' $EO' <&&3EN3' EH ' E&344 E2' $' @$1 $' I -E CFJ3E ' $ED'
$EO' 5-C N3' EH ' 43X- 43D' $C' $&H43C$ D' H' NHJJ ' C-NF' 1143E N3'
J$O' D3 34' F J' H' F C' P$C 34' I 4H D3D' $ $OC' F$' 3 340' 1R
143E N3' FH' CF$ ' 3E C' E H' F3' 'HO$' P$4 E3C' D-4 E2' F3' I 34 HD'
H&' F C' 1143E N3CF 1' CF$ ' Q3' D33 J 3D' 2- O' H&' $' P CD3J3$EH4' $ED' '
-1HE' @HE N HE' Q3' $Q 3' H' F3' C$J3 I -E CFJ3E' $C' <&&3ED34C' NHER
N 3D' H&' HQ $ E E2' PHE3O' -ED34' && C3' I 43 3EN3C' $43' $Q 3' H ' $4 D'
3 340' C-NF' 1143E N3' CF$ ' $& 34' F3' ; 1 4$ HE' H&' F C' 1143E N3R
CF 1' F3 F34' F3' CF$ ' F$ 3' Q33E' 14HC3N- 3D' H4' EH ' Q3' $Q 3' H'
C34 3' E' 8 C' P$(3C O C' 'HO$' P$4 E3' 6H4N3C' ($ED' &' HE' F3' ; 1 4$R
HE' H&' F C' 1143E N3CF 1' F3' CF$ ' EH' D3 34' F J C3 &' -1' H' CHJ3
<&& N34' $- FH4 T3D' H' 43N3 3' '3N4- C' F3' J$O' Q3' $1143F3ED3D' $C' $
G3C34 34' &4HJ' 8 C' P$(3C O C' P$4 E3' 6H4N3C'

WWW >' ED' Q3' '3E$N 3D' *F$' &' $EO' '3N4- ' CF$ ' 43N3 3' F3' <&&3EN3C' NHE'
;E C E2' PHE3O' &4HJ' $EO' I 34CHE' 3J1 HO3D' E' F3' '3N4- E2' E3N+3D' F'
?34 N3' ^+EH E2' ' H' Q3' C-NF_' $ED' CF$ ' $QCNHED' H4' 43&-C3' H' 2H'
Q3&H43' C-NF' 5-C N3' H4' CF$ ' F343$& 34' $QC3E' F J C3 &' &4HJ' F3'
'3N4- E2' I $4 O' H4' I 34CHE' F' FHJ' F3' 3E C 3D' $ED' CF$ ' EH'
H -E $4 O' 43 -4E' H' 2H' Q3&H43' CHJ3' 5-C N3' F E' C-NF' I 34 HD' H&'
6H-4' G$OC' $C' $&H43C$ D' C-NF' '3N4- ' CF$ ' Q3' D33J 3D' H' Q3' 3E C 3D'
$ED' $' I 4 $ 3' E' 8 C' P$(3C O C' 'HO$' P$4 E3' 6H4N3C' $C' &- O' H' $ '
E 3E C' $ED' I -41HC3C' $C' &' F3' F$D' Q33E' D- O' $ 3C 3D' $ED' J$O' Q3'
$1143F3ED3D' $ED' 1-E CF3D' $C' $' G3C34 34' H4' &H4' Q3 E2' $QC3E' FH-'
>3$ 3' -ED34' $EO' 4 N 3C' H&' 9$4' J$D3' &H4' F3' I -E CFJ3E' H&'
P- EO' $ED' G3C34 HE' _' $ED' C-NF' '3N4- ' CF$ ' EH' Q3' D CNF$423D' QO'
$EO' 5-C N3' H&' F3' I 3$N3' $& 34' F3' ; 1 4$ HE' H&' C-NF' 6H-4' G$OC' $C'
$&H43C$ D' -E 3CC' ' CF$ ' Q3' 14H 3D' H' F3' ?$ C&$N HE' H&' C-NF' 5-C N3'
F$' F3' 4-3' ,$J3' $ED' '3C D3EN3' H&' F3' '3N4- ' $C' D CN HC3D' $ED'
+EH E' H' F3' '3N4- E2' I $4 O' $ED' F$' EH' ,H N3' $C' 2 3E' H' F3'
'3N4- ' H4' 3&' $' F C' -C-$' I $N3' H&' QHD3' H&' F C' F$ E2' CH' 3E C 3D'
14H D3D' F$' E' 3 340' @$C3' F343 E' $EO' '3N4- ' CF$ ' F$ 3' 43N3 3D'
;E C E2' PHE3O' $ED' CF$ ' F$ 3' $QCNHED3D &4HJ' F3' I $4 O' CH' F$' '
CF$ ' EH' Q3' 1HCC Q 3' J J3D $ 3 O' H' $1143F3ED' $ED' Q4 E2' F J' Q3&H43'
$' 5-C N3' F3' <&& N34' H4' ,HE NHJJ CC HE3D' <&& N34' NHJJ$ED E2' F3'
I $4 O' CF$ ' 14HD-N3' H' F3' 5-C N3' Q3&H43' FHJ' F3' '3N4- ' H-2F'
432- $4 O' H' F$ 3' Q33E' Q4H-2F' &H4' 3C $ HE' $' @34 & N$ 3' H&' F3'
,$J3' $ED' I $N3' H&' '3C D3EN3' H&' C-NF' '3N4- ' $ED' F3' 5-C N3' H'
FHJ' C-NF' @34 & N$ 3' CF$ ' Q3' 14HD-N3D' CF$ ' $& 34' C$ C&O E2' F J C3 &'
F$' F3' '3N4- ' FH' F$D' $QCNHED3D' N$EEH' Q3' &H-ED' $ED' $1143R
F3ED3D' 4$EC J ' $' G-1 N$ 3' F343H&' H' F3' ?3N43 $4O' H&' F3' D J R
4$ O' E' H4D34' F$' E' F3' ; 3E' H&' C-NF' '3N4- ' Q3 E2' $& 34 $4DC'
<' H' $1143F3ED3D

U M#> ;>P P ' &'

$1143F3 (D ' $ED' 431H4 3D' $C' $' G3C34 34' F3' 6$ 'H&'F C' F$ E2'
43N3 3D' ;E C E2' PHE30'$ED'F$ E2'$QCNHED3D' $& 34' F$ E2' Q33E'
3E C 3D' $O' Q3' $CN34 $ E3D' Q3&H43' F3' Q3' & E$ O' $D(-D23D' H' Q3' $'
'G3C34 34' ED'EO' '3N4- ' FH' CF$ '3E C' E H' 8 C' P$(3C O C' 'HO$'
'P$4 E3' 6H4N3C' $ED' FH' CF$ 'Q3' D CNH 343D' H' Q3' EN1Q 3' H&'$N 3'
?34 N3' QO' 43$CHE' H&'$EO' E& 4 J O' NHEN3$ 3D' H4' EH ' D3N $43D' QO' C-NF'
'3N4- 'Q3&H43' F3' 5-C N3' $' F3' * J 3' H&' F C' 3C $ HE' $ED' J 3ER
HE3D' F343 E' J $O' Q3' 4$EC&3443D' E H' $' M$44 CHE' H4' 3 34$E' H4'
E $ D' B$ $ HE'$ED' CF$ 'Q3' 3E 3D' H' 43N J 3' C-NF' I 4H1H4 HE' H4'
'3C D-3' H&' BH-E O' + B$C' F3' J 4D' 8 2F' D J 4$ 'H4' F3' @H J J CR
C HE34C' &H4' 3 3N- E2' F3' <& N3' H&' >H4D' 8 2F' D J 4$ 'J $O' $ H 'E'
F$ 'B3F$ &' EC 3$D' H&' F3' BH-E O' -1HE' F NF' C-NF' P $E' CF$ ' F$ 3'
Q33E' 3E C 3D' $EO' N 'H4' $EO' '- 3C' $ED' '32- $ HEC' H' F3' NHE 4$4O'
EH FC $ED E2' $ED' 'CF$&' Q3' $ &- '&H4' $EO' * H' 5-C N3C' Q3&H43'
FH J' $EO' '3N4- 'CF$ 'Q3' Q4H-2F '$ED' FH' CF$ 'Q3' 14H 3D' -1HE'
<$ F' Q3&H43' F3 J ' H' F$ 3' &- O' NHEN3$ 3D' F C' F$ E2' Q33E' $'
P $4 E3' H4' ?H D 34' $ED' D CNF$423D' H4' H' F$ 3' NHEN3$ 3D' F C' F$ E2'
Q33E' D CNF$423D' HE' $EO' 14 H4' ;E C J 3E ' H4' H' F$ 3' &- O' NHER
N3$ 3D' $EO' E& 4 J O' -1HE' Q3 E2' $ 3C 3D' H4' D3C 2E3D O' J $D3'
$EO' &$ C3' '3143C3E $ HE' H' $D(-D23' C-NF' I 34CHE' H' Q3' $' 'H2-3'
$ED' 2QHED' $ED' H' C3E 3EN3' F J' H' C-NF' I -E CF J 3E' $C' QO'
$EO' >$ 'EH ' E' &H4N3' J $O' Q3' E& N 3D' HE' 'H2-3C' $ED' 2QHEDC'
$ED' 24E C' $ED' ENH44 2 Q 3' 'H2-3C' ' $ED' $EO' '3N4- ' FH' CF$ '
D3C 2E3D O' J $+3' $EO' &$ C3' '3143C3E $ HE' H&'$EO' I $4 N- $4' NHE $ E3D'
E' F3' <$ FC' $ED' @34 & N$ 3C' E' F3' ?NF3D- 3' H' F C' N '$EE3 3D'
Q3&H43' F3' 5-C N3' $' F3' * J 3' H&' F C' 3C $ HE' $ED' CF$ ' F343QO'
HQ $ E' $EO' ;E C E2' PHE30' H4' $EO' BH-E O' &H4' 3E 34 E2' E H' 8 C'
P $(3C O C' ?34 N3 'H4' $EO' N F34' PHE30' CF$ 'Q3' D33 J 3D' 2- O' H&'
HQ $ E E2' PHE30' -ED34' &$ C3' I 43 3EN3C' F E' F3' 4-3' E 3E '$ED'
KZM P 3$E E2' &' E' 8#(% #&'H&'$E' N ' E - 3D' /#' /'' , '',#1,%& #('
NUV #&' !#& #(')!' < F1' #' ;E2 $ED' !% 0!' ,' < '!#' #&' ,)!'
6 !#'!1' ',##!' !&')! !F)'' $ED' &' E' $!% #&' H&'$E' N '1$CC3D' E'
F3' , E F' =3$4' H&' F3' '3 2E' H&' 8 C' $ 3' P $(3C O' % E2' !, (!' F3'
VM 'N'!! 6H-4 F' E - 3D' /#' /'' , '',#1,%& #(' #&' !#& #(')!' < F1' #'
43 $ED' !% 0!' ,'< '!#' #&',)!'6 !#'!1'',##!' !&')! !F)-' $ED'
F3' I 4HD-N HE' H&' C-NF' @34 & N$ 3 '$ED' I 4HH&' H&' F3' 8 $ED 4 E2' H&'
F3' 5-C N3' 2 E2' C-NF' @34 & N$ 'CF$ 'Q3' C-&& N 3E ' ; D3EN3' H&' C-NF'
I $4 O' F$ E2' 43143C3E 3D' F3' C3 34$' I $4 N- $4C' NHE $ E3D' E' F3' <$ F'
C H4E' QO' F J '$ED' C13N & 3D' E' F3' @34 & N$ 3' H&' F3' 5-C N3' $' F3'
* J 3' H&' F C' F$ E2' Q33E' $ 3C 3D' $ED' F$' I 4HH&' QO' F3' <$ F' H&'
<E3' H4' J H43' N43D Q 3' 9 E3CC3C' F$' F3' I 34CHE' CH' 14HC3N- 3D' F$ F'
H -E $4 O'$N+EH 3D23D' F$' $' F3' * J 3' H&' F C' ;$ C J 3E' F3'
Q3 HE23D' H' F3' P $'H4' H' $EO' '32 J 3E' E' 8 C' P $(3C O C' ?34 N3'
H4' H' 8 C' P $(3C O C' , $ O' H4' P $4 E3C' CF$ 'Q3' D33 J 3D' $ED' $+3E' $C'
; D3EN3' H&' F3' 6$N 'CH' QO' F J' $N+EH 3D23D' FH- 'I 4HD-N HE' H&'
$EO' 'H '<4H F34' GHN- J 3E' ,'14H 3' F3' C 3 ' $ED' $ 'P $E' QQ'
F$ E2' Q33E' 3E4H 3D' H' C34 3' E' F3' P # $' $ED' FH': ' F3 * J H' H&'
H&&34 E2' H' 3E C' E H' F3' P $4 E3C' CF$ 'D3EO' F$ 'F3' C' $' P $' P $E'
H4' CF$ 'D3EO' H' F3' 5-C N3' Q3&H43' FH J' F3' CF$ 'Q3' $ 3C 3D' F$'
F3' Q3 HE2C' H' F3' P $' CF$ 'HE' @HE N HE' F343H&' Q3&H43' $EO'
<E3' 5-C N3' E' F3' #E 3D' % E2DH J ' 3 F34' -1HE' F3' <$ F' H&' <E3'
9 E3CC' H '-1HE' F C' H E' @HE&3CC HE' H4' -1HE' F3' I 4HD-N HE' H&' F3'
3C $ HE' $ED' F3' Q3&H43 J 3E HE3D' G3N 4 HE' H&' C-NF' I 34CHE
N34 & 3D

U`M#> ;>P ‘ ‘ @$1 US‘

N34 &3D‘ QO‘ F3‘ ?3N43 $40‘ H&‘ F3‘ DJ 4$ O‘ Q3‘ NHJ J 3D‘ H‘ F3‘ @HJ JHE‘ M$H‘H4‘ 8H-C3‘ H&‘ @H443N HE‘ F343‘ H‘ 43J$E‘ FH-‘B$‘ H4‘ P JE14 T3‘ &H4‘ $ED‘ D-4 E2‘ $EO‘ * J3‘ EH‘3 N33D E2‘? ‘@$ 3ED$4‘ PHE FC‘ H 34‘ $ED‘ $QH 3‘ $EO‘ I3E$ O‘H4‘ I-E CF J3E‘ H‘ F NF‘ C-NF‘ I34CHE‘ CH‘ H&&3ED E2‘ J$O‘Q3‘ H F34 C3‘ $Q 3‘ $ED‘ CF$ ‘&4H J‘ F3‘ G$O‘ HE‘ F NF‘ F C‘ ;E2$23 J3E‘ H‘ C34 3‘ E‘ F3‘ P $‘ CF$‘ 3ED‘ $ED‘ EH‘ CHHE34‘Q3 HE2‘ $C‘ $‘ ?H D 34‘ H‘ F3‘ G C HE‘ H&‘ 8 C‘ P$(3C O C‘ ‘HO$‘ P$4 E3‘ 6H4N3C‘ E H‘ F NF‘ F3‘ F$C‘ CH‘ 3E C 3D‘ 14H D3D‘ $ CH‘ F$‘ 3 340‘ C-NF‘ I34CHE‘ CF$‘ Q3‘%$Q&3‘ H‘ C34 3‘ E‘ 8 C‘ P$(3C O C‘ ‘HO$‘ P$4 E3‘ 6H4N3C‘ E‘ F NF‘ F3‘ F$C ‘CH‘ 3E C 3D‘ D-4 E2‘ $‘ F3‘ * J3‘ F3‘ P $‘ H‘ F NF‘ F3‘ CF$‘ Q3 HE2‘ CF$‘ 43J$E‘ D C3 J QHD 3D‘ H4‘ CF$‘ EH‘Q3‘N$ 3D‘H-‘&H4‘ *4$ E E2‘ H4‘ ; 34N C3‘ $ED‘ CF$‘ D-4 E2‘ $‘ C-NF‘ * J3‘ Q3‘ C-Q(3N‘ H‘ $‘ F3‘ I4H C HEC‘H&‘ F C‘ N‘ $ED‘ Q3‘ $Q 3‘ H‘ Q3‘ $1143F3ED3D‘ $ED‘ D3$‘ F‘ $ED‘ 1-E CF3D‘ $C‘ $‘ G3C34 34‘ &4H J‘ F3‘ P$ E3C‘ &‘F3‘ CF$‘ E32 3N‘H4‘ 43& &C3‘ H‘(H E‘ $ED‘ C34 3‘ F343 E‘

WWW ‘ ED‘ Q3‘ ‘ 3E$N 3D‘ *F$‘ ‘ CF$‘ Q3‘ $ &-‘ &H4‘ F3‘ =3$4 O‘ ?34‘ 5-C N3‘ Q3&H43‘ FH J‘ $EO‘ ‘3N4- ‘^Q3 E2‘ $‘ F 43D‘ ?34 $E_‘ CF$‘ Q3‘ O$4EC 3E C‘ $ 3C 3D‘B3&H 3‘ F3‘ ; 1 4$ HE‘ H&‘ F3‘ *34 J‘ H&‘ ?34 N3‘ &H4‘ F NF F3‘ CF$‘ F$ 3‘ Q33E‘ F 43D‘ H‘ $D(-D23‘ H‘ C-NF‘ ‘3N4- ‘ $‘ 43$CHE$Q 3‘ I4H1H4 HE‘ H&‘ I4H1H4 HE‘ H&‘ F C‘ 9 $23C‘ &H4‘ F]‘ * J3‘ F3‘ CF$B‘ F$ 3‘ $N -$ O‘ C34 3D‘ F3 4‘ 9 $23C‘ H‘ Q3‘ &H4 F F‘ 1$ D‘ QO‘ F3‘ P$C 34‘ -1HE‘ FH J‘ F3‘ C$ D‘ 5-C N3‘ CF$‘ J$+3‘ $E‘ <4D34‘ $NNH4D E2 O‘ $ED‘ &‘ F3‘ C$ J3‘ Q3‘ EH‘1$ D‘ F E‘ IH-4‘ G$OC‘ CF$‘ 3E&H4N3‘ F3‘ I$O J3E‘ F343H&‘ QO‘ F3‘ C$ J3‘ P3$EC‘ $C‘ 13N-‘ ‘ E $40‘ I3E$ 3C‘ J$O‘ -ED34‘ F C‘ N‘Q3‘ 43NH 343D‘ Q3&H43‘ $‘ 5-C N3

WWW W‘ ED‘ Q3‘ ‘3E$N 3D‘ *F$‘3 340‘ P$4 E3‘ <&& N34‘ FH‘ CF$‘ I3E$ O‘ HE‘ D3C 2E3D O‘ $N‘ NHE 4$40‘ H‘ F3‘ I4H C HEC‘ H&‘ F C‘ N‘ E‘ $EO‘ 43C13N‘ <&& N34C 432$4D E2‘ F3‘ 3E C E2‘ $ED‘ $ 3C E2‘ H&‘ ‘3N4- C‘ &H4‘ 8 C‘ P$(3C O C‘ ?34 N3‘ CF$‘ -1HE‘ I4HH&‘ F343H&‘ -1HE‘ <$ F‘ QO‘ * H‘ 9 E3CC3C‘ Q3&H43 $‘ M3E34$‘ @H-4 J$4 $‘ Q3‘ N$CF 343D‘ $ED‘ D C$Q 3D‘ H‘ FH D‘ $EO‘ @ ‘ H4‘ P $40‘ <&& N3‘ H4‘ ; J 1 HO J3E‘ E‘ 8 C‘ P$(3C O C‘ ?34 N3

`W>‘ ED‘ Q3‘ ‘ 3E$N 3D‘ *F$‘ EH‘ P$C 34‘ CF$‘ Q3‘ 3E 3D‘ H‘ N$ JC H&‘ N$ J‘ $E‘ 1143E N3‘ FH‘ CF$‘ 3E C‘ $C‘ $‘ P$8E3‘ E‘ 8 C‘ P$(3C O C‘ P$C 34C‘ H ?34 N3‘ -E 3CC‘ C-NF‘ P$C 34‘ CF$‘ F E‘ <E3‘ @$ 3ED$4‘ PHE F‘ E3‘ 1143E N3C‘ $& 34‘ C-NF‘ 1143E N3‘ CF$‘ F$ 3‘ 3&‘ F C‘ ?34 N3‘ 2H‘ Q3&H43‘ CH J3‘ 5-C N3‘ $ED‘ $+3‘ $ED‘ C-QCN4 Q3‘ F3‘ <$ F‘ J3E HE3D‘ E‘ F3‘ ?NF3D- 3‘ H‘ F C‘ N‘ $EE3 3D‘ $ED‘ $‘ F3‘ * J3‘ H&‘ J$+ E2‘ F C‘ @$ J‘ 14HD-N3‘ H‘ F3‘ <&& N34‘ -ED34‘ FHC3‘ @H J J$ED‘ F3‘ ‘3N4- ‘CF$‘ Q3‘ F3‘ @34 R & N$ 3‘ H&‘ C-NF‘ 5-C N3‘ H&‘ F C‘ F$ E2‘ $+3E‘ C-NF‘ <$ F‘ F NF‘ @34 & N$ 3‘ C-NF‘ 5-C N3‘ C‘ 43X- 43D‘ H‘ 2 3‘ E‘ F3‘ 6H4 J‘ E‘ F3‘ ?NF3D- 3‘ H‘ F C‘ N‘ $EE3 3D‘ EH4‘ #E 3CC‘ C-NF‘ 1143E N3‘ CF$‘ F$ 3‘ Q33E‘ QH-ED‘ &‘ E‘ 8#(% #&‘&H4‘ F3*- ‘*34 J‘ H&‘?3 3E‘=3$4C‘^EH‘F$ E2‘ Q33E‘ $QH 3‘ F3‘ 2]‘H&‘&H-4 33E‘ 9 F3E‘ CH‘ QH-ED_‘ $ED‘ &‘ E‘ $!% #&‘ , ‘O#‘ F3‘ Q>" 1)‘ &Q4‘ F3‘ &- ‘*34$‘H&‘6 3‘=3$4C‘ $‘ F3‘ 3$C ‘^EH‘F$ E2‘ 7Q33E‘ $QH 3‘ F3‘ 23‘ H&‘? 33E‘ F3E‘ CH‘ QH-ED_‘ $ED‘ &‘ E‘+‘, % #&‘ &H4‘ F3‘ &- ‘ *34 J‘ $‘ 3$C‘ H&‘ 6H#4‘ =3$4C‘ QO‘ $‘ 432- $4‘ @HE 4$N‘ H&‘ ED3E -43‘ H&‘ 1143E N3CF 1‘ D- O‘ 3 3ED3D‘ C 2E3D‘ $ED‘ 3C 3D‘ $ED‘ Q ED E2‘ HE‘ QH F‘ I$4 3C‘ QO‘ F3‘ >$ ‘ H&‘?NH $ D‘14 H4‘ H‘ F3‘ I34 HD‘ H&‘ ;E C J3E ‘$ED‘ -E 3CC‘ C#NF‘ @HE 4$N‘H4‘ ED3E -43‘ CH‘ D#AO‘ 3 3N- 3D‘ CF$ ‘9 F E‘ *F4330‘ PHE FC‘ $& 34‘ F3‘ @H J J3EN3$43F‘ H&‘ F3‘ 1143E P 1 $(D5QD (43‘ F3‘ I34 HD‘ H&‘ ;E C J3E ‘F$ <‘ Q3&3E‘ 14HD-N3D

14HD-N3D' \' $'5-C N3' H&' F3' I3$N3 'H&' F3' @H-E O' F343 E' F3' I$4 3C' 43C D3 ' $ED' F343' CF$ ' F$ 3' Q33E' EDH4C3D' F343HE' QO' C-NF' 5-C N3' $' @34 & N$ 3' H4' G3N 4 HE' C 2E3D' QO' F J ' C13N &O E2' F3' G$ 3' F3E' $ED' F3' I34CHE' QO' FH J' C-NF' @HE 4$N ' H4' ED3E -43' CF$ ' F$ 3' Q33E' CH' 14HD-N3D ' F NF' @3& & N$ 3' H4' G3N 4 HE' C NF' 5-C N3' H&' F3' I3$N3' C' F343QO' 43X- 43D' H' EDH4C3' $ED' C 2E' ' EH4' -E 3CC' $EO' C-NF' 1143E N3' CF$8 ' F3E' N $ J 3D' QO' C-NF' P $C 34 ' Q3' -ED34' * 3E O ' HE3' =3$4C' H&' 23 ' 1&H D3D' F$ ' $EO' P $C 34' H&' $E' 1143E N3' $D3- 143D' & $4 F3' ?3$' ?34 N3' CF$ ' Q3' 3E 3D' H' N $ J ' $ED' 43NH 34' F J ' E' F3' 6H4 J ' $ED' P $EE34' $QH 3' D 43N 3D ' EH FC $ED E2' C-NF' 1143E N3' J $O' F$ 3' Q33E' QH-ED' &H4' $' 3CC' * 34 J ' F$E' ?3 3E ' 6 3' H4' 6H-4' =3$4C' $C' $&H43C$ D ' $ED' $EO' C-NF' P $C 34 ' FH' CF$ ' 2 3' > ' F3' ED3E -43C' H&' 1143E N3CF 1' F E' <E3' P HE F' $& 34' F3' 3E C E2' H&' C-NF' 1143E N3 ' CF$ ' Q3' 3E 3D' H' 43N3 3 ' H' F C' H E' # C3 ' CH' J -NF' H&' F3' BH-E O' 1OQ 3' H' C-NF' ' 3N4- ' $& 34' D3D-N E2' F343&4H J ' * H' M- E3$C' H' 14H D3' F J ' F' , 3N3CC$4 3C ' $C' CF$ ' EH ' F$ 3' Q33E' 1$ D' H' C-NF' ' 3N4- ' Q3&H43' , H N3' 2 3E' H&' F C' Q3 E2' $E' 1143E N3

P -C 34C '$ED' I3E$ O' HE ' &$ C3' P -C 34C

W>>' ED' Q3' '3E$N 3D ' * F$ ' P -C 34C ' $C' F$ 3' Q33E' N-C H J $4O ' CF$ ' Q3' $+3E' H&' 3 34O' G C HE' H4' @H J 1$EO' H&' ' HO$ ' P $4 E3C' HEN3' E' 3 34O' @$ 3ED$4' P HE F' $C' CF$ ' Q3' $11H E 3D' ' $ED' EH' <&& N34' H4' P $4 E3' CF$ ' Q3' $QC3E ' &4H J ' $EO' C-NF' P -C 34' -E 3CC' D- O' N34 & 3D' H' Q3' 3 J 1 HO3D' HE' CH J 3' H F34' G- O' H&' F3' @H41C' H4' C N+ ' H4' E' I4 CHE ' H4' HE' 6-4 H-2F ' $ED' 3 34O' I34CHE' Q3 HE2 E2' H' 8 C' P $(3C O C' ?34 N3' FH' CF$ ' 2 3' H4' 14HN-43' H' Q3' 2 3E' $EO' -E 4-3' @34 & N$ 3 ' F343QO' H' 3 N-C3' $EO' I34CHE' &4H J ' $EO' P -C 34' H4' H F34' ?34 N3' F NF' F3' H-2F ' H' $ 3ED' H4' 134&H4 J ' H4' CF$ ' J $+3' $EO' &$ C3' H4' -E 4-3' P -C 34' H&' P $E' H4' 8 H4C3 ' H4' CF$ ' E2 O' $ H ' H4' C 2E' $EO' &$ C3' P -C 34' H4' G-1 N$ 3' F343H&' H4' CF$ ' D 43N O' H4' ED 43N O' $+3' H4' 43N3 3' $EO' P HE3O' H4' M4$ - O' &H4' J -C 34 E2' $EO' I34CHE ' H4' &H4' C 2E E2' $EO' P -C 34' ' H ' H4' G-1 N$ 3 ' H4' CF$ ' +EH E2 O' J -C 34' $EO' I34CHE' QO' $' 4HE2' , $ J 3 ' CF$ ' -1HE' I4HH&' QO' * H' 9 E3CC3C' Q3&H43' $' M3E34$ ' @H-4 J $4 $ ' &H4' $EO' C-NF' @&& &3E33' Q3' &H4 F F' N$CF 343D ' $ED' D CR $Q 3D' H' F$ 3' H4' FH D' $EO' @ ' H4' P $4O' <&& N3' H4' ; J 1 HO J 3E ' E' F3' ?34 N3' H&' 8 C' P $(3C O ' $ED' $EO' I34CHE ' FH' CF$ ' ' $-D- 3E O' H&&34' H4' 14HN-43' F J C3 &' H' Q3' &$ C3 O' J -C 343D ' H4' 3ED ' H4' &-4E CF' $EO' 8 H4C3' H' Q3' &$ C3 O' J -C 343D ' CF$ ' -1HE' I4HH&' F343H&' QO' F3' <$ FC' H&' * H' 9 E3CC3C' Q3&H43' CH J 3' 5-C N3' H&' F3' I3$N3' 43C D E2' E3$4' H' F3' I $N3' F343' C-NF' P -C 34' CF$ ' Q3' J $D3 ' &H4&3 ' F3' ?- J ' H&' * 3E O' IH-EDC ' $ED' F3' E&H4 J 34 ' &' F3' Q3 HE2' H' 8 C' P $(3C O C' ?34 N3 ' CF$ ' &' F3' D3 J $ED' ' Q3' &H4 F F' D CNF$423D ' $ED' &' $EO' I34CHE' EH ' Q3 HE2 E2' H' 8 C' P $(3C O C' ?34 N3' CF$ ' 2 3' H4' C 2E' $EO' -E 4-3' @34 & N$ 3' H&' E3CC' H4' H F34 C3 ' E' H4D34' H' 3 N-C3' $EO' <&& N34' H4' P $4 E3' &4H J ' 113$4$EN3' $ ' $EO' P -C 34 ' H4 ' F343QO' 8 C' P $(3C O C' ?34 N3' J $O' Q3' D3&4$-D3D ' 3 34O' I34CHE' CH' H& 3ED E2' CF$ ' &H4' 3 34O' C-NF' <&&3EN3' &H4&3 ' F3' ?- J ' H&' * 3E O' IH-EDC

34 &O E2' H&' P -C 34' ' H C

W> ' ED' Q3' '3E$N 3D ' * F$ ' $ ' P -C 34' ' H C' $ED' I $O' > C C' H&' ' HO$ ' P $4 E3C' 43X- 43D' H' Q3' 34 & 3D' -1HE' <$ F' CF$ ' Q3' C H4E' Q3&H43' $ED' $ 3C 3D' QO' $EO' 5-C N3' H&' F3' I3$N3 ' FH- ' 633' H4' ' 3 $4D' H' F J C3 &' H4' F C' @ 34+' '

W> ' ED

U`M#> ;>P ʻ ʻ @$1 USʻ V

ʻ W> ʻ EDʻ Q3ʻ ʻ 3E$N 3Dʻ *F$ʻ F3Eʻ F343ʻ CF$ ʻ EH ʻ Q3ʻ $EOʻ N#(A)+ ʻ+?
<&& N34ʻ H&ʻ 8 Cʻ P $(3C O Cʻ >$EDʻ H4ʻ P $4 E3ʻ 6H4N3Cʻ H&ʻ F3ʻ ' $E+ʻ H&ʻ @$1 $ Eʻ ?/G! +G*Jʻ) ʻ
H4ʻ H&ʻ $ʻ C-134 H4ʻ ' $E+ ʻ H4ʻ $EOʻ D(- $E ʻ H&ʻ P $ʻ F Eʻ NHE 3E 3E ʻ
G C $EN3ʻ H&ʻ F3ʻ I $N3ʻ F343ʻ $EOʻ , HE NH J J CC HE3Dʻ <&& N34ʻ H4ʻ P $4 E3ʻ
HEʻ 6-4 H-2Fʻ CF$ ʻ Q3ʻ D3 $ E3Dʻ QOʻ ? N+E3CCʻ H4ʻ H F34ʻ @$C-$ Oʻ 43ED34 E2ʻ
E3N3CC$4Oʻ $EOʻ ; 3EC HEʻ H&ʻ C-NFʻ 6-4 H-2Fʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ $EOʻ ʻ ʻ
5-C N3ʻ FHʻ CF$ ʻ Q3ʻ C$ C& 3Dʻ H&ʻ C-NFʻ , 3N3CC O ʻ Hʻ 24$E ʻ $Eʻ ; 3EC HEʻ
H&ʻ 6-4 H-2Fʻ &H4ʻ $ʻ I 34 HDʻ EH ʻ 3 N33D E2ʻ <E3ʻ P HE F ʻ $EDʻ F3ʻ C$ Dʻ
5-C N3ʻ CF$ ʻ J J 3D $ 3 Oʻ N34 &Oʻ C-NFʻ ; 3EC HE ʻ $EDʻ F3ʻ @$-C3ʻ
F343H&ʻ Hʻ F3ʻ @H J J $ED E2ʻ <&& N34ʻ H&ʻ F3ʻ G C HEʻ H4ʻ G3 $NF J 3E ʻ
Hʻ F NFʻ F3ʻ P $Eʻ Q3 HE2C ʻ &ʻ +EH E ʻ $EDʻ &ʻ EH ʻ F3Eʻ Hʻ F3ʻ ?3N43 $40ʻ
H&ʻ F3ʻ D J 4$ O ʻ Eʻ H4D34ʻ F$ ʻ F3ʻ E3N3CC$4Oʻ H $EN3ʻ H&ʻ I $Oʻ $EDʻ
?-QC C 3EN3ʻ J $Oʻ Q3ʻ 43 J 3Dʻ Hʻ F3ʻ P $4 E3ʻ FHʻ CF$ ʻ EH ʻ D-4 E2ʻ F3ʻ
I 34 HDʻ H&ʻ C-NFʻ ; 3EC HEʻ H&ʻ 6-4 H-2Fʻ Q3ʻ $Q 3ʻ Hʻ Q3ʻ 43$ 3Dʻ $Cʻ $
G 3C34 3&ʻ 14H D3Dʻ F$ ʻ EH F E2ʻ F343 Eʻ NHE $ E3Dʻ CF$ ʻ Q3ʻ NHEC 4-3Dʻ
Hʻ 3 3 J 1 ʻ $EOʻ P $4 E3ʻ &4H Jʻ *4 $ʻ $EDʻ I -E CF J 3E ʻ $NNH4D E2ʻ Hʻ F3ʻ
I 4H C HEʻ H&ʻ F Cʻ N ʻ &H4ʻ $EOʻ &$ C3ʻ ' 3143C3E $ HEʻ J $D3ʻ QOʻ F Jʻ Eʻ
F$ ʻ B3F$ &ʻ Hʻ F3ʻ C$ Dʻ <&& N34ʻ H4ʻ 5-C N3ʻ CHʻ 3 3ED E2ʻ F3ʻ 6-4 H-2F ʻ
H4ʻ &H4ʻ $EOʻ B43$NFʻ H&ʻ G CN 1 E3ʻ NH J J 3Dʻ QOʻ F Jʻ Eʻ $11 O E2ʻ &H4ʻ ʻ
$EDʻ HQ $ E E2ʻ F3ʻ C$ Dʻ ; 3EC HEʻ H&ʻ 6-4 H-2F

W> ʻ EDʻ Q3ʻ ʻ 3E$N 3Dʻ *F$ ʻ 3 34Oʻ P $4 E3ʻ -1HEʻ Q3 E2ʻ D Cʻ : ,- ʻ
NF$423Dʻ &4H Jʻ F3ʻ ?34 N3ʻ CF$ ʻ Q3ʻ 3E 3Dʻ Hʻ $Eʻ H $EN3ʻ ^EH ʻ PHE3OHE
3 N33D E2ʻ Eʻ $EOʻ @$C3ʻ F3ʻ J H-E ʻ H&ʻ * 3E O HE3ʻ G$OCʻ I $O_ʻ Hʻ
3E$Q 3ʻ F Jʻ Hʻ 3$NFʻ F Cʻ 8 H J 3ʻ F NFʻ H $EN3ʻ CF$ ʻ Q3ʻ N$ N- $ 3Dʻ
$NNH4D E2ʻ Hʻ F3ʻ G C $EN3ʻ F3ʻ F$Cʻ Hʻ 4$ 3 :ʻ I 4H D3Dʻ $ $OC ʻ F$ ʻ
EHʻ I 34CHEʻ FHʻ CF$ ʻ 1-4NF$C3ʻ F Cʻ H Eʻ G CNF$423 ʻ H4ʻ Q3ʻ D CNF$423Dʻ HEʻ
$NNH-E ʻ H&ʻ P CQ3F$ H-4 ʻ H4ʻ $ ʻ F Cʻ H Eʻ G3C 43 ʻ CF$ ʻ Q3ʻ 3E 3Dʻ Hʻ
$EOʻ C-NFʻ H $EN3

W> ʻ EDʻ F343$Cʻ F343ʻ Cʻ $EDʻ J $Oʻ Q3ʻ <NN$C HEʻ &H4ʻ F3ʻ J $4NF E2ʻ B + E2ʻ H&ʻ
$EDʻ $ CHʻ &H4ʻ F3ʻ X-$4 34 E2ʻ H&ʻ F3ʻ ' HO$ ʻ P $4 E3ʻ 6H4N3Cʻ F3Eʻ HEʻ P$4 E3C ʻ
?FH43 ʻ Q3ʻ ʻ 3E$N 3D ʻ *F$ ʻ D-4 E2ʻ F3ʻ @HE E-$EN3ʻ H&ʻ F Cʻ N ʻ
-1HEʻ F3ʻ <4D34ʻ H4ʻ <4D34Cʻ Eʻ 9 4 E2ʻ Eʻ F$ ʻ B3F$ &ʻ -ED34ʻ F3ʻ
8 $EDʻ H&ʻ F3ʻ >H4Dʻ 8 2Fʻ D J 4$ ʻ H4ʻ F3ʻ 8 $EDCʻ H&ʻ * Hʻ H4ʻ J H43ʻ H&ʻ
F3ʻ @H J J CC HE34Cʻ &H4ʻ 3 3N- E2ʻ F3ʻ <&& N3ʻ H&ʻ >H4Dʻ 8 2Fʻ D J 4$ ʻ
&H4ʻ F3ʻ * J 3ʻ Q3 E2 ʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ $ ʻ @HEC $Q 3Cʻ $EDʻ H F34ʻ
I 34CHECʻ C13N & 3Dʻ Eʻ F Cʻ N ʻ Eʻ 8#(% #&ʻ $EDʻ $!% #& ʻ $EDʻ F3Oʻ $43ʻ
F343QOʻ 43X- 43D ʻ Hʻ Q 3 ʻ F3ʻ <&& N34Cʻ $EDʻ P $4 E3Cʻ F3 F34ʻ J $4NF E2ʻ
H4ʻ H F34 C3 ʻ $EDʻ $ CHʻ $ ʻ ? $&&ʻ $EDʻ 6 3 Dʻ <&& N34Cʻ 8 H4C3C ʻ $EDʻ $ ʻ
B$ ʻ $EDʻ B$22$23ʻ 8 H4C3Cʻ Q3 HE2 E2ʻ Hʻ F3ʻ ' HO$ ʻ P $4 E3ʻ 6H4N3C ʻ
F3Eʻ HEʻ $N -$ ʻ ?34 N3 ʻ ^EH ʻ 3 N33D E2ʻ &H4ʻ 3$NFʻ <&& N3&ʻ F3ʻ , - J Q34 ʻ
&H4ʻ F NFʻ 6H4$23ʻ Cʻ $ H 3Dʻ QOʻ 8 Cʻ P $(3C O Cʻ ' 32- $ HEC_ʻ Eʻ
N -$ E2ʻ 8 H-C3Cʻ $EDʻ H F34ʻ 8 H-C3Cʻ C13N & 3Dʻ Eʻ F Cʻ N ʻ $+ E2ʻ ʻ
N$43ʻ Eʻ $!% #&ʻ EH ʻ Hʻ Q 3 ʻ 3CCʻ F$Eʻ * Hʻ P 3Eʻ Eʻ $EOʻ <E3ʻ
8 H-C3 ʻ $EDʻ F3Oʻ CF$ ʻ Q3ʻ 43N3 3Dʻ QOʻ F3ʻ <NN-1 34Cʻ H&ʻ C-NFʻ
8 H-C3C ʻ $EDʻ Q3ʻ &-4E CF3Dʻ Fʻ 14H134ʻ NNH J J HD$ HEʻ Eʻ C-NFʻ
8 H-C3C ʻ $EDʻ Eʻ 8#(% #&ʻ F G 3 ʻ $EDʻ ? J $ ʻ B334 ʻ $EDʻ F ? $Q 3C
8 $O ʻ $EDʻ ? 4$ ʻ &H4ʻ C-NFʻ 8 H4C3Cʻ $Cʻ $&H43C$ D ʻ 1$O E2ʻ $#Dʻ $ H E2ʻ
&H4ʻ F3ʻ C$ J 3ʻ F3ʻ C3 34$ ʻ ' $ 3Cʻ F343 E $& 34ʻ 14H D3D ʻ $EDʻ $ ʻ EHʻ
* J 3Cʻ F3Eʻ P $4 E3Cʻ $43ʻ HEʻ $ʻ P $4NFʻ CF$ ʻ $EOʻ H&ʻ F3 Jʻ Q3ʻ Q 3 3Dʻ
$QH 3ʻ <E3ʻ P 3ʻ &4H Jʻ F3ʻ I $N3ʻ J 3E HE3Dʻ Eʻ F3ʻ ' H- 3ʻ ʻ $EDʻ Eʻ $ ʻ
I $N3Cʻ F343ʻ P $4 E3Cʻ CF$ ʻ Q3ʻ Q 3 3Dʻ Eʻ 1-4C-$EN3ʻ H&ʻ F Cʻ N
I 1ʻ ʻ F3

F3' <&& N34C' $ED' F3 4' 8 H4C3C' CF$ ' Q3' Q 3 3D' E' HE3' $ED' F3' C$ J 3'
8 H - C3 ' 3 N31 ' E' N$C3' H&' , 3N3CC O ' $ED' F3' @HEC $Q 3C' $43' F343QO'
43X - 43D' H' Q 3 $ ' P $4 E3C' HE' F3 4' P $4NF' E' $' (- C ' $ED' 3X - $ '
I 4H1H4 HE' - 1HE' F3' %33134C' H&' $ ' 8 H - C3C' F E' < E3' P 3' H&' F3'
I $N3' J 3E HE3D' E' F3' ' H - 3 ' $ FH - 2F' CH J 3' H&' C - NF' 8 H - C3C' J $O'
Q3' E' F3' $D(H E E2' @H - E O ' E' +3' P $EE34' E' 3 34O' 43C13N ' $C' &' C - NF'
8 H - C3C' 343' F343 E' HN$ O' C - $ 3' : I 4H D3D' $ $OC ' F$ ' EH F E2'
Q343 1' NHE $ E3D' CF$ ' Q3' NHEC 4 - 3D' H' 3 3ED' H' $ - FH4 T3' $EO'
@HEC $Q 3' H' Q 3 ' P $4 E3C' H - ' H&' F3' @H - E O' H' F NF' C - NF' @HER
C $Q 3' Q3 HE2C ' F3E' F3' @HEC $Q 3' H&' F3' $D(H E E2' @H - E O' CF$ ' Q3'
143C3E ' $ED' - ED34 $+3' H' Q 3 ' F3' D - 3' I 4H1H4 HE' H&' P 3E' E' C - NF'
$D(H E E2' @H - E O ' $ED' EH' J H43' B 3 C' CF$ ' $ ' $EO' * J 3' Q3' H4D343D'
F$E' F343' $43' 3&&3N 3' P $4 E3C' $ED' 8 H4C3C' 143C3E ' H' Q3' Q 3 3D '
$ ' F NF' B 3 C ' F3E' J $D3' H - ' QO' C - NF' @HEC $Q 3C ' CF$ ' Q3' D3 R
343D' E H' F3' 8 $EDC' H&' F3' @H J J $ED E2' <&& N34' 143C3E ' $DD' &' $EO'
I 34CHE' CF$ ' & ED' F J C3 &' $224 3 3D' QO' F$ E2' $E' - ED - 3' I 4H1H4 HE'
H&' P $4 E3C' Q 3 3D' E' F C' 8 H - C3 ' $ED' CF$ ' 143&34' F C' @H J 1 $ E ' &'
2 EC ' $' @HEC $Q 3' H4' H F34' I 34CHE' EH ' Q3 E2' $' 5 - C N3 ' H' < E3' H4'
J H43' 5 - C N3C ' $ED' &' 2 EC ' $' 5 - C N3 ' F3E' H' * H' H4' J H43' 5 - C N3C '
F E' FHC3' 5 - 4 CD N HE' C - NF' P $4 E3C' $43' Q 3 3D ' C - NF' 5 - CR
N3C' 43C13N 3 O' CF$ ' F$ 3' I H 34' H' H4D34' C - NF' H&' F3' P $4 E3C' H'
Q3' 43 J H 3D' $ED' H' Q3' Q 3 3D' - 1HE' H F34' I 34CHEC ' $C' F3O' CF$ ' C33'
@$ - C3' ' $ED' F3E' $EO' 8 H4C3C' Q3 HE2 E2' H' F3' <&& N34C' H&' 8 C'
P $(3C O C' ' HO$ ' P $4 E3' 6H4N3C' CF$ ' Q3' Q 3 3D' - 1HE' F3' < NN - 1 34C'
H&' 8 H - C3C' F$' CF$ ' F$ 3' EH' ? $Q 3C ' F3E ' - 1HE' $' 4 3E' ' 3X - R
C HE' H&' F3' <&& N34' NH J J $ED E2' C - NF' P $4 E3C ' F3' @HEC $Q 3' C'
F343QO' 43X - 43D' H' Q 3 ' F3' 8 H4C3C' - 1HE' CH J 3' H F34' I 34CHE' F$ E2'
? $Q 3C' QO' F C' N ' $Q 3' H' F$ 3' <&& N34C' $ED' P $4 E3C' Q 3 3D' - 1HE'
F3 J ' $ED' $EO' * H' H4' J H43' 5 - C N3C' H&' F3' I 3$N3' J $O' H4D34' $' 14H134'
H $EN3' H' Q3' 1$ D' QO' F3' I 34CHEC' 43 3 3D' H' F3' I 34CHEC' 43R
N3 E2' C - NF' 8 H4C3C ' H4' H' Q3' $11 3D' E' F3' & - 4E CF E2' F3' 43X - C 3'
NNH J EHD HE' ' $ED' F3' @H J J $ED E2' <&& N34' J $O' 3 NF$E23' $EO'
P $E' H4 ' 8 H4C3' Q 3 3D' E' $EO' I $N3' F' $EH F34' P $E' H4' 8 H4C3'
Q 3 3D' E' F3' C$ J 3' I $N3 ' &H4' F3' @HE 3E 3EN3' H4' B3E3& ' H&' F3'
?34 N3 ' 14H D3D' F3' , - J Q34' H&' P 3E' $ED' 8 H4C3C' DH' EH ' 3 N33D'
F3' , - J Q34' $ ' F$ ' * J 3' Q 3 3D' HE' C - NF' 8 H - C3C ' $ED' F3' @HER
C $Q 3C' $43' F343QO' 43X - 43D' H' Q 3 ' C - NF' P 3E' $ED' 8 H4C3C' CH'
3 NF$E23D' $NNH4D E2 O ' $ED' ' CF$ ' Q3' $ & - ' &H4' $EO' 5 - C N3 ' $ '
F3' ' 3X - 3C ' H&' $EO' <&& N34' H4' , HE NH J J CC HE3D' <&& N34' NH J J $EDR
E2' $EO' P $4 E3C' 43X - 4 E2' B 3 C ' H' 3 3ED' $EO' ' H - 3 ' H4' 3E $423'
F3' G C 4 N ' F E' F NF' B 3 C' CF$ ' Q3' 43X - 43D ' E' C - NF' P $EE34'
$C' CF$ ' $113$4' H' Q3' J HC ' NHE 3E 3E ' H' 8 C' P $(3C O C' ?34 N3 :
I 4H D3D' $ $OC ' F$ ' H' 143 3E ' H4' 1 - E CF' $ ' Q - C3C' E' Q 3 E2'
P $4 E3C ' ' CF$ ' Q3' $ & - ' &H4' $EO' 5 - C N3 ' F E' F C' 5 - 4 CD N HE '
QO' 9 44E ' H4' < 4D34' - ED34' F C' 8 $ED ' H' 43X - 43' $EO' @HEC $Q 3'
H' 3' F J' $E' NNH - E ' E' 9 4 E2' H&' F3' , - J Q34' H&' <&& N34C'
$ED' P $4 E3C' FH' CF$ ' Q3' X - $4 343D' QO' C - NF' @HEC $Q 3 ' H23 F34'
F' F3' , $ J 3C' H&' F3' I 34CHEC' - 1HE' FH J' C - NF' <&& N34C' $ED'
P $4 E3C' $43' Q 3 3D ' C $ E2' F3' ? 433 ' H4' I $N3' F343' C - NF'
I 34CHEC' D 3 ' $ED ' F3' ? 2EC ' &' $EO ' Q3 HE2 ' H' F3 4' 8 H - C3C '
$ED' ' CF$ ' Q3' $ & - ' H' Q 3 ' <&& N34C' $ED' P $4 E3C' E' +' , [
% #&' $NNH4D E2' H' F3' I 4H C HEC' H&' F3' > $ C' E' &H4N3' E' +' , % #&'
$ ' F3' * J 3' H&' C' #E HE' F' 8 # (% #& - ' $ED' EH' <&& N34' CF$ ' Q3
HQ 23D

HQ 23D' H' 1$O' &H4' F C' >HD2 E2' F343' F3' CF$ ' Q3' 432- $4 O' Q 3 3D' 3 N31 ' E' F3' ?$Q 4QC' H&' 8& #43 ( ) ' I4H D3D' $ $OC' F$ ' EH' 5-C N3' Q3 E2' $E' <& N34' H&' ' HO$' P$4 E3C' CF$ ' D 43N O' H4' ED 43N O' Q3' NHEN34E3D' E' Q 3 E2' H4' $11H E E2' \ -$4 34C' -ED34' F C' N

W> ' ED' Q3' ' 3E$N 3D' * F$ ' F3' EEFH D34' H4' H F34' I 34CHE' H $EN3' H' HE' FH J' $EO' P$4 E3' C' Q 3 3D' E' 8#(% #&' CF$ ' &' 43X- 43D' QO' EE+33134C' C-NF' P$4 E3' &-4E CF' F J' &H4' 3 340' G$O' HE' F3' P$4NF' $ED' &H4' $' I 34 HD' EH ' 3 N33D E2' * H' G$OC' F3E' F$ 3D' $ ' $EO' E 34 J 3D $ 3' I $N3' -1HE' F3' P$4NF' $ED' &H4' F3' G$O' H&' 44 $' $' F3' I $N3' H&' & E$' G3C E$ HE' F' <E3' FH ' P 3$' E' 3$NF' G$O ' F3' P 3$' H' NHEC C' H&' C-NF' \ -$E 3C' H&' G 3 ' $ED' ? J $ ' B334' $C' J $O' Q3' & 3D' QO' 8 C' P $(3C O C' ' 32- $ HEC' EH ' 3 N33D E2' <E3' I H-ED' $ED' $' \ -$4 34' H&' P 3$' 143 H-C' H' Q3 E2' D43CC3D' <E3' I H-ED' H&' B43$D' <E3' I H-ED' H&' 1H $ H3C' H4' H F34' 323 $Q 3C' $ED' * H' I E C' H&' ? J $ ' B334' $ED' E32$4' ?$ ' $ED' I 31134' $ED' &H4' C-NF' P 3$' F3' EEFH D34' H4' H F34' I 34CHE' &-4E CF E2' F3' C$ J 3' CF$ ' Q3' 1$ D' F3' ?- J' H&' *3E ' 13EN3' ' $ED' $ ' EEFH D34C' $ED' H F34' I 34CHEC' HE' FH J' P$4 E3C' J $O' Q3' Q 3 3D' E' 8#(% #& ' ^3 N31 ' HE' F3' P$4NF' F3E' F3O' $43' 3E 3D' H' Q3' &-4E CF3D' F' F3' FH ' P 3$' $C' $&H43C$ D _' CF$ ' &-4E CF' C-NF' P$4 E3C' F' @$ED 3C' E32$4' $ED' ?$ ' $ED' CF$ ' $ H ' F3 J' F3' #C3' H&' ; 43' $ED' F3' E3N3CC$4O' # 3EC C' &H4' D43CC E2' $ED' 3$ E2' F3 4' P 3$ ' $ED' CF$ ' Q3' 1$ D' E' NHEC D34$ HE' F343H&' F3' ?- J' H&' $' 8 $ &R 13EEO' 5! ' 2 ! ' &H4' 3$NF' P$4 E3' $ED' F3' ?- J' H' Q3' 1$ D' F3' EEFH D34' H4' H F34' I 34CHE' HE' FH J' $EO' H&' F3' 8 H4C3C' Q3 HE2 E2' H' 8 C' P $(3C O C' ' HO$' P$4 E3' 6H4N3C' CF$ ' Q3' Q 3 3D' #' 8#(% #&' &H4' 8 $O' $ED' ? 4$ ' CF$ ' Q3' *3E 13EN3' 5! ' 2 ! ' &H4' 3$NF' 8 H4C3 ' $ED' E' $!% #&' F3' ?- J' H' Q3' 1$ D' &H4' I H4$23' H' F3' EEFH D34' H4' H F34' I 34CHE' &H4' 8 H4C3C' Q 3 3D' QO' 4 -3' H&' F C' N ' CF$ ' Q3' F3' ' $ 3' 3C $Q CF3D' QO' F3' >H4D' > 3- 3E$E ' H4' H F34' C-& N 3E ' - FH4 O' &4H J' * J 3' H' * J 3' F3' C$ J 3' H' F3' 432- $ 3D' QO' F3' $ 34$23' ' $ 3' H&' @HE 4$N C' &H4' 6H4$23' E' $!% #&' $ED' &H4' F3' #C3' H&' ? $Q 3C' E' $!% #&' F) !#' C-NF' 8 H4C3C' $43' 14H D3D' F' 8 $O' $ED' ? 4$ ' QO' @HE 4$N ' $ED' EH ' QO' F3' <NN-1 34C' H&' F3' 8 H-C3C' E' F NF' F3O' $43' Q 3 3D' F3' ?- J' H&' 6H-4 13EN3' 5! ' 9 33+' &H4' 3$NF' 8 H4C3' CF$ ' Q3' 1$ D' ($ED' 3 340' <&& N34' H' FH J' ' Q3 HE2C' H' 43N3 3' H4' FH' CF$ ' $N -$ O 43N3 3' F3' I $O' $ED' ?-QC C 3EN3' H&' F3' ?$ D' P 3E' CF$ ' 3 340' 6H-4' G$OC' H4' Q3&H43' F3O' CF$ ' X- ' F3 4' \ -$4 34C' &' F3O' CF$ ' EH ' 43 J $ E' CH' HE2' $C' 6H-4' G$OC' C3 3' F3' (-C ' G3 J $EDC' H&' $ ' N -$ 34C' H4' H F34' I 34CHEC' HE' FH J' C-NF' P 3E' $43' Q 3 3D' H- ' H&' F3 4' I $O' $ED' ?-QC C 3EN3' Q3&H43' $#O' I $4 ' H&' F3' C$ D' I $O' H4' ?-QC C 3EN3' Q3' D C 4 Q- 3D' H' F3 J' 43C13N 3 O ' $ED' &' $EO' C-NF' <&& N34' CF$ ' EH ' 1$O' F3' C$ J 3' F3E' -1HE' @H J 1 $ E ' $ED' <$ F' J $D3' F343H&' QO' $EO' * H' 9 E3CC3C' $ ' F3' E3 ' \ -$4 34' ?3CC HE' &H4' F3' @H-E O' H4' @ O' F343' C-NF' \ -$4 34C' $43' C -$ 3' F3' ?3N43 $4O' H&' F3' D J 4$ O' C' F343QO' 43X- 43D' -1HE' @34 & N$ 3' H&' F3' 5-C N3C' Q3&H43' FH J' C#NF' <$ F' CF$ ' Q3' J $D3' H&' F3' ?- J' D-3' H' F3' @H J 1 $ E$E ' H' H4D34' I $OR J 3E ' H&' F3' J H-E ' F NF' CF$ ' ' Q3' NF$423D' 2 EC ' C-NF' <&& N34' $ED' E' N$C3' H&' $EO' P$4 E3C' Q3 E2' C-DD3E O' H4D343D' H' J $4NF' $ED' H&' F3' @H J J $ED E2' <&& N34' EH ' Q3 E2' 3E$Q 3D' H' J $+3' J J 3D $ 3' I $O J 3E ' H&' F3' ?- J C' D-3' HE' $NNH-E ' H&' F3' B 3 C' 3 340' C-NF' <&& N34' CF$ ' Q3&H43' F C' G31$4 -43' J $+3' -1' F3' NNH-E ' F' 3 340' I 34CHE' -1HE' FH J' $EO' C-NF' P$4 E3C' J $O' F$ 3 Q33E

Q33E' Q 3 3D' $ED' C 2E' $' @34 & N$ 3' F343H&' F NF' NNH-E' $ED' @34 & N$ 3' HE' Q3 E2' 4$EC J 3D' H' F3' ?3N43 $40' H&' F3' D J 4$ O' CF$ ' Q3' J J 3D $ 3 O' 1$ D' $ED' NF$423D' H' F3' <&& N34 C' NNH-E

?-11 O' H&' @$4E$23C'

W> ' ED' Q3' ' 3E$N 3D' * F$' &H4' F3' 432- $4' I 4H C HE' H& @$44 $23C' &H4' F3' ' HO$' P $4 E3' 6H4N3C' $ED' F3 4' B$22$23' HE' F3 4' P $4NF3C' E' 8#(% #&' $ED' $!% #&' $ ' 5-C N3C' H&' F3' I 3$N3' F E' F3 4' C3 34$' 5-4 CD N HEC' Q3 E2' D- O' 43X- 43D' F343-E H' QO' <4D34' H&' F3' C$ D' >H4D' 8 2F' D J 4$ ' H4' * H' H4' J H43' H&' F3' @H J R J CC HE34C' &H4' 3 3N- E2' F3' C$ D' <&& N3' H&' >H4D' 8 2F' D J 4$ ' &H4' F3' * J 3' Q3 E2' CF$ ' HE' F3' I 4HD-N HE' H&' C-NF' <4D34' H' F3 J ' H4' $EO' <E3' H4' J H43' H&' F3 J ' QO' F3' <&& N34' H4' , HE NH J J CC HE3D' <&& N34' H&' F3' I $4 O' H&' P $4 E3C' CH' H4D343D' H' J $4NF' CC-3' $' 9 44E' H' $EO' @HEC $Q 3' F$ E2' - FH4 O' H' $N ' E' $EO' I $N3' &4H J ' F4H-2F' E3$4' H4' H' F NF' C-NF' P $4 E3C' CF$ ' Q3' H4D343D' H' J $4NF' ^&H4' 3$NF' H&' F NF' 9 44E C' $' 633' H&' <E3' ?F E2' HE O' CF$ ' Q3' 1$ D _' 43X- 4 E2' F J' H' 14H D3' F3' @$44 $23C' 8 H4C3C' < 3E' $ED' G4 34C' F343 E' J 3E HE3D' ^$ H E2' C-&& N 3E' * J 3' H' DH' F3' C$ J 3 _' C13N &O E2' F3' I $N3C' &4H J' $ED' H' F NF' F3' C$ D' @$44 $23C' CF$ ' 4$ 3 ' $ED' F3' , - J Q34' H&' P 3C' Q3 33E' F3' I $N3C' &H4' F NF' , - J Q34' HE O' CH' C13N & 3D' I $O J 3E' CF$ ' Q3' D3 J $ED3D' $ED' F NF' , - J Q34' H&' P 3C' CF$ ' EH ' 3 N31 ' E' @$C3C' H&' 143CC E2' ; J 3423ENO' 3 N33D' F3' G$O C' P $4NF' 143CN4 Q3D' E' F3' <4D34' H&' ' H- 3' $ED' CF$ ' E' EH' @$C3' 3 N33D' * 3E O & 3' P 3C' $ED' F3' @HEC $Q 3C' 43N3 E2' C-NF' 9 44E C' CF$ ' H4D34' C-NF' I 34CHEC' $C' F3O' CF$ ' F E+' 14H134' F$ E2' @$44 $23C' H' &-4E CF' F3' 43X- C 3' ?-11 O' FH' $43' F343QO' 43X- 43D' H' &-4E CF' F3' C$ J 3' $NNH4D E2 O' $ED' E' N$C3' C-&& N 3E' @$44 $23C' N$EEH' Q3' 14HN-43D' F E' F3' 14H134' 5-4 CD N HE' $EO' 5-C N3' H&' F3' E3 ' $D(H E E2' 5-4 CD N HE' CF$ ' QO' $' +3' @H-4C3' H&' 14HN33D E2' C-11 O' F3' G3& R N 3ENO' ' $ED' E' H4D34' F$ ' F3' B-4 F3E' H&' 14H D E2' @$44 $23C' J $O' &$ ' 3X-$ O' $ED' H' 143 3E ' ENHE 3E 3EN3' $4 C E2' &4H J' F343' Q3 E2' EH' 5-C N3' 43C D E2' E3$4' F3' I $N3' F343' P $4 E3C' J $O' Q3' X-$4 343D' HE' F3' P $4NFO' F3' 5-C N3' H4' 5-C N3C' 43C D E2' E3$43C' H' C-NF' I $N3' CF$ ' N$-C3' $' > C ' H' Q3' J $D3' H- ' $' 3$C' HEN3' E' 3 34O' =3$4' H&' $ ' I 34CHEC' $Q 3' H' &-4E CF' C-NF' @$44 $23C' $ED' H&' F3' , - J Q34' $ED' G3CN4 1 HE' H&' F3 4' C$ D' @$44 $23C' ^ F NF' > C C' CF$ ' $ ' $ ' C3CHEQ 3' 8 H-4C' Q3' H13E' H' F3' EC13N HE' H&' F3' C$ D' I 34CHEC _' $ED' J $O' QO' 9 44E ' -ED34' F C' 8 $ED' $- FH4 T3' F3' @HEC $Q 3C' F E' F C' 5-4 CD N HE' H' 2 3' <4D34C' H' 14H D3' @$44 $23C' FH- ' $EO' C13N $' 9 44E ' &H4' F$ ' I -41HC3' F NF' <4D34C' CF$ ' Q3' $ D' E' $ ' 43C13N C' $ED' $ ' <4D34C' &H4' C-NF' @$4E$23C' CF$ ' Q3' J $D3' &4H J' C-NF' > C C' E' 432- $4' ' H $ HE' CH' &$4' $C' F3' C$ J 3' N$E' Q3' DHE3

' $ 3C' &H4' @$44 $23C'

W> ' ED' Q3' ' 3E$N 3D' * F$ ' F3' ' $ 3C' H' Q3' 1$ D' &H4' @$4 4 $23C' J 143CC3D' CF$ ' Q3' E' 8#(% #&' &H4' 3 34O' P 3' F NF' $' 9 $22HE' F' 6H-4' H4' J H43' 8 H4C3C' H4' $' 9 $ E' F' ? ' < 3E' H4' 6H-4' < 3E' $ED' * H' 8 H4C3C' CF$ ' 4$ 3 ' <E3' ?F E2 ' $ED' &H4' 3 34O' P 3' $EO' 9 $22HE' F' E$44H ' 9 F33 C' H4' $EO' @$4 ' F' 6H-4' 8 H4C3C' N$44O E2' EH ' 3CC' F$E' 6 & 33E' 8 -ED43D' 9 3 2F ' CF$ ' 4$ 3 ' , E3 13EN3 ' $ED' &H4' 3 34O' P 3' 3 34O' H F34' @$4 ' H4' @$44 $23' F' 3CC' F$E' 6H-4' 8 H4C3C' $ED' EH ' N$44O E2' 6 & 33E' 8 -ED43D' 9 3 2F ' CF$ ' 4$ 3 ' ? R 13EN3' ' $ED' E' $!% #&' &H4' 3 34O' 8 -ED43D' 9 3 2F ' H$D3D' HE' $EO' 9 F33 ' @$44 $23' <E3' 8 $ &13EEO' 5! ' P 3 ' $ED' E' 8#(% #&' C-NF &-4 F34

&-4 F34' ' $ 3C' J $0' Q3' $DD3D' EH ' 3 N33D E2' $' H $' $DD HE$' ?- J'
5! ' P 3' H&' I H- * EN3' * F433 13EN3' H4' * H 13EN3' H' F3' 43C13N 3'
' $ 3C' H&' < E3' ?F 2' , E3 13EN3' $ED' ? 13EN3' $C' J $0' C33 J'
43CHEQ 3' H' F3' 5- C N3C' $CC3 J Q 3D' $' M3E34$' ?3CC HEC' E' 8#(% #&'
&H4' F3 4' 43C13N 3' G C 4 N C' ($ED' F3' < 4D34' H&' C- NF' 5- C N3C' $'
^ C HE$' CF4&' ?13N &O' F3' $ 34$23' I 4 N3' H&' 8 $0' $ED' < $ C' $' F3'
E3$43C' P $4+3' * H E' $' F3' * J 3' H&'& E2' C- NF' $DD HE$' ' $ 3C' $ED'
3' I 34 HD' &H4' F NF' F3' < 4 34' CF$ ' Q3' 3E&H4N3D' EH ' 3 N33D E2' * 3E'
G$OC' Q3OHED' F3' E3 ' M3E34$' ?3CC HEC' ' ^$ED' EH' C- NF' < 4D34' CF$ '
Q3' $ D' - E 3CC' $' @H1O' F343H&' C 2E3D' QO' F3' 143C D E2' P $2 C 4$ 3'
$ED' < E3' H F34' 5- C N3' CQ$ ' Q3' 4$EC J 3D' H' F3' ?3N43 $40' H&' F3'
D J 4$ O' F E' * F433' G$OC' $& 34' F3' J $+ E2' F343H& d' $ED' $ CH'
E' F3E' F3' G$0 C' P $4NF' CF$ ' 3 N33D' 6 & 33E' P 3C' F3
5- C N3' 24$E E2' F C' 9 44E' J $O' & ' $' &- 4 F34' 43$CHE$Q 3' @H J 13ER
C$ HE' EH ' 3 N33D E2' F3' - C- $' ' $ 3' H&' 8 43' & 3D' QO' F C' N '
$ED' F3E' $DD HE$' ' $ 3C' <4 @H J 13EC$ HE' CF$ ' Q3' 24$E 3D' F3'
5- C N3' CF$ ' EC34 ' E' F C' H E' 8 $ED' E' F3' 9 44E ' F3' J H- E'
F343H&' $ED' F3' G$ 3' H&' F3' < 4D34' H&' ?3CC HEC' &'& 3D' QO' ?3CC HEC'
$ED' F3' 9 44E' CF$ ' Q3' 2 3E' H' F3' < && N34' NH J J $ED E2' $C' F C'
H- NF34. ' I 4H D3D' $ $OC' F$ ' F3' < && N34' H4' , HE NH J J CC HE3D'
< && N34' D3 J $ED E2' @$44 $23C' QO' 4 - 3' H&' F3' 9 44E' H&' $' 5- C N3'
CF$ ' 1' 8#(% #&' 1$O' DH E' F3' 14H134' ?- J C' E H' F3' 8 $EDC' H&' F3
@HEC $Q 3C' 14H D E2' @$44 $23C' FH' CF$ ' 2 3' ' 3N3 1 C' &H4' F3' C$ J 3'
HE' - EC $ J 13D' I $134' $ED' 4J $!% #&' F3' < && N34C' H4' , HE NH J J CR
C HE3D' < && N34C' $C' $&H43C$ D' CF$ ' 1$O' F3' < E34C' H4' G4 34C' H&' F3'
@$44 $23C' $ED' < E3' * F 4D' I $4 ' H&' C- NF' I $0 J 3E ' CF$ ' Q3' J $D3' Q3&H43'
F3' @$44 $23' Q3' H$D3D' $EN' $ ' F3' C$ D' O J 3E C' E' $!% #&' CF$ ' Q3'
J $D3' &' 43X- 43D' E' I 43C3EN3' H&' $' 5- C N3' H4' @HEC $Q 3.' I 4H D3D'
$ CH' F$ ' B< @$44 $23' CF$ ' Q3' $Q 3' H' N$44O' J H43' F$E' * F 4 O'
8 - ED43D' 9 3 2F ' E' 8#(% #&' $ED' E' $!% #&' EH' @$4' CF$ ' Q3' $Q 3' H'
N$44O' J H43' F$E' ? ' 8 - ED43D' 9 3 2F ' $ED' EH' G4$O' J H43' F$E' * 3 3'
8 - ED43D' 3 2F ' Q- ' F3' < E34' H&' C- NF' @$44 $23C' E' $!% #&'
NHEC3E E2' H' N$44O' $' 243$ 34' 9 3 2F ' CF$ ' Q3' 1$ D' $' F3' C$ J 3' ' $ 3'
&H4' 3 34O' 8 - ED43D' 9 3 2F ' H&' F3' C$ D' ; N3CC ' $ED' F3' < E34C' H&'
C- NF' @$44 $23C' E' $!% #&' CF$ ' EH ' Q3' NH J 13 3D' H' 14HN33D' FH- 2F'
F' $EO' 3CC' 9 3 2F ' - ED34' F3' ?- J' H&' * F433 13EN3' $' P 3' &H4' 3$NF'
@$ ' $ED' ? 13EN3' $' P 3' &H4' 3$NF' G 4$0 ' $ED' F3' > H$D E2' H&' C- NF'
@$44 $23C' E' $!% #&' CF$ ' Q3' & 4C' 3 2F3D' &' 43X- 43D' $' F3' ; 13EN3'
H&' F3' < E34' H&' F3' @$44 $23' &' F3' C$ J 3' N$E' Q3' DHE3' E' $' 43$CHE$Q 3'
* J 3' FH- ' 8 ED $EN3' H&' 8 C' P 3C O C' ?34 N3' $ED' F3' 14H D E2'
$ED' 1$O E2' &H4' @$44 $23C' E' + ' , % #&' CF$ ' Q3' 432- $ 3D' QO' F3' > $ ' E'
&H4N3' $' F3' * J 3' H&' F3' # E HE' F' 8#(% #&' I 4H D3D' $ CH' F$ ' $'
@$4' F' < E3' H4' J H43' 8 H4C3C' &H4' F NF' F3' 6 - 4E CF34' CF$ ' 43N3 3'
, X3 13EN3' $' P 3' CF$ ' Q3' 43X- 43D' H' N$44O' 6 & 33E' 8 - ED43D'
(3 2E ' $' F3' 3$C ' ' $ED' F$ ' EH' I 3E$ 3C' H4' 6H4&3 - 43C' E' $EO' N '
43 $ E2' H' 8 2F $OC' H4' * - 4E1 +3' ' H$DC' E' F3' # E 3D' % E2DH J'
CF$ ' $11 O' H' F3' , - J Q34' H&' 8 H ?3C' H4' < 3E' H4' 9 3 2F ' H&' > H$D E2'
H&' F3' $&H43C$ D' @$44 $23C' E< 4' CF$ ' $EO' C- NF' @$44 $23C' HE' F$ ' NNH- E'
Q3' C H113D' H4' D3 $ E3D

W > W ' ED' Q3' ' 3E$N 3D' * F$ ' $ ' < && N34C' $ED' P $4 E3C' Q3 E2'
E' 14H134' # E &H4 J ' G43CC' H4' # ED43CC' $ED' F3 4' 8 H4C3C' $ED' $ ' @$4'
4 $23C' $ED' 8 H4C3C' F3E' 3 J 1 HO3D' E' NHE 3O E2' I 34CHEC' H4' B$22$23
\ X

-ED34' F3' I4H C HEC' H&' F C' N ' H4' 43 -4E E2' F343&4H J ' CF$ ' Q3'
3 3 J 1 3D' &4H J' F3' I $0 J 3E ' H&' $EO' G - 3C' $ED' * H C' HE' 3 J Q$4+ E2'
H4' $ C3 J Q$4+ E2' &4H J' H4' -1HE' $EO' I 34' 9F$ 4&' \ -$0' H4' >$ED E2'
I $N3 ' H4' 1$CC E2' * -4E1 +3' ' H$DC' H4' B4 D23C ' H F34 C3' D3 J EDQ 3'
QO' 4 -3' H&' $EO' N ' $ 43$DO' J $D3' H4' F343$& 34' H' Q3' J $D3 ' 14HR
D3D' F$ ' EH F E2' F343 E' NHE $ E3D' CF$ ' 3 3 J 1 ' $EO' BH$ C' B$423C '
H4' H F34' 3CC3 C' 3 J 1 HO3D' E' NHE 30 E2' F3' C$ D' I 34CHEC ' 8 H4C3C '
B$22$23 ' H4' ? H43C' $ HE2' $EO' @$E$ ' &4H J' I $0 J 3E ' H&' * H C ' E' +3'
P $EE34' $C' H F34' BH$?(B$423C ' $ED' 3CC3 C' $43' $Q 3' F343 H ' $ED'
F$ ' F3E' $EO' < F N34C' H4' P $4 E3C' HE' ?34 N3' CF$ ' F$ 3' < NN$C HE'
E' F3' P $4NF' H' 1$CC' 432- $4' 6344 3C' #' + ' , % #&') !' < && N34' NH J R
J $ED E2' CF$ ' Q3' $ ' Q34 O' H' 1$CC' H 34' F' F C' P $4 E3C' $C'
* 11!#(! 1' 1$0 E2' &H4' F J C3 &' $ED' 3$NF' P $4 E3' < E3' 8 $ &' HE O' H&'
F3' H4D E$4O' ' $ 3' 1$0$Q 3' QO' I $CC3E234C ' H4' F3' CF$ ' Q3' $ ' Q34 O'
H ' F 43' F3' 6344O' BH$ ' &H4' F J C3 &' $ED' F C' I $4 0 ' D3Q$44 E2' $ ' H F34C'
&H4' F$ ' * J 3 ' $ED' CF$ ' E' C-NF' @$C3' 1$O' HE O' 8 $ &' F3' H4D E$4O'
' $ 3' &H4' C-NF' BH$

I3E$ 3C' -1HE' @ ' ?-Q(3N C' H &3ED E2' 2 EC ' F3' >$ C43 $ E2' H' B 3 C' $ED' @$44 $23C

> ' ED' Q3' ' 3E$N 3D ' * F$ ' &' $EO' @HEC $Q 3' H4' H F34' I 34CHE '
FH' QO' 4 -3' H&' F C' N ' CF$ ' Q3' 3 J 1 HO3D' E' Q 3 E2' $EO' < && N34C'
H4' P $4 E3C' E' $EO' I $4 ' H&' F3' # E 3D' % E2DH J ' CF$ ' 143C- J 3' H'
Q 3 ' $EO' C-NF' < && N34' H4' P $4 E3' E' $EO' 8 H-C3' EH ' F E' F3' P 3$E E2'
H&' F C' N ' FH- ' F3' @HEC3E ' H&' F3' < E34' H4' < NN-1 34' F343H&'
H4' CF$ ' E32 3N ' H4' 43&-C3' H' Q 3 ' $EO' < && N34' H4' P $4 E3' HE' G - O'
F3E' F343-E H' 43X- 43D ' E' C-NF' P $EE34' $C' C' QO' F C' N ' D 43N 3D '
14H D3D' C-&& N 3E ' , H N3' Q3' 2 3E' Q3&H43' F3' 44 $ ' H&' C-NF' P $4 E3C '
H4' CF$ ' 43N3 3 ' D3 J $ED ' H4' $2433' &H4' $EO' P HE3O' H4' ' 3 $4D' F$ CHR
3 34 ' E' H4D34' H' 3 N-C3' $EO' I 34CHE' &4H J' 43N3 E2' $EO' C-NF' < && N34'
H4' P $4 E3' ' H4' CF$ ' X-$4 34' $EO' H&' F3' 9 3C ' @F D43E ' P 3E' H4' P $ D'
?34 $E C' H&' $EO' < && N34' H4' P $4 E3' E' $EO' C-NF' 8 H-C3C ' 2 EC ' F3'
@HEC3E ' H&' F3' < NN-1 34C ' H4' CF$ ' E32 3N ' H4' 43&-C3' H' 3 3N- 3' C-NF'
9 44E C' H&' F3' 5-C N3C' $C' CF$ ' Q3' D 43N 3D' H' F J' &H4' 14H D E2'
' @$44 $23C ' 8 H4C3C ' H4' 3CC3 C ' H4' CF$ ' D3 J $ED' J H43' F$E' F3' 32$ '
' $ 3C' &H4' F3' C$ J 3 ' H4' &' $EO' I 34CHE' $11H E 3D' QO' C-NF' @HEC $Q 3' H'
14H D3' @$44 $23C ' 8 H4C3C ' H4' 3CC3 C ' CF$ ' DH' $EO' N ' H4' * F E2' QO'
F NF' F3' ; 3N- HE' H&' C-NF' 9 44E C' CF$ ' Q3' F ED343D' H4' &' $EO'
I 34CHE' $Q 3' QO' F C' N ' H' F$ 3' $EO' < && N34' H4' P $4 E3' X-$4 343D' HE'
F J' CF$ ' 43&-C3' H' 43N3 3' $ED' H' $&&H4D' 14H134' NNH J J HD$ HE' H4'
G 3 ' E' F3' 8 H-C3' H&' C-NF' I 34CHE' E' F NF' F3' C' X-$4 343D ' H4' H'
&-4E CF' F3' C3 34$ ' * F E2C' D 43N 3D' H' Q3' &-4E CF3D' H' < && N34C' $ED'
P $4 E3C ' H4' CF$ ' E32 3N ' H4' 43&-C3' H' &-4E CF' 2HHD' $ED' C-&& N 3E '
? $Q 3C ' H23 F34' F' 2HHD' $ED' C-&& N 3E ' 8 $O' $ED' ? 4$ ' &H4' 3$NF'
8 H4C3 ' $ ' F3' ' $ 3' 3C $Q CF3D' QO' $EO' N ' E' &H4N3' E' F$ ' 43C13N '
H4' CF$ ' 1$O' $EO' ?- J' H&' P HE3O' H' $EO' P $4 E3' HE' F3' P $4NF' E' 3-'
H&&-4E CF E2' E' % ED' F3' G 3 ' $ED' ? J $ ' B334' H' F NF' C-NF' P $4 E3'
C' 3E 3D ' C-NF' @HEC $Q 3' N -$ 34 ' $ED' H F34' I 34CHE' 43C13N 3 O'
CF$ ' &H4&3 ' &H4' 3 34O' < &&3EN3 ' , 32 3N ' H4' ' 3&-C$ ' $EO' ?- J' EH '
3 N33D E2' 6 3' I H-EDC' EH4' 3CC' F$E' 6H4 O' ?F E2C

I3E$ O-1HE' < && N34C' H&' $&34 E3C' CH ' 3E' J2'

> ' ED' Q3' ' 3E$N 3D ' * F$ ' &' $EO' < && N34' H&' ' HO$ ' P $4 E3C'
CF$ ' $+3' -1HE' F J' H' X-$4 34' P 3E' H F34 C3' F$E' C' $ H 3D' QO'
N ' H4' CF$ ' -C3' H4' H&&34' $EO' P 3E$N3' H4' @H J 1- C HE' H' H4' -1HE
@HEC $Q 3' H4' H F34' @ ' < && N34' 3ED E2' H' D3 34' $ED'

UcM # > ; > P ʻ ʻ @$1 US ʻ !!

D CNH-4$23ʻ $EOʻ H&ʻ F3 Jʻ&4H Jʻ134&H4 J E2ʻ $EOʻ I $4 ʻH&ʻ F3 4ʻ G- Oʻ -ED34ʻ
F Cʻ N ʻ H Hʻ DHʻ $EO F E2ʻ NHE 4$4Oʻ F343 H ʻ C-NFʻ <&& N34ʻ CF$ ʻ &H4ʻ
! 0 ! JUʻ C-NFʻ <&&3EN3 ʻ Q3 E2ʻ F343H&ʻ NHE N 3Dʻ Q3&H43ʻ $EOʻ * Hʻ H4ʻ J H43ʻ
5-C N3Cʻ H&ʻ F3ʻ @H-E Oʻ QOʻ F3ʻ <$ Fʻ H&ʻ * Hʻ N43D Q 3ʻ 9 E3CC3C ʻ Q3ʻ
D33 J 3Dʻ $EDʻ $+3Eʻ Hʻ F3ʻ A_CHʻ ? ʻ ,ʻ N$CF 343D ʻ $EDʻ CF$ ʻ Q3ʻ - 34 Oʻ
D C$Q 3Dʻ Hʻ FH Dʻ $EOʻ P $4Oʻ ; J 1 HO J 3E ʻ Eʻ 8 Cʻ P $(3C O Cʻ ?34 N3 ʻ
14H D3Dʻ $ʻ @34 & N$ 3ʻ F343H&ʻ Q3ʻ &H4 F Fʻ 4$EC J 3Dʻ QOʻ F3ʻ C$ Dʻ
5-C N3Cʻ Hʻ F3ʻ ?3N43 $4Oʻ H&ʻ F3ʻ D J 4$ O ʻ $EDʻ F$ ʻ F3ʻ @HE N HEʻ
Q3ʻ $&& 4 J 3Dʻ $ ʻ CH J 3ʻ \ -$4 34ʻ ?3CC HECʻ H&ʻ F3ʻ I 3$N3ʻ &H4ʻ F3ʻ C$ Dʻ @H-E Oʻ
Hʻ Q3ʻ F3 Dʻ E3 ʻ $& 34ʻ F3ʻ ; 1 4$ HEʻ H&ʻ * F433ʻ P HE FCʻ $& 34ʻ C-NFʻ
@34 & N$ 3ʻ CF$ ʻ F$ 3ʻ Q33Eʻ 4$EC J 3Dʻ $Cʻ $&H43C$ D ʻ $EDʻ &ʻ $EOʻ
P $4 E3ʻ <&& N34ʻ CF$ ʻ $+3 ʻH4ʻ +EH E2 Oʻ C-&&34ʻ Hʻ Q3ʻ $+3E ʻ $EOʻ P HE3Oʻ
H4ʻ ʻ 3 $4Dʻ H&ʻ $EOʻ I 34CHEʻ &H4ʻ 3 N-C E2ʻ F3ʻ X-$4 34 E2ʻ H&ʻ <&& N34Cʻ H4ʻ
P $4 E3C ʻ H4ʻ CF$ ʻ Q 3 ʻ $EOʻ H&ʻ F3ʻ 9 3C ʻ @F D43E ʻ P 3Eʻ H4ʻ P $ Dʻ
?34 $E Cʻ H&ʻ$EOʻ <&& N34ʻ H4ʻ P $4 E3ʻ Eʻ $EOʻ 8 H-C3 ʻ 2 EC ʻ F3ʻ @HEC3E ʻ
H&ʻ F3ʻ <NN-1 34 ʻ F3ʻ CF$ ʻ &H4ʻ $EOʻ H&ʻ F3ʻ C$ Dʻ <&&3EN3C ʻ -1HEʻ Q3 E2ʻ
NHE N 3Dʻ F343H&ʻ Q3&H43ʻ $ʻ M3E34$ ʻ @H-4 J $4 $ ʻ Q3ʻ N$CF 343D ʻ $EDʻ
&ʻ $EOʻ <&& N34ʻ CF$ ʻ NHEC 4$ Eʻ $EOʻ @$44 $23ʻ Hʻ 4$ 3 ʻ Q3OHEDʻ F3ʻ
G C $EN3ʻ C13N & 3Dʻ Eʻ F3ʻ 5-C N3 Cʻ 9 44E ʻ H4ʻ CF$ ʻ EH ʻ D CNF$423ʻ F3ʻ
C$ J 3ʻ Eʻ D-3ʻ * J 3ʻ &H4ʻ F3 4ʻ ʻ 3 -4Eʻ 8 H J 3ʻ HEʻ F3ʻ C$ J 3ʻ G$O ʻ &ʻ ʻ Q3ʻ
14$N N$Q 3 ʻ 3 N31 ʻ Eʻ F3ʻ @$C3ʻ H&ʻ ; J 3423ENO ʻ &H4ʻ F NFʻ F3ʻ 5-C N3ʻ
CF$ ʻ F$ 3ʻ 2 3Eʻ > N3EN3 ʻ H4ʻ CF$ ʻ NH J 13 ʻ F3ʻ G4 34ʻ H&ʻ $EOʻ @$44 $23ʻ
Hʻ $+3ʻ -1ʻ $EOʻ P $4 E3ʻ H4ʻ ?34 $E ʻ ^3 N31 ʻ C-NFʻ $Cʻ $43ʻ C N+_ʻ H4ʻ $EOʻ
9 H J $Eʻ Hʻ 4 D3ʻ F343 E ʻ 3 N31 ʻ Eʻ @$C3Cʻ H&ʻ ; J 3423ENOʻ $Cʻ $&H43C$ D ʻ
H4ʻ CF$ ʻ &H4N3ʻ $EOʻ @HEC $Q 3 ʻ QOʻ F43$ 3E E2ʻ 9 H4DC ʻ Hʻ 14H D3ʻ ?$DD 3ʻ
8 H4C3Cʻ &H4ʻ F J C3 &ʻ H4ʻ ?34 $E C ʻ H4ʻ CF$ ʻ &H4N3ʻ 8 H4C3Cʻ &4H J ʻ F3 4ʻ
< E34C ʻ , ʻ # $!) # &ʻ 1)1O &H4N3ʻ F3ʻ < E34ʻ Hʻ $+3ʻ $EOʻ >H$D E2ʻ
-E ʻ F3ʻ C$ J 3ʻ CF$ ʻ Q3ʻ & 4C ʻ D- Oʻ 3 2F3D ʻ &ʻ F3ʻ C$ J 3ʻ CF$ ʻ Q3ʻ 43X- 43Dʻ
$EDʻ N$Eʻ Q3ʻ DHE3ʻ F Eʻ $ʻ 43$CHE$Q 3ʻ * J 3 ʻ H4ʻ CF$ ʻ NHE 4$4Oʻ Hʻ F3ʻ
9 ʻ H&ʻ F3ʻ < E34ʻ H4ʻ F Cʻ ?34 $E ʻ 134 J ʻ $EOʻ I 34CHEʻ F$ CH3 34ʻ Hʻ
1- ʻ $EOʻ 243$ 34ʻ >H$Dʻ -1HEʻ $EOʻ @$44 $23ʻ F$Eʻ Cʻ D 43N 3Dʻ QOʻ F Cʻ N ʻ
F3ʻ CF$ ʻ &H4&3 ʻ &H4ʻ 3 34Oʻ <&&3EN3ʻ $EOʻ ?- J ʻ EH ʻ 3 N33D E2ʻ 6 3ʻ I H-EDCʻ
H4ʻ 3CCʻ F$Eʻ 6H4 Oʻ ?F E2C

> >ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ * F$ ʻ $EOʻ I 34CHEʻ FHʻ CF$ ʻ -E $ &- Oʻ I 3E$ Oʻ &H4ʻ
F$ 3ʻ Eʻ F Cʻ H4ʻ F34ʻ I HCC3C HEʻ H4ʻ % 3 0 E 2 ʻ H4ʻ FHʻ CF$ ʻ +EH E2 Oʻ
D3 $ E ʻ Q-O ʻ H4ʻ 3 NF$E23 ʻ H4ʻ H F34 C3ʻ 43N3 3 ʻ $EOʻ 4 J C ʻ J J - ʻ FO
E HE ʻ @ H F3C ʻ @$1 ʻ H4ʻ H F34ʻ P $4Oʻ 6-4E -43ʻ H4ʻ 11H E J 3E C ʻ P$4 E3ʻ
&4H J ʻ $EOʻ P $4 E3ʻ H4ʻ P $4 E3ʻ G3C34 34 ʻ H4ʻ $EOʻ H F34ʻ I 34CHE ʻ -1HEʻ $EOʻ
NNH-E ʻ H4ʻ I 43 3EN3ʻ F$ CH3 34 ʻ H4ʻ $EOʻ H F34 4 N 3Cʻ Q3 HE2 E2ʻ Hʻ
$EOʻ P $4 E3ʻ H4ʻ P $4 E3ʻ G3C34 34ʻ F NFʻ $43ʻ 23E34$ Oʻ D33 J 3Dʻ ʻ 32 R
J 3E $ ʻ , 3N3CC$4 3C ʻ $NNH4D E2ʻ Hʻ F3ʻ @-C H J ʻ H&ʻ F3ʻ ʻ HO$ ʻ P $4 E3ʻ
@H41C ʻ H4ʻ CF$ ʻ NF$E23ʻ H4ʻ N$-C3ʻ F3ʻ @H H-4ʻ H4ʻ P $4+ʻ H&ʻ $EOʻ C-NFʻ
@ H F3C ʻ 11H E J 3E C ʻ H4ʻ , 3N3CC$4 3Cʻ Hʻ Q3ʻ NF$E23Dʻ H4ʻ D3&$N3D ʻ CF$ ʻ
&H4&3 ʻ &H4ʻ 3 34Oʻ C-NFʻ <&&3EN3ʻ F3ʻ (?- J ʻ H&ʻ * 3Eʻ I H-EDC ʻ H23 F34ʻ Fʻ
* 43Q 3ʻ F3ʻ $ -3ʻ H&ʻ $ ʻ H4ʻ $EOʻ H&ʻ F3ʻ C3 34$ ʻ 4 N 3Cʻ H&ʻ F NFʻ C-NFʻ
<&&3ED34ʻ CF$ ʻ CHʻ Q3NH J 3ʻ 1HCC3CC3D ʻ $EDʻ &ʻ $EOʻ N43D Q 3ʻ I 34CHEʻ CF$ ʻ
14H 3ʻ HEʻ <$ Fʻ Q3&H43ʻ $ʻ 5-C N3ʻ H&ʻ F3ʻ I 3$N3ʻ $ʻ 43$CHE$Q 3ʻ @$-C3ʻ Hʻ
C-C13N ʻ F$ ʻ $EOʻ I 34CHEʻ F$Cʻ Eʻ F Cʻ H4ʻ F34ʻ I HCC3CC HE ʻ H4ʻ HEʻ F Cʻ H4ʻ F34ʻ
I 43 J C3C ʻ $EOʻ I 4H134 Oʻ H&ʻ F3ʻ G3CN4 1 HEʻ F343 E Q3&H43ʻ D3CN4 Q3D ʻ HEʻ
H4ʻ Fʻ 43C13N ʻ Hʻ F NFʻ $EOʻ C-NFʻ <&&3EN3ʻ CF$ ʻ F$ 3ʻ Q33Eʻ NH J J 3D ʻ
F3ʻ 5-C N3ʻ J $Oʻ 24$E ʻ $ʻ 9 44E ʻ Hʻ C3$4NFʻ &H ʻ C1NFʻ I 4H134 Oʻ $Cʻ Eʻ F3
@$C3ʻ H&ʻ C H 3Eʻ MHHDC ʻ ʻ ʻ ʻ ʻ

> ʻ ED

5 3E$ O'H"' <&& N34C' + # E2' <$ E3

> ' ED' &H4' F3' Q3 34' I43C34 $ HE' H&' F3' M$J3' $ED' 6CF' E' H4' E3$4' C-NF' I $N3' F343' $E(' <&& N34C' CF$ ' $' $EO' * J3' Q3' X-$4R 343D' Q3' ' 3E$N 3D' ; O3&O' <&& N34' FH' CF$ ' FH-' >3$ 3' E' 9 4 E2' &4HJ' F3' I34CHE' H4' I34CHEC' 3E 3D' H' 24$E' C-NF' >3$ 3' $+3' + ' H4' D3C 4HO' $EO' M$J3' H4' 6 CF' F E' F3' #E 3D' % E2DHJ' $ED' FH' -1HE' @HJ1 $ E' F343H&' CF$ ' Q3' -1HE' <$ F' H&' <E3' H4' JH43' N43D Q 3' 9 E3CC' H4' 9 E3CC3C' NHE N 3D' Q3 Q43' $EO' 5-C N3' CF$ ' &H4' 3 34O' C-NF' <&&3EN3' &H4&3 ' F3' ?-J' H&' 6 3' IH-EDC

<&& N34C' EH' $Q 3' H' $+3' I $4 ' 1143E N3C

> ' ED' Q3' ' 3E$N 3D' * F$ ' EH' <&& N34' H&' 8 C' P $(3C O C' ' HO$' P $4 E3' 6H4N3C' 43C D E2' E' B44N+C' H4' 3 C3 F343' -ED34' P $4O' >$ ' CF$ ' Q3' D33 J 3D' $Q 3' H' F$ 3' $EO' I $4 CF' IHH4' @F D' QH-ED' 1143E N3' H' F J

PHD3' H&' 43NH4D E2' ' P$4 E3 C' ?3 3J3E

ED' Q3' ' 3E$N 3D' * F$ ' $EO' 5-C N3' E' F3' #E 3D' % E2DHJ' F E' FHC3' 5-4 CD N HE' $EO' P $4 E3' F$ E2' $' 9 &3' @F D' H4' '@F D43E' CF$ ' Q3' X-$4 343D' J $O' C-J JHE' C-NF' P $4 E3' Q3&H43' F J' F NF' ?-J JHEC' C-NF' P $4 E3' C' F343QO' 43X- 43D' H' HQ3O' $ED' $+3' F C' ; $J E$ HE' E' 9 4 E2' -1HE' <$ F' H-NF E2' F3' I $N3' H&' F C' $C' 32$' ?3 3J3E' E' 8#(% #&' $ED' C-NF' 5-C N3' CF$ ' 2 3' $E' $ 3C 3D' @H1O' H&' C-NF' ; $J E$ HE' H' F3' I34CHE' CH' 3 $J E3D' H' Q3' QO' F J' D3 343D' H' F C' @HJ J$ED E2' <&& N34' H' Q3' 14HD-N3D' F3E' 43X- 43D' F N' C$ D' ; $J E$ HE' $ED' C-NF' $ 3C 3D' @H1O' CF$ ' Q3' $' $EO' * J3' $DJ 3D' E' ; D3EN3' $C' H' C-NF' $C' 32$' ?3 3J3E' Q3&H43' $EO' 5-C N3' H4' $' $EO' M3E34$' H4' \ -$4 34' ?3CC HEC' H&' F3' I 3$N3' $ FH-2F' C-NF' P $4 E3' Q3' D3$D' H4' $QC3E' &4HJ' F3' % E2DHJ' I 4H D3D' $ $OC' F$ ' E' N$C3' $EO' P $4 E3' CF$ ' Q3' 2 E' C-J JHE3D' H' J $+3' <$ F' $C' $&H43C$ D' F3E' HE' C-NF' ; $J E$ HE' H4' C-NF' $ 3C 3D' @H1O' Q3 E2' 14HD-N3D' C-NF' P $4 E3' CF$ ' EH' Q3' HQ 23D' H' J $+3' $EO' H F34' H4' &-4 F34' <$ F' F' 432$4D' H' F C' 32$' ?3 3J3E' Q-' CF$ ' 3$ 3' F' C-NF' 5-C N3' $' @H1O' H&' C-NF' ; $J E$ HE' H4' $' @H1O' H&' C-NF' $ 3C 3D' @H1O' H&' ; $J E$ H$' &' 43X- 43D

DJ -C 4$' HE' H&' <$ FC' I34(-4O'

> >' ED' Q3' ' 3E$N 3D' * F$ ' $ ' <$ FC' F NF' $43' $- FH4 T3D' H4' 43X- 43D' QO' F C' N ' J $O' Q3' $DJ E C 343D' ^-E 3CC' F343' H F34 C3' 14H D3D_' QO' $EO' 5-C N3' H&' F3' I 3$N3' H4' P $2 C 4$ 3' $N E2' $C' C-NF' $ED' F$ ' $EO' I34CHE' 2 E2' &$ C3' ; D3EN3' H4' $+ E2' $' &$ C3' <$ F' E' $EO' @$C3' F343 E' $E' <$ F' C' $- FH4 T3D' H4' 43X- 43D' H' Q3' $+3E' QO' F C' N ' $ED' Q3 E2' F343H&' D- O' NHE N 3D' CF$ ' Q3' D33 J 3D' 2- O' H&' &-' $ED' NH44-1' I34(-4O' $ED' CF$ ' Q3' $Q 3' H' C-NF' I $ EC' $ED' I 3E$ 3C' $C' I34CHEC' NHE N 3D' H&' &-' $ED' NH44-1' I34(-4O' $43' H4' J $O' Q3' C-Q(3N' $ED' $Q 3' H

> N3EN3C' H&' @$E 33EC

> 8 ' ED' Q3' ' 3E$N 3D' * F$ ' ' CF$ ' Q3' $ &-' &H4' $EO' * H' 5-C N3C' H&' F3' I 3$N3' F E' F3 4' 43C13N 3' 5-4 CD N HEC' H' 24$E' H4' 4$EC&34' $ O' > N3EN3' &H4' C3 E2' QO' ' 3 $ ' $EO' ?1 4 ' B334' 9 E3' @ D34' H4' I 3440' H' $EO' I34CHE' H4' I34CHEC' $11 O E2' &H4' F3' C$J3' FH' CF$ ' FH D' $EO' @$E 33E' -ED34' $EO' >3$C3' F343H&' E4' QO' 2433J3E' F' $EO' G31$4 J3E' H4' H F34' - FH4 O' -ED34' F3' C$ D' >H4D' 8 2F' DJ 4$ ' H4' F3' @HJ J CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F' DJ 4$ ' &H4' F3' * J3' Q3 E2' FH-' 432$4D' H' F3' * J3' H&' =3$4' H4' $EO' ,H N3C' H4' @34 & N$ 3C' 43X- 43D' QO' $EO' N ' E' 43C13N ' H&' C-NF' > N3EN3C' $ED' F3' @HJ J CC HE34C' H&' ; N C3' F E' F3 4' 43C13N 3

G C 4 N C

U`M#> ;>P ' ' @$1US' !

G C 4 N C' CF$ ' $ CH' 24$E ' H4' 4$EC&34' $EO' C-NF' > N3EN3' $C' $&H43C$ D' $ED' C-NF' I 34CHEC' FH D E2' C-NF' @$E 33EC ' $ED' F$ E2' C-NF' > N3EN3C' $C' $&H43C$ D' J $O' C3 ' F343 E' N -$ C ' $ED' $ ' C-NF' 3 N C3$Q 3' > X-H4C' $C' F30' CF$ ' Q3' N3EC3D' $ED' 3 J 1H 343D' H' C3 ' FH- ' Q3 E2' C-Q(3N ' &H4' CH' DH E2' H' $EO' I 3E$ O' H4' 6H4&3 -43' F$ 3 34

> ' ED' Q3' ' 3E$N 3D ' * F$ ' &' $EO' N HE' CF$ ' Q3' Q4H-2F ' > J $ HE' 2 EC ' $EO' P 3 J Q34' H4' P E C 34' H&' $' @H-4 J $4 $' H' Q3' $CC3 J Q 3D' H&' N HEC' -ED34' F3' - FH4 O' H&' F C' N ' E' 43C13N ' H&' F3' I 4HN33D E2C' H4' F3' ?3E 3EN3' F343H& ' H4' 2 EC ' $EO' H F34' I 34CHE' &H4' $EO' F E2' DHE3' E' 1-4C-$EN3' H4' -ED34' F3' - FH4 O' H&' F C' N ' F3' C$ J 3' CF$ ' Q3' Q4H-2F ' E' CH J 3' HE3' H&' F3' @H-4 C' H&' ' 3NH4D' $' !1 #1 ! ' H4' 2 34% # ' H4' E' F3' @2-4 ' H&' ?3CC HE' E' + ' , % #& ' $ED' CF$ ' Q3' NH J R J 3EN3D' F E' ? ' P HE FC' E ' $& 34' F3' @$-C3' H&' N HE' CF$ ' $4 C3 ' $ED' F$ ' ' CF$ ' Q3' $ &- ' &H4' F3' G3&3ED$E ' H4' G3&3ED$E C' F343 E' H' 1 3$D' F343 H' F3' [3E34$ ' CC-3 ' $ED' H' 2 3' $ ' C13N $' P $ 34' E' ; D3EN3' HE' F3' * 4 $ ' $ED' &' F3' 34D N ' CF$ ' Q3 ' &H4' ' F3' G3&3ED$E ' E' $EO' C-NF' N EE ' H4' &' F3' I $ E && CF$ ' Q3NH J 3' , HEC- ' <4 C-&&34' $EO' G CNHE E-$EN3' F343H& ' H4' &' E' + ' , % #& ' F3' @H-4 ' CF$ ' C33' & ' H' $CCH T 3' F3' G3&3ED$E ' H4' D C J CC' F3' @H J R 1 $ E ' F3' @H-4 ' E' F NF' F3' P $ 34' CF$ ' Q3' 4 3D' CF$ ' $ H ' F3' G3&3ED$E ' * 43Q 3' @HC C ' &H4' F3' ' 3NH 34O' H&' F NF' F3' CF$ ' F$ 3' F3' +3' ' 3 J 3DO' $C' E' H F34' @$C3C' F343' @HC C' QO' F3' >$ C' H&' F C' ' 3$ J ' $43' 2 3E' H' G3&3ED$E C

> W ' ED' Q3' ' 3E$N 3D ' * F$ ' $ ' <&&3EN3C' &H4' F NF' $EO' I 3E$ 3C' ' 3NH N1O' H&' $ED' 6H4&3 -43C' $43' QO' F C' N ' J 1HC3D ' EH ' 3 N33D E2' * 3E O' I H-EDC ' HO34' $ED' $QH 3' $EO' 6H4&3 -43' H&' $ -3' $ED' * 43Q 3' $ -3' CF$ ' $ED' J $O' Q ' D3 34 J E3D ' $ED' C-NF' I 3E$ 3C' $ED' 6H4&3 -43C' $ED' 6H4&3 -43' H&' $ -3' $ED' * 43Q 3' $ -3' CF$ ' $ED' J $O' Q3' 43NH 343D ' E' $EO' I $4 ' H&' F3' # E 3D' % E2DH J ' Q3&H43' < E3' H4' J H43' 5-C N3C' H&' F3' I 3$N3 ' -ED34' F3' I 4H C HEC' H&' $E' N ' 1$CC3D' E' F3' * F 4D' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' ! , (!' F3' 6H-4 F ' E - 3D' / #' / ' ' , ' ' % !' 13 ' * , ' ! ! & # (1' ', !' ?31 ' !1' , ')!' / ' N ' * ! ' !' #&' ,) ! 1=' $ED' QO' $EH F34' N ' 1$CC3D' E' F3' 6 & F' =3$4' H&' F3' ' 3 2E' H&' 8 C' C$ D' $ 3' P $(3C O ' 0 3%Y& ' / #' / ' ' , ')!' !M ' N' ' , !' ! !' 3 % L!' , 0! ' V ' * !# % !1' 4! , !' ?31 ' !1' #&' (1 !1' , #' I , #0 ' , #' , ' 6 !#&! 1' , ' ' % #(')!' 8 J! ' 3 , #' , ' # 1' 4 ' I , #1 4%!1' I 4H D3D' $OC ' F$ ' E' $ ' @$C3C' E' F NF' F343' CF$ ' EH ' Q3' C-&& N 3E ' MHHDC' F343HE' $EO' I 3E$ O' H4' 6H4&3 -43' N$E' Q3' 3 3D ' F3' <&&3ED34' J $O' Q3' NH J J 3D' $ED' J 14 CHE3D' &H4' $EO' * J 3' EH ' 3 N33D E2' ? ' P HE FC' ' F NF' C$ D' 43N 3D' N C' CF$ ' Q3' -C3D' $ED' $11 3D' E' + ' , % #& ' &H4' F3' ' 3NH 34O' H&' $ ' C-NF' I 3E$ 3C' $ED' 6H4R &3 -43C' $C' &- O' H' $ ' E 3E C' $C' &' F3' C$ D' 43N 3D' N C' F$D' 3 3ED3D' H' + ' , % #& ' $EO' F E2' E' F3' C$ D' 43N 3D' N C' H' F3' NHE 4$4O' EH R FC $ED E2' ' $ED' $ ' C-NF' <&&3EN3C' NH J J 3D' E' F3' " 1)' C 3C' H4' E' $EO' H&' 8 C' P J 3C O C' GH J E HEC' Q3OHED' F3' ?3$C' J $O' Q3' D3 34 J E3D ' $ED' F3' I 3E$ 3C' $ED' 6H4&3 -43C' H&' $ -3' H4' * 43Q 3' $ -3' 43NH 343D ' Q3&H43' $EO' 5-C N3C' H&' F3' I 3$N3' H4' I 34CHEC' 3 34R N C E2' +3' - FH4 O ' $NNH4D E2' H' F3' >$ C' H&' F3' I $4 ' H&' 8 C' P $(3C O C' GH J E HEC' E' F NF' F3' <&&3EN3' CF$ ' Q3' NH J J 3D ' ' $ED' $ ' I 3E$ 3C' $ED' 6H4&3 -43C' QO' F C' N ' J 1HC3D ' 3 N33D E2' * 3E O I H-EDC ' CF$ ' Q3' 43NH 343D' QO' N HE' E' CH J 3' H&' F3' @H-4 C' H&' ' 3NH4D'

' ' $

$ʻ !1 #1 ! ʻH4ʻ $ʻ 234% #ʻ H4ʻ Eʻ F3ʻ @H-4 ʻH&ʻ ?3CC HEʻ Eʻ +', % #& ʻ $EDʻ Eʻ EHʻ H F34ʻ @H-4 ʻ Eʻ F3ʻ #E 3Dʻ % E2DH J ʻ $EDʻ J $0ʻ Q3ʻ 43NH 343Dʻ Eʻ F3ʻ " 1)ʻ C 3C ʻ H4ʻ EʻC B0ʻH F34ʻ I $4 Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ GH J E HEC ʻ Eʻ $ ʻ H&ʻ F3ʻ ' HO$ ʻ H4ʻ C-134 H4ʻ @H-4 Cʻ H&ʻ C-NFʻ C 3Cʻ H4ʻ H F34ʻ I $4 Cʻ H&ʻ 8 Cʻ P 3C O Cʻ GH J E HEC

114H14 $R HEʻ H&ʻ I 3E$ 3C

>W ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ *F$ ʻ HE3ʻ P H 3 Oʻ H&ʻ 3 340ʻ C-NFʻ I 3E$ Oʻ H4ʻ 6H4&3 -43ʻ EH ʻ EN -D E2ʻ $E0ʻ * 43Q 3ʻ $ -3ʻ H&ʻ $E0ʻ 4 N 3C ʻ CF$ ʻ 2Hʻ Hʻ F3ʻ I 34CHEʻ FHʻ CF$ ʻ E&H4 J ʻ H4ʻ C-3ʻ &H4ʻ F3ʻ C$ J 3ʻ $EDʻ F3ʻ H F34ʻ P H 3 O ʻ H4ʻ F343ʻ F3ʻ <&&3EN3ʻ CF$ ʻ Q3ʻ 14H 3Dʻ Q0ʻ F3ʻ I 34CHEʻ FHʻ CF$ ʻ E&H4 J ʻ F3Eʻ F3ʻ FH 3ʻ H&ʻ F3ʻ I 3E$ O ʻ CF$ ʻ Q3ʻ 1$ Dʻ H 34ʻ $EDʻ $11 3Dʻ Eʻ C-NFʻ P $EE34ʻ $Cʻ F3ʻ >H4Dʻ 8 2Fʻ D J 4$ ʻ H4ʻ F3ʻ @H J J CC HE34Cʻ &H4ʻ 3 3N- E2ʻ F3ʻ <&& N3ʻ H&ʻ >H4Dʻ 8 2Fʻ D J 4$ ʻ CF$ ʻ D 43N ʻ ʻ $EDʻ 3 340ʻ 5-C N3ʻ FHʻ CF$ ʻ $D(-D23ʻ $E0ʻ I 3E$ Oʻ -ED34ʻ F Cʻ N ʻ CF$ ʻ F Eʻ 6H-4ʻ G$0Cʻ F343$& 34ʻ $ ʻ F3ʻ &-4 F3C ʻ431H4 ʻ F3ʻ C$ J 3ʻ $EDʻ F Cʻ D(-D N$ HEʻ F343H&ʻ Hʻ F3ʻ ?3N43 $40ʻ H&ʻ ʻ F3ʻ D J 4$ O

G3& E HEʻ H&ʻ *34 J Cʻ

>W ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ *F$ ʻ $ ʻ @ $-C3Cʻ $EDʻ I 4H C HECʻ Eʻ F Cʻ N ʻ NHE $ E3Dʻ 43 $ E2ʻ Hʻ 8#(% #&ʻ CF$ ʻ Q3ʻ NHEC 4-3Dʻ Hʻ 3 3EDʻ Hʻ $EDʻ F3ʻ *H Eʻ H&ʻ "! F ' 35,# 7F!!&=ʻ $EDʻ $ ʻ @ $-C3C $EDʻ I 4H C HECʻ 43 $ E2ʻ Hʻ P $4 E3Cʻ CF$ ʻ Q3ʻ NHEC 4-3Dʻ Hʻ EN -D3ʻ , HER NH J J CC HE3Dʻ <&& N34Cʻ $EDʻ G4- J J 34C ʻ -E 3CCʻ F3Eʻ H F34 C3ʻ 14HR D3D ʻ ʻ $EDʻ $ ʻ @ $-C3Cʻ $EDʻ I 4H C HECʻ 43 $ E2ʻ Hʻ 5-C N3Cʻ CF$ ʻ Q3ʻ @HEC 4-3Dʻ Hʻ 3 3EDʻ Hʻ $ ʻ P $2 C 4$ 3Cʻ $- FH4 T3Dʻ Hʻ $N ʻ $Cʻ C-NFʻ Eʻ F3 4ʻ 43C13N 3ʻ 5-4 CD N HECʻ ! $EDʻ $ ʻ F3ʻ I H 34Cʻ 2 3Eʻ Hʻ $EDʻ ' 32-R $ HECʻ J $D3ʻ &H4ʻ F3ʻ @HED-N ʻ H&ʻ @HEC $Q 3C ʻ $EDʻ $ ʻ I 3E$ 3Cʻ $EDʻ 6H4&3 -43Cʻ &H4ʻ $E0ʻ , 32 3N ʻ F343H& ʻ CF$ ʻ 3 3EDʻ Hʻ $ ʻ * F E2 J 3E ʻ 8 3$DQH4H-2FC ʻ $EDʻ C-NFʻ +3ʻ <&& N34C ʻ $EDʻ 8 2Fʻ @HEC $Q 3Cʻ $EDʻ H F34ʻ @F 3&ʻ <&& N34Cʻ $EDʻ P $2 C 4$ 3Cʻ H&ʻ @ 3C ʻ *H EC ʻ $23C ʻ $EDʻ "%1 '!1ʻ #ʻ 8#(% #&ʻ F &ʻ $!% #& ʻ FHʻ CF$ ʻ $N ʻ Eʻ F3ʻ ; 3N- HEʻ H&ʻ F Cʻ N (ʻ $EDʻ $ ʻ I 4H C HECʻ &H4ʻ Q 3 E2ʻ P $4 E3Cʻ Eʻ N -$ E2ʻ 8 H-C3Cʻ CF$ ʻ 3 3EDʻ $EDʻ $11 Oʻ Hʻ $ ʻ EEC ʻ > 340ʻ ? $Q 3C ʻ 3R FH-C3C ʻ $EDʻ Hʻ F3ʻ 8 H-C3Cʻ H&ʻ ?3 34Cʻ H&ʻ 9 E3ʻ Q0ʻ ' 3 $ ʻ F3 F34ʻ " 1)ʻ H4ʻ 6H43 2E ʻ Hʻ Q3ʻ D4$E+ʻ Eʻ F3 4ʻ H Eʻ 8 H-C3Cʻ H4ʻ I $N3Cʻ F343-E Hʻ Q3 HE2 E2 ʻ $EDʻ Hʻ $ ʻ 8 H-C3Cʻ H&ʻ I 34CHECʻ C3 E2ʻ B4$EDO ʻ ? 4HE2ʻ 9 $ 34C ʻ @ D34 ʻ H4ʻ P 3 F32 (E ʻ Q0ʻ ' 3 $ ʻ Eʻ 8#(% #&ʻ $EDʻ $!% #&=ʻ #&ʻ J ʻ $!% #& ʻ F3Eʻ F343ʻ CF$ ʻ EH ʻ Q3ʻ &H-EDʻ C-&& N 3E ʻ ' HH J ʻ Eʻ C-NFʻ 8 H-C3C ʻ F3Eʻ P $4 E3Cʻ J $0ʻ Q3ʻ Q 3 3Dʻ Eʻ C-NFʻ P $EE34ʻ $Cʻ F$Cʻ Q33Eʻ F343 H&H43ʻ N-C H J $40. I 4H D3Dʻ $ $0C ʻ F$ ʻ EHʻ <&& N34ʻ H4ʻ P $4 E3ʻ CF$ ʻ Q3ʻ Q 3 3Dʻ Eʻ 8#(% #&ʻ Eʻ $E0ʻ 14 $ 3ʻ 8 H-C3C ʻ H4ʻ Eʻ $E0ʻ @$E 33#ʻ F3 Dʻ H4ʻ HNN-1 3Dʻ -ED34ʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ <4DE$EN3ʻ H4ʻ P $4 E3ʻ G31$4 J 3E ʻ H4ʻ -1HEʻ I 34CHECʻ FHʻ +331ʻ *$ 34ECʻ HE O ʻ Q3 E2ʻ E E34Cʻ H&ʻ F3ʻ @ Oʻ H&ʻ <,#&,# ʻ $D J 3Dʻ Hʻ F3 4ʻ 6433DH J ʻ H&ʻ F$ ʻ @H J 1$E0ʻ Eʻ ' 2F ʻ H&ʻ I $ 4 J HE0ʻ H4ʻ 1143E N3CF 1 ʻ EH FR C $ED E2ʻ C-NFʻ I 34CHECʻ FHʻ +331ʻ C-NFʻ *$ 34ECʻ HE Oʻ F$ 3ʻ $+3Eʻ H- ʻ N -$ E2ʻ > N3EN3C ʻ EH4ʻ Eʻ F3ʻ 8 H-C3ʻ H&ʻ $E0ʻ G C 34ʻ +31 ʻ &H4ʻ D C R E2ʻ B4$EDOʻ $EDʻ ? 4HE2ʻ 9 $ 34C ʻ EH4ʻ Eʻ F3ʻ 8 H-C3ʻ H&ʻ $E0ʻ ?FH1+33134ʻ FHC3ʻ 14 EN 1$ ʻ G3$ E2ʻ CF$ ʻ Q3ʻ J H43ʻ Eʻ H F34ʻ MHHDCʻ $EDʻ P 34NF$ER D T3ʻ F$Eʻ Eʻ B4$EDOʻ $EDʻ ? 4HE2ʻ 9 $ 34C ʻ CHʻ $Cʻ C-NFʻ G C 34Cʻ $EDʻ ?FH1+33134Cʻ DHʻ EH ʻ 134 J ʻ * 11 E2ʻ Eʻ C-NFʻ 8 H-C3C ʻ EH4ʻ Eʻ F3ʻ 8 H-C3ʻ H&ʻ ' 3C D3EN3ʻ Eʻ $E0ʻ I $4 ʻ H&ʻ F3ʻ #E 3Dʻ % E2DH J ʻ H&ʻ $E0ʻ 6H43 2Eʻ @HEC- ʻ D- Oʻ N43D 3Dʻ $Cʻ C-NF

>W ʻ ED

U M#> ;>P ' ' @$1 US !V

>W ' ED'Q3' '3E$N 3D'*F$' F3' @F-4NF $4D3EC' H&' 3 340' I$4 CF' ,H &N$ HE' '8#(% #& ' "#&' F3' @HEC $Q 3' H4' H F34' <&& N34' H&' 3 340' I$4 CF' H4' H' I$4 CF3C' H&' I $N3' #' +',% #&' HE' 43N3 E2' $' ,H &N$ HE' &4HJ' F3' ?3N43 $40' H&' F3' DJ 4$ 0' H&' F3' ,$J3' H&' $E0' P$4 E3' Q3 HE2 E2' H' F3' C$D' P$4 E3C c' I$4 CF' H4' I $N3' FH' F$C' &H4' J34 H4H-C' @HED-N' 43N3 3D' 8 C' P$(3C 0 C' C13N $' 114HQ$ HE' H4' FH' E' NHEC3X-3EN3' H&' P CNHER D-N' F$C' Q33E' DCJ CC3D' 8 C' P$(3C 0 C' ?34 N3' F' G C24$N3' CF$' ' ' $&& 'C-NF' ,H &N$ HE' HE' F3' <- C D3' H&' F3' GHH4' H&' F3' @F-4NF' H4' @F$13' Q3 HE2 E2' H' C-NF' I$4 CF' H4' I $N3' HE' F3' +3#& ' E3 ' C-NN33D E2' F3' ;3N3 1 'H&' C-NF' ,H &N$ HE

>W ' ED' ' C' F343QO' D3N $43D' $ED' 3E$N 3D' *F$' $ ' 8 C' P$4 E3C' H' P$(3C 0 C' 'HO$' P$4 E3' 6H4N3C' CF$ 'D-4 E2' F3' * J3' F30' CF$ 'Q3' C-Q(3N' H' 43C13N 3 0' QH4E3' HE' F3' B1H+C' H&' $E0' H&' 8 C' P$(3C 0 C' ?F 1C' H4' 3CC3 C' E' @HJ J CC HE' 3 F34' $C' I$4' H&' F3' @HJ1 3J3E' H4' $C' F 3' HE' ?-13&E- J34$4 3C' H4' H F34 C3' Q3' C-Q(3N' $ED' $Q 3' E' 3 340' 43C13N' QH$4D' ?F 1' H' F3' >$ C' &H4' F3' @&H 3 E J3E' H&' 8 C' P$(3C 0 C' 6H4N3C' QO' ?3$' $ED' ' H' F3' ' - 3C' $ED' G CN 1 E3' H&' F3' 'HO$' ,$ 0 '$ED' CF$ '$ED' J$0' Q3' 14HN33D3D' 2 EC' $ED' 1-E CF3D' &H4' <&&3EN3C' NHJ J 3D' QO' F3J' F 3' CH' QH4E3' E' F3' C$J3' P$EE34' $C' F3' <&& N34C' $ED' ?3$J3E' 3J1 HO3D' E' F3' 'HO$' ,$ 0' J$0' Q3' 4 3D' H4' 1-E CF3D.' I4H D3D' $ $0C' F$' &' $E0' P$4 E3' <&& N34' H4' P$4 E3' CH' QH4E3' HE' F3' BHH+C' H&' $E0' H&' 8 C' P$(3C 0 C' ?F 1C' CF$ ' NHJ J ' HE' ?FH43' $E0' <&&3EN3' 2 EC' D-3' <4D34' $ED' D CN 1 E3' $ED' && 4' F NF' F3' CF$ ' EH' Q3' $J3E$Q 3' H' $' ,$ $' @H-4 J$4 $' H4' H' ,$ $' G CN 1 E3' F3' CF$ 'Q3' 4 3D' $ED' 1-E CF3D' &H4' F3' C$J3' E' F3' C$J3' P$EE34' $C' H F34' P$4 E3C' J$0' Q3' 4 3D' $ED' 1-E CF3D' &H ' F3' +3' <&&3EN3C' -ED34' F3' - FH4 0' H&' F C' N ' "

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CF$ ' $4 C3' F NF' C' EH ' 3 1 $ E3D' QO' F3' C$ D' 4 N 3C' H4' N '
$NNH4D E2' H' J O' @HECN 3EN3' F3' Q3C' H&' J O' #ED34C $ED E2' $ED' F3'
@-C HJ' H&' 9 $4' E' F3' +3' @$C3C.' ED' '&-4 F34' C 3$4' *F$' ' '
EH' D - 23' F3' ?3E 3EN3' H&' F3' @H-4' -E ' ' CF$ ' Q3' D- O' $114H 3D'
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343' OH-' QH4E' 0
-' 9 F$' C' OH-4' 23' 0
' 9 F$' C' OH-4' *4$D3' H4' @$ E20
!' 43' OH-' $E' 1143E N3' 0
Y' 43' OH- J $44 N 0
' 43' OH-' 4-1 -43D' H4' $ J 3' F$ 3' OH-' 3 34' Q33E' C-Q(3N' H
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[ʻ 6H4ʻ F$ʻ BH-E Oʻ D Dʻ , 3ʻ 3E C 0
ʻ GHʻ OH-ʻ EH ʻ Q3 HE2ʻ Hʻ F3ʻ P $ʻ 0
Uʻ GHʻ OH-ʻ Q3 HE2ʻ Hʻ $EOʻ ' 32 J 3E ʻ H4ʻ Hʻ F3ʻ P$4 E3Cʻ <4DE$EN3
H4ʻ , $ Oʻ 0
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H&3 * F3ʻ 5-C N3ʻ Cʻ D 43N 3Dʻ Eʻ 1- E2ʻ F3ʻ Fʻ \-3C HEʻ Hʻ F3ʻ ' 3N4- ʻ $EDʻ Q3&H43ʻ F3ʻ 43N3 3Cʻ F Cʻ 4 C 34ʻ D C EN Oʻ Hʻ $114 T3ʻ F3ʻ ' 3N4- ʻ F$ʻ &ʻ F3ʻ Q3 HE2Cʻ Hʻ F3ʻ P $ʻ $EDʻ D3E 3Cʻ F3ʻ 6$N ʻ F3ʻ Cʻ $Q 3ʻ Hʻ ? ʻ PHE FCʻ J 14 CHE J 3E

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$ F3 $&H432H E2 \ -3C HEC 343 1- H F3 C$ D F$ F3 EC 34C 4 3E H11HC 3 H F3 J $43 FHC3 F NF F3 2$ 3 H J 3 $ED F$ F3 * F 4D 6H-4 F $ED 6 & F 4 N 3C H& F3 ?3NHED ?3N HE H& F3 %- 3C $ED 4 N 3C &H4 F3 Q3 34 MH 34E J 3E H& 8 C P 3C (C ' HO$ P $4 E3 6H4N3C F 3 HE ?FH43 2 EC P - EO $ED F3 6 4C 4 N 3 H& F3 * F 4D ?3N HE H& F3 C$ D ' - 3C $ED 4 N 3C 2 EC G3C34 HE 343 43$D H 34 H F J F$ F3 HH+ F3 <$ F H& 32 $EN3 $ED 6 D3 O F$ F3 43N3 3D F3 ?- J H&

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Nʻ J $D3ʻ Eʻ F3ʻ ; 2F Fʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C Oʻ
ZMʻ ʻN Y ʻ % E2ʻ !, (!ʻ F3ʻ 6 4C ʻ # 3%!&ʻ /#ʻ /ʻʻʻ , ʻ (# #(ʻ)!ʻ *!,5%!ʻ
' %%!&ʻ \ -$+34Cʻ 13')ʻ R, 1ʻ , ʻ / ,#ʻ , ʻ 2!'% ,#ʻ 1ʻ ʻ
! ,0!ʻ)!ʻ 2 '3% !1ʻ F) ')ʻ # ʻVʻ)! ʻ %!ʻ 3#&! ʻ=ʻ H4ʻ $NNH4D E2ʻ
Hʻ $EH F34ʻ Nʻ J $D3ʻ Eʻ F3ʻ , E Fʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ
Vʻ Mʻ Uʻ Nʻ B;ʻ P $(3C Oʻ % E2ʻ !, (!ʻ F3ʻ ?3NHEDʻ E - 3Dʻ /#ʻ /ʻʻʻ , ʻ #&! # #(ʻ
*! 1,#1ʻ F),ʻ) 0!ʻ , !&ʻ ,ʻ V3 % ʻ)! 1!)!1ʻ , ʻ6 '!1ʻ F)#ʻ)!ʻ
7 !ʻ % !&ʻ 4ʻ< Fʻ #&ʻ , ʻ %%,F #(ʻ 3)! ʻ7 !ʻ , ʻ) ʻ*3 [
5,1!ʻ= #&ʻ , ʻ !#& #(ʻ 1,ʻ 3')ʻ, ʻ # /ʻʻ5 11!&ʻ #ʻ)!ʻ +!',#&ʻ H! ʻ
, ʻ)!ʻ L! (#ʻ , ʻ 1ʻ5 !1!#ʻ U!1 ʻ 1ʻ !V3 !1ʻ *! 1,#1ʻ ,ʻ V3 % ʻ
)! 1!%0!1ʻ , ʻ6 '!1ʻ 4! , !ʻ)!ʻ 8#&ʻ Vʻ)!ʻ #!Jʻ7! ʻ , ʻ Y3 !ʻ
+!11 ,#1ʻ #&ʻ %1,ʻ 4ʻ!#% (#(ʻ)!ʻ 7 !ʻ % !&ʻ 4ʻ< Fʻ , ʻ #(ʻ
#&ʻ 1341' 4 #(ʻ)!ʻ 2!'% ,#ʻ (#1ʻ 7 #1341 # ,#=ʻ #&ʻ , ʻ
ʻ %%,F #(ʻ ʻ 3)! ʻ7 !ʻ , ʻ8# ,% !#ʻ , ʻ2!!&1ʻ #&ʻ %%1ʻ &!ʻ 4ʻ
* 5 1 1=ʻ #&ʻ , ʻ L!% !ʻ , ʻ* , !1 #ʻ *3 ') 1! 1ʻ 2!0 1!!1ʻ #&ʻ
<!11!!1=ʻ H4 $NNH4D E2ʻ Hʻ $EH F34ʻ Nʻ J $D3ʻ Eʻ F3ʻ ; 2F 33E Fʻ =3$4ʻ
H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C Oʻ % E2ʻ !, (!ʻ F3ʻ ?3NHEDʻ E - 3Dʻ
zM U @ U[ʻ /#ʻ /ʻʻʻ ,ʻ !#&ʻ #&ʻ !#&!ʻ , !ʻ ! !'3 %ʻ #ʻ /ʻʻ5 11!&ʻ #ʻ)!ʻ R)ʻ
H! ʻ, ʻ 1ʻ5 !1!#ʻ U!1 1ʻ L! (#ʻ # 3%!&ʻʻ/#ʻ /ʻʻʻ , ʻ)!ʻ 3)!ʻ
7 Y3 % ' ,#ʻ Vʻ?31 '!1ʻ ʻ)!ʻ *! '!=ʻ 14ʻ $NNH4D E2ʻ Hʻ $EH F34ʻ Nʻ
J $D3ʻ Eʻ F3ʻ ? Fʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C Oʻ % E2ʻ !, (!ʻ
Yʻ Mʻ Sʻ Nʻ !Sʻ F3ʻ *F 4Dʻ E - 3Dʻ /#ʻ /ʻʻʻ , ʻ % ! #(ʻ)!ʻ 6)ʻ, ʻ/%U3 ,#ʻ #&ʻ
ʻ)!ʻ /113 #'!=ʻ #&ʻ , ʻ !#& #(ʻ 1,ʻ 3')ʻ Vʻ #ʻ /ʻʻ &!ʻ #ʻ)!ʻ
+!0!#)ʻ H! ʻ, ʻ)!ʻ L! (#ʻ Vʻ !ʻ% !ʻ U!1 ʻY3!!#ʻ EE3ʻ # 3%!&ʻ
7 /#ʻ /ʻʻ , ʻ)!ʻ $ 5 ,0! !#=ʻ Vʻ)!ʻ O# ,#ʻ , ʻ)!ʻ 7F,ʻ #(&, 1ʻ 1ʻ
!ʻ)!ʻ 7 !ʻ)! !#ʻ % !&ʻ !V3 !1ʻ)!ʻ 2!%0! ʻVʻ'! #ʻ< 1 1ʻ
#&ʻ I,5 !1ʻ)! !#ʻ !# ,#!&ʻ ,ʻ *! 1,#1ʻ #&ʻ '!&ʻ ʻ ()ʻ 7 ! 1,#ʻ
, ʻ 15 1 ,#ʻ Vʻ7 ! 1,#=ʻ H4ʻ $NNH4D E2ʻ Hʻ $EH F34ʻ Nʻ 1$CC3Dʻ Eʻ
F3ʻ , E Fʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C Oʻ % E2ʻ !, (!ʻ F3ʻ
Mʻ ʻNʻ ʻ6H-4 Fʻ J %!&ʻ/ ʻ/ʻʻ ʻ !5! % #(ʻ 1,ʻ 3')ʻ , ʻ1!0! %ʻ /ʻ1ʻ 1ʻ
ʻ 5,1!1ʻ)!ʻ E!'!11 ʻ, ʻ !'! 0 #(ʻ)!ʻ + ' !#ʻ, ʻ)!ʻ <, & 1ʻ+355! ʻ
1ʻ ʻY3 % ' ,#ʻ , ʻ'! #ʻ6 '!1ʻ #&ʻ8 5%, !# 1=ʻ H4ʻ $NNH4D E2ʻ
Hʻ $EH F34ʻ Nʻ 1$CC3Dʻ Eʻ F3ʻ *3E Fʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ C$ Dʻ
$ʻ Mʻ @ʻ ʻ $ 3ʻ P $(3C Oʻ E - 3Dʻ /#ʻ /ʻʻʻ , ʻ)!ʻ L!% !ʻ, ʻ 1ʻ U!1 1ʻ L, #ʻ
I),% ʻʻ +3%U!' 1ʻ 1,ʻ &$4ʻ HE Oʻ $Cʻ F3ʻ C$ Dʻ Nʻ 43 $ 3Cʻ Hʻ $EOʻ @ ʻ
H4ʻ P $40ʻ <&& N3Cʻ H4ʻ I $N3Cʻ H&ʻ *4-C ʻ H4ʻ I $N3Cʻ H&ʻ I4H& ʻ H4ʻ
@H41H4$ 3ʻ <&& N3Cʻ F$ 3ʻ F4H-2Fʻ 2EH4$EN3ʻ H&ʻ F3ʻ >$ ʻ QC3EN3ʻ
H4ʻ CH J 3ʻ -E$ H D$Q 3ʻ NN D3E ʻ H J 3Dʻ Hʻ $+3ʻ $EDʻ C-QCN4 Q3ʻ
F3

T : =E E ' ' &' 9

F3' <$ FC' $ED' CC-4$EN3' $ED' J$+3' $ED' C-QCN4 Q3' F3' G3N $R 4$ HE' 43X- 43D' QO' F3' C$ D' 43N 3D' N C' H4' 3 F34' H&' F3 J ' H4' H F34 C3' H' X-$ &O' F3 J C3 3C' $C' $&H43C$ D' F E' C-NF' * J 3' $ED' E' C-NF' P $EE34' $C' E' $ED' QO' F3' C$ D' N C' 43C13N 3 O' C' 43X- 43D' F343QO' F30' F$ 3' EN-443D' H4' J $O' Q3' E' D$E234' H&' EN-44 E2' D 34C' I 3E$ 3C' $ED' G C$Q# 3C: 6H4' X- 3 E2' F3' P EDC' H&' 8 C' P $(3C O C' ?-Q(3N C' $ED' &H4' 143 3E E2' $EO' ENHE 3E 3EN3' F$ ' J 2F' H F34 C3' F$113E' QO' J 3$EC' H&' C-NF' < J CC HEC' Q3' ' 3E$N 3D' QO' F3' % #2 C' J HC' ; N3 3E ' P C&O ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$' $ED' *3 J 1H4$ ' $ED' @H J J HEC' E' F C' 143C3E ' I $4 $ J 3E ' $CC3 J Q 3D' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3' *F$ ' $ '$ED' 3 340' I 34CHE' H4' I 34CHEC' FH ' $ ' H4' Q3&H43' F3' 1$CC E2' H&' F C' N ' F$ F' H4' CF$ ' F$ 3' H J 3D' H' $+3' $ED' C-QCN4 Q3' F3' <$ FC' $ED' G3N 4 HEC' H4' H F34 C3' H' X-$ &O' F J ' F34' H4' F3 J R C3 3C' F E' C-NF' * J 3' $ED' E' C-NF' P $EE34' $C' E' $ED' QO' F3' C$ D' N C' H4' $EO' H&' F3 J ' C' 43X- 43D' $ED' FH ' $& 34' $NN31 E2' $EO' C-NF' < ?N3' I $N3' H4' ; J 1 HO J 3E ' H4' -ED34 $+ E2' $EO' I 4HR &3CC HE' H4' *F E2' HE' $NNH-E ' H&' F NF' C-NF' \ -$ & N$ HE' H-2F' H' F$ 3' Q33E' F$D' $ED' C' 43X- 43D' Q3&H43' F3' 1$CC E2' H&' F C' N ' F$ F' H4' F$ 3' $+3E' $#D' C-QCN4 Q3D' F3' C$ D' <$ FC' H4' J $D3' F3' G3N 4 HEC' 43X- 43D' QO' >$ ' H4' FH ' HE' H4' Q3&H43' F3' * 3E O' & & F' G$O' H&' ')' < E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O F433' CF$ ' $+3' $ED' C-QCN4 Q3' F3' <$ FC(G3N 4 HEC' $ED' CC-4$EN3' 43C13N 3 O' E' C-NF' @$C3C' F343 E' QO' F3' C$ D' C3 34$' N C' H4' $EO' H4' 3 F34' H&' F3 J ' F3' C$ D' <$ FC' G3N 4 HEC' $ED' CC-4$EN3' H-2F' H' F$ 3' Q33E' $+3E' $ED' C-QCN4 Q3D' E' C-NF' P $EE34' $ED' 6H4 J ' $ED' $ ' H4' E' C-NF' I $N3' H4' I $N3C' $C' $43' $11H E 3D' E' $ED' QO' F3' C$ D' C3 34$' N C' H4' $EO' H4' 3 F34' H&' F3 J ' CF$ ' Q3' $ED' $43' F343QO' ED3 J E & 3D' &433D' $ED' D CNF$423D' &4H J' $ED' 2 EC' $ ' I 3E$ 3C' 6H4&3 -43C' ' EN1N 3C' $ED' G C$Q 3C' EN-443D' H4' H' Q3' ER N-443D' &H4' H4' QO' 43$CHE' H&' $EO' , 32 3N ' H4' < J CC HE' 143 H-C' H' F3' 1$CC E2' H&' F C' N ' H&' $+ E2' H4' C-QCN4 Q E2' F3' C$ D' <$ FC' H4' CC-4$EN3' H4' J $+ E2' H4' C-QCN4 Q E2' F3' C$ D' G3N 4 HEC' 43R C13N 3 O' H4' $+ E2' H4' C-QCN4 Q E2' F3' C$ D' <$ F' $NNH4D E2' H' F3' $QH 3 J 3E HE3D' N C' H4' $EO' H&' F3 J ' H4' $EO' H F34' N ' H4' N C' $ED' C-NF' I 34CHE' H4' I 34CHEC' C' $ED' $43' $ED' CF$ ' Q3' &- O' $ED' $N -$ O' 43N1N $ 3D' $ED' 43C H43D' H' F3' C$ J 3' ? $ 3' $ED' @HED HE' $C' F3' CF3' H4' F30' 343' E' Q3&H43' C-NF' , 32 3N ' H4' < J CC HE' $ED' CF$ ' Q3' D33 J 3D' $ED' $D(-D23D' H' F$ 3' D- O' X-$ & 3D' F J ' F34' H4' F3 J C3 3C' $NNH4D E2' H' F3' $QH 3 J 3E HE3D' N C' $ED' 3 340' H&' F3 J ' $ED' F$ ' $ ' ; 3N HEC' H&' $ED' N C' DHE3' H4' H' Q3' DHE3' QO' $EO' C-NF' I 34CHE' H4' I 34CHEC' H4' QO' - FH4 O' D34 3D' &4H J' F J ' F34' H4' F3 J ' $43' $ED' CF$ ' Q3' H&' F3' C$ J 3' 6H4N3' $ED' $ D O' $C' F3' C$ J 3' H4' $EO' H&' F3 J' H- D' F$ 3' Q33E' &' C-NF' I 34CHE' H4' I 34CHEC' 43C13N 3 O' F$D' $+3E' F3' C$ D' <$ FC' H4' CC-4$EN3' $ED' J $D3' $ED' C-QCN4 Q3D' F3' C$ D' G3N 4 HEC' 43C13N 3 O' $ED' $+3E' $ED' C-QR CN4 Q3D' F3' C$ D' <$ F' $NNH4D E2' H' F3' G 43N HEC' H&' F3' C$ D' N C' $ED' 3 340' H4' $EO' H&' F3 J' ' $ED' F$ ' F3' \ -$ & N$ HE' H&' C-NF' I 34CHE' H4' I 34CHEC' X-$ &O E2' F3 J C3 3C' E' J $EE34' $ED' F E' F3' * J 3' $11H E 3D' QO' F C' N ' CF$ ' Q3' H' $ ' E 3E C' $ED' I -41HC3C' $C' 3&&3N -$' $C' &' C-NF' I 34CHE' H4' I 34CHEC' F$D' 43C13N 3 O' $+3E' F3' C$ D' <$ FC' $ED' CC-4$EN3' $ED' J $D3' $ED' CEQCN4 Q3D' F3' C$ D' G3N 4 HEC 43C13N 3 O

I 34CHEC' FH' F$ 3' H J 3D' H' X-$ &O' F3 J C3 3C' $C' 43X- 43D' QO' F3' 43N 3D' N C' ED3 J ' ?3D' $ED' $ H 3D' &-4R F34' * J 3

43C13N 3 O' $ED' $+3E' $ED' C-QCN4 Q3D' F3' C$ D' <$ F' F E' F3' * J3' $ED' E' F3' P $EE34' $11H E 3D' QO' F3' C3 34$' N C' Q3&H43' J3E HE3D

ED3 J E O' H' FHC3' FH jF$ 3 H4$ 3D' H' J$+3' $ED' C-QCN4 Q3' F3' <$ FC' KN' 43X- 43D' QO' F3' 4 CQ' N' H&' U' EE3

' & ED' F343$C' C3 34$' I 34CHEC' 3 ' $&&3N 3D' H' 8 C' P $(3C O C' MH 34E J3E ' $ED' H' F3' [E 3D' @F-4NF' H&' 8#(% #&' $ED' $!% #& ' F$ 3' F4H-2F' 2EH4$EN3' H&' F3' >$ ' E32 3N 3D' H4' Q33E' QO' ? N+E3CC' H4' H F34' -E$ H D$Q 3' @$-C3C' 143 3E 3D' &4H J' $+ E2' $ED' C-QCN4 Q E2' F3' G3N 4 HE' $NNH4D E2' H' F3' G 43N HEC' H&' $E' N ' 1$CC3D' E' F3' I $4 $ J3E ' H&' $!% #&' E' F3' ?3NHED' =3$4' H&' F3' ' 3 2E' H&' 834' $ 3' P $(3C O' \ 33E' /##!' E - 3D' /#' /' ' ,' 5 !0!#')!' 3)!' F)' , '* , 5! ' Q3' ' F343&H43' &-4 F34' 3E$N 3D' * F$ ' $ ' I 34CHEC' FH' F$ 3' EN-443D' $EO' I 3E$ O' H4' EN1N O' E' F3' C$ D' 43N 3D' N ' J3E HE3D ' QO' E32 3N E2' H' X-$8&O' F3 J C3 3C' $NNH4D E2' H' F3' C$ D' N ' CF$ ' Q3' $ED' $43' F343QO' ED3 J E & 3D' &433D' $ED' D CR NF$423D' &4H J' $ ' EN1N 3C' G C$Q 3C' I 3E$ 3C' $ED' 6H4&3 -43C' EN-443D' QO' 43$CHE' H&' C-NF' < J CC HE' H4' , 32 3N ' $C' $&H43C$ D' ($ED' F$ ' EH' N ' DHE3' QO' $EO' H&' F3 J ' EH ' O3 ' $ H D3D' CF$ ' Q3' X-3CR HE3D' H4' $ H D3D' QO' 43$CHE' H&' C-NF' < J CC HE' H4' , 32 3N ' Q- ' F$ ' $ ' C-NF' N C' CF$ ' Q3' $ED' $43' F343QO' D3N $43D' H' Q3' $C' 2HHD' $ED' 3&&3N -$ ' $C' &' C-NF' I 34CHEC' 43C13N 3 O' F$D' $+3E' $ED' C-QCN4 Q3D' F3' C$ D' <$ F' $ED' J $D3' $ED' 4313$ 3D' $ED' C-QCN4 Q3D' F3' C$ D' G3N 4 HE' $ ' C-NF' * J3' $ED' I $N3' $ED' P $EE34' $C' E' F3' C$ D' N ' C' J3E HE3D ' $EO' F E2' E' F3' C$ D' N ' H' F3' NHE 4$4O' EH FC $ED E2.' I 4H D3D' $ $OC ' F$ ' C-NF' I 34CHE' H4' I 34CHEC' DH' $ED' CF$ ' $+3' $ED' C-QCN4 Q3' F3' C$ D' <$ FC' $ED' J $+3' 4313$ ' $ED' C-QCN4 Q3' F3' C$ D' G3N 4 HE ' E' C-NF' P $EE34' $ED' 6H4 J ' $ED' E' C-NF' I $N3' H4' I $N3C' 43C13N 3 O ' $C' $43' D 43N 3D' $ED' $11H E 3D' QO' F3' C$ D' $C 43N 3D' N ' HE' H4' Q3&H43' F3' * 3E O & & F' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O F433

, H ' H' ER D3 J E &O' I 34R CHEC' 2 EC' FH J' & E$' 5-D2 J3E ' C' 2 3E

' I 4H D3D' $ $OC ' $ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' F C' N ' H4' $EO' F E2' F343 E' NHE $ E3D' CF$ ' EH ' 3 3ED' H4' Q3' NHEC 4-3D' H' 3 3ED' H' ED3 J E &O' $EO' I 34CHE' 2 EC' FH J' & E$' 5-D2 J3E ' CF$ ' F$ 3' Q33E' 2 3E' E' $EO' N HE' H&' G3Q ' B ' I $ E ' H4' E&H4 J $ HE ' E' $EO' H&' 8 C' P $(3C O C' @H-4 C' H&' ' 3NH4D ' &H4' $EO' I 3E$ O' EN-443D' QO' F$ E2' E32 3N 3D' H' X-$ &O' F J C3 &' F E' F3' * J3' J 3D' QO' >$

, H ' H' 3 ' 3 J 1 5 N3C' - c32$' ' / \ -$ P N$ QE '

' I 4H D3D' $ $OC ' $ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' EH F E2' NHE ' 2$ E3D' E' F C' N ' CF$ ' 3 3ED' H4' Q3' NHEC 4-3D' H' 3 3ED' H' 3 3 J 1 ' 5FC N3' H&' F3' I 3$N3' F E' ! ' " #' &4H J' F3' I 3E$ 3C' H' F NF' F3' C' C-Q(3N ' &H4' $N E2' $C' C-NF' FH- ' Q3 E2' 1HCC3CC3D' H&' F3' \ -$ & N$ HE' 3X- 43D' QO' F3' >$ C' EH ' E' &H4N3

D J CC HEC' H' @H41H4$ ' * 4 ' cD' $& 34' *FE3$ H 3 D' Q >$ '

' ' ED' F343$C' F3' 11H E J3E ' H&' D 34C' @ 34+C' H&' F3' I 3$N3' * H E' @ 34+C' $ED' H F34' I -Q N' <&& N34C' $ED' F 3 ' D J CC HE' H&' P 3 J Q34C' $ED' <&& N34C' H&' @ 3C' @H4(4$ HE?' $ED' BH4H-2F * H EC' E' ! ' " #' $ED' $!% #& ' H4' F3' ; E 4 3C' H&' C-NF' D J C' C HEC' E' F3' @H-4 ' BHH+C' ' H C' H4' ' 3NH4DC' H&' C-NF' @ 3C' @H41H4$R HEC' $ED' BH4H-2F' * H EC' F NF' QO' C3 34$' N C' $43' D 43N 3D' $ED' 43X- 43D' H' Q3' C $ J 13D' J $O' EH ' F$ 3' Q33E' 14H D3D' H4' F3' C$ J3' EH ' C $ J 13D' H4' J $O' F$ 3' Q33E' HC ' H4' J C $ D ' Q3' ' &-4 F34' 3E$N 3D' * F$ ' &H4' F3' ' 3 3&' H&' C-NF' I 34CHEC' FHC3' 11H E J3E C $ED

$ED' DJ&3CHJ' H4' F3' ;E 4 3C' H&' FHC3' DJ CC HEC' $C' $&H43C$D' J$O' EH'F$ 3' Q33E' 14H D3D' H4' EH'D- O' C $J13D' H4' F343' F3' C$J3' F$ 3' Q33E' HC' H&' J C $ D' ' CF$ ' $ED' J$O' Q3' $ &-' H' $ED' &H4' C-NF' I34CHEC' E' ! ' " #' H4' $!% #&' HE' H4' Q3&H43' F3' * 3E O' & & F' G$O' H&' ')' <E3' FH-C$ED' 3 2F 'F-ED43D' $ED' F 4 O F433' H' 14H D3' H4' N$-C3' H' Q3' 14H D3D' 11H E J3E C' $ED' DJ CC HEC' H4' ;E 4 3C' H&' DJ CC HEC' $C' $&H43C$D' D- O' C $J13D' ' H4' E' N$C3' F343' C-NF' 11H E J3E C' DJ CC HEC' H4' ;E 4 3C' H&' DJ CC HEC' $C' $&H43R C$D' F$ 3' Q33E' J$D3' H4' 14H D3D' Q- ' F$ 3' EH' Q33E' D- O' C $J13D' H' 14HD-N3' C-NF' 11H E J3E C' DJ CC HEC' H4 E 4 3C' H&' DJ CC HEC' $C' $&H43C$D' H' F3' @HJ J CC HE34C' $11H E 3D' H' EC13N' $ED' J$E$23' F3' '3 3E-3C' H&' F3' ? $J1' G-& 3C' H' Q3' D- O' C $J13D' ' F NF' C-NF' @HJ J CC HE34C' $43' F343QO' $- FHDT3D' $ED' 3J1H 343D' $ED' 43X- 43D' H' D- O' C $J1' HE' I$OJ3E' H&' GH-Q 3' F3' JH-E' H&' F3' G- 3C' & 4C' 1OQ 3' <4 H' F$ 3' Q33E' 1$ D' HE' C-NF' 11H E J3E C' DJ CC HEC' H4' ;E 4 3C' H&' DJ CC HEC' $C' $&H43C$D' FH-' $EO' H F34' I E3' H4' 6H4&3 -43' F343HE' $ED' E' H4D34' H' D3EH 3' F3' C$D' G- 3C' F3' C$D' @HJ J CC HE34C' $43' F343QO' $- FH4 T3D' $ED' 3J1H 343D' H' -C3' C-NF' ? $J1C' $C' CF$ ' F$ 3' Q33E' F343 H&H43' 14H D3D' H' D3EH 3' $EO' &H4J34' G- 3C' HE' ? $J13D' 3 -J ' I$4NFJ3E ' $ED' I$134' H4' H' N$-C3' E3 ' ? $J1C' H' Q3' 14H D3D' &H4' F$' I-41HC3 ' $ED' H' DH' $ 'H F34' *F E2C' E3N3CC$4O' &H4' 1- E2' F C' N ' E' 3 33- HE(' E' F3' +3' $ED' E' $C' &- ' $ED' $J1 3' P$EF34' $C' F3O' H4' F3' J$(H4' I$4'H&' F3J' $43' $- FH4 T3D' H' 1- ' E' 3 3N- HE' $EO' &H4J34' >$ 'NHEN34E E2' ? $J13D' 3 -J ' I$4NFJ3E ' $ED' I$134' $ED' C-NF' I34CHEC' CH' 14H D E2' 11H E R J3E C' DJ CC HEC' H4' ;E 4 3C' H&' DJ CC HEC' $C' $&H43C$D' D- O' C $J13D' <4 14HN-4 E2' F3' C$J3' H' Q3' D- O' C $J13D' E' J$EE34' $&H43C$D' $43' $ED' CF$ ' Q3' F343QO' NHE& 4J3D' $ED' X-$ & 3D' H' $N' $C' @ 34+' H&' F3' I3$N3' *H E' @ 34+' H4' H F34' I-Q N' <&& N34' H4' P3JQ34' H4' P3JQ34C' <&& N34' H4' <&& N34C' H&' C-NF' @ 3C' @H41H4$ HEC' $ED' BH4H-2F' *H EC' 43C13N 3 O' H' $ ' E 3E C' $ED' I-41HC3C' ' $ED' CF$ ' $ED' J$O' FH D' $ED' 3E(HO' $ED' 3 3N- 3' C-NF' <&& N3C' H4' $EO' H F34' <&& N3' H4' <&& N3C' E H' F NF' F3' H4' F3O' F$ F' H4' F$ 3' Q33E' 3 3N 3D' EH FC $ED E2' F C' H4' F3 4' < J CC HE' H4' F3' < J CC HE' H&' $EO' H&' F3 4' I43D3N3CCH4C' E' C-NF' @ 3C' @H41H4$ HEC' H4' BH4H-2F' *H EC' $C' $&H43C$D' $ED' CF$ ' Q3' ED3J E & 3D' $ED' D CNF$423D' H&' $ED' &4HJ' $ ' EN1N 3C' G C$Q 3C' 6H4&3 -43C' I3E$ 3C' $ED' G$J$23C' QO' 43$CHE' H&' $EO' C-NF' < J CC HE ' $ED' EHE3' H&' F C' H4' F3 4' N C' CF$ ' Q3' X-3C HE3D' H4' $ H D3D' FO' 43$CHE' H&' F3' C$J3

' ED' F343$C' J$EO' I34CHEC' FH' J$O' F$ 3' 1$D' F3' 14H134' ? $J1' G- 3C' 3 F34' Q3&H43' H4' F E' ? ' PHE FC' $& 34' F3' ; 3N- HE' H&' F3' @HE 4$N C' E' 9 4 E2' 3E 343D' E H' QO' F3J' H' C34 3' $C' @ 34+C' H' H4E 3C' H4' ?H N H4C' ?N4 3E34C' H4' ,H $4 3C' I-Q N' E' ! ' " #' F$ 3' HJ 3D' H' N$-C3' & D$ C' H' Q3' J$D3' $ED '$& 34 $4DC' H' Q3' & 3D' E' F3' 14H134' <&& N3' H&' F3' $N -$' ; 3N- HE' H&' C-NF' @HE 4$N C' $ED' F$ 3' $ CH' HJ 3D' H' N$-C3' C-NF' @HE 4$N C' $ED' F3' ED3E -43C' F343H&' H' Q3' 3E4H 3D' F E' F3' * J3' E' F NF' F3' C$J3' H-2F' H' F$ 3' Q33E' DHE3' $ED' J$EO' ?H N H&C' H4E 3C' ,H $4 3C' I-Q N' $ED' H F34' F$ 3' HJ 3D' H' $+3' H- ' EE-$' @34 & N$ 3C' H4' H' 3E 34' F3' C$J3' E' F3' 14H134' <&& N3' $ED' J$EO' E&$E C' $ED' H F34C' J$O' F343QO' EN-4' N34 $ E' G C$Q 3C' 6H4' 143R 3E E2' F343H&' $ED' 43 3 E2' C-NF' I34CHEC' Q3' '3E$N 3D' *F$'3 34O' #' -' I34CHE

ED3E- O' H I34CHEC' FH F$ 3' 1$D' F3' G- 3C' HE' ED3E -43C' H' C34 3' $C' @ 34+C' H' H4E 3C' KN' Q- ' F$ 3' E32 3N 3D' H' N$-C3' && D$R C' F343H&' H' Q3' J$D3

[U"M#> ;>P ' ' M$1 U

I34CHE' FH'CF$ '3 F34'Q3&H43'H4' F E'? P DE FC'$& 34' F3'; 3N- HE' H&' C-NF' @HE 4$N 'H4' ED3E -4@(F$ 3' 1$ D' F3' 14H134' ? $J1' G- O' E' F$ 'B3F$ &' $ED' FH' $ ' F3' 1$CC E2' H&' F C' N 'CF$ 'F$ 3' E32 3N 3D' H4' HJ 3D' H' N$-C3' $EO' C-NF' && D$ 'H4' && D$ C' $C' $&H43C$ D' H' Q3' J$D3' $ED' & 3D' H4' C-NF' @HF 4$N 'H4' ED3E -43' H' Q3' 3E4H 3D' $ED' FH 'HE' H4' Q3&H43' F3' 6 4C 'G$O' H&' % ' *34J' <E3' FH-C$ED' 3 2F ' F ED43D' $ED' F 4 ODF433' CF$ 'N$-C3' C-NF' @HE 4$N 'H4' ED3E -43' H' Q3' 3E4H 3D' F' F3' 14H134' <&& N34' E' F$ 'B3F$ &' $ED' <E3' H4' JH43' && D$ ' H4' && D$ C' H' Q3' J$D3' $ED' $& 34 $4DC' H' Q3' & 3D' E' C-NF' P$EE34' $$ F3' C$J3' H-2F ' < F$ 3' Q33E' J$D3' $ED' & 3D' E' D-3' * J3' CF$ ' Q3' $ED' C' F343QO' ED3JE & 3D' &433D' $ED' D CNF$423D' &4HJ' $ED' 2 EC ' $ ' I3E$ 3C' 6H4&3 -43C' EN1N 3C' $ED' G C$Q 3C' E' H4' QO' $EO' N 'H4' N C' H&' I$4 $J3E ' J3E HE3D' $ED' EN-443D' H4' H' Q3' EN-443D' &H4' H4' QO' 43$CHE' H&' C-NF' , 32 3N ' H4' <J CC HE' ' $ED' 3 34O' C-NF' && D$ '$ED' && D$ C' CH' H' Q3' J$D3' $ED' F NF' CF$ 'Q3' D- O' & 3D' HE' H4' Q3&H43' F3' 6 4C ' $O' H&' % ' *34J' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O F433' CF$ ' Q3' $C' 3&&3N -$' H' $ ' E 3E C' $ED' I-41HC3C' $C' &' F3' C$J3' F$D' Q33E' J$D3' $ED' & 3D' F E' F3' 43C13NR 3' * J3C' F3' C$J3' H-2F ' QO' F3' >$ C' EH ' E' Q3 E2' &H4' F$ ' I-4HHC3' H' F$ 3' Q33E' J$D3' $ED' & 3D' ($ED' F$ ' F3' 43C13N 3' <&& N34' E4' <&& N34C' FH' H-2F ' H' 43N3 3' & 3' 3E 34' H4' 432 C 34' C-NF' @HE 4$N ' H4' ED3E -43' H4' && D$ ' H4' && D$ C' CF$ 'EH '43&-C3' H' 43N3 3' & 3' 3E 34' H4' 432 C 34' F3' C$J3' QO' 43$CHE' F$ ' F3' H4E3O' ?H N H4' H4' , H $4O' I-Q N' H' FHJ' C-NF' E&$E' H4' H F34' I34CHE' CF$ 'F$ 3' Q33E' $4 N 3D' H4' F$ 3' NHE 4$N 3D' H' C34 3' CF$ ' F$ 3' E32 3N 3D' H' $+3' H- ' F C' EE-$' @34 & N$ 3' H4' H' 432 C 34' F3' C$J3' Q- ' C-NF' <&& N34' H4' <&& N34C' $43' F343QO' D 43N 3D' $ED' 3J1H 343D' H' 43N3 3' & 3' 3E 34' H4' 432 C 34' F3' C$J3' EH FC $ED E2' C-NF' <J CC HE' ! $ED' F$ '3 34O' I34CHE' FH' CF$ 'F$ 3' 432- $4 O' C34 3D' $EO' H4E3O' H4' H4E 3C ' ?H N H4' H4' ?H N H4C' , H $4O' I-Q N' H4' , H $4 3C' I-Q N' &H4' F3' *34J' H&' =3$4C' 43X- 43D' QO' >$ ' CF$ 'EH 'Q3' 143 3E 3D' H4' D CX-$ & 3D' &4HJ' Q3 E2' $DJ 3D' $E' H4E3O' ?H N H4' H4' , H $4O' I-Q N' QO' 43$CHE' H&' $EO' <J CC HE' H&' F3' I34CHE' H4' I34CHEC' H' FHJ' F3' C34 3D' &H4' F3' C$J3' *34J' H4' &H4' $EO' I$4' F343H&' F$ E2' CH' E32 3N 3D' H' $+3' H- ' F C' EE-$' @34 & N$ 3' H4' H' 432 C 34' F3' C$J3' 14H D3D' F$ ' C#NF' I34CHE' C' H F34 C3' 3E 3D' H' Q3' N43$ 3D' $ED' $DJ 3D' H' C-NF' <&& N3' QO' F3' >$ C' EH ' E' &H4N3' 43 $ E2' F343 H

*32 33' H&' ' H4E 3C KN' E' $+ E2' H- ' F3 4' EE-$' M34 & N$ 3C' EH ' H' D CR X-$ &O' F3' I34CHEC' FH' F$ 3' C34 3D' F3J

' I4H D3D' $ $OC' $ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' F ' N 'H4' $EO' F E2' F343 E' NHE $ E3D' CF$ 'EH '3 3ED' H4' Q3' NHEC 4-3D' H' 3 3ED' 43C H43' H4' 3E 3' $EO' I34CHE' H4' I34CHEC' H' $EO' <&& N3' H4' ; JR 1 HOJ3E ' B3E3& N3' P$ 34' H4' *F E2' F$ CH3 34' $ 43$DO' $N -$ O' $ H D3D' QO' 5-D2J3E ' H&' $EO' H&' 8 C' P$(3C O C' @H-4 C' H&' B3NH4D ' $ 43$DO' 32$ O' & 3D' -1' $ED' 3E(HO3D' QO' $EO' H F34' I34CHE ' Q- ' F$ ' C-NF' <&& N3' H4' ; J1 HOJ3E ' B3E3EN3' P$ 34' H4' *F E2' CH' $ H D3D ' H4' 32$ O' & 3D' -1' $ED' 3E(HO3D' CF$ ' Q3' $ED' 43J$ E' E' $ED' H' F3' I34CHE' H4' I34CHEC' FH' C' H4' $43' EH ' H4' CF$ ' $ ' F3' 1$CC E2' H&' F C' N ' Q< 32$ O' 3E 3D' H' F3' C$J3' $C' &' F C' N ' F$D' E3 34' Q33E' J$D3

, H ' H' 43 ' OH43' I34CHEC' H' $EO' <&& N3' $ H D3D' QO' 5-D2J3E

' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' E' N$C3' $EO' N HE ' ?- ' B 'H&' ED N J3E ' H4' E&H4J$ HE' CF$ ' &4HJ' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' Q3' Q4H-2F ' N$44 3D' HE' H4' 14HC3N- 3D' 2 EC ' $EO' I34CHE H4

M3E34$ CC-3

4M # > ; > P @$1 U

H4 I 34CHEC F343QO J 3$E H4 E 3ED3D H Q3 ED3 J E & 3D 43N1R
N $ 3D H4 43C H43D &H4 H4 HE $NNH-E H& $EO 6H4&3 -43 I 3E$ O
EN1N O H4 G C$Q F$ CH3 34 EN-443D H4 H Q3 EN-443D QO
$EO C-NF , 32 3N H4 < J CC HE C-NF I 34CHE H4 I 34CHEC J $O 1 3$D
F3 M3E34$ CC-3 $ED -1HE F3 4 G3&3EN3 2 3 F C N $ED F3
C13N $ P $ 34 E ; D3EN3 -1HE $EO * 4 $ H Q3 F$D F343-1HE

> < , G < , : I 4 E 3D QO # + . (/ + & (+ $ED) * (+ , O1 . 223% , . . * +
I 4 E 34C H F3 % E2 C J HC ; N3 3E P $(3C O ZSU

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Eʿ N ʿ Hʿ 3 3EDʿ $EDʿ 43ED34ʿ J H43ʿ 3&&3N -$ ʿ * Hʿ
N Cʿ H&ʿ F3ʿ 6 4C ʿ $EDʿ ?3NHEDʿ $EDʿ *F 4Dʿ =3$4Cʿ
H&ʿ 8 Cʿ $ 3ʿ P $(3C Oʿ % E2ʿ ! ʿ F3ʿ 6H-4 F ʿ
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14 EN 1$ ʿ <&& N34Cʿ H&ʿ F3ʿ <4DE$EN3 ʿ $EDʿ Hʿ
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G31$4 J 3E ʿ IVʿ F ʿ E ʿ ZSU m

8 ; ' ; ?ʿ $Eʿ N ʿ $Cʿ 1$CC3Dʿ Eʿ F3ʿ 6 4C ʿ $EDʿ ?3NHEDʿ =3$4Cʿ H&ʿ F3ʿ ' 3 ʿ H&ʿ 8 Cʿ $ 3ʿ P $(3C Oʿ % E2ʿ ! , (!ʿ F3ʿ 6H-4 F ʿ E - 3Dʿ / #ʿ / ' ʿ , ʿ 0!1 #(ʿ %%ʿ 81 !1ʿ #&ʿ ʿ K ʿ Mʿ ʿ * ,5! ʿ , ' '35 !&ʿ , ʿ)!ʿ 6 &# #'!ʿ +! 0 '!ʿ #ʿ)!ʿ 5 #' 5 %ʿ 6 '! 1ʿ Nʿ YVʿ , ʿ)!ʿ 6 &# #'! ʿ #&ʿ , ʿ(# #(ʿ '! #ʿ *,C,! 1ʿ ,ʿ)!ʿ 1 &ʿ5 #' 5 %ʿ 6 '! 1.ʿ EDʿ F343$Cʿ $EH F34ʿ N ʿ $Cʿ 1$CC3Dʿ Eʿ F3ʿ *F 4Dʿ =3$4ʿ H&ʿ F3ʿ ' 3 2Eʿ H&ʿ 8 Cʿ C$ Dʿ $ 3ʿ P $(3C O ʿ E - 3Dʿ & ʿ / ' ʿ , ʿ 0!1 #(ʿ %%ʿ SM ʿN [Z ʿ 81 !1ʿ #&ʿ * ,5! ʿ , ' '35 !&ʿ , ʿ)!ʿ " ' ʿ +! 0 '!ʿ #ʿ # ʿ * ʿ , ʿ)!ʿ O# !&ʿ #(&, ʿ #ʿ)Zʿ 5 F 5 %ʿ 6 '! 1ʿ , ʿ 1ʿ ' !1 1ʿ 6 &# #'! ʿ #&ʿ , ʿ (# #(ʿ '! #ʿ * ,F! 1ʿ ,ʿ)!ʿ 1 &ʿ 5 #' 5 %ʿ 6 '! 1ʿ #ʿ !% ,#ʿ)! ! , ʿ EDʿ F343$Cʿ D 34Cʿ P 3CC-$23C ʿ >$EDC ʿ *3E3 J 3E C ʿ $EDʿ 8343D $ J 3E C ʿ H&ʿ @H1OFH D ʿ @-C H J $4O ʿ H4ʿ EN 3E ʿ G3 J 3CE3ʿ *3E-43 ʿ $43ʿ EH ʿ F3 D ʿ $EDʿ J $Oʿ F343$& 34ʿ Q3ʿ 1-4NF$C3Dʿ $EDʿ $+3Eʿ &H4ʿ F3ʿ ?34 N3ʿ H&ʿ F3ʿ C$ Dʿ <4DE$EN3ʿ G31$4 J 3E ʿ $EDʿ J -NFʿ ENHE 3E 3EN3ʿ F$Cʿ $4 C3Eʿ $EDʿ J $Oʿ $4 C3ʿ QOʿ 43$CHEʿ H&ʿ @H1OFH Dʿ ; C $ 3Cʿ $EDʿ 8343D $ J 3E CʿF$ E2ʿ Q33Eʿ3 N31 3DʿH- ʿH&ʿ F3ʿ I 4H C HECʿ $1Dʿ <134$ HEʿ H&ʿ F3ʿ C$ Dʿ 43N 3Dʿ N C ʿ $EDʿ $ CHʿ QOʿ43$CHEʿ H&ʿ F3ʿ C$ Dʿ Wʿ Wʿ N C

N ? H ' 3 3ED E2' H' >$EDC' $ED' 8343D $ J 3E C' F NF' F$ 3' Q33E' H&' &E$O' Q3' $+3E' H4' J 3D' QO' $O' H&' P H4 2$23 ' H4' &H4' C3N-4 E2' P HE3O ' H4' QO' $O' H&' ED3 J E O' &H4' F3' O1!' H&' F3' <4DE$EN3' ?34 N3 ' H4' <Q(3N C' NHEE3N 3D' F343 F'.' ED' F343$C' F3' @H 3E$E C' $ED' @HE 4$N C' J $D3' QO' $ED' F' F3' C$ D' 14 EN 1$ ' <&& N34C ' $C' 3 ' F' 43C13N ' H' F3 4' ; C $ 3C' $C' F' 43C13N ' H' H F34' P $ 34C' $ED' * F E2C' 3 $ F2' H' F3' ?34 N3' H&' F3' <4DE$EN3' G31$4 J 3E ' $43' E- J 34H-C' $ED' J 1H4 $E .' ED' F343$C' J $EO' H&' C-NF' @H 3E$E C' $ED' @HE 4$N C' N$EEH ' Q3' 3E&H4N3D' QO' >$ ' QO' F3' <&& N34C' &H4' F3' * J 3' Q3 E2 ' FH' 343' FH ' H4' J $O' EH ' Q3' I $4 3C' F343 H ' $ED' ' C' 3 13D 3E ' F$ ' F3' I H 34' H' C-3' -1HE' $ ' J $EE34' H&' C-NF' @H 3E$E C' $ED' @HE 4$N C ' $C' 3 ' $C' -1HE' H F34' @$-C3C' H&' N HE' 43 $ E2' H' F3' C$ D' ?34 N3 ' CFH- D' Q3' 3C 3D' E' F3' <&& N34C' H&' 8 C' P $(3C O C' <4DE$EN3' &H4' F3' * J 3' Q3 E2.' ED' F343$C' 8 C' P $(3C O' F$C' Q33E' 1 3$C3D' H' 43D-N3' F3' , - J Q34' H&' F3' 14 EN 1$ ' <&& N34C' H&' F3' <4DE$EN3 ' $ED' ' C' 3 13D 3E ' F$ ' * H' H4' J H43' H&' C-NF' <&& N34C' CFH- D' Q3' 3E$Q 3D' H' 3 34N C3' $ED' 3 3N- 3' F3' 43C13N 3' I H 34C ' - FH4 3C ' $ED' G- 3C ' $ED' H' 134&H4 J ' $ED' 3 3N- 3' $ 'C-NF' @HE 4$N C ' @HE 3O$EN3C ' >3$C3C ' $ED' H F34' G33DC' $ED' EC 4- J 3E C' 43 $ E2' H' F3' 1-Q N' ?34 N3' H&' F3' C$ D' G31$4 J 3E ' $ED' H' DH' $ED' 3 3N- 3' $#' C-NF' G33DC ' P $ 34C ' $ED * F E2C' $C' QO' $EO' N ' H4' N C ' H4' H F34 C3 ' J 2F ' H4' H-2F ' H' Q3' 3 34N C3D ' 134&H4 J 3D ' DHE3 ' H4' 3 3N- 3D' QO' * F433' H4' J 143' H&' C-NF' 14 EN 1$ ' <&& N34C ' Q3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$ ' $ED' * 3 J 1H4$ ' $ED' @H J J HEC ' E' F C' 143C3E ' I $4 $ J 3E ' $CC3 J Q 3D ' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3 ' * F$ ' J J 3D $ 3 O' &4H J ' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' $ ' P 3CC-$23C ' B- D E2C ' >$EDC ' * 3E3 J 3E C ' $ED' 8 343D $ J 3E C ' E' ! ' " #' H4' $!% #& ' , ' @H1OFH D' H4' @-C H J $4O' H4' EN 3E ' G3 J 3CE3' * 3E-43 ' F NF' F$ 3' Q33E' F343 H&H43' 1-4NF$C3D' H4' $+3E' QO' H4' E' F3' , $ J 3' H&' $EO' I 34CHE' H4' I 34CHEC' E' * 4-C ' &H4' 8 C' P $(3C O' H4' 8 C' ' HO$ ' I 43D3N3CCH4C ' $ED' 8 C' H4' * F3 4' 8 3 4C' $ED' ?-NN3CCH4C ' &H4' F3' # C3' H4' ?34 N3' H&' F3' C$ D' <4DE$EN3' G31$4 J 3E ' H4' &H4' F3' # C3' $ED' ?34 N3' H&' F3' C$ D' B44N+' G31$4 E 3E ' 3 F34' E' 633' H4' &H4' $EO' > &3' H4' > 3C ' H4' H F34 C3' FH CH3 34 ' $ED' F3' 11-4 3E$EN3C' H' F3' C$ J 3' 43C13N 3 O' Q3 HE2 E2 ' CF$ ' Q3' $ED' Q3NH J 3' $ED' NHE E-3' 3C 3D' E' F3' 14 EN 1$ ' <&& N34C' H&' 8 C' P $(3C O C' <4DE$EN3' &H4' F3' * J 3' Q3 E2 ' $ED' F3 4' ?-NN3CCH4C' E' F3' C$ D' <&& N3 ' $NNH4D E2' H' F3' , $ -43' $ED' \ -$ O' H&' $ED' F3' 43C13N 3' ; C $ 3C' $ED ' E 343C C' E' C-NF' 8 343D $ J 3E C' $ED' I 43 J C3C ' &H4' F3' # C3' $ED' ?34 N3' H&' F3' C$ D' <4DE$EN3' G31$4 J 3E ' $ED' -1HE' $ED' &H4' C-NF' * 4-C C ' E 3E C ' H4' I -41HC3C' $C' $ 3' E' $ED' QO' F3' C$ D' 43N 3D' N ' H&' F3' 6 4C ' $ED' ?3NHED' =3$4C' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O ' 3 143CC3D' $ED' D3N $43D' H4' 43&3443D' -E H' H&' $ED' NHEN34E E2' F3' ; C $ 3C' $ED' I 4HR 134 O' F343QO' 3C 3D' E' F3' C$ D' 14 EN 1$ ' <&& N34C' $ED' F3 4' ?-NN3CCH4C' E' F3' C$ D' <&& N3

' @H1O ' J+ <A#' 4H' EH ' FH D3E' &H4' F3' <4DR E$EN3' ?34 N3' H' Q3' 3C 3D' E' Q3' 14 EN R 1$ ' <&& N34C' H&' F3' <4D ' E$EN3' &H4' Q3' * J 3' Q3 E2

' ED' Q3' '&-4 F34' 3E$N 3D ' * F$ ' $ ' H F31 P 3CC-$23C ' B- D E2C ' >$EDC ' * 3E3 J 3E C ' $ED' 8 343D $ J 3E C ' E' ! ' " #' H4' $!% #& ' H&' @H1OFH D' H4' @-C H J $4O' H4' EN 3E ' G3 J 3 b 3' * 3E-43 ' F NF' CF$ ' $ ' $EO' * J 3' H4' * J 3C' F343$& 34' Q3' 1-4NF$C3D' H4' $+3E' QO' F3' 14 EN 1$ ' <&& N34C' H&' 8 C' P 3C O C' <4DE$EN3' &H4' F3' * J 3' Q3 E2 ' H4' QO' $EO' H F34' I 34CHE' H4' I 34CHEC' QO' F3 4' <4D34 ' &H4' F3' ?34 N3' H&' F3' ?$ D <4DE$EN3

8' @H1O ' FH DC ' KN' H' Q3' 1-4NF$C3D' F343$& 34' &H4' ' F3' <4DE$EN3' H' Q3' 3C 3D' E' C$ J 3' <&R & N34C' HE' D

UcM#> ;>P ' ' @$1U! !

<4DE$EN3 G31$4 J3E ' $ED F3 11-4 3E$EN3C H F3 C$J3 43 ' J $EN3H&
C13N 3 O Q3 HE2 E2 ' CF$ ' Q3 24$E 3D ' C-443ED343D ' NHE 3O3D ' $ED
$CC-43D -E H ' $ED CF$ ' F343-1HE ' $ED -1HE F3 D J $EN3 H& F3 H&& N34 c'
?3N43 $4O H4 H F34 I34CHE.' F343 E $& 34 D 43N 3D H Q3 $D J 3D ' Q3
$ED Q3NH J 3 $ED NHE E-3 3C 3D E F3 14 EN 1$ ' <&& N34C H& 8 C
P $(3C O C <4DE$EN3 &H4 F3 * J 3 Q3 E2 ' $ED F3 4 ?-NN3CCH4C E F3
C$ D <&& N3 ' $NNH4D E2 H F3 , $ -43 $ED \ -$ O H& $ED F3 43C13N 3
;C $ 3C $ED E 343C C E C-NF 8343D $ J 3E C $ED I 43 J C3C ' $ED
FH- ' $EO 9 H4DC H& ; J $ HE F$ CH3 34 ' &H4 F3 # C3 $ED ?34 N3
H& F3 C$ D <4DE$EN3 G31$4 J 3E ' $ED -1HE $ED &H4 C-NF *4-C C
E 3E C ' $ED I -41HC3C $C $&H43C$ D

' ED Q3 ' &-4 F34 3E$N 3D ' *F$ ' $ ' P 3CC-$23C ' B- D E2C ' ' >$EDC
>$EDC ' *3E3 J 3E C ' $ED 8343D $ J 3E C H& 3 34O G3CN4 1 HE ' $ED KN E M43$'
F3 F34 E ! ' " # H4 $!% #& ' F NF Q3&H43 F3 1$CC E2 H& F C (
N ' CF$ ' F$ 3 Q33E $+3E H4 NHE 3O3D H4 C-443ED343D $ED $43 EH ' &H4LC '
F3 D QO $O H& P H4 2$23 ' H4 &H4 C3N-4 E2 $EO ?- J ' H4 ?- J C H& P HE3O N-4 E2 $EO
&H4 F3 # C3 H& F3 <4DE$EN3 ?34 N3 H4 B$44$N+ ?34 N3 ' CF$ ' &4H J ' G3Q ' H F3
$ED $& 34 F3 1$CC E2 H& F C N ' Q3 $ED Q3NH J 3 $ED NHE E-3
$ ' P 3CC-$23C ' B- D E2C ' >$EDC ' *3E3 J 3E C ' $ED 8343D $ J 3E C H& C$J3
3 34O G3CN4 1 HE ' $ED F3 F34 E ! ' " # H4 $!% #& ' F NF <&& N34C'
CF$ ' F343$& 34 Q3 $+3E H4 J 3D QO $O H& P H4 2$23 ' H4 &H4
C3N-4 E2 $EO ?- J ' H4 ?- J C H& P HE3O ' H4 QO $O H& ED3 J E O ' H4
&H4 $EO H F34 I -41HC3 H4 I -41HC3C ' &H4 F3 # C3 H& F3 <4DE$EN3
?34 N3 H4 $EO <Q(3N C @HEE3N 3D F343 F ' CF$ ' Q3 $+3E $ED NHER
3O3D $ED C-443ED343D ' $ED CF$ ' F343-1HE ' $ED F3E $EO D J $EN3
C E3N3CC$4O ' -1HE $EO C-NF D J $EN3 $C F343 E $& 34 J 3E HE3D '
CF$ ' Q3 $ED Q3NH J 3 $ED NHE E-3 ' 3C 3D E F3 14 EN 1$ ' <&& N34C
H& 8 C P $(3C O C <4DE$EN3 &H4 F3 * J 3 Q3 E2 ' $ED F3 4 ?-NN3CCH4C
E F3 C$ D <&& N3 ' $NNH4D E2 H F3 , $ -43 $ED \ -$ O H& $ED F3
43C13N 3 >C $ 3C $ED E 343C C E C-NF 8343D $ J 3E C $ED I 43R
J C3C 43C13N 3 O ' $ED O4 FH- ' $EO 9 H4DC H& > J $ HE F$ CH3 34 '
-1HE $ED &H4 F3 *4-C C ' E 3E C ' $ED I - 1<C3C H F NF F3 C$ J 3
$43 H4 CF$ ' Q3 C-Q(3N ' H4 J $D3 $Q 3

' I 4H D3D E3 34 F3 3CC ' $ED Q3 ' &- F34 3E$N 3D ' *F$ ' $EO *34 J C $C '
*34 J ' H4 *34 J C H& =3$4C F NF CF$ ' F$ 3 Q33E H4 J $O 4!' 11 (#!& !'
H $ 3ED F3 EF34 $EN3 E $EO H& F3 ! !& !# 1 #& * ! 1!1 F34 $EN3 H&'
F NF CF$ ' Q3 H4 Q3NH J 3 3C 3D QO 4 -3 , ') 1 / ' ' #) ! 1 & " #$%& ' (&
14 EN 1$ ' <&& N34C H& 8 C P $(3C O C C$ D 6 &# #' ! ' 1) %% ! # #&) ! * '+! ' *'
Q3 3C 3D E F3 *4-C 33 H4 7 31 ! ! 1 , ' FH J ') ! 1 ! ') O! 4! !# , ' , $# #(*' !'
CF$ ' Q3 43C13N 3 O $CC 2E3D ' $ED) ' ' CF$ ' 4! % F 3% , ') ! 1 ! 7 1'
C$ D 14 EN 1$ ' <&& N34C &H4 F3 * J 3 Q3 E2 , ' NHE 3O ' C-443ED34 ' H4 33C HE C$J3
$CC 2E $ ' H4 $EO H& F3 8343D $ J 3E C $ED I 43 J C3C F NF EH ' $43 *34 J C
H4 F343$& 34 CF$ ' Q3 3C 3D E F3 J ' $ED H D 43N ' $ ' H4 $EO H& F3
8343D $ J 3E C $ED I 43 J C3C F NF CF$ ' F343$& 34 Q3 $2433D H Q3
1-4NF$C3D H4 $+3E QO F3 J ' H Q3 NHE 3O3D ' C-443ED343D ' H4 $CC 2E3D
H $ *4-C 33 H4 *4-C 33C &H4 F3 6C3 H& F3 <4DE$EN3 ?34 N3 ' H4
-1HE F3 *4-C C H F NF F3 C$ 3 CF$ ' H4 H-2F ' H Q3 C-Q(3N ' E
N$C3 ' &4H J ' $EO @ 4N- J C $EN3 F$ CH3 34 ' ' CF$ ' E F3 5-D2 J 3E '
H& F3 C$ D 14 EN 1$ ' <&& N34C &H4 F3 * J 3 Q3 E2 ' Q3 3 13D 3E ' CH H
D H ' $EO F E2 F343 E H4 E F3 C$ D 43N 3D N C NHE $ E3D H F3
NHE 4$4O EH FC $ED E2

' I 4H

<E F3G3$ F H&$EO I34CHE EH ʿFH D E2 @H1OFH DC ʿ ON@ &H4 F3 <4DE$EN3ʿ F3 ?3N43 $4O HQ3$D J 3D HE I$O J3E ʿ H&N-C H J$4O I E3C ʿ KN

ʿ I4H D3D $ $OC ʿ $ED Q3 ʿ&-4 F34 3E$N 3D ʿ * F$ ʿ F3E $ED $C F3 I34CHE ʿ H4 ʿ E FHC3 @$C3C F343 F343 CF$ ʿ Q3 J H43 F$E <E3 ʿ F3 ?-4 H4 H& F3 I34CHEC ʿ E FH J ʿ $EO P 3CC-$23C ʿ B- D E2C ʿ >$EDC ʿ * 3E3 J 3E C ʿ $ED 8 343D $ J 3E C H& @H1OFH D ʿ @-C H J $4O ʿ H4 EN 3E ʿ G3(E3CE3 * 3E-43 ʿ F343 H&H43 1-4NF$C3D H4 $+3E $C $&H43C$ D ʿ $43 EH ʿ 43C13N 3 O 3C 3D ʿ CF$ ʿ D 3 ʿ $ED F3E $EO P 3CC-$23C ʿ B- D E2C ʿ >$EDC ʿ * 3E3 J 3E C ʿ $ED 8 343D $ J 3E C H& $EO C-NF * 3E-43 CF$ ʿ F343$& 34 Q3 1-4NF$C3D H4 $+3E $C $&H43C$ D ʿ F3 ?3N43 $4O &H4 F3 * J 3 Q3 E2 H& F3 14 EN 1$ ʿ <&& N34C H& 8 C P $(3C O C <4DE$EN3 ʿ H4 $EO H F34 <&& N34 H& F3 <4DE$ N3 G31$4 J 3E ʿ H4 H F34 I34CHE FH J ʿ F3 C$ D 14 EN 1$ ʿ <&& N34C ʿ H4 $EO * H H4 J H43 H& F3 J ʿ CF$ ʿ &4H J ʿ * J 3 H * J 3 $11H E ʿ CF$ ʿ Q3 $D J 3D H C-NF 8 343D $ J 3E C $ED 143 J C3C ʿ 3 N31 ʿ F$ ʿ E F3 @$C3 H& $EO P H4 2$23 H4 ?3N-4 O C-NF D J $EN3 CF$ ʿ Q3 $ ʿ F3 <1 HE H& F3 C$ D 14 EN 1$ ʿ <&& N34C ʿ $ED F$ ʿHE F3 G3$ F H& $EO I34CHE & E2 H4 FH CF$ ʿ F$ 3 & 3D F3 <&& N3 H& C-NF ?3N43 $4O H4 F3 <&& N3 H& C-NF <&& N34 $C CF$ ʿ Q3 CH $11H E 3D ʿ $ED FH CF$ ʿ F$ 3 Q33E $D J 3D ʿ H4 H& F3 I34CHE FH CF$ ʿ F$ 3 Q33E $D J 3D H $EO C-NF 8 343D $ J 3E C $ED I43R J C3C ʿ F3 ?3N43 $4O &H4 F3 * J 3 Q3 E2 H& F3 C$ D 14 EN 1$ ʿ <&& N34C FH CF$ ʿ C-NN33D H4 F3E Q3 E <&& N3 ʿ H4 $EO H F34 <&& N34 H& F3 <4DE$EN3 G31$4 J 3E ʿ H4 H F34 I34CHE FH CF$ ʿ F3 &4H J ʿ * J 3 H * J 3 $11H E 3D $C $&H43C$ D ^$C F3 @$C3 J $OQ3_ʿ CF$ ʿ Q3 $D J 3D H C-NF 8 343D $ J 3E C $ED I43 J C3C ʿ $ED F$ ʿ HE F3 43C13N 3 G3$ FC H& F3 I34CHE H4 I34CHEC E FH J ʿ F3 8 343D $ J 3E C $ED I43 J C3C F343 E Q3&Q43 E F$ ʿ B3F$ & J 3E HE3D $43 EH ʿ 3C 3D ʿ $ED HE FHC3 G3$ F H4 G3$ FC $ 834 H ʿ 6 E3 ʿ H4 $EO H F34 ?- J ʿ H4 G-3 H- D Q3 D-3 H4 1OQ 3 ʿ $ED HE F3 G3$ F H& F3 ?3N43 $4O H4 H F34 <&& N34 H4 H F34 I34CHE FH CF$ ʿ Q3 $D J 3D $C $&H43C$ D ʿ F3 >H4DC $ED >$D 3C H& F3 P $EH4 H& F NF F3 C$ D I43 J C3C $43 43C13N 3 O FH D3E ʿ $ED F3 4 ? 3 $4DC ʿ CF$ ʿ Q3 3E 3D ^ E N$C3 EH 3E$ HE CF$ ʿF$ 3 143 H-C O $+3E 1 $N3_ʿ H C-NF 834 H C ʿ 6 E3C ʿ $ED 633C ʿ $ED ?- J C H& P HE3O $ED H F34 G-3C ʿ $C CF$ ʿ Q3 D-3 $ED 1$O$Q 3 $ED H&4 2F ʿ$NN-C H J 3D -1HE F3 G3$ F H& $ * 3E$E ʿ $ED F3 D J CC HE H& $ E3 ʿ * 3E$E ʿ $ED $C F3O H- D F$ 3 Q33E 3E 3D H E 3$C3 F C N ʿ F$D EH ʿ Q33E 1$CC3D ʿ Q- ʿ E3 34 F3 3CC F$ ʿ C-NF I34CHE H4 I34CHEC CF$ ʿ HE O NHE E-3 * 3E$E ʿ H4 * 3E$E C ʿ $ED C-NF ?3N43 $4O H4 <&& N34 H4 H F34 I34CHE $C $&H43C$ D CF$ ʿ HE O Q3 $D J 3D ʿ &H4 F3 I-41HC3 H& $CN34 $ E E2 $ED 143C34 E2 H F3 >H4D H4 >$DO H& F3 P $EH4 F3 ʿ 2F ʿ H& ; CNF3$ ʿ $ED $ ʿH F34 ʿ 2F C ʿ $ED &H4 F3 I-41HC3 H& 134&H4 J E2 C-NF ?34 N3C ^ & $EO_ʿ $C H-2F ʿ H F3 134&H4 J 3D ʿ $ED H&D3 34 J E E2 F3E F3 834 H C ʿ 6 E3C ʿ 633C ʿ $ED ?- J C H& P HE3O $ED G-3C ʿ D-3 H4 1$O$Q 3 HE F3 G3$ F H& $ * 3E$E ʿ $ED F3 D J CR C HE H& $ E3 ʿ * 3E$E ʿ CF$ ʿ Q3NH J 3 D-3 $ED 1$O$Q 3 ʿ $ED F3 C$ D 8 343D $ J 3E C $ED I43 J C3C ʿ $C 432$4DC F3 32$ ʿ ; C $ 3 ʿ $ED &H4 $ ʿ I-41HC3C H& 3E$ HE $ED $ ʿH F34 I-41HC3C ʿ C$ 3 $C $&H43C$ D ʿ CFD ʿ Q3 $ED Q3NH J 3 $ED NHE E-3 3C 3D E F3 C$ D 14 EN 1$ ʿ <&& N34C &H4 F3 * J 3 Q3 E2

IH 34 H& C3 E2 ʿ 3C ʿ

>ʿ ED Q3 ʿ&-4 F34 3E$N 3D ʿ * F$ ʿ$ ʿ F3 IH 34C $ED - FH4 3C H& C3 E2 ʿ 3 NF$E2 E2 ʿ 3 E2 ʿ NHE 3O E2 ʿ $ED C-443ED34 E2 ʿ Q4 E2 E2 D3&3ED E2 N HEC $ED ?- C ʿ $ED D C 4$ E E2 ʿ $ED $ ʿ H F34

N 3D N ʿH& ʿ KʿU M ʿ ʿ H * F433

IH 34C $ED - FH4 3C F$ CH3 34 2 3E H F3 C$ D 14 EN 1$ ʿ <&& N34C &H4 F3 * J 3 Q3 E2 ʿ H4 $EO * F433 H4 J H43 H& F3 J ʿ QO F3 C$ D 43N 3D N

ULM # > ; > P ʻ ʻ @$1ʻU!

ʻ N ʻ H&ʻ F3ʻ 6 4C ʻ $EDʻ ?3NHEDʻ =3$4Cʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C O ʻ <&& N34C ʻ H
Fʻ 43C13N ʻ Hʻ F3ʻ ; C $ 3Cʻ $EDʻ I 4H134 Oʻ F343QOʻ 43C13N 3 Oʻ 3C 3Dʻ
Eʻ F3E$ʻ 43C13N 3 O ʻ CF$ ʻ $11 Oʻ Hʻ F3ʻ 8 343D $ J 3E Cʻ $EDʻ I 43 J C3Cʻ
F NFʻ CF$ ʻ Q3ʻ H4ʻ Q3NH J 3ʻ 3C 3Dʻ Eʻ F3ʻ C$ Dʻ 14 EN 1$ ʻ < BN34Cʻ QOʻ
4 -3ʻ H&ʻ F Cʻ N ʻ 3 N31 ʻ CDʻ)&34 $Cʻ F3ʻ C$ J 3ʻ J $Oʻ Q3ʻ E$11 N$Q 3ʻ Hʻ
$EOʻ 8 343D $ J 3E Cʻ 3C 3Dʻ Eʻ F3 J ʻ QOʻ $Oʻ H&ʻ P H4 2$23ʻ H4ʻ ?3N-4 O ʻ
F 3ʻ F3ʻ C$ J 3ʻ CF$ ʻ N3E EE3ʻ Hʻ Q3ʻ CHʻ F3 Dʻ ($EDʻ $ ʻ F3ʻ I H 34Cʻ $EDʻ
- FH4 3Cʻ QOʻ F3ʻ C$ Dʻ $C F 3F HE3Dʻ N ʻ 2 3Eʻ Hʻ BHD 3Cʻ I H Nʻ H4ʻ
@H41H4$ 3 ʻ $EDʻ H F34C ʻ H&ʻ NHE 4$N E2 ʻ $EDʻ H&ʻ NHE 3O E2ʻ $EDʻ C-443E ʻ
D34 E2ʻ >$EDCʻ $EDʻ 8 343D $ J 3E C ʻ $EDʻ H F34 C3 ʻ CF$ ʻ $11 Oʻ Hʻ
P 3CC-$23C ʻ >$EDC ʻ * 3E3EC3E C ʻ $EDʻ 8 343D $ J 3E Cʻ H&ʻ @H1OFH D ʻ
@-C H J $4O ʻ $EDʻ EN ʻ &3 J 3C4 3ʻ * 3E-43 ʻ $EDʻ Hʻ F3ʻ I -4NF$C3ʻ
P HE 3Cʻ &H4ʻ F3ʻ C$ J 3 ʻ $EDʻ $ ʻ I H 34Cʻ $EDʻ - FH4 3Cʻ QOʻ F3ʻ C$ J 3ʻ
N ʻ 2 3Eʻ Hʻ F3ʻ B$4HECʻ H4ʻ 5-D23Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ @H-4 Cʻ H&ʻ
; NF3X-34ʻ 43 $ E2ʻ Hʻ F3ʻ I -4NF$C3ʻ P HE 3Cʻ F343 Eʻ J 3E HE3D ʻ $EDʻ
$ ʻ H F34ʻ @ $-C3C ʻ P $ 34C ʻ $FDʻ * F E2Cʻ F$ CH3 34ʻ F343 Eʻ NHE $ E3Dʻ
43 $ E2ʻ F343 H ʻ F3 F34ʻ $4 C E2ʻ , ʻ F3ʻ ?$ 3ʻ H4ʻ I -4NF$C3ʻ H&ʻ >$EDC ʻ
H4ʻ 8 343D $ J 3E Cʻ H4ʻ H F34 C3ʻ FH CH3 34 ʻ CF$ ʻ $11 Oʻ Hʻ F3ʻ P HE 3Cʻ
F NFʻ CF$ ʻ $4 C3ʻ H4ʻ Q3NH J 3ʻ 1$O$Q 3ʻ -ED34ʻ F Cʻ N ʻ $EDʻ $ ʻ H F34ʻ
@ $-C3C ʻ 8 $ 34C ʻ $EDʻ * F E2Cʻ Eʻ F3ʻ C$ Dʻ 43N 3Dʻ N Cʻ H4ʻ 3 F34ʻ H&ʻ
F3 J ʻ NHE $ E3D ʻ $Cʻ Z ʻ $Cʻ F3ʻ C$ J 3ʻ CF$ ʻ Q3ʻ $11 N$Q 3ʻ Hʻ $EDʻ EH ʻ
ENHEC C 3E ʻ Fʻ F Cʻ N ʻ CF$ ʻ $11 Oʻ Hʻ F Cʻ N ʻ $Cʻ &- Oʻ $EDʻ 3&&3NR
-$ Oʻ Hʻ $ ʻ E 3E Cʻ $EDʻ I E1HC3Cʻ $Cʻ &ʻ $ ʻ C-NFʻ I H 34C ʻ - FH4 3C
@ $-C3C ʻ P $ 34C ʻ $EDʻ * F E2Cʻ 343ʻ 43C13N 3 O ʻ C3 34$ O ʻ $EDʻ C31$R
4$ 3 Oʻ 4313$ 3Dʻ $EDʻ 43 3E$N 3Dʻ Eʻ $EDʻ J $D3ʻ I $4 ʻ H&ʻ F Cʻ N

ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D * F$ ʻ &4H J ʻ $EDʻ $& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ <4DE$EN3
F Cʻ N ʻ ʻ CF$ ʻ $EDʻ J $Oʻ Q3ʻ $ &- ʻ , ʻ F3ʻ C$ Dʻ 14 EN 1$ ʻ 6%" ' ! 1ʻ , ʻ 1ʻ
F3ʻ <4DE$EN3 ʻ $EDʻ F3 4ʻ ?-NN3CCH4Cʻ , ʻ F3ʻ * J 3ʻ Q3 E2 ʻ ,ʻ 13!ʻ #ʻ ʻ
F3ʻ , $ J 3ʻ $EDʻ QOʻ F3ʻ G3CN4 1 HEʻ H&ʻ `ʻ * F3ʻ 14 EN 1$ ʻ <&& N34Cʻ H&ʻ 8 Cʻ .G 3%
$(3C O Cʻ <4DE$EN3 cʻ FH- ʻ E$ J E2ʻ F3 J ʻ H4ʻ $EOʻ H&ʻ F3 J ʻ Eʻ $ ʻ (3C O Cʻ <4D ʻ
N HEC ʻ ?- Cʻ $EDʻ I 4HN33D E2Cʻ F$ CH3 34ʻ NHEN34E E2ʻ F3ʻ ; C $ 3Cʻ E$EN3 cʻ Fʻ
$EDʻ E 343C Cʻ F NFʻ EH ʻ $43ʻ H4ʻ F343$& 34ʻ J $Oʻ Q3ʻ 3C 3Dʻ Eʻ F3 J ʻ QOʻ
4 -3ʻ H&ʻ F3ʻ C$ Dʻ N Cʻ H4ʻ $EOʻ H&ʻ F3 J ʻ H4ʻ H&ʻ F Cʻ N ʻ H4ʻ H F34 C3ʻ
FH CH3 34 ʻ $EDʻ $ CHʻ -1HEʻ ʻ @H 3E$E Cʻ $EDʻ @HE 4$N Cʻ F$ CH3 34ʻ
EH ʻ H4ʻ F343$& 34ʻ J $D3ʻ QOʻ F3ʻ C$ Dʻ <&& N34Cʻ H&ʻ F3ʻ C$ Dʻ <4DE$EN3ʻ
43 $ E2ʻ Hʻ F3ʻ C$ Dʻ ?34 N3 ʻ $EDʻ -1HEʻ $ ʻ H F34ʻ @$-C3ʻ $EDʻ @$-C3Cʻ H&ʻ
N HEʻ NHEN34E E2ʻ F3ʻ MHHDCʻ H4ʻ @F$ 3 C ʻ ? H43C ʻ P HE 3C ʻ $EDʻ H F34
I 4H134 Oʻ -ED34ʻ F3ʻ @$43 ʻ @HE 4H- ʻ $EDʻ G C1HC HEʻ H&ʻ F3ʻ <&& N34Cʻ H&ʻ ?- ʻ EH ʻ H
8 Cʻ P $(3C O Cʻ <4DE$EN3 ʻ $EDʻ F$ ʻ EHʻ C-NFʻ N HE ʻ ?- ʻ H4ʻ I 4HN33D E2ʻ & Q$3 QO
CF$ ʻ Q 3ʻ H4ʻ Q3ʻ D3 $O3Dʻ QOʻ 43$CHEʻ H&ʻ F3ʻ G3$ F ʻ ' 3 J H $ ʻ H4ʻ ' 3C 2 ʻ <&& N34C
E$ HEʻ H&ʻ $EOʻ H&ʻ C-NFʻ 14 EN 1$ ʻ <& N34C

ʻ I 4H D3Dʻ E3 34 F3 3CC ʻ $EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ * F$ ʻ EHʻ ?-NFʻ <&& N34C
<&& N34ʻ H&ʻ 8 Cʻ P $(3C O Cʻ <4DE$EN3ʻ CF$ ʻ Q3ʻ 134CHE$ Oʻ $Q 3 ʻ EH4ʻ CF$ ʻ EH HQ3134 ʻ
F3ʻ I 4H134 Oʻ H&ʻ $EOʻ C-NFʻ <&& N34ʻ Q3ʻ $Q 3 ʻ Hʻ $EOʻ 32$ ʻ I 4HN3CC ʻ H4ʻ bHʻ FF$Q 3ʻ
; 3N- HEʻ Eʻ C-NFʻ N HECʻ H4ʻ ?- Cʻ $Cʻ $&H43C$ D

Wʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ * F$ ʻ &4H J ʻ $EDʻ $& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ ʻ I H 34C
F Cʻ N ʻ ʻ CF$ ʻ $EDʻ J $Oʻ Q3ʻ $ &- ʻ &H4ʻ * Hʻ H4ʻ J H43ʻ H&ʻ F3ʻ 14 EN 1$ ʻ ʻ ʻ ʻ
<&& N34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ <4DE$EN3 ʻ $EDʻ $EOʻ C-NFʻ * Hʻ H4ʻ J H43ʻ 14 E ʻ F433ʻ <&& ʻ
N 1$ ʻ <&& N34Cʻ $43ʻ F343QOʻ 3 J 1H 343D ʻ Hʻ 3 34N C3ʻ $EDʻ 3 3N- 3ʻ $ ʻ N34C J $Oʻ Q3
I H 34C ʻ - FH4 3C ʻ $EDʻ G- 3C ʻ $EDʻ Hʻ 134&H4 J ʻ DH ʻ $EDʻ 3 3N- 3ʻ $ ʻ 3 3N- 3Dʻ QO
ʻ = ʻ Oʻ N C ʻ * H

Z U`M#> ;>P @$1 U!

N C #33DC P$ 34C $ED 4PE2C $1134 $ E E2 H F3 4 <&& N3 F NF
FO $E N]4 N C EH F &$N3 H4 H F34 C3 J $O H4 H-2F H Q3
H4 E N$C3 F C I 4H C HE F$D 8H Q33E J $D3 NH- D H4 J 2F F343$& 34
F$ 3 Q33E 3 34N C3D 3 3N- 3D 134&H4 J 3D H4 DHE3 QO * F433 H4 J H43
H& C-NF 14 EN 1$ <&& N34C ($ED $ C-NF N C G33DC P$ 34C $ED
* F E2C DHE3 134&H4 J 3D $ED 3 3N- 3D QO * H H4 J H43 H& F3 C$ D
14 EN 1$ <&& N34C E F3 4 43C13N 3 <&& N3C CF$ Q3 $C $ D $ED
3&&3N -$ H $ E 3E C $ED I-41HC3C $C & DHE3 134&H4 J 3D $ED
3 3N- QO * F433 H4 J H43 H& F3 C$ D 14 EN 1$ <&& N34C

W ED Q3 &-4 F 3E$N 3D * F$ E $ @HE 4$N C H& 3 34O
G33DC KN G3CNH1 HE $ED E $ @HE 3O$EN3C ?-443ED34C >3$C3C $ED H F34
G33DC $ED EC 4-J 3E C F$ CH3 34 43 $ E2 H F3 I-Q N ?34 N3
F NF &4H J $ED $& 34 F3 1$CC E2 H& F C N CF$ H4 J $O Q3 J $D3 H4
3E 343D E H QO H H4 F F3 14 EN 1$ <&& N34C H& F3 <4DE$EN3
&H4 F3 * J 3 Q3 E2 H4 $EO * H H4 J H43 H& F3 J H4 F343-E H F3O
7H4 $EO * H H4 J H43 H& F3 J CF$ H4 J $O Q3 I $4 3C CF$ Q3
C-&& N 3E H N$ H4 D3CN4 Q3 F3 C$ D 14 EN 1$ <&& N34C QO F3 ? O 3
H4 * 3 H& /* F3 14 EN 1$ <&& N34C H& 8 C P$(3C O C <4DE$EN3 C
FH- E$ J E2 F3 J H $EO F3 J $ED F$ $ C-NF @HE 4$N C
@HE 3O$EN3C ?-443ED34C C3C $ED H F34 G33DC $ED EC 4-J 3E C
F343 J F3 C$ D 14 EN 1$ <&& N34C CF$ Q3 N$ 3D H4 D3CN4 Q3D QO
F3 4 ? O 3 H4 * 3 $C $&H43C$ D $ED F3 ; 3N- HE F343H& 43C13NR
3 O QO F3 C$ D 14 EN 1$ <&& N34C H4 $EO * H H4 J H43 H& F3 J
CF$ Q3 $C $ D $ED 3&&3N -$ $ED CF$ F$ 3 F3 +3 6H4N3 $ED
<134$ HE H $ E 3E C $ED I-41HC3C F$ CH3 34 $C & F3 C$ D 14 ER
N 1$ <&& N34C H4 $EO * H H4 J H43 H& F3 J F$D Q33E 1$4 N- $4 O
E$ J 3D $ED D3CN4 Q3D F343 E

>< , G< , .: I 4 E 3D QO #+.(/+ &(+ $ED)*(+, O1.223%, ..*+
I 4 E 34C H F3 % E2 C J HC ; N3 3E P$(3C O ZSU

, , <ʾ ? ; @# , G<

M # > ; > P * ʾ ' ; M ?

@ʾ ʾ I ʾ WW

Eʾ N ʾ Hʾ $- FH4 T3ʾ F3ʾ @H J J CC HE34Cʾ &H4ʾ $-D E2ʾ
F3ʾ I -Q Nʾ NNH-E Cʾ H&ʾ ! ʾ ʾ ʾ 3 $J E3ʾ
$EDʾ $-D ʾ NNH-E Cʾ H&ʾ F3ʾ ' 3N3 1 ʾ $EDʾ ; 13ER
D -43ʾ H&ʾ @H HE $ʾ ' 3 3E-3C ʾ 84 ʾ % ʾ ZSU m

/ 8 ; ' ; ?ʾ $Eʾ N ʾ $Cʾ 1$CC3Dʾ Eʾ F3ʾ 6 & O &H-4 Fʾ =3$4ʾ H&ʾ F3ʾ ' 3 2Eʾ H&ʾ 8 Cʾ P $(3C Oʾ % E2ʾ ! , (!ʾ F3ʾ * F 4D ʾ E - 3Dʾ /#ʾ / ' ʾ , ʾ)!ʾ , !ʾ ! ' 3 %ʾ 8J # ,#ʾ , ʾ / ' ' ,3# 1ʾ *+ , - %.+ʾ V ʾ) !ʾ L ! ' ! 5 ʾ #&ʾ 8J5!#& 3 !ʾ @ ʾ) !ʾ I ,%,# %ʾ L !0!#3!1ʾ #ʾ) !ʾ $1% #&1ʾ , ʾ @30 HE ʾ P $-4 -C ʾ P $ $ʾ * 4 E D$D ʾ #&ʾ) !ʾ + ! %! ! # 1ʾ , ʾ) !ʾ @$13ʾ H&ʾ MHHDʾ , ʾ R 0 !ʾ H ! 1ʾ EDʾ F343$Cʾ ʾ $Cʾ 14H D3Dʾ QOʾ F3ʾ C$ Dʾ 43N 3Dʾ N ʾ F$ ʾ F3ʾ C$ J 3ʾ CFH- Dʾ NHE E -3ʾ Eʾ &H4N3ʾ &H4ʾ 6 3ʾ =3$4Cʾ $EDʾ EHʾ HE234.ʾ EDʾ F343$Cʾ QOʾ 4 -3ʾ H&ʾ $Eʾ N ʾ 1$CC3Dʾ Eʾ F3ʾ 6 & O E E Fʾ =3$4ʾ H&ʾ F3ʾ ' 3 2Eʾ H&ʾ 8 Cʾ P $(3C Oʾ % E2ʾ ! , (!ʾ F3ʾ * F 4D ʾ E - 3Dʾ Eʾ N:ʾ ,ʾ ' ,# #3! ʾ 3# %ʾ) !ʾ 7) !)ʾ 2 ʾ .G$%- / %ʾ - ʾ Y ʾ 5- Oʾ 6#!ʾ) ,31 #&ʾ ! ( ) ʾ)3#& !&ʾ #&ʾ F ! # ʾ #ʾ / ' ʾ , ʾ) !ʾ R ʾ ,3)ʾ H ! ʾ V ʾ 1ʾ 5 !1!# ʾ U!1 ʾ , ʾ) !ʾ ! ! ' 3 %ʾ 8J # ,#ʾ , ʾ / ' ' ,3# 1ʾ , ʾ) !ʾ L ! ' ! 5 ʾ #&ʾ 8J5!#& 3 !ʾ , ʾ) !ʾ I ,%,# %ʾ L !0!#3!1ʾ #ʾ) !ʾ $1% #&1ʾ ` ʾ @30 1E ʾ P $-4 -C ʾ P $ $ʾ * 4 E D$D ʾ #&ʾ #ʾ) !ʾ + ! %! [! # 1ʾ , ʾ) !ʾ @$13ʾ H&ʾ MHHDʾ 8 H13 ʾ $EDʾ H&ʾ $EH F34ʾ N ʾ 1$CC3Dʾ Eʾ F3ʾ 6 4C ʾ =3$4ʾ H&ʾ F3ʾ ' 3 2Eʾ H&ʾ 8 Cʾ $ 3ʾ P $(3C Oʾ % E2ʾ ! , (!ʾ F3ʾ 6H-4 F ʾ E - 3Dʾ / #ʾ / ' ʾ ,ʾ ' ,# #3! ʾ 3# %ʾ) !ʾ 7) !)ʾ 2 ʾ U 3 % ʾ 9 ʾ H Y ! ʾ 6#!ʾ) ,31 #&ʾ ! ( ) ʾ)3#& !&ʾ #&ʾ F ! # ,#! ʾ #ʾ / ' ʾ , ʾ) !ʾ R ʾ
Bʾ ʾ ,3)

,3)' H! ',' 1' % !' ! !1 ',')!'! !' 3 %' 8J # ,#' ,')!'
/ '' ,3# 1' , ')!' L!'! 5' #&' 8J5!#& 3 !' , ')!' I ,%,# %' L ,!#3!1' #'
)!' $1% #&1' @30 HE' P$-4 -C' P$ $' *4 E D$D' #&' #')!' +! %![
!# 1' , ')!' @$13' H&' MHHD' 8H13' F3' C$ D' 43N 3D' N' H&' F3' 6 & O'
&H-4 F' =3$' H&' F3' '3 2E' H6 8 ?' $ 3' P$(3C O' % E2' !, (!' F3' *F 4D'
$ED' $' IH 34C' F343 E' NHE $ E3D' 343' NHE E-3D' -E ' F3' *F 4 3 F'
G$O' H&' ?3% ' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' 3E O HE3' .' ED'
FP 3$C QO' $E' N' 1$CC3D' E' F3' 6 4C' $ED' ?3NHED' =3$4C' H&' F3' '3 2E'
'4' ':'9' H&' 8 C' C$ D' $ 3' P$(3C O' % E2' !, (!' F3' 6H-4 F' E - 3D' / #' / ''
U ,' %!' #&' 4,%1)' '! #' R, 1' , '* ,'!!& #(1' #')!' 8J')!V3!'
#&' /3& ' 6 '!' !% 0!' ,' *34% '' / '' ,3# #1' #&' , ' #('
3)!' * ,0 1 ,#1' , ')!' *3 5,1!' , ' '% #(' #&' !J5!& #(')!'
5 11 #(' , '*34% '' / '' ,3# 1' #' M43$' B4 $ E' ,' !#&!' 5! 5! 3 %'
#&' !#&' #' / ''5 11!&' #')!' R ,3)' H! ',' 1' % !' U!1 '
, ')!' ! !' 3 %' 8J # ,#' , ')!' / '' ,3# 1' , ''! #' I ,%,# %'
L!0!#3!1' F3' C$ D' 43N 3D' N' H&' F3' 6 & O &H-4 F' =3$4' H&' F3' '3 2E'
H&' 8 C' $ 3' P$(3C O' % E2' !, (!' F3' *F 4D' $ED' $ ' F3' IH 34C' $ED'
- FH4 3C' @ $-C3C' $ED' I4H C HEC' F343 E' NHE $ E3D' 3 N31 ' E' CH'
'&$4' $C' F3' C$ J 3' 343' $4 3D' $ 343D' H4' 4313$ 3D' QO' F3' C$ D' 43N 3D'
N' H&' F3' 6 4C' $ED' ?3NHED' =3$4C' H&' 8 C' $ 3' P$(3C O' % E2' !, (!'
F3' 6H-4 F' 343' J$D3' 13413 -$.' ED' F343$C' ' $C' 14H D3D' QO'
F3' C$ D' 43N 3D' N' H&' F3' 6 & O &H-4 F' =3$4' H&' F3' '3 2E' H&' 8 C'
P$(3C O' % E2' !, (!' F3' *F 4D' F$' @H J J CC HE34C' J 2F' Q3' $1R
1H E 3D' -ED34' F3' M43$' ?3$' H&' ! ' " #' &H4' F3' 3 $J E E2'
C-NF' I-Q N' NNH-E C' H&' I34CHEC' NHEN34E3D' E' F3' '3N3 1' H4' ; R
13ED -43' H&' F3' @H HE $' '3 3E-3C' E' $EO' H&' F3' @H HE 3C' H4'
GH J E HEC' C-Q(3N' H' F3' @4H E' H&' ! ' " #' H4' E' F3' '3N3 1'
H4' ; 13ED -43' H&' $EO' ?-JC' 24$E 3D' QO' I$4 $J3E' E' $ D' F343H&'
$C' F3' >H4DC' @H J J CC HE34C' H&' 8 C' P$(3C O C' *43$C-4O' J 2F' D33J'
'3 13D 3E' H' 43&34' H' F3 J .' ED' F343$C' 8 C' P$(3C O' D D' QO'
8 C' >3 34C' I$ 3E' Q34 4 E2' G$ 3' F3' *F 4 3 F' G$O' H&' 2!'! 4!'
E' F3' 6 4C' =3$4' H&' 8 C' '3 2E' $11H E' *F433' @H J J CC HE34C'
&H4' F$' I-41HC3' F NF' C$ D' >3 34C' I$ 3E' $43' EH ' H&' &-'
6H4N3' $ED' ;&&3N .' ED' F343$C' F343' $43' EH ' D313ED E2' E' F3'
<&& N3' H&' F3' C$ D' @H J J CC HE34C' C3 34$' NNH-E C' H&' I34CHEC'
NHEN34E3D' E' F3' '3N3 1' $ED' ; 13ED -43' H&' F3' @H HE $' '3 3E-3C'
H4' H&' ?-JC' 24$E 3D' E' $ D' F343H&' F NF' F$ 3' EH ' Q33E' 3 $J E3D'
H4' F3' ; $J E$ HE' H&' F NF' F$C' EH ' O3 ' Q33E' NH J 1 3 3D'
ED' F343$C' ' C' 3 13D 3E' F$' $C' 3 ' F3' C$ D' NNH-E C' $C' $'
H F34' NNH-E C' H&' F3' '3N3 1' $ED' ; 13ED -43' H&' F3' @H HE $'
'3 3E-3C' $ED' H&' ?-JC' 24$E 3D' E' $ D' F343H&' CFH- D' F343$& 34' Q3'
3 $J E3D' QO' F3' @H J J CC HE34C' &H4' $-D E2' F3' I-Q N' NNH-E C' H&'
! ' " #' B3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC' ; N3 3E'
P$(3C O' QO' $ED' F' F3' D N3' $ED' @HEC3E' H&' F3' >H4DC' ?1 4 -$'
$ED' *3 J 1H4$' $ED' @H J HEC' E' F C' 143C3E' I$4 $.J3E' $CC3 J Q 3D'
*F3 $D H&' $ED' O' F3' - FH4 O' H&' F3' C$J 3' *F$' &4H J' $ED' $& 34' F3' 6 & F'
$' NNH-E C' G$O' !-' / 5 %' E3 '$ 'C-NF' NNH-E C' $C' J $O' F3E' Q3' D313ED E2' H4'
H&' F3' ']' N3 1' $ED' E3 4 E3D' E' F3' <&& N3' H&' F3' C$ D' @H J J CC HE34C' CF$' Q3' 4$ECR
; 13ED -43' &3443D' &H4' ; $J E$ HE' $ED' -D ' H' F3' <&& N3' H&' F3' @H J J CC HE34C'
H&' F3 &H4' $-D E2' &F3' I-Q N' NNH-E C' , ' ! ' " #=' $ED' $'
@H HE $' '3R NNH-E C' H&' F3' '3N3 1' $ED' ; 13ED -43' H&' F3' @H HE $' '3 3E-3C'
3E-3C' #!& / $ED' H&' ?-JC' 24$E 3D' E' $ D' F343H&' CF$' Q3' J$D3' $ED' 43ED343D' H'
?(!!(<' H ' V' F3

=ʿ9 ? 6 ' : 6 'ʿ '&ʿ #) ʿ

F3ʿC$ Dʿ @H J J CC HE34C &H4ʿ $-D E2ʿ F3ʿ I-Q Nʿ NNH-E Cʿ H&ʿ @H J J CC HE
" #ʿ Eʿ +3ʿ P$EE34ʿ $C.ʿ)! ʿ) 0!ʿ 4!!)! ! , , !ʿ &!ʿ #&ʿ
43ED343Dʿ Hʿ F3ʿ @H J J CC HE34Cʿ $11H E 3Dʿ $EDʿ $N E2ʿ -ED34ʿ $EDʿ 4 ʿ /'',3#1ʿ, ʿ
4 -3ʿ H&ʿ F3ʿ C$ Dʿ 43N 3Dʿ N Cʿ!ʿ$EDʿ$ ʿ NNH-E $E Cʿ F343 H&H43ʿ $Q 3ʿ M43$B4 $Eʿ
Hʿ 43ED34ʿ C-NF NNH-E Cʿ Hʿ F3ʿ C$ Dʿ $C E$ J 3Dʿ @H J J CC HE34Cʿ CF$ ʿ
Q3ʿ $Q 3ʿ $EDʿ $43ʿ F343QOʿ 43X- 43Dʿ Hʿ 43ED34ʿ F3ʿ C$ J 3ʿ Hʿ F3ʿ C$ Dʿ
@H J J CC HE34Cʿ &H4ʿ $-D E2ʿ F3ʿ I-Q Nʿ NNH-E Cʿ H&ʿ ! ʿ" #ʿ
$EDʿ CF$ ʿ Q3ʿ $Q 3ʿ &H4ʿ , 32 3N ʿ H4ʿ < J CC HEʿ Hʿ 43ED34ʿ F3ʿ C$ J 3ʿ Hʿ
F3ʿ C$ Dʿ @H J J CC HE34Cʿ &H4ʿ $-D E2ʿ F3ʿ I-Q Nʿ NNH-E Cʿ H&ʿ ! ʿ
" #ʿ Eʿ F3ʿ C$ J 3ʿ P$EE34ʿ $Cʿ F3Oʿ H- Dʿ F$ 3ʿ Q33Eʿ $Q 3ʿ Q3&H43ʿ
F3ʿ 1$CC E2ʿ H&ʿ F Cʿ N ʿ&H4ʿ , 32 3N ʿ H4ʿ < J CC HEʿ Hʿ 43ED34ʿ F3ʿ C$ J 3ʿ
Hʿ F3ʿ @H J J CC HE34Cʿ $11H E 3Dʿ $EDʿ $N E2ʿ -ED34ʿ $EDʿ QOʿ 4 -3ʿ H&ʿ
F3ʿ C$ Dʿ 43N 3Dʿ N Cʿ ʿ $EDʿ $ ʿ F3ʿ IH 34Cʿ $EDʿ - FH4 3Cʿ 2 3Eʿ H4ʿ
Q3 HE2 E2ʿ Hʿ F3ʿ C$ Dʿ $C J 3E& HE3Dʿ @H J J CC HE34Cʿ QOʿ 4 -3ʿ H&ʿ F3ʿ
?$ Dʿ 43N 3Dʿ N Cʿ CF$ ʿ Q3ʿ $EDʿ $43ʿ F343QOʿ 4$EC&3443Dʿ Hʿ F3ʿ C$ Dʿ
@H J J CC HE34Cʿ &H4ʿ $-D E2ʿ F3ʿ I-Q Nʿ NNH-E Cʿ H&ʿ ! ʿ" #ʿ
FHʿ $43ʿ F343QOʿ $- FH4 T3Dʿ $EDʿ 43X- 43Dʿ &4H Jʿ * J 3ʿ Hʿ * J 3ʿ Hʿ
3 $J E3ʿ F3ʿ C$ Dʿ NNH-E Cʿ$EDʿ Hʿ 3 34N C3ʿ $ ʿ IH 34Cʿ $EDʿ - FHR
4 3Cʿ Eʿ 43C13N ʿ F343H&ʿ $EDʿ &H4ʿ F3ʿ '3NH 34Oʿ H&ʿ $ ʿB$ $EN3Cʿ $EDʿ
&H4ʿ$EDʿ Eʿ 43C13N ʿ H&ʿ $ ʿ P$ 34Cʿ $EDʿ *F E2Cʿ 43 $ E2ʿ F343 H ʿ $Cʿ Hʿ
F3 Jʿ CF$ ʿ C33 Jʿ J 33 ʿ $Cʿ &- Oʿ $EDʿ 3&&3N -$ Oʿ $EDʿ Eʿ +3ʿ P$EE34ʿ $Cʿ
Q3&H43ʿ F3ʿ 1$CC E2ʿ H&ʿ F Cʿ N ʿ F3ʿ @H J J CC HE34Cʿ $11H E 3Dʿ $EDʿ
$N E2ʿ -ED34ʿ $EDʿ QOʿ 4 -3ʿ H&ʿ F3ʿ C$ Dʿ 43N 3Dʿ N Cʿ 343ʿ $- FH4 T3Dʿ
$EDʿ 43X- 43Dʿ Hʿ DHʿ($EOʿ F E2ʿ F343 Eʿ NHE $ E3Dʿ Hʿ F3ʿ NHE 4$4Oʿ
F343H&ʿ Eʿ $EO C3ʿ EH FC $ED E2

ʿ EDʿ Q3ʿ ʿ &-4 F34ʿ 3E$N 3D ʿ *F$ ʿ F3ʿ @H J J CC HE34Cʿ &H4ʿ ? $ 3 J 3E ʿ H&ʿ
$-D E2ʿ F3ʿ I-Q Nʿ NN#-E Cʿ CF$ ʿ 4$EC J ʿ $? $ 3 J 3E ʿ H&ʿ 3 34Oʿ 3 34Oʿ NR
NNH-E ʿ D3 343Dʿ Hʿ F3 Jʿ $Cʿ Q3&H43ʿ J 3E HE3Dʿ ^$& 34ʿ D-3ʿ ; $J ER NH-E ʿ Hʿ Q3ʿ
$ HEʿ $EDʿ -D ʿ F343H&_ʿ Hʿ F3ʿ @H J J CC HE34Cʿ H&ʿ 8 Cʿ P$(3C O Cʿ 4$EC J 3Dʿ
*43$C-40ʿ FHʿ F$ E2ʿ NHEC D343Dʿ C-NFʿ ? $ 3 J 3E ʿ CF$ ʿ 43 -4Eʿ F3ʿ QOʿ F3ʿ @H JR
C$ J 3ʿ Hʿ F3ʿ @H J J CC HE34Cʿ H&ʿ -D ʿ H23 F34ʿ Fʿ F3 4ʿ 9 44Eʿ J CC HE34Cʿ Hʿ
D 43N E2ʿ F3ʿ C$ Dʿ @H J J CC HE34Cʿ Hʿ J $+3ʿ -1ʿ $EDʿ 1$CCʿ F3ʿ NNH-E ʿ F3ʿ >H4DCʿ H&ʿ
3 F34ʿ @HE&H4 J $Q Oʿ Hʿ F3ʿ ? $ 3 J 3E ʿ H4ʿ Fʿ C-NFʿ $4 $ HECʿ $Cʿ F3Oʿ F3ʿ *43$C-40
J $Oʿ D33 Jʿ(-C ʿ $EDʿ 43$CHE$Q 3 ʿ $EDʿ F3ʿ NNH-E ʿF$ E2ʿ Q33Eʿ J $D3ʿ
-1ʿ Eʿ 1-4C-$EN3ʿ H&ʿ C-NFʿ G 43N HECʿ $EDʿ C 2E3Dʿ QOʿ *F433ʿ H4ʿ J H43ʿ H&ʿ
F3ʿ @H J J CC HE34Cʿ &H4ʿ $-D E2ʿ F3ʿ I-Q Nʿ NNH-E Cʿ CF$ ʿ 43 J $ Eʿ
D31HC 3Dʿ Eʿ F3ʿ -D ʿ <&& N3ʿ $EDʿ CF$ ʿ F$ 3ʿ F3ʿ C$ J3 ʿ6H4N3ʿ $EDʿ
$ D Oʿ $EDʿ Q3ʿ $Cʿ 3&&3N -$ʿ Eʿ >$ ʿ&H4ʿ $ ʿ I-41HC3Cʿ F$ CH3 34ʿ $Cʿ
&ʿ F3ʿ C$ J 3ʿ F$Dʿ Q33Eʿ D3N $43Dʿ $NNH4D E2ʿ Hʿ F3ʿ -C-$ʿ @H-4C3ʿ QOʿ F3ʿ
@F$EN3 H4ʿ H&ʿ F3ʿ ; NF3X-34

ʿ EDʿ F343$Cʿ ʿ Cʿ 3 13D 3E ʿ F$ ʿ $ ʿ ?-134$EE-$ HEʿ H4ʿ ?-134$EE-$R
'3 43Dʿ H $EN3Cʿ F343 H&H43ʿ 24$E 3Dʿ H4ʿ F$ ʿ J $Oʿ Q3ʿ 24$E 3Dʿ HEʿ H4ʿ '3R
Hʿ $EOʿ @H J J CC HE34ʿ H4ʿ H F34ʿ I34CHEʿ $11H E 3Dʿ Eʿ 1-4C-$EN3ʿ H&ʿ 43Dʿ H R
F3ʿ C$ Dʿ 43N 3Dʿ N ʿ H&ʿ F3ʿ 6 & O &H-4 Fʿ =3$4ʿ H&ʿ 8 Cʿ $ 3ʿ P$(3C Oʿ $EN3Cʿ 24$E 3Dʿ
% E2ʿ !, (!ʿ F3ʿ *F 4D ʿ -1HEʿ F3ʿ C$ Dʿ NNH-E Cʿ Q3 E2ʿ 4$EC&3443Dʿ QOʿ ! ʿM'Sʿ
&H4 ; $J E$ HEʿ Hʿ F3ʿ @H J J CC HE34Cʿ &H4ʿ $-D E2ʿ F3ʿ I-Q Nʿ Hʿ Q3ʿ 1$ Dʿ
NNH-E Cʿ CFH- Dʿ NHE E-3ʿ Hʿ Q3ʿ D3&4$O3Dʿ Eʿ F3ʿ P$EE34ʿ 14H D3Dʿ H- ʿH&ʿ F3ʿ
&H4ʿ Eʿ F3ʿ C$ Dʿ 43N 3Dʿ N ʿ Q3ʿ ʿ F343&H43ʿ 3E$N 3D ʿ *F$ ʿ$ ʿ C-NFʿ 43C13N 3ʿ
?-134$EE-$ HECʿ $EDʿ '3 43Dʿ H $EN3Cʿ $Cʿ $&H43C$ Dʿ CF$ ʿ Q3ʿ '3 3E-3Cʿ H&ʿ
NF$423Dʿ -1HEʿ $EDʿ QH4E3ʿ $EDʿ D3&4$O3Dʿ H- ʿ H&ʿ F3ʿ 43C13N 3ʿ '3 3E-3C F3ʿ @H HE 3Cʿ
H& $Cʿ F3ʿ *43$R
C-4Oʿ J $Oʿ
D 43N

Z ʻ U ` M # > ; > P ʻ ʻ @$1ʻUY

H&ʻ F3ʻ @H HE 3Cʻ H&ʻ I ! %,#ʻ 3 31ʻ % ʻ 7 # & &ʻ $EDʻ F3ʻ ʻI !ʻ , ʻ , , &ʻ ,5! ʻ Eʻ C-NFʻ I4H1H4 HEC ʻ $EDʻ CF$ ʻ Q3ʻ 1$ Dʻ $EDʻ 43 J 3Dʻ F343H- ʻ Eʻ C-NFʻ P $EE34 ʻ $Cʻ F3ʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P $ 3C O Cʻ *43$C-4O ʻ H4ʻ $EOʻ *F433ʻ H4ʻ J H43ʻ H&ʻ F3 J ʻ CF$ ʻ&4H Jʻ * J 3ʻ Hʻ * J 3ʻ D 43N ʻ ʻ

> < , G < , .ʻ I 4 E 3Dʻ QOʻ # + . (/ +ʻ & (+ʻ $EDʻ) * (+ , ʻ O1 . 223% , . . * + ʻ
I 4 E 34Cʻ Hʻ F3ʻ &H E 2 Cʻ J HC ʻ ; N3 3E ʻ P $(3C O ʻ ZSU

, , <ʻ ? ; @# , G<

M#> ; >P ʻ 4 ʻ ' ;M ?

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Eʻ Nʻ &H4ʻ $ 34 E2ʻ $EDʻ $ J 3ED E2ʻ $Eʻ Nʻ 1$CC3Dʻ E
F3ʻ 143C3E ʻ ?3CC HEʻ H&ʻ I $4 $ J 3E ʻ &H4ʻ F3ʻ I 43R
3E HE ʻ $Cʻ &$4ʻ $Cʻ J $Oʻ Q3ʻ 1HCC Q 3 ʻ H&ʻ F3ʻ G C3$C3ʻ
N$ 3Dʻ F3ʻ @FH 34$ʻ H4ʻ ?1$C J HD Nʻ H4ʻ ʻ
@FH 34$ʻ Eʻ ʻ IV Fʻ % ʻ ZSU m

8 ; ' ; ?ʻ $Eʻ Nʻ $Cʻ 1$CC3Dʻ Eʻ F Cʻ 143C3E ʻ ?3CC HEʻ H&ʻ
I $4 $ J 3E ʻ / #ʻ / ' ʻ , ʻ) !ʻ * ! ! ! # , # ʻ 1ʻ? ʻ 1ʻ U 9 ʻ Nʻ
ʻ4!ʻ5 , 11 4%! ʻ , ʻ) !ʻ 2 1! 1!ʻ ' %%!&ʻ) !ʻ I) , %! ʻ , ʻ+5 1 , & ''
, ʻ ED $Eʻ I) , %! ʻ ON?NH $ED: EDʻ F343$Cʻ ʻF$Cʻ Q33Eʻ &H - EDʻ F$ ʻ
N34 $ Eʻ H&ʻ F3ʻ I 4H C HECʻ Eʻ F3ʻ C$ Dʻ N ʻ NHE $ E3Dʻ $43ʻ D3&3N 3 ʻ $EDʻ
F$ ʻ ʻ Cʻ 3 13D 3E ʻ F$ ʻ F3ʻ C$ J 3ʻ Q3ʻ $ 343Dʻ $EDʻ $ J 3ED3D ʻ Q3ʻ ʻ
F343&H43ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ J HC ʻ ; N3 3E ʻ P $(3C O ʻ QOʻ $EDʻ
Fʻ F3ʻ D N3ʻ $EDʻ @HEC3E ʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ ʻ $EDʻ *3 J 1H4$ ʻ
$EDʻ @H J J HEC ʻ Eʻ F Cʻ 143C3E ʻ I $4 $ J 3E ʻ $CC3 J Q 3D ʻ $EDʻ QOʻ F3ʻ
- FH4 Oʻ H&ʻ F3ʻ C$ J 3ʻ *F$ ʻ $ ʻ $EDʻ 3 3 Oʻ F3ʻ ; 13EN3?ʻ F NFʻ J $Oʻ CC3CC J 3E Cʻ
Q3ʻ 43CHEQ Oʻ $EDʻ 1 H13 Oʻ EN - 443Dʻ Eʻ N$440 E2ʻ E Hʻ 3&&3N ʻ $EOʻ D3&4$O E2ʻ
<4D34ʻ H4ʻ <4D34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ P HC ʻ 8HEH - 4$Q 3ʻ I 4 Oʻ @H - EN ʻ +H . 4 O ʻ
CHʻ Hʻ Q3ʻ J $D3ʻ $Cʻ Cʻ Eʻ F3ʻ C$ Dʻ N ʻ 14H D3D ʻ H4ʻ C$EN HE3Dʻ $& 34ʻ F3Oʻ FH ʻ H Q3ʻ
$43ʻ EN - 443Dʻ QOʻ $EOʻ C - NFʻ <4D34 ʻ CF$ ʻ F3E3 34ʻ F3ʻ <NN$C HEʻ H&ʻ C - NFʻ 3 3Dʻ F Eʻ
; 13EN3ʻ F$Cʻ $4 C3Eʻ F Eʻ $EOʻ @ O ʻ B - 42F ʻ H4ʻ *H E ʻ H4ʻ $D($N3E ʻ B-42FCʻ
G C 4 N C ʻ F$ E2ʻ $ʻ HN$ ʻ ; C $Q CF J 3E ʻ H&ʻ I H N3ʻ Q3ʻ 3 3Dʻ $EDʻ
D3&4$O3Dʻ QOʻ $ʻ C13N $ ʻ CC3CC J 3E ʻ Hʻ Q3ʻ J $D3ʻ &4H J ʻ * J 3ʻ Hʻ * J 3 ʻ
$EDʻ $Cʻ <NN$C HEʻ J $Oʻ 43X - 43 ʻ &H4ʻ F Cʻ I - 41HC3 ʻ QOʻ - FH4 Oʻ H&ʻ F3ʻ
P $2 C 4$ 3Cʻ H&ʻ C - NFʻ @ O ʻ B - 42F ʻ H4ʻ *H E ʻ - 1HEʻ F3ʻ I 34CHECʻ H4ʻ I 4HR
134 3Cʻ F Eʻ F3ʻ C$ J 3 ʻ H4ʻ F Eʻ F3ʻ $D($N3E ʻ G C 4 N C ʻ F NFʻ $43ʻ
EH ʻ $CC3CC3Dʻ &H4ʻ I - 41HC3Cʻ H&ʻ I H N3 ʻ $EDʻ F$ ʻ $NNH4D E2ʻ , ʻ F3ʻ
' - 3C ʻ P 3 FHDC ʻ $EDʻ I 4H1H4 HECʻ F F34 Hʻ HQC34 3Dʻ Eʻ C - NFʻ I $N3Cʻ
Eʻ NH 3N E2ʻ C - NFʻ I H N3ʻ CC3CC J 3E C ʻ 14H D3Dʻ $ $OC ʻ F$ F3
BH - EDCʻ H&ʻ F3 D E42 ʻ I H N3ʻ CF$ ʻ EH ʻ &H4ʻ F3ʻ I - 41HC3C H&ʻ F Cʻ
$EDʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ Q3ʻ F3 Dʻ Hʻ 3 3EDʻ H 34ʻ $EOʻ I $4 ʻ H&ʻ F3ʻ
I $4 CFʻ V ʻ+ , 3) ʻ< !) =ʻ $EDʻ F$ ʻ F3E3 34ʻ F3ʻ <NN$C HEʻ H&ʻ ; 13EN3ʻ
CF$ ʻ $4 C3ʻ Eʻ $EOʻ B - 42Fʻ EH ʻ F$ E2ʻ $ʻ HN$ ʻ CC3CC J 3E ʻ&H4ʻ I H N3
F3 F34ʻ F3ʻ C$ J 3ʻ CF$ ʻ Q3ʻ $ʻ ' HO$ ʻ B - 42Fʻ H4ʻ B - 42Fʻ H&ʻ ' 32$ Oʻ H4ʻ
B$4HEO ʻ 14H Dʻ F$ 3ʻ $ʻ HN$ ʻ P $2 C 4$NOʻ 432 - $4 Oʻ NHEC - 3D _ʻ
H4 P E234Cʻ 3 Oʻ $ - FH4 T3Dʻ Hʻ $N ʻ Eʻ 1 $N3ʻ H&ʻ C - NFʻ P $2 C 4$ 3C̄
?ʻ ʻ F3

U ` M # > ; > P ' ' @$1 U

F3'?-J C' E3N3CC$40'&H4' D3&4$0 E2' F3' C$ J 3' CF$ ' F3' 3 3D' QO' $' &3N $ ' '
CC3CC J 3E ' H' Q3' J $D3' &4H J ' * J 3' H' * 4$3 ' $C' F3' ; J 3423ENO' H&'
F3' @$C3' J $0' 43X- 43 ' QO' - FH4 O' H&' F3' C$ D' P $2 C 4$ 3C ' -1HE' $ '
G 3 E2' 8 H-C3C' F E' F3' C$ J 3 ' 4$ 3D' H' $EO' 23E34$ ' H4' HN$ ' * $ '
H4' CC3CC J 3E ' F$ CH3 34' $ ' $' O3$4 O' $ -3' H&' 6 3' I H-EDC' H4'
-1 $4DC ' $ED' -1HE' $ ' 8 H-C3C ' ?FH1C ' 9 $43FH-C3C ' @H-E E2 '
FH-C3C ' $ED' J $E-&$N -4 E2' I 43 J C3C' EH ' 4$ 3D' H' $EO' C-NF' * $ ' H4'
CC3CC J 3E ' $C' CF$ ' 3 F34' Q3' 3 ' &H4' $' ' 3E ' H&' ?3 3E' I H-EDC' H4'
-1 $4DC ' H4' 14H 3D' H4' $D J 3D ' F343' EH ' CH' 3 ' H4' 4$ 3D ' H' Q3' H&'
F$ ' O3$4 O' $ -3 ' HE3' 8 $ &' H&' $ ' C-NF' CC3CC J 3E C' H' Q3' 1$ D'
QO' F3' <NN-1$E C ' $ED' F3' H F34' 8 $ &' QO' F3' < E34C' H&' $ ' C-NF '
* 3E3 J 3E C

CC3CC J 3E C'
FH ' H' Q3'
3 3D' F E'
>$ED $4D'
I $4 CF3C

' I (H D3D' $ $OC ' $ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F343' F3'
<NN$C HE' H&' ; 13EN3' CF$ ' $4 C3' E' $EO' >$ED $4D' I $4 CF' ^H4' E' F3'
>$ED $4D' I $ ' H&' $EO' I $4 CF' NHE $ E E2' $EO' B-42F' H4' I $4 ' H&' $'
B-42F_' F3' ?-J C' E3N3CC$40' &H4' D3&4$0 E2' F3' C$ D' ; 13EN3C' CF$ '
Q3' 3 3D' QO' $' C13N $ ' CC3CC J 3E ' H' Q3' &4H J ' * J 3' H' * J 3' J $D3'
QO' F3' 8 34 H4C ' H4' F3 4' C13N $ ' P ED H4 3C ' H&' C-NF' I $4 CF' H4'
>$ED $4D' I $4 ' H&' $' I $4 CF ' -1HE' F3' < E34C' $ED' <NN J $E ?' H&'
F3' >$EDC ' 8 H-C3C ' $ED' H F34' 8 34 $23C' F E' F3' C$ D' I $4 CF' H4'
>$ED $4D' I $4 ' H&' $' I $4 CF ' $ ' $' P 33 E2' H' Q3' N$ 3D' QO' F3' C$ D'
8 34 H4C' H4' $EO' * H' H&' F3 4' , -J Q34 ' H4' QO' F3' P E C 34' H&' F3'
I $4 CF ' H4' QO' F3' ?3N43 $40' H4' H F34' <&& N34' H&' $EO' BH$4D' H&' 8 3$ F'
3C $Q CF3D' H4' $- FH4 T3D' H' $N ' F E' F3' C$ D' I $4 CF' QO' 8 C'
P $(3C O C' P HC ' 8 HEH-4$Q 3' I 4 O' @H-EN ' -1HE' $' , H N3' H&'
?3 3E' &433' G$OC ' H' Q3' E J $ 3D' F E' F3' I $4 CF' @F-4NF' DE' F3'
+3#& ' F 3' F3' @HE2432$ HE' C' $CC3 J Q 3D ' $ED' $ CH' QO' $&& E2'
$' 4 3E' , H N3' HE' F3' GHH4C' H&' F3' C$ D' @F-4NF' ' F NF' 8 34 H4C'
^H4' F3 4' C13N $ ' P ED H4 3C_' CF$ ' $ ' F3 4' & 4C ' H4' $ ' $EO' $DR
(H-4E3D' P 33 E2 ' J $+3' F3' E3N3CC$40' CC3CC J 3E ' -1HE' F3'
' 3E ' H4' $EE-$ ' $ -3' H&' F3' C$ D' >$EDC ' 8 H-C3C ' $ED'
8 34 $23C ' * H' * F 4DC' H&' F3' CC3CC Q3E ' -1HE' >$EDC' $ED' Q F34'
8 34 $23C' ^3 N31 ' 8 H-C3C_' H' Q3' J $D3' HE' F3' < E34C ' $ED'
* F 4D' HE' F3' <NN-1$E C ' $ED' <E3' 8 $ &' H&' F3' CC3CC J 3E ' E'
8 H-C3C' H' Q3' J $D3' HE' F3' < E34C ' $ED' <E3' 8 $ &' HE' <3Q-1$E C.'
I 4H D3D' $ $OC ' F$ ' EH' C-NF' CC3CC J 3E ' CF$ ' Q3' NF$423D' H4' 3 3D'
-1HE' $EO' 8 H-C3' F E' C-NF' I $4 CF' ^Q3 E2' F3' HE O' 8 34 $Q 3'
I 4H134 O' H E3D' H4' HNN-1 3D' F E' F3' C$ J 3' QO' F3' I $4 3C_' -E 3CC'
F3' C$ J 3' Q3' 3 F34' 4$ 3D' H' CH J 3' 1-Q N' H4' HN$ ' * $ ' $ ' $' O3$4 O'
$ -3' H&' 6 3' I H-EDC ' H4' Q3' 3 ' &H4' $' ' 3E ' H&' ? ' I H J DC' H4'
-1 $4DC ' H4' Q3' 14H 3D' H4' $D J 3D' F343' EH ' CH' 4$ 3D' H4' 3 ' <' Q3'
H&' F3' $ -3' $C ' J 3E HE3D'.' I 4H D3D' $ CH ' F$ ' F3' FH 3' CC3CCR
J 3E C' F343 E Q3&H43' J 3E HE3D' J $0' Q3' 3 3D' E' F3' & 4C ' EC $EN3'
&4H J ' F3' <NN-1$E C' H&' F3' I 43 J C3C' E' X-3C HE' ^ &' F3' ' 3E ' 1$0$Q 3'
QO' F3 J ' &H4' F3' N-443E ' * 34 J ' CF$ ' EH ' F$ 3' Q33E' 1$ D' $ ' F3' * J 3'
H&' C-NF' >3 O_' F3' C$ D' <NN-1$E C' Q3 E2' 3E 3D' H' 43 $ E' F3'
< E34C' I TH1H4 HE' H&' F3' C$ J 3' &4H J ' F3' ' 3E C' F3E' D-3' H' F3' C$ D'
< E34C' I 4H D3D' $ CH ' F$ ' EH FC $ED E2' F3' ; C 3EN3' H&'
N34 $ E' B-42FC' H4' I $4 C' H&' B-42FC ' $ED' H&' HN$ ' CC3CC J 3E C' &H4'
I H N3 ' F E' F3' B$4HEO' I $4 CF' ! +' . %/ ! O&' F3' FH 3' H&' F$ ' I $4 D '
CF$ ' &H4' F3' I -41HC3C' H&' F C' $ED' F3' C$ D' 43N 3D' N ' Q3' F3 D' H' Q3'
HE3' >$ED $4D' I $4 CF ' $ED' CF$ ' Q3' $Q 3' H' Q3' $CC3CC3D' $C' C-NF ' $ED'
EH ' H F34 C3

- FH4 O'
' '
@F$423' J $0

' ED' Q3' ' 3E$N 3D ' * F$ ' F3' CC3CC J 3E ' > C ' H4' * $Q 3' H&'
1$4 N- $4' @F$423C ' D- O' C 2E3D' QO' F3' $N E2' @F 3&' P $2 C 4$ 3' H&
$EO

$EO' B-42F' H4' QO' F3' 643C3C' H4' ?3N43 $4O' H&' $EO' P33 E2' H&'Q3' J$D3'$ED'
834 H4C' CF$ 'Q3' $' C-&&N 3E' 9$44$E' H' F3' @H 3N H4C' $11H E 3D' G 23EN3'
QO' F3E4' 43C13N 3O' H' D3J$ED' $ED' 3 O' F3' ?-JC' C13N & 3D' E' C-NF'
> C C' &4H J' F3' ED D-$C' F343' NF$423D' 43C13N 3O' F' F3' C$J3'(
$ED' F3' B 3 - J' H4' @34 & N$ 3' H&' $EO' C-NF' @H 3N H4' 1-41H4 E2' F$'
C-NF' 6$0 J 3E ' FH-2F' D3J$ED3D' F$C' EH' Q33E' J$D3' CF$ ' F3E'
3 F Q 3D' H' $EO' P$2 C 4$ 3' H&' $' B-42F' QO' F3' @H 3N H4' &H4' F$'
B-42F' H4' H' F3' ?F34 &&' H4' ?F34 &&' ?-QC - 3' H&' $EO' @H-E O' QO' F3'
@H 3N H4' &H4' $EO' >$ED $4D' I$4 CF' H4' I$4' H&' $' I$4 CF' E' C-NF'
@H-E O' Q3' $E' - FH4 O' H' C-NF' P$2 C 4$ 3' H4' ?F34 &&' H' CC-3' F C'
9$44$E' &H4' IH ED E2' $ED' H F34' D 23EN3' 2 EC' F3' I34CHE' H4'
PH 3$Q 3C' H&' F3' ED D-$C' CH' &$ E2' H' 1$O' F E' *3E' G$OC'
$& 34' F3' CC- E2' H&' C#NF' 9$44$E ' E' F3' C$J3' P$EE34' $ED' H' F3'
C$J3' ;&&3N' E' $ ' 43C13N C' $C' C' EH 'NH J 13 3E' &H4' F3' 3 O E2' H&'
CC3CC3D' *$ 3C

' I4H D3D' $ $OC' $ED' Q3' ' &-4 F34' 3E$N 3D' *F$' ' CF$ ' Q3' 1H 34' H
NH J 13 3E' H' $EO' I34CHE' FH' J$O' F E+' F J C3 &' $224 3 3D' QO' $EO' 113'
C-NF' CC3CC J 3E' H' 113' 2 EC' F3' C$J3' H' F3' E3 ' 3EC- E2'
\-$4 34' ?3CC HE' H&' F3' 5-C N3C' F$' J$O' Q3' F3 D' &H4' F3' @H-E O
EH' 3CC' F$E' ? 'G$OC' $& 34' F3' HD2 E2' H&' C-NF' 113$ '$ED' , H N3'
F343H&' H' F3' @H 3N H4' FH' CF$ ' F343' F3$4' $ED' & E$ O' D3 34 J E3'
-1HE' F3' P34 C' H&' $EO' C-NF' 113$ '$ED' FHC3' ?3E 3EN3C' CF$ ' 4H'
Q3' $Q 3' H' $EO' I4HN3CC' H&' '3 3

' ED' Q3' ' 3E$N 3D' *F$' E' $ ' B-42FC' $ED' I$4 CF3C' F343' 1H 34' H' 3 O'
F343' $43' CC3CC J 3E C' &H4' '3 3&' H&' F3' IHH4' ' CF$ ' Q3' NH J ' $ED' NH 3N'
13 3E' H' F3' P$2 C 4$ 3C' H&' C-NF' B-42FC(' $ED' H' F3' 834 H4C' H&' CC3CC J 3E C'
C-NF' I$4 CF3C' 43C13N 3 O' H' 3 O' $ED NH 3N' F3' CC3CC J 3E C'
$- FH4 T3D' QO' F3' &H4 J 34' $ED' QO' F C' 143C3E' N ' &4H J' F3' C$J3' CC3CC J 3E C'
I34CHEC' $ED' I4H134 3C' $ED' E' F3' C$J3' 9$O' $ED' P$EE34' $ED' QO' &H4' F3' '3 3&'
F3' C$J3' ' - 3C' $ED' P3 FHDC' E' $ '43C13N C' $C' F$ 3' Q33E' -C3D' $ED' H&' Q3 IHH4'
HQC34 3D' F E' F3' C$J3' &H4' 3 O E2' $ED' NH 3N E2' ?-NF' CC3CCR
J 3E C' &H4' F3' IHH4' F3E3 34' 'CF$ '$113$4' H' F3' C$ D' P$2 C 4$ 3C'
H4' 834 H4C' H' F3' J H43' (-C '$ED' 3 13D 3E' H' $DH1' C-NF' ' D3C' $ED'
P3 FHDC' F$E' H' (1-' E' 3 3N- HE' $EO' H&' F3' PHD3C' H&' CC3CC J 3E'
F343 E Q3&H43' $ H 3D' H4' D 43N 3D

' ' I4H D3D' $ $OC' $ED' Q3' ' &-4 F34' 3E$N 3D' *F$' E' $ ' >$ED4' E' 3$D' H&'
$4D' I$4 CF3C' $ED' >$ED $4D' I$4 C' H&' I$4 CF3C' NHE $ E E2' $EO' B-42F' F3' PHD3' E'
H4' B-42FC' H4' $EO' I$4' H4' I$4 C' H&' $EO' B-42F' H4' B-42FC' ' CF$ ' Q3' 9F NF' C3CC'
NH J 13 3E' H' F3' 834 H4C' H&' C-NF' I$4 CF3C' H4' >$ED $4D' I$4 C' H&' J3E C' $43' $-R
I$4 CF3C' H4' F3 4' C13N $' P$ED$ H4 3C' ^ E' N$C3' 'CF$ '$113$4' H' C-NF' FH4 T3D' H' Q3'
834 H4C' H4' F3 4' C13N $' P$ED$ H4 3C' (-C' H4' 3 13D 3E' CH' H' DH_' J$D3' -ED34'
EC 3$D' H&' 1- E2' E' 3 3N- HE' $EO' H4' 3 F34' H&' F3' PHD3C' QO' F NF' F C' H4 3N 3D'
F3' CC3CC J 3E C' $- FH4 T3D' H' Q3' J$D3' QO' F C' H4' F3' C$ D' 43N 3D' N '834 H4C'
N ' $43' F343 E Q3&H43' $ H 3D' H4' D 43N 3D' H' Q3' J$D3' H' J$+3' F3' J$O' J$+3'
C$J3' CC3CC J 3E C' E' J$EE34' &H H E2' ^F$' C' H' ?$O_' #1HE' >$ED' F3' CC3CCR
$NNH4D E2' H' F3' $-3D' '3E' H&' F3' C$J3' $ED' -1HE' 8H-C3C' NNH4DR J3E C' E'
E2' H' F3' O3$4 O' $-3' C3' HE' C-NF' 8H-C3C' QO' F3' $ 3C' CC3CC J 3E' F3' J$EE34'
H&' F3' 8H-C3' *$ '(' $ED' E' F3' &H H E2' I4H1H4 HECd' 0&!%'! '&<4' F343 E' J3E'
3 34O' C-NF' CC3CC J 3E' H' F3' J H-E' H&' <E3' ?F E2' ? 34 E2' -1HE' FE3D
<E3' F-ED43D' IH-EDC' +', 1' H&' $-3D' '3E' $E' CC3CC J 3E' CF$ Q3'
$ D' -1HE' F3' '3E' H4' O3$4 O' $-3' H&' 8H-C3C' CH' $C4 3& $ 4 ND' $' F3'
'$ 3' H&' * H 13EN3' ? 34 E2' E' F3' IH-ED' H&' C-NF' '3E' H4' O3$4 O
7 3' $ED' CH' E' 14H1H4 HE' &H4' $EO' 243$ 34' H4' 3CC' ?-J

@H443N' > C C' H&' 8H-C3C' $ED' 'H 'H&' $-3D' '3E' H' Q3' &-4R E CF3D' QO' CC3CCH4C' $ED' @H 3N H4C

' ' ED' F343$C' ' C' E3N3CC$4O' &H4' 3 O E2' C-NF' CC3CC J3E ' H' HQ $ E' $' NH443N ' > C ' H&' 8H-C3C' $CC3CC3D' H' F3' 8H-C3' *$ ' $ED' $' NH443N ' 'H 'H&' F3' $-3D' '3E ' F E' F3' C$ D' >$ED $4D' I$4 CF3C' H4' I$4 C' H&' >$ED $4D' I$4 CF3C ' Q3' '3E$N 3D ' *F$ ' F3' @H 3N H4C' H&' F3' @3CC' $ED' F3' CC3CCH4C' H&' F3' 8H-C3' *$ ' CF$ ' &43X- 43DQO' F3' 834 H4C' $&H43C$ D ' &-4E CF' F3' C$ D' 834 H4C' F' $' @H1O' H&' F3' 'H ' H&' $-3D' '3E ' $ED' F3' > C ' H&' 8H-C3C' $CC3CC3D' H' F3' 8H-C3' *$ ' F E' F3' >$ED $4D' I$4 CF3C' H4' I$4 C' H&' >$ED $4D' I$4 CF3C' $&H43C$ D

@34 $ E' I34CHEC' J$O' Q3' 3 3J1 3D' &4HJ' CC3CCR J3E C

' ED' Q3' ' 3E$N 3D ' *F$ ' ' CF$ ' Q3' E' F3' IH 34' H&' F3' P$2 C 4$ 3C' $ED' 834 H4C' F343QO' $- FH4 T3D' H' J$+3' F3' CC3CCR J3E C' F343 E Q3&H43' J3E HE3D ' H' 3 3J1 ' 3 F34' FH O' H4' E' 1$4 ' , ' F3 4' <134$ HE ' C-NF' I34CHEC' $C' &4HJ' F3 4' @ 4N- J C $EN3C' C33J' 3E 3D' H' C-NF' ; 3J1 HE ' $ED' $ CH' C-NF' I34CHEC' E' F3' C$ D' B-42FC' H4' I$4 CF3C' $C' J$O' F$ 3' $ 43$DO' H -E $4 O' $D $EN3D' $ED' NHE 4 Q- 3D' ?- J C' H&' P HE3O' &H4' F3' <Q(3N C' $ED' I-41HC3C' QO' F C' N ' NHE 3J1 $ 3D ' Q3OHED' H F34' I34CHEC' E' F3' C$ D' B-42FC' H4' I$4 CF3C ' $ED' F$ ' $NNH4D E2' H' F3' CH-ED' G CN43 HE' <4 C-NF' P$2 C 4$ 3C' H4' 834 H4C: I4H D3D' $ $OC ' F$ ' E' N$C3' H&' $EO' $ 323D' Q-C3' H4' 344HE3H-C' ; 34N C3' H&' C-NF' IH 34' H&' '3 3&' H4' ; 3J1 HE' ' CF$ ' Q3' NHJ13 3E ' H' $EO' I34CHE' $224 3 3D' H' $11 O' H' 8 C' P$(3C O C' P HC ' 8HEH-4$Q 3' I4 O' @H-EN ' FH' CF$ ' &H4 F F' CC-3' F3 4' <4D34C' NH443N E2' $ED' 43N &O E2' C-NF' ;44H4' H4' Q-C3 '

B-42FC' $ED' I$4 CF3C' J$O' NHJQ E3' $ED' $N ' E' NHEN34 ' F' H F34' B-42FC' H4' I$4 CF3C

W ' ED' Q3' ' 3E$N 3D ' *F$ ' EH F E2' F343 E' NHE $ E3D' CF$ ' Q3' F3 D' H' 143 3E ' F3' 834 H4C' H&' $EO' I$4 CF ' H4' F3' P$2 C 4$ 3C' H&' $EO' B-42F ' &4HJ' NHEN34 E2' $ED' $N E2' E' NHE(-EN HE' F' F3' 834 H4C' H&' $EO' $D(H E E2' I$4 CF' H4' I$4 CF3C ' H4' F' F3' P$2 C 4$ 3C' H&' $EO' B-42F' O E2' FH O' H4' 1$4 O' F E' H4' NHE 2-H-C' H' $EO' C-NF' I$4 CF' H4' I$4 CF3C ' &H4' F3' I-41HC3' H&' $+ E2' P3$C-43C' &H4' F3 4' NHJ JHE' '3 3&' H4' I4H 3N HE' &4HJ' F3' G C3$C3' H4' E&3N HE' $QH 3' J3E HE3D ' $ED' 4$ C E2' $' (H E ' 6-ED' QO' J3$EC' H&' F3' CC3CC J3E C' F343 E Q3&H43' 14H D3D' &H4' D3&4$O E2' F3' ; 13EN3C' H&' C-NF' P3$C-43C' $C' ' J$O' Q3' 14H134' $ED' 3 13D 3E ' &H4' F3J' F-C' H' $DH1 ' E' NHJ JHE

P$2 C 4$ 3C' KN' J$O' QH4R 4H ' PHE3O' H' N$44O' E H' 3&&3N ' <4D34C' H&' I4 O' @H-EN

W ' ED' Q3' ' 3E$N 3D ' *F$ ' ' CF$ ' Q3' $ &- ' &H4' F3' P$2 C 4$ 3C' $ED' 834 H4C' $ED' H F34C' F3 3QO' $- FH4 T3D' H' J1HC3' $ED' 3 O' F3' CC3CC J3E C' F343 E Q3&H43' J3E HE3D ' H' QH44H ' C-NF' ?- J C' 1&' P HE3O' $C' J$O' Q3' ED C13EC$Q O' E3N3CC$4O' &H4' N$44O E2' E H' 3&&3N ' F3' <4D34C' H&' F3' C$ D' P HC ' 8HEH-4$Q 3' I4 O' @H-EN ' $ED' &H4' F$ ' I-41HC3' H' $CC 2E' $ED' J1 3D23' F3' C$ D' CC3CC J3E C' H' F3' *3ED34C' F343H&' E' ?3N-4 O' &H4' F3 4' '31$O J3E

6H4J34' N' E3 C F343' $ 343D'

W ' ED' Q3' ' 3E$N 3D ' *F$ ' F3' I4H C HEC' H&' F3' C$ D' 43N 3D ' $ 343D' H4' C-134C3D3D' QO' F C' 143C3E ' N CF$ ' NHE E-3' $ED' 43J$ E' E' &H4N3 ' H' $ ' E 3E C' $ED' I-41HC3C ' $ED' $C' &- O' E' $ ' 43C13N C ' $C' &' F C' N ' F$D' EH ' Q33E' 1$CC3D

CC3CC J3E C' E$D3' -ED34' N$44 3DFE H' 3&&3N-' C'

W ' I4H D3D' $ CH ' $ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' F343' $EO' CC3CC J3E ' CF$ ' F$ 3' Q33E' $N -$ O' J$D3' -ED34' F3' C$ D' 43N 3D' ' CF$ ' Q3' $ &- ' &H4' F3' I$4 3C' QO' FHJ' C-NF' CC3CC J3E ' F$D' Q33E' CH' J$D3' H' &H H ' H- ' $ED' J$+3' 3& FN - $' F3' C$J 3 ' $EO' F E2' F343 E' NHE $ E3D' H' F3' NHE 4$4O EH FC $ED E2

, , <ʿ ? ; @ # , < <

M # > ; > P ʿ ʿ ' ; M ?

@ʿ ʿ I ʿ WW

ʿ N ʿ &H4ʿ 1 - E CF E2ʿ P - EOʿ $EDʿ G3C34 HE ʿ $EDʿ
&H4ʿ F3ʿ Q3 34ʿ I $O J 3E ʿ H&ʿ F3ʿ 4 J Oʿ $EDʿ F3 4ʿ
\ - $4 34C ʿ IV Fʿ % ʿ ZSU m

9 8 ; ; ; ?ʿ F3ʿ 4$ C E2ʿ H4ʿ +331 E2ʿ $ʿ ? $ED E2ʿ 4 J Oʿ F Eʿ F3ʿ # E 3Dʿ % E2DH J ʿ H&ʿ ! ʿ " #ʿ $EDʿ $!% #& ʿ Eʿ * J 3ʿ ,+ʿ I 3$N3 ʿ - E 3CCʿ ʿ Q3ʿ Fʿ F3ʿ @HEC3E ʿ H&ʿ I $4 $R J 3E ʿ Cʿ $23 EC ʿ > $.ʿ EDʿ F343$Cʿ ʿ Cʿ $D(- D23Dʿ E3N3CC$4Oʿ QOʿ 8 Cʿ P $(3C O ʿ $EDʿ F Cʿ 143C3E ʿ I $4 $ J 3E ʿ F$ ʿ $ʿ BHDOʿ H&ʿ 6H4N3Cʿ CFH - Dʿ Q3ʿ NHE E - 3D ʿ &H4ʿ F3ʿ ?$&3 Oʿ H&ʿ F3ʿ # E 3Dʿ % <2DH J ʿ F3ʿ G3&3EN3ʿ H&ʿ F3ʿ I HCC3CC HECʿ H&ʿ 8 Cʿ P $(3C O Cʿ @4H E ʿ $EDʿ F3ʿ I 43C34 $ HEʿ H&ʿ F3ʿ B$ $EN3ʿ H&ʿ IH 34ʿ Eʿ " 3 , 5! ʿ $EDʿ F$ ʿ F3ʿ FH 3ʿ , - J Q34ʿ H&ʿ C - NFʿ 6H4N3Cʿ CFH - Dʿ NHEC C ʿ H&ʿ ; 2F (4 E E3ʿ FH - C$EDʿ &H - 4ʿ F - ED43Dʿ $EDʿ , - J Q34ʿ H&ʿ C3 3E O 3 2F ʿ P 3E ʿ 3 N - C 3ʿ H&ʿ F3ʿ <&& N34Cʿ $EDʿ P 3Eʿ Q3 HE2 E2ʿ Hʿ 6H4N3C ʿ F3ʿ ' 32 J 3E Cʿ 3 J 1 HO3Dʿ Eʿ F3ʿ * 344 H4 $ ʿ I HCC3CC HECʿ H&ʿ F3ʿ 8 1 ʿ $#& ʿ @H J 1$EO ʿ Q - ʿ EN - D E2ʿ F3ʿ <&& N34Cʿ $EDʿ P 3Eʿ H&ʿ F3ʿ * 4HH1Cʿ $EDʿ @H J 1$E 3Cʿ 43N4 - E2ʿ &H4ʿ FHC3ʿ ' 32 J 3E C.ʿ EDʿ F343$Cʿ EHʿ P $Eʿ N$Eʿ Q3ʿ &H43(- D23Dʿ H&ʿ > &3ʿ H4ʿ > J Q ʿ H4ʿ C - Q(3N 3Dʿ Eʿ * J 3ʿ H&ʿ I 3$N3ʿ Hʿ $EOʿ % EDʿ H&ʿ I - E CF J 3E ʿ F Eʿ F Cʿ ' 3$ J ʿ QOʿ P $4 $ ʿ > $ ʿ H4ʿ Eʿ $EOʿ H F34ʿ P $EE34ʿ F$Eʿ QOʿ 5 - D2 J 3E ʿ H&ʿ F Cʿ I 334C ʿ $EDʿ $NNH4D E2ʿ Hʿ F3ʿ +EH Eʿ $EDʿ 3C $Q CF3Dʿ > $ Cʿ H&ʿ F Cʿ ' 3$ J ʿ O3 ʿ E3 34 F3 3CC ʿ ʿ Q3 E2ʿ 43X - C 3 ʿ &H4ʿ F3ʿ 43 $ E E2ʿ $ ʿ F3ʿ Q3&H43 ʿ J 3E HE3Dʿ 6H4N3Cʿ Eʿ F3 4ʿ G - O ʿ F$ ʿ $Eʿ 3 $N ʿ G CN 1 E3ʿ Q3ʿ HQC34 3D ʿ $EDʿ F$ ʿ ?H D 34Cʿ FHʿ CF$ ʿ J - EOʿ H4ʿ C 4ʿ - 1ʿ ?3D HE ʿ H4ʿ CF$ ʿ D3C34 ʿ 8 Cʿ P X3C O Cʿ ?34 N3 ʿ Q3ʿ Q4H - 2F ʿ Hʿ $ʿ J H43ʿ 3 3 J 1 $4Oʿ $EDʿ C133DOʿ ? B ʿ I - E CF J 3E

N4 J3C '
1-E CF$Q 3'
QO' G3$ F

I -E CF J 3E ' F$E' F3' -C-$ ' 6H4 J C' H&' F3' >$ ' ' $ H C' F3' ' 343 '
&H43' 3E$N 3D' QO' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' QO' $ED' F' F3'
D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$ ' $ED' * 3 J 1H4$ ' $ED' @H J R
J HEC ' E' F C' 143C3E ' I $4 $ J 3E ' $CC3 J Q 3D ' $ED' QO' F3' FH4 O' H&'
F3' C$ J 3 ' * F$ ' &' $EO' I 34CHE' FH' C' H4' CF$ ' Q3' NH J J CC HE3D' H4' E'
I $O' $C' $E' <&& N34 ' H4' FH' C' 14' CF$ ' Q3' C 3D' H4' E' I $O' $C' $' , HER
NH J J CC HE3D' <&& N34' H4' ?H D 34 ' CF$ ' $ ' $EO' * J 3' D-4 E2' F3' @HER
E-$EN3' H&' F C' / ' ' Q32 E ' 3 N 3 ' N$-C3 ' H4' (H E' E' $EO' P - EO' H4'
?3D HE' E' 8 C' P $(3C O C' >$ED' H4' P $4 E3' 6H4N3C ' <4 CF$ ' EH ' -C3' F C'
- J HC ' ; ED3$ H-4C' H' C-1143CC' F3' C$ J 3 ' H4' NH J E2' H F<' %EH 3D23'
H&' $EO' P - EO' H4' E 3ED3D' P - EO' CF$ ' EH ' FH- ' G3 $O ' 2 3'
E&H4 J $ HE' F343H&' H' F C' @H J J $ED E2' <&& N34' (H4' CF$ ' J CQ3F$ 3'
F J C1 &' Q3&H43' F3' BE3 O ' H4' CF$ ' CF$ J 3&- O' QEDHE' H4' D3 34'
-1' $EO' M$44 CHE ' 6H4 43CC ' I HC ' H4' M-$4D' NH J J 3D' H' F C' @F$423 '
H4' F NF' F3' CF$ ' Q3' NH J J $ED3D' H' D3&3ED' (H4' CF$ ' NH J 13 ' F3'
MH 34EH4' H4' @H J J $ED E2' <&& N34' H&' $EO' M$44 CHE ' 6H4 43CC ' H4' I HC '
H' D3 34' -1' H' F3' ; E3 J O' H4' H' QEDHE' F3' C$ J 1' (' H4' CQ$#' C13$+'
9 H4DC' H4' -C3' $EO' H F34' P 3$EC' H' ED-N3' C-NF' MH 34EH4' H4' @H J R
J $ED E2' <&& N34 ' H4' H F34C ' H' EECQ3F$ 3' Q3&H43' F3' ; E3 J O ' H4'
CF$ J 3&- O' H' QEDHE' H4' D3 34' -1' $EO' M$44 CHE ' 6H4 43CC ' I HC ' H4'
M-$4D' NH J J 3D' H' F3 4' 43C13N 3' @F$423 ' H4' F NF' F3' H4' F3O'
CF$ ' Q3' 3H J J $ED3D' H' D3&3ED ' H4' CF$ ' 3$ 3' F C' I HC ' Q3&H43' 43 3 3D '
H4' CF$ ' Q3' &H-ED' C 331 E2' HE' Q C' I HC ' H4' CF$ ' FH D' @H443C1HED3EN3'
&$' H4' 2 3' D N3' H4' E 3 23EN3' H' $EO' ' 3Q3 ' H4' ; E3 J O' H&' 8 C'
P $(3C O C' 3 F34' QO' >3 34C ' P 3CC$23C ' ? 2EC ' H4' * H+3EC ' E' $EO'
P $EE34' H4' 9 $O' F$ CH3 34 ' H4' CF$ ' 43$ ' H4' 3E 34' E H' $EO' * 34 J C'
F' C-NF' ' 3Q3 ' H4' ; E3 J O ' FH- ' 8 C' P $(3C O C' > N3EN3 ' H4'
> N3EN3' H&' F3' M3E34$ ' H4' @F 3&' @H J J $ED34' (H4' CF$ ' C 4 +3' H4' CF$ '
-C3' H4' H&&34' $EO' H 3EN3' 2 EC ' F C' ?-134 H4' <&& N34 ' Q3 E2' E' F3'
; 3N- HE' H&' F C' <&& N3 ' H4' CF$ ' D CHQ3O' $EO' $ &- ' @H J J $ED' H&' F C'
?-134 H4' <&& N34 ' H4' CF$ ' D3C34 ' 8 C' P 3C O C' ?34 N3' ' $ ' $ED' 3 3 O'
I 34CHE' $ED' I J CHEC' CH' <&&3ED E2' E' $EO' H&' F3' P $ 34C' Q3&H43' J 3ER
HE3D ' F3 F34' C-NF' <&&3EN3' CF$ ' Q3' NH J J 3D' F E' F C' ' 3$ J '
H4' E' $EO' H F34' H&' 8 C' P $(3C O C' GH J E HEC ' H4' E' 6H43 2E' I $4 C' -1HE'
>$ED' H4' -1HE' F3' ?3$ ' CF$ ' C-&&34' G3$ F ' H4' C-NF' H F34' I -E CF J 3E '
$C' QO' $' @H#41 J $4 $ ' CF$ ' Q3' $ $4D3D

* F3' H4D E$4O'
@H-4C3' H&'
>$ ' EH ' H'
Q3' E 34&3 3D'
F

' ED' Q3' ' 3E$N 3D ' * F$ ' EH F E2' E' F C' N ' NHE $ E3D' CF$ ' Q3'
@HEC 4-3D' H' 3 3 J 1 ' $EO' <&& N34' H4' ?H D 34' &4H J ' Q3 E2' 14HN33D3D'
2 EC ' QO' F3' H4D E$4O' @H-4C3' H&' >$ ' $ED' $EO' @H J J $ED E2' <& ?N34'
FH' CF$ ' E32 3N ' H4' 43&-C3 ' F3E' 11 N$ HE' C' J $D3' H' F J ' &H4' F$ '
I -41HC3 ' H' D3 34' H 34' H' F3' @ ' P $2 C 4$ 3' $EO' <&& N34' H4' ?H D 34'
$NN-C3D' H&' $EO' @$1 $ ' @4 J 3 ' H4' H&' $EO' H 3EN3' H4' <&&3EN3' 2 EC '
F3' I 34CHE ' ; C $ 3 ' H4' I 4H134 O' H&' $EO' , ' 8 C' P $(3C O C' ?-Q(3N C'
F NF' C' 1-E CF$Q 3' QO' F3' +EH E' >$ C' H&' F3' >$ED ' H4' CF$ ' &- O'
E32 3N ' H4' 43&-C3' H' $CC C ' F3' <&& N34C' H&' 5-C N3' E' $1143F3ED E2' C-@F'
< KED34 ' CF$ ' -1HE' @HE N HE' F343H&' E' $EO' I 4HC3N- HE' E' $EO' H&'
8 C' P $(3C O C' @H-4 C' $ ' !1 ! ' 234% # ' H4' 8& #43 ( ) ' Q3' D33 J 3D'
H' Q3' 51,' ' ,' N$CF 343D ' $ED' CF$ ' Q3' - 34 O' D C$Q 3D' H' F$ 3' H '
FH D' $EO' @ ' H4' P $4O' <&& N3' H4' ; J 1 HO J 3E ' F E' F3' >*F 3D'
% E2DH J ' H&' ! ' " #' & ' $!% #& ' H4' E' 8 C' P $(3C O C' ?34 N3 '
$ED' $' @34 & N$ 3' F343H&' CF$ ' Q3' 4$EC J 3D' H' F3' 5-D23' D HN$ 3'
E' < , #& , #=' 14H D3D' F$ ' EH' I 34CHEC' Q3 E2' $NX- 3D' H4' NHE N 3D' H&
$EO

4 ' M#> ;>P ' ' @$1 UZ 7 (2

$EO' ^@$1 $' M4 J3' H 3EN3' H4' <&&3EN3' QO' K3' @ ' P$2 C 4$ 3 7Q4' QO' F3' 34D N ' H&'$ 5-40' CF$ ' Q3' $Q 3 ' H' Q3' 1-E CF3D' QO'$' MH-(' J$4 $' &Q4' F3' C$J 3' H F34 C3' F$E' QO' N$CF 3 E2 ' '

' 5 ED' Q3' ' 3E$N 3D ' *F$ ' EH' I 34CHE' F$ 3 34' ^3 @31&' $E' 1 ' C D 34C' EH' 143E N3_' 3E C 3D' E H' 8 C' P$(3C O C' ?34 N3' $C' $' ?H D 34' CF$ ' Q3' H' Q3' $+3E' $Q 3' H' Q3' $443C 3D' H4' $F3E' F343&4H J' QO' 43$CHE' H&' F3' 9 44E ' H&' $EO' 5-C N3 ' HE' $NNH-E ' H&' $EO B43$NF' H&' @HE 4$N ' H4' ; E2$23 J 3E ' H' &24' 13Q C ' C34 3' H4' H4+' &H4' $EO' ; J 1 HO34 ' $ED' EH' I 34C1E' 3E C 3D' $C' $' ?H D 34' -ED34' S' 9' H4' C34 E2' $C' $' , HE NH J J CC HE3D' <&& N34' H4' G4- J J 34' HE' F3' 134R J $E3E ' ? $&&' H&' F3' D C3 J QHD 3D' P $ ' CF$ ' Q3' #$Q Q' H' Q3'' $+3E' H- ' H&' 8 C' P$(3C O C' ?34 N3' QO' $EO' I 4HN3CC' H4' ; 3N- HE' F$&N' ?H3 34' H F34' F$E' &H4' CH J 3' @4 J E$' P$ 34' -E 3CC' $E' && D$ ' CF$ ' Q3' J $D3' QO' F3' I $ E &&' H4' CH J 3' HE3' HE' F C' B3F$ &' &H4' 9 F NF' EH' 633' CF$ ' Q3' $+3E ' Q3&H43' CH J 3' 5-D23' H&' F3' @H-4 ' H- ' H&' F NF' ?-NF' I 4HN3CC' H4' ; . 3N- HE' CF$ ' CC-3' H4' Q3&H43' CH J 3' I 34CHE' $- FH ' 4 T3D' H' $+3 && D$ C' E' C-NF' @H-4 C' H&' F NF' && D$ ' $' P 3 J H ' 4$ED- J' CF$ ' FH- ' 633' Q3' 3EDH4C3D' -1HE' F3 ' B$N+' ' H&' C-NF' I 4HN3CC' F$' F3' H4 2 E$' G3Q ' &H4' F NF' F3' N HE' F$C' Q33E' Q4H-2F ' H4' ; 3N- HE' C-3D' H- ' $J H-E C' H ' F3' $ -3' H&' *F 4 O' I CH-EDC$ ' 3$C ' H 34' $ED' $QH 3' $ ' @HC C' H&' ?- ' E' F3' N HE' H4' N HEC' HE' F NF' F3 ?$J 3' CF$ ' Q3' 24H-ED3D ' $ED' $EO' 5-D23' H&' C-NF' @H-4 '' J $O' 3 $J E3' E H' $EO' @H J 1 $ E C' J $D3' QO' $' ?H D 34' H4' QO' F C' ?-134 H4' <&& N34' $ED' QO' 9 44E ' -ED34' F C' 8 $ED' D CNF$423' C-NF' ?H D 34' FH- ' 633' F3' Q3 E2' CF3 E' H' Q3' D- O' 3E C 3D ' $ED' H' F @' Q33E' $443C 3D' NHE 4$4O' H' F3' E 3E ' H&' F C' N ' $ED' CF$ ' $ $4D ' 43$CHE$Q 3' @HC C' H' C-NF' @H J 1 $ E$E ' FH' CF$ ' F$ 3' &H4' F3' ' 3R NH 34O' F343H&' F3' +3' ' 3 J 3DO' $C' 9H-P' F$ 3' Q33E' $11 N$Q 3' H' F3' ' 3NH 34O' H&' $EO' @HC C' F NF' J 2F ' F$ 3' Q33E' $ $4D3D' 2 EC ' F3' @H J 1 $ E$E ' E ' $EO' 5-D2 J 3E ' H4' ; 3N- HE' $C' $&H43C$ D ' 14H D3D' F$ ' $EO' I $ E &&' -1FE ', H N3' H&' F3' @$-C3' H&' N HE' & 4 ' 2 3E' E' 9 4 E2' H' $EO' ?H D 34' H4 3& ' $' F C' $C ' I $N3' H&' ' 3C D3EN3' Q3&H43' C-NF' > C E2' J $O' & 3' $' @H J J HE' 113$4$EN3' E' $EO' N HE' H' Q3' Q4H-2F ' &H4' H4' -1HE' $NNH-E ' H&' $EO' G3Q ' F$ CH3 34' $ED' 14HN33D' F343 E' H' 5-D2 J 3E ' $ED' < - $ 40' $ED' F$ 3' ; 3N- HE' H F34' F$E' $ED' 2 EC ' F3' BHDO

' ED' Q3' ' 3E$N 3D ' *F$ ' ' CF$ ' Q3' $ &- ' &H4' 8 C' P$(3C O' H4' *F3' % E2' J $+3' 4 N 3C' H&' 9 $4' &H4' F3' Q3 34' MH 34E J 3E ' H&' 8 $' P$(3C O C' J $O' J $+3' 6H4N3C ' F NF' 4 N 3C' CF$ ' Q3'(-D N $ O' $+3E' EH N3' H&' QO' $ ' 5-D23C ' $ED' E' $ ' @H-4 C' F$ CH3 34 ' $ED' @H1 3C' H&' F3' C$J 3' 14 E 3D' QO' (H4 J O F' F3' % E2 C I 4 E 34' CF$ ' $C' CHHE' $C' NHE 3E 3E O' J $O' Q3' $& 34' F3' F C' N ' C$J 3' CF J ' F$ 3' Q33E' J $D3' $ED' 3C $Q CF3D' QO' 8 C' P$(3C O ' Q3' 4$ECR J 3D' QO' 8 C' P$(3C O C' ?3N43 $4O' $' 9 $4' C 2E3D' &F' F C' H E' 8 $ED' $ED' , $J 3' H' F<.'5-D23' H& ' 8 C ' P$(3C O C' ?-134 H4' @H-4 C' $ '
! # #1 ! ' 234O#' $ED' 8& #43 ()' 43C13N 3 O ' $ED' $ CH' H' F3' MH 34EH4C' H&'' 8 C' P$(3C O C' GH J E HEC' Q4H$D ' 14H D3D' F$ ' EH' I 34CHE' F E' F3' #E 3D' % E2DHE(' H&' " #' &' $!% #& ' H4' F3' " 1)' C 3C ' CF$ ' Q3' C-Q(3N ' QO' C-NF' 4 N 3C' H&' 9 $4' H' $EO' I -E CF J 3E ' 3 3ED E2' H' > &3' H4' > J Q' &H4' $EO' @4 J 3' F NF' C' EH ' 3 143CC3D' H' F3' CH' 1-E CF$Q 3' FO) F C' N ' EH4' E' $EO' P $EE34' H4' -ED34' $EO' ' 32- $ HEC' F NF' CF$ ' EH ' $NNH4D' F' F3' I 4H C HEC' H&' F C' N '

' ED

@HEC - HE' H&' @H-4 C ' J$4 $

' ED' Q3' ' 3E$N 3D' *F$ ' 8 C' P $(3C O' J $O' &4H J' * J 3' H' * J 3' 24$E ' $' @H J J CC HE' -ED34' F3' ; HO$ ' ? 2 ' P $E-$ ' &H4' F3' FH D E2' H&' M3E34$' MH-4 C J$4 $' F E' F3' #E 3D' % E2DH J' H&' ! ' " #' $ED' $!% #& ' E' DN&' P$EE J ' $C' F$C' Q33E' F343 H&H43' -C3D' ($ED' F$ ' &H4' Q4 E2 E2' <&&3ED34C' 2 EC ' F3' 4 N 3C' H&' 9 $4' H' 5-C N3' ' CF$ ' Q3' $ &- ' &H4' 8 C' P 3C O' H' 343N ' $ED' NHEC - 3' @H-4 C J$4 $' F E' F3' #E 3D' % E2DH J' H4' ! ' " #' $ED' $!% #& ' $C' 3 ' $C' H' 24$E ' 8 C' ' HO$ ' @H J J CC HEC' H4' 9 44E C' H' F3' @F 3&' MH 34EH4' H4' MH 34EH4C' $!% #& ' F3' @H J J $ED34' H&' F3' 6H4N3C ' H4' F3' I 34CHE' H4' I 34CHEC' NH J J $ED E2' E' NF 3&' H4' NH J J $ED E2' &H4' F3' * J 3' Q3 E2 ' $EO' BHDO' H&' 8 C' P $(3C O C' 6H4N3C ' $C' 3 ' F E' F3' #E 3D' % E2DH J' H&' ! ' " #' $ED' $!% #& ' $ED' F3' " 1) ' C 3C ' $C' E' $EO' H&' 8 C' P $(3C O C' M$44 CHEC' $ED' GH J E HEC' H4' 3 C3 F343' Q3OHED' FH?3$C ' &H4' NHE 3E E2' $C' 8' $C' &H4' $- FH4 T E2' $EO' <&?N34' -ED34' F3 4' 43C13N 3' @H J J $ED' EH ' Q3 H ' F3' G32433' H4' $' 6 3 D' <&& N34' H' NHE 3E3' @H-4 C J$4 $' $C' <NN$C HE' J $O' 43 2 4 43' &H4' F3' * 4 $' H&' <&&3EN3C' NH J J 3D' QO' $EO' H&' Fa' 6H4N3C' -ED34' F3 4' C3 34$' @H J J $ED' F3 F34' F3' C$ J 3' CF$ ' F$ 3' Q33E' NH J J 3D' Q3&H43' H4' $& 34' C-NF' <&& N34' CF$ ' F$ 3' $+3E' -1HE' F J C3 &' C-NF' @H J J $ED ' $ED' $EO' I 34CHE' C-Q(3N ' H' F C' N ' FH' CF$8' E' $EO' H&' 8 C' P $(3C O C' GH J E HEC' Q3OHED' F3' ?3$C' H4' 3 C3 F343' NH J J ' $EO' H&' F3' <&&3EN3C' &H4' F NF' F3' J $O' F3' $Q 3' H' Q3' 4 3D' QO' @H-4 C J$4 $' QO' 4 -3' H&' F C' N ' J $O' Q3' 3D' $ED' 1-E CF3D' &H4' F3' C$ J 3' E' $EO' H F34' I $4 ' H&' 8 C' P $(3C O C' GH J E HEC' F343' F3' J $O' F$ 3' NH J 3' $& 34' F3' @H J J CC HE' H&' F3' <&&3EN3 ' $C' &' F3' <&&3EN3' F$D' Q33E' N E$E- ' F343' C-NF' * 4 $ ' CF$ ' $+3' 1 $N3

" ' +?' : ((!&' +G!#(O@&!% #)&

' ED' Q3' ' 3E$N 3D' * F$ ' $' M3E34$' @H-4 J$4 $' NHE 3E3D' E' $EO' I $4 ' H&' F3' % E2 C' GH J E HEC ' Y&! U& ' F3' ") 1' / ' ' $ED' a+%!F' +,3)' 4 I H&3C' 3WN31 3D _' H4' J' F3' ?3 & 3 J 3E C' H&' F3' ?8 1' $#& ' @H J 1$EO' CF$ ' NHEC C ' H&' EH ' 3CC' F$E' * F 4 33E' @H J J CC HE3D' <&& N34C ' &' NHE 3E3D' E' " ! 3& ' H4' F3' ") 1' H4' H- ' H&' F3' % E2 C' GH J E HEC ' 3 N31 E2' / ' ' $ED' E!`F' +,3)' %!1' CF$ ' NHEC C ' H&' EH ' C' F$E' ?3 3E ' $ED' E' / ' ' $ED' E! ' +,3)' %!1' H&' EH ' 3CC' F$E' 6 3' @H J J CC HE3D' <&& N34C' ($ED' EH' 5-D2 J 3E ' H&' G3$ F' CF$ ' 1$CC' FH- ' F3' @HEN-443EN3' H&' * H' * F 4DC' $ ' F3' 3$C ' H&' F3' <&& N34C' 143C3E ' $ED' F3' I 43C D3E ' CF$ ' E' EH' @$C3' Q3' F3' <&& N34' NH J J $EDR E2' E' NF 3&' H4' MH 34EH4' H&' F3' M$44 CHE' F343' F3' <&&3ED34' CF$ ' Q3' 4 3D ' EH4' -ED34' F3' G32433' H&' $' P 3 D' <&& N34 ' -E 3CC' F343' $' 6 3 D' <&& N34' N$EEH ' Q3' F$D ' EH4' E' $EO' @$C3' F$ CH3 34' -ED34' F3' G32433' H&' $' @$1 $ E

IH &@4C' H&' M3E34$' @H-4 C J$4 ' $_

' ED' Q3' ' 3E$N 3D' * F$ ' $' M3E34$' @H-4 J$4 $' J $O' C3E 3EN3' $EO' ?H D 34' H' J 14 CHE J 3E ' CH $4O' H4' H F34 C3 ' $ED' F' H4' FH- ' F$4D' >$QH-4 ' E' $EO' 1-Q N' I 4 CHE' H4' H F34' I $N3' F NF' F3' @H-4 ' J $O' $11H ' H4' H' @H41H4$' I -E CF J 3E ' EH ' 3 3ED E2' H' > &3' H4' > J Q ' &H4' J J H4$ O' P CQ3F$ H-4 ' $ED' , 32 3N ' H&' G - O' $ED' $' M3E34$' @H-4 J$4 $' J $O ' E' $DD HE' H' $EO' C-NF' I -E CFR J 3E ' $C' $&H43C$ D ' C3E 3EN3' $EO' <&&3ED34' H' 6H4&3 -43' H&' $ ' D $ER $23' $C' H' $DD HE$ ' 6$O ' $ED' I 3EC HE' HE' G CNF$423 ' $ED' F3ECH3 34' $EO' M3E34$' @H-4 J J & $ ' QO' F NF' $EO' ?H D 34' CF$ ' F$ 3' Q33E' 4 3D' $ED' NHE N 3D' H&' $EO' <&&3EN3' 1-E CF$Q 3' F' G3$ F' CF$ ' EH ' F E+' F3' <&&3EN3' D3C34 E2' H&' @$1 $' I -E CF J 3E ' C-NF' @H-4 J$4 $ J $O

J $O' EC 3$D' H&' $ $4D E2' $' @H41H4$' I -E CF J 3E ' H4' J 14 CHE J 3E ' $D(-D23' F3' <&&3ED34' $NNH4D E2' H' F3' G32433' H&' F3' <& EN3 ' H' Q3' 4$EC1H4 3D' $C' $' 63 HE' &H4' > &3' H4' &H4' $' N34 $ E' *34 J ' H& =3$4C' H4' J $O' C3E 3EN3' F J ' H' 23E34$' ?34 N3' $C' $' ?H D 34' E' $EO' @H41C' $ED' E' $EO' @H-E 4O' H4' I $N3' F NF' 8 C' P $(3C O' CF$ ' F343-1HE' D 43N ' H4' J $O4' &' C-NF' <&&3ED34' CF$ ' F$ 3' 3E C 3D' &H4' $' J 3D' *34 J ' H&' =3$4C' C3E 3EN3' F J ' H' C34 3' &H4' > &3' $C' $' ?H D 34' E' $EO' @H41C' F NF' 8 C' P $(3C O' CF$ ' 1 3$C3' H' D 43N ' ! $ED' F3' @H-4 ' J $O' E' $DD HE' H' $EO' H F34' I -E CF J 3E ' C3E 3EN3' C-NF' <&&3ED34' H '&H4&3 ' $ ' DR $E $23' $C' H' EN43$C3' H&' I $O' H4' $C' H' I 3EC HE' HE' G CNF$423' F NF' J 2F ' H F34 C3' F$ 3' $NN4-3D' H' C-NF' <&&3ED34' 14H D3D' F$ ' E' $ ' @$C3C' F343' $' @$1 $' I -E CF J 3E ' CF$ ' F$ 3' Q33E' $ $4D3D' QO' $' M3E34$' @H-4 J $4 $ ' ' CF$ ' F3' $ &- ' &H4' 8 C' P $(3C O ' H4' &' E' F3' 1 ' $#& !1 ' &H4' F3' <&& N34' NH J J $ED E2' E' NF 3&' F3' 6H4N3C' $ ' F3' I 43C D3ENO' H' F NF' F3' <&&3ED34' CF$ ' Q3 HE2 ' EC 3$D' H&' N$-C E2' C-NF' ?3E 3EN3' H' Q3' N$44 3D' E H' 3 3N- HE ' H' H4D34' F3' <&&3ED34' H' ' F3' 4$EC1H4 3D' $C' $' 63 HE ' 3 F34' &H4' > &3' H4' &H4' $' N34 $ E' *34 J ' H&' =3$4C' $C' CF$ ' C33 J ' J 33 ' H' 8 C' P $(3C O ' H4' &' E' F3' " 1 ' $#& !1 ' H' F3' <&& N34' NH J J $ED E2' $C' $&H43C$ D ' $ED' &'$EO' I 34CHE' 4$EC1H4 3D' ' $C' $' 63 HE ' F3 F34' E' 1-4C1$EN3' H&' F3' H4 2 E$' ?3E 3EN3' H&' F3' @H-4 J $4 $ ' H4' E' 1-4C-$EN3' H&' C-NF' <4D34' &4H J ' 8 C' P $(3C O ' CF$ ' $& 34 $4DC' 43 -4E' H4' Q3' &H-ED' $ ' $423' FH- ' >3$ 3' &4H J ' 8 C' P $(3C O' H4' H F34' $ &- ' - FH4 O ' F E' $EO' I $4 ' H&' 8 C' P $(3C O C' GH J E HEC' Q4H$D' H4' $ ' 8 3 J 3 ' H F34' F$E' F3' I $N3' H' F NF' F3' CF$ ' F$ 3' Q33E' 4$EC1H4 3D' Q3&H43' F3' ; 1 4$ HE' H&' F3' *34 J ' J 3D' QO' C-NF' ?3E 3EN3' H4' <4D34' $ED' CF$ ' Q3' D- O' NHE N 3D' F343H&' CF$ ' C-&&34' G3$ F' $C' $' 63 HE

W >' ED' Q3' ' 3E$N 3D' * F$ ' 3 34O' I $O J $C 34' H4' H F34' @H J J C ' *4 $' QO M3' C HE3D' <&& N34' H&' 8 C' P $(3C O C' 6H4N3C' H4' $EO' I 34CHE' 3 J 1 HO3D' E' E34$' @H 4 ' F3' <4DE$EN3' H4' @H J J CC$4 $ ' G31$4 J 3E ' H4' E' $EO' P $EE34' E' F3' @$43' H4' G C 4 Q- HE' H&' $EO' P HE3O ' I 4H C HEC' 6H4$23' H4' ? H43C' k3E ' FH' CF$ ' 3 J Q3TT 3' H4' &4$-D- 3E O' J C$11 O ' H4' F3' NHEN34E3D' E' H4' NHEE 3' $ ' F3' ; J Q3TT 3 J 3E ' &4$-D- 3E ' P C$11 N$ HE ' H4' G$ J $23' H&' $EO' P HE3O ' FH C HEC' 6H4$23' 4 J C ' @ H F E2' J J -E HE ' H4' H F34' P $4O' ? H43C' Q3 HE2 E2' H' 8 C' P $(3C O C' 6H4N3C' H4' &H4' 8 C' #C3 ' J $O' Q3' 4 3D' &H4' F3' C$ J 3' QO' $' M3E34$' @H-4 J $4 $ ' F NF' J $O' $D(-D23' $EO' C-NF' <&&3ED34' H' Q3' 4$EC1H4 3D' $C' $' 63 HE' &H4' > &3' H4' &H4' $EO' N34 $ E' *34 J ' H&' =3$4C' H4' H' C-&&34' C-NF' I -E CF J 3E ' H&' 6 E3 ' J 14 CHE J 3E ' G C J CC$ ' &4H J ' 8 C' P $(3C O C' ?34 N3 ' $ED' EN$1$N O' H&' C34 E2' 8 C' P $(3C O' E' $EO' <&& N3 ' @ ' H4' P $4O ' $C' C-NF' @H-4 ' CF$ ' F E+' ' $NNH4D E2' H' F3' , $ -43' $ED' G32433' H&' F3' <&&3EN3 ' $ED' 3 34O' ?-NF' <&&3ED34' CF$ ' E' $DD HE' H' $EO' H F34' I -E CF J 3E ' J $+3' 2HHD' $ ' F C' H E' ; 13EN3' F3' >HCC' $ED' G$ J $23' C-C $ E3D' F NF' CF$ ' F$ 3' Q33E' $CN34 $ E3D' QO' C-NF' @H-4 J $4 $ ' J D' F3' >HCC' $ED' G$ J $23' CH' $CN34 $ E3D' $C' $&H43C$ D' CF$ ' Q3' $' G3Q ' H' 8 C' P $(3C O ' $ED' J $O' Q3' 43NH 343D' E' $EO' H&' 8 C' P $(3C O C' @H-4 C' $ ' !1 #1 ! ' H4' E' " 34% # ' H4' F3' @H-4 ' H&' ; NF3X-34' E' + ' , % #& ' H4' E' $EO' @H-4 ' E' 8 C' P 3C O ? @H HE 3C' F343' $' I 34CHE' C3E 3EN3D' QO' C-NF' @H-4 J $4 $ ' CF$ ' Q3' 43C D3E ' $& 34' F3' C$ D' 5-D2 J 3E ' CF$ ' Q3' NHE& 4 J 3D' $ED' J $D3' +EH E

IH 34C H& GC4N 'H4 M$44 CHE @H-4 C J$4R $

W ' ED Q3 '3E$N 3D ' *F$ '$ D C 4 N 'H4 M$44 CHE @H-& J$4 $ ' CF$ 'NHEC C 'H& EH ' 3CC F$E ?3 3E @H J J CC HE3D <&& N34C '3 N31 ' E "! 3& ' F3 ") 1 ' / ' ' / 'E!F '+,3) %!1 ' F343 ' J$0 NHEC C 'H& EH ' 3CC F$E 6 3 @H 1 E C HE3D <&& N34C ' $ED J$0 C3E 3EN3 $E0 ?H D 34 H $E0 J 14 CHE J 3E ' CH $40 H4 H F34 C3 ' $ED F H4

FH- 'F$4D >$QH-4 ' E $E0 1-Q N I4 CHE H4 H F34 I $N3 F NF C-NF @H-4 'J$0 $11H E 'H4 H @H41H4$ ' I-E CF J 3E 'EH '3 3ED E2 H > &3 H4 > JQ '&H4 J JH4$ 0 'P CQ3F$ H-4 'H4 , 32 3N 'H& G- 0 ' $ED C-NF @H-4 ' J$0 ' E $DD HE H 3 F34 H& F3 C$ D I-E CF J 3E C ' C3E 3EN3 $?H D 34 H 6H4&3 -43 H& $ ' D $E $23 $C H $DD HE$ ' I$0 ' $ED H I 3EC HE HE G CNF$423 ' &H4 D C24$N3&- ' @HED-N

E &-80 J$ J E2 H4 E(-4 E2 F J C3 & ' H4 $E0 H F34 ?H D 34 ' $ ' F3 EC $EN3 H& C-NF ?H D 34 ' F E 3E ' H 43ED34 F J C3 & H4 C-NF ?H D 34 -E& '&H4 F3 ?34 N3.

E $J 134 E2 F F C ; 03C .

E J$ E234 E2 '&3 2E E2 G C3$C3 ' $QC3E E2 F J C3 & &4H J ' 8 HC1 $ ' F C ' -ED34 P 3D N$ ' @$43 ' H4 < F34 24HCC H $ HE H& F3 I - 3C H& $E0 8 HC1 $ ' F3 @Q0 &- 0 14HD-N E2 H4 224 $ E2 ' G C3$C3 H4 E& 4 J 0 ' H4 &- 0 D3 $0 E2 F C @-43 .

E 1-4 H E E2 H4 C3 E2 MH 34E J 3E ' ? H43C .

E C 3$ E2 $E0 P HE30 H4 MHHDC ' F3 I 4H134 0 H& $ @H J 4$D3 ' H& $ P $40 <&& N34 'H4 H& $E0 P $40 H4 '32 J 3E $ ' P 3CC.

E 14HD-N E2 &$ C3 H4 &4$-D- 3E ' NNH- J C H4 -4 E C.

E 3 J Q3TT E2 H4 &4$-D- 3E 0 J C$11 0 E2 I -Q N P HF30 3E 4-C 3D H F E$.

<4 &H4 $E0 H F34 D C24$N3&- ' @HED-N ' Q3 E2 H& $ N4-3 ' H N3- ' -E-$ -4$ '&3 HE H-C ' H4 &4$-D- 3E ' , $ -43

ED C-NF <&&3ED34 J $0 Q3 &-4 F34 1- ' -ED34 ? H11$23C ' EH '3 N33DR E2 * H *F 4DC H& Q C D$ 0 I$0 ' -E ' F3 J H-E 'Q3 J $D3 2HHD H& $E0 >HCC H4 G J E$23 $4 C E2 H- ' H& F C P CNHED-N ' $ED & $E0 ?H D 34 CF$ 'Q3 NHE N 3D H& $E0 C-NF D C24$N3&- ' @HED-N ' $ED CF$ ' Q3 C3E 3EN3D H 6H4&3 -43 H& F C @ $ J ' H I 3EC HE ' F3 @H-4 ' J $0 &-4 F34 43NH J J 3ED F J ' H Q3 D CNF$423D ` F 2EH J E0 &4H J ' 8 C P $(3C 0 C ?34 N3 ' $ED $E0 C-NF @H-4 ' CF$ ' D314 3 $?H D 34 ' & NHE N 3D H& $ @F$423 H& F$Q -$ 'G4-E+3EE3CC ' H& F C H $EN3 E 3- ' H& B334 H4 > X-H4 ' H4 H& $DD HE$ ' I$0 ' H4 H& C-NF I H4 HE H& F C D$ 0 I$0 ' && 4 $E0 I 34 HD EH ' 3 N33D E2 * H =3$4C ' $C J $0 $NNH4D F 8 C P $(3C 0 C 4 N 3C H& 9 $4 'C-Q(3N ' H ' 3C H4$ HE HE C-QC3X-3E '2HHD @HED-N ' $ED E $DD HE H $E0 C-NF I -E CF J 3E ' F3 @H-4 ' J $0 ' & ' 'CF$ ' F E+ & ' C3E 3EN3 C-NF <&&3ED34 H J 14 CHE J 3E ' H4 H @H41H4$ ' I -E CF J 3E '5 14H D3D F$ ' E $ ' F3 &H432H E2 @$C3C F3 ?3E 3EN3C H& $G C 4 N 'H4 M$44 CHE @H-4 J$4 $ ' CF$ 'Q3 NHE& 4 J 3D Q0 F3 M3E34$ ' <&& N34 ' MH 34EH4 'H4 ?3E H4 <&& N34 E NH J J $ED H& F3 G C 4 N 'M$44 CHE ' C $ED ' H4 @H HE0 ' $ED F3 I 43R C D3E 'H& 3 340 @H-4 J$4 $ 'H F34 F$E $ M3E34$ ' @H-4 J$4 $ 'EH ' Q3 E2 -ED34 F3 ' $E+ H& @$1 $ E ' CF$ 'Q3 $11H E 3D Q0 F3 <&& N34 NHE 3E E2 C-NF @H-4 J$4 $ '14H D3D F$ 'C-NF @H-4 J$4 $ 'CF$ ' EH 'F$ 3 I H 34 H 1$CC $E0 ?3E 3EN3 H& G3$ F H4 *4$EC1H4 $ HE

'32 J 3E $ @H-4 J$4

W ' ED Q3 '3E$N 3D ' *F$ ' E @$C3C H& P - E0 $ED 24HCC EC-QH4R D E$ HE ' H4 $E0 <&&3EN3C NH J J 3D HE F3 > E3 H& P$4N5 ' F3 <?3EN3 J $0 Q3 4 3D Q0 $ '32 J 3E $ ' @H-4 J$4 $ ' $ED F3 ?3E 3EN3

3EN3' NHE& 4 J 3D' $ED' N$44 3D' E H' 3 3N- HE' HE' F3' ?1H ' QO' F3'
<&& N34' E' F3' J J 3D $ 3' @H J J $ED' H&' F3' * 4HH1C ' 14H D3D' F$ ' F3'
?3E 3EN3' CF$ ' EH ' 3 N33D' F$ ' F NF' $' ' 32 J 3E $ ' @H-4 J $4 $ ' C'
NH J 13 3E ' H' $ $4D ' $ED' $' ' 32 J 3E $ ' @H-4 H$4 $ ' J $O' C3E 3EN3' '
$EO' ?H D 34' H' J 14 CHE J 3E ' F' H4' FH- ' F$4D' >$QH-4 ' &H4' $EO'
I 34 HD' EH ' 3 N33D E2' * F 4 O' G$OC ' $ED' H' CH $4O @HE& E3 J 3E ' EH '
3 N33D E2' * 3E O' G$OC

W ' ED' Q3' ' 3E$N 3D ' * F$ ' 3 34O' ?H D 34' NHE N 3D' H&' G3C34 HE' P$4+E2 $
QO' $' M3E34$ ' H4' G C 4 N ' H4' M$44 CHE' @H-4Q J $4 $ ' CF$ ' F343-1HE' G3C34 34'
&H4&3 ' $ ' D $E $23' $C' H' $DD HE$ ' I $O ' $ED' H' I 3EC HE' HE'
D CNF$423 ' E' $DD HE' H' $EO' H F34' I -E CF J 3E ' F NF' C-NF' @H-4
J $O' $ $4D' ' $ED' ' CF$ ' Q3' $ &- ' &H4' $EO' @H-4 EE$4 $ ' 3 J 1H 343D'
H' 4O' F3' @4 J 3' H&' G3C34 HE ' E' $DD HE' H' $EO' H F34' I -E CF J 3E '
H' D 43N ' F$ ' F3' <&&3ED34' Q3' J $4+3D' HE' F3' 13& ' ? D3 ' * H' ENF3C'
Q3 H ' F3' 4 J 1 ' F' F3' >3 34' ^G _ ' C-NF' N 34' EH ' H' Q3' 3CC' '
F$E' $E' ENF' HE2 ' $ED' H' Q3' J $4+3D' -1HE' F3' ?+ E' 9 F' CH J 3' E+' H4'
M-E1H D34 ' H4' H F34' I 431$4$ HE ' CH' $C' H' Q3' C Q 3' $ED' NHEC1 N-H-C '
$ED' EH ' $Q 3' H' Q3' HQ8 34$ 3D

W ' ED' Q3' ' 3E$N 3D ' * F$ ' ' CF$ ' Q3' $ &- ' &H4' $EO' <&& N34' GH 34C' H&' $
NH J J $ED E2' $EO' G C 4 N ' G3 $NF J 3E ' H4' I H4 HE' H&' 8 C' P $(3C O C'
* 4HH1C' F NF' J $O' $ ' $EO' * J 3' F3' C34 E2' H- ' H&' 8 C' P $(3C O C'
GH J E HEC ' E' @H J 1 $ E ' J $D3' H' F J ' H&' $EO' <&&3EN3' NH J J 3D'
2 EC ' F3' I 4H134 O' H4' I 34CHE' H&' EEO' EF$Q $E ' H&' H4' ' 3C D3E '
$EO' C-NF' @H-E 4 3C ' QO' $EO' I 34CHE' C34 E2' 9 F' H4' Q3 HE2 E2' H' 8 C'
P $(3C O C' 4 J 3C ' Q3 E2' -ED34' F3' J J 3D $ 3' @H J J $ED' H&' $EO' C-NF'
<&& N34 ' H' C- J J HE' $ED' N$-C3' H' $CC3 J Q 3' $' @H-4 J $4 $ ' F NF'
CF$ ' NHEC C ' H&' EH ' 3CC' F$E' * F433' <&& N34C ' &H4' F3' I -41HC3' H&' 4O E2'
$EO' C-NF' I 34CHE ' EH FC $ED E2' $EO' C-NF' <&& N34' CF$ ' EH ' E$ 3'
43N3 3D' $EO' 9 44E ' 3 J 1H 34 E2' F J ' H' $CC3 J Q 3' @H-4 C J $4 $ '
$ED' 3 34O' C-NF' @H-4 J $4 $&' CF$ ' F$ 3' F3' C$ J 3' I H 34C' E' 432$4D' H'
C- J J HE E2' $ED' 3 $ J E E2' 9 E3CC3C ' * 4 $ ' H&' $ED' ?3E 3EN3' -1HE'
<& 3ED34C ' $C' $43' 24$E 3D' QO' F C' N ' H' M3E34$ ' @H-4 ? J $4 $ '
14H D3D' F$ ' EH' ?3E 3EN3' H&' $EO' C-NF' @H-4 J $4 $ ' CF$ ' Q3' 3 3N- 3D'
-E ' F3' M3E34$ ' NH J J $ED E2' E' NF 3&' F3' 4 J O' H&' F NF' F3'
G C HE ' B4 2$D3 ' G3 $NF J 3E ' H4' I $4 O' H' F NF' $EO' I 34CHE' CH'
4 3D ' NHE N 3D ' $ED' $D(-D23D' H' C-&&34' I -E CF J 3E ' CF$ ' Q3 HE2 '
CF$ ' F$ 3' $114H 3D' $ED' NHE& 4 J 3D' F3' C$ J 3

W >' ED' Q3' ' 3E$N 3D ' * F$ ' E' N34 $ E' @$C3C ' F343' ' J $O' Q3' P (-43' H&'
E3N3CC$4O' H4' 3 13D 3E ' <&& N34C' H&' 8 C' P $(3C O C' P $4 E3' 6H4N3C' <&&N34C -1HE'
J $O' C ' -1HE' @H-4 C J $4 $ ' E' NHE(-EN HE' F' <&& N34C' H&' 8 C'
P 3C O C' >$ED' 6H4N3C ' $ED' C-NF' @H-4 C J $4 $ ' CF$ ' Q3' 432- $ 3D '
H' $ ' E 3E C' $ED' * 3 5,1!1 ' E' +3' P $EE34' $C' &' F3O' 343' NH J 1HC3D'
H&' <&& N34C' H&' F3' >$ED' 6H4N3C' HE O ' F3 F34' F3' @H J J $ED E2' <&& N34'
QO' FHC3' <4D34C' C-NF' @H-4 J $4 $ ' C' $CC3 J Q 3D' Q3 HE2C' H' F3'
>$ED' H4' H' F3' P $4 E3' 6H4N3C ' $ED' <&& N34C' H&' 8 C' P $(3C O C' >$ED'
6H4N3C ' $ED' <&& N34C' E' F3' ?34 N3' H&' F3' ?8 1 ' $#& ' @H J 1$EO '
F3E' C34 E2' H23 F34 ' J $O' Q3' $CCHN $ 3D' E' @H-4 C J $4 $ ' F NF'
CF$ ' H' $ ' E 3E C' $ED' I -41HC3C ' Q3' 432- $ 3D' E' +3' P $EE34' $C' &'
NHEC C E2' FH O' H&' <&& N34C' H&' 8 C' P $(3C O C' >$ED' 6H4N3C ' H4' FH O'
H&' <&& N34C' E' F3' ?34 N3' H&' F3' 8 1 ' $#& ' @H J 1$EO ' C$ 3' $ED
3 N31

3 N31 ' F$ HE' 3' *4 $' H&' $EO' I34CHE' "' 8 C' P$(3C O C' ?34 N3' 3' I4H C HEC' H&' F C' N ' $ED' F3' <$ FC' F343QO' 143CN4 Q3D' CF$ ' Q3' $11 N$Q 3' $ED' HE' F3' *4 $' 1&' $EO' <&& N34' H4' ?H D 34' E' F3' ?34 N3' H&' F3' 8 M'$#& '@H J 1$EO' F3' I4H C HEC' H&' $E' N ' 1$CC3D' E' F3' 6H-4 F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P$(3C O' % E2' !, (!' F3' 6H-4 F' H' $J 3ED' F3' >$ C' &H4' 1-E CF E2' P - EO' $ED' G3C34 HE' H&' <&& N34C' $ED' ?H D 34C' E' F3' ?34 N3' H&' F3' $ 1'$#& '@H J 1$EO' $ED' F3' <$ FC' F343QO' 143CN4 Q3D' CF$ ' Q3' $11 N$Q 3' EH FC $ED E2' $EO' <&& N34' E' F3' $N -$' ?34 N3' H&' F3' C$ D' @H J 1$EO' J $O' F$ 3' $' @H J /' J CC HE' &4H J' 8 C' P$(3C O

I H 34' b &<))#))A#(! <$ C

W ' ED' Q3' ' 3E$N 3D' *F$' $ ' M3E34$' $ED' H F34' @H-4 C' J$4 $ C' C&$$8' F$ 3' I H 34' $ED' - FH4 O' $ED' $43' F343QO' 43X- 43D' H' $D J E C 34' $E' <$ F' H' 3 34O' 9 E3CC' H4' H F34' I34CHE' FH' CF$ ' Q3' 3 $J E3D' Q3&H43' C-NF' @H-4 ' E' $EO' P$ 34' 43 $ E2' H' $EO' I4H ' N33D E2C' Q3&H43' F3' C$J 3

I 4HN33D E2C' H&' @H-4 C' J$4 $

W ' ED' Q3' ' 3E$N 3D' *F$' E' $ ' *4 $ C' QO' M3E34$' @H-4 C' J$4 $' H' Q3' F3 D' QO' 4 -3' H&' F C' N ' 3 34O' P 3 J Q34' $CC C E2' $' ?-NF' *4 $ ' Q3&H43' $EO' I 4HN33D E2' Q3' F$D' F343HE' CF$ ' $+3' F3' <$ F' E' F3' ?NF3D- 3' H' F C' N '$EE3 3D' Q3&H43' F3' 5-D23' D HN$ 3' H4' F C' G31- O' H4' I34CHE' H&& N $ E2' $C' C-NF' $ED' HE' *4 $ C' QO' H F34' @H-4 C J$4 $ ' Q3& J 3' F3' I 43C D3E' H&' C-NF' @H-4 ' FH' $43' F343QO' 43C13N 3 O' $- FH4 T3D' H' $D J E C 34' F3' C$J 3' $ED' $EO' C H4E' P 3 J Q34' CF$ ' $D J E C 34' F3' <$ F' H' F3' I 43C D3E' $ED' $C' HHE' $C' F3' C$ D' <$ FC' CF$ ' F$ 3' Q33E' $D J E C 343D' H' F3' 43C13N 3' P 3 J Q34C' F3' I 43C D3E' H&' F3' @H-4 ' C' F343QO' $- FH4 T3' $ED' 43X- 43D' H' $D J E C 34' H' F3' 5-D23' D HN$ 3' H4' F3' I34CHE' H&& N $ E2' $C' ?-NF' F3' <$ F' E' F3' ?NF3D- 3' H' F C' N ' $EE3 3D' $ED' EH' I 4HN33D E2' H4' *4 $' CF$ ' Q3' F$D' -1HE' $EO' <&&3EN3' Q- ' Q3 33E' Q3' 8 H-4C' H&' ; 2F ' H&' F3' @ HN+' E' F3' P H4E E2' $ED' 6H J R E' F3' & 34EHHE' 3 N31 ' E' @$C3C' F NF' 43X- 43' 5J' J J 3D $ 3' ; $J 1 3' $ED' 3 N31 ' E' F3' M'$#& !1' F343' C-NF' I 4HN33D E2C' H4' *4 $' J $O' Q3' F$D' Q3 33E' F3' 8 H-4C' H&' ? ' E' F3' P H4E E2' $ED' 6H-4' E' F3' & 34EHDE.' I4H D3D' $ CH' F$' $ ' 9 E3CC3C' D- O' C- J J HE3D' QO' F3' 5-D23' D HN$ 3' H4' F3' I34CHE' H&& N $ E2' $C' C-NF' H4' QO' F3' I 43C D3E' H&' $' G C 4 N ' H4' M$44 CHE' @H-4 J$4 $ ' CF$ ' D-4 E2' F3 4' E3@3CC$4O' 3ED$EN3' E' CENF' @H-4 C' $ED' E' 2H E2' H' $ED' 43 - E E2' &4H J' F3' C$J 3' Q3' 14 323D' &4H J' 443C ' $ED' CF$ ' &' -ED- O' $443C 3D' Q3' D CNF$423D' QO' F3' @H-4 ' H-' H&' F NF' F3' 9 4 ' H4' 14HN3CC' CC-3D' QO' F NF' C-NF' 9 E3CC' $C' $443C 3D' ' H4' &'C#NF' @H-4 ' Q3' EH ' C E2 ' F3E' QO' $EO' 5-D23' H&' F3' @H-4 ' H&' % E2 C' ' 3ENF' E' <,#&,#' H4' E' 234% # ' H4' 3' @H-4 ' H&' ?3CC HE' E' +', % #&' H4' @H-4 C' H&' >$ ' E' F3' < 1 ' H4' !1 '$#& !1' H4' 3 C3 F343 ' $NNH4D E2' $C' F3' @$C3' CF$ ' 43X- 43 ' -1HE' C' Q3 E2' J $D3' H' $113$4' H' C-NF' @H-4 ' H4' 5-D23 ' FO' && D$ ' E' $' C- J J $4O' 9 $O' F$ ' C-NF' 9 E3CC' $C' $443C 3D' E' 2H E2' H' H4' 43 -4E E2' &4H J' H4' $ 3ED E2' -1HE' C-NF' @H-4 J$4 $ ' $ED' F$ '$ ' 9 E3CC3C' CH' D- O' C- J J HE3D' $C' $&H43C$ D' FH' CF$ ' EH ' $ 3ED' <E' C-NF' @H-4 C' H4' $ 3ED E2' CF$ ' 43&-C3' H' Q3' C H4E' H4' Q3 E2' C H4E' CF$ ' 43&-C3' H' 2 3' ; D3EN3' H4' H' $EC 34' $ ' C-NF' \ -3C HEC' $C' F3' @H-4 ' J $O' 32$ O' D3 J $ED' H&' F3 J ' CF$ ' Q3' $Q 3' H' Q3' $ $NF3D' E' F3' @H-4 ' H&' % E2 C' B3ENF' E' <,#&,#' H4' 234% # ' <4 @H-4 ' H&' ?3CC HE' H4' ?F34 && G31- 3' H4' ? 3 $4 C' G31- 3 H4

_&' F3 4' 43C133 3' ?-QC - 3C' F($' F3 4' C3 34$' ?F 43C' $ED'
? 3 $4 4 3C' J' +' , % #&' H4' @H-4 C' H&' >$ ' E' F3' 8 1' H4' !1'
$#& !1' H4' E' $EO' H&' 8 C' 8 3C O C' @H HE 3C' M$44 CHEC' H4' GH J E HEC'
E' 83 ,5!' H4' 3 C3 F343' 43C13N 3 O' -1HE' @H J 1 $ E' J $D3' E' +3'
P $EE34' $C' &' C-NF' 9 E3CC' F$D' E32 3N 3D' H' $ 3ED' E' $' * 4 $' E' $EO'
I 4HN33D E2' E' F$' @H-4

W ' ED' Q3' ' 3E$N 3D' * F$' EH' < ? N34' H4' ?H D 34' Q3 E2' 1(3$'
$NX- 3D' H4' @HE N 3D' H&' $EO' <& FEN3' CF$' Q3' $Q 3' H' Q3' 4 3D' $'
?3NHED' * J 3' QO' F3' C$ J 3' H4' $EO' H F34' @H-4 J $4 $' &H4' F3' C$ J 3'
< &3EN3' -E 3CC' E' F3' @$C3' H&' $E' 113$' &4H J' $' ; 32 J 3E $' H' $
M3E34$' @H-4 J $4 $' $ED' F$' EH' 6 ED E2' < 1 E HE' H4' ?3E 3EN3'
2 3E' QO' $EO' @H-4 J $4 $' $ED' C 2E3D' QO' F3' I 43C D3E' F343H&
CF$' Q3' $Q 3' H' Q3' 43 C3D' J H43' F$E' HEN3' $ED' EH' 9 E3CC' CF$'
Q3' 3 $ J E3D' EH4' CF$' $EO' $DD HE$' ; D3EN3' Q3' 43N3 3D' QO' F3'
@H-4' HE' C-NF' ' 3 C HE

W ' 4 D' Q3' ' 3E$N 3D' * F$' 3 34O' 5-D23' D HN$ 3' H4' I 34CHE' ' 31H4' H&
H&& N $ E2' $C' C-NF' $' $' M3E34$' @H-4 J $4 $' H4' F3' I 43C D3E' H&' I 4H 3D 11'
$EO' G C 4 N' H4' M$44 CHE' @H-4 J $4 $' C' 43X- 43D' H' 4$EC J ' F
$C' J -NF' ; 13D HE' $C' F3' < 11H4 -E O' H&' * E 3' $ED' G C $EN3' H&' $'
I $N3' N$E' $D J ' F3' H4 2 E$' I N33D E2C' $ED' ?3E 3EN3' F343H&' H'
F3' 5-D23' D HN$ 3' M3E34$' E' <,#&,#' E' FHC3' <&& N3' F3O' CF$'
Q3' N$43&- O' 143C34 3D' $ED' $EO' I 34CHE' 4 3D' QO' $' M3E34$' @H-4 '
J $4 $' H4' $EO' 134CHE' E' F C' B3F$ &' CF$' Q3' 3E 3D' HE' G3 J $ED' H'
$' @H1O' H&' C-NF' ?3E 3EN3' $ED' I 4HN33D E2C' ^1$O E2' 43CHEQ O' &H4' F3'
C$ J 3_' F3 F34' C-NF' ?3E 3EN3' CF$' Q3' $114H 3D' H4' EH' $' $EO' * J 3'
EH' CHHE34' F$E' ? ' P HE FC' &' F3' * 4 $' HH+' 1 $N3' $' 4 % ' H4' E'
F3' !& ! #! #' * F433' P HE FC' &' $' $EO' H F34' ? $ HE' F E'
83 ,5!' $ED' * 3 3' P HE FC' &' 3 C3 F343' E' 8 C' P $(3C O C' GH J R
E HEC' 14H D3D' F$' C-NF' G3 J $ED' $C' $&H43C$ D' CF$' F$ 3' Q33E' J $D3'
F E' F3' ?1$N3' H&' * F433' =3$4C' &4H J' F3' G$ 3' H&' F3' 114H $' H4'
H F34' & E$' G3N C HE' -1HE' F3' I 4HN33D E2C' Q3&H43' C-NF' M3E3 $'
@H-4 J $4 $

W ' ED' Q3' ' 3E$N 3D' * F$' F3E3 34' 8 C' P $(3C O' CF$' * 4$ 1H4 $'
E 3ED' F$' $EO' ?3E 3EN3' H&' * 4$EC1H4 $ HE' F343 H&H43' H4' F343$& 34
1$CC3D' QO' $EO' @H-4 J $4 $' CF$' Q3' N$44 3D' E H' 3 3N- HE' H4' CF$'
F3' 24$N H-C O' 1 3$C3D' H' NH J J - 3' $C' $&H43C$ D' H' * 4$EC1H4 $ HE' $EO'
?3E 3EN3' H&' G3$ F' $ $4D3D' QO' $EO' C-NF' @H-4 ' F3' C$ J 3' H23 F34'
F' 8 C' P $(3C O C' I 3$C-43' F343-1HE' CF$' Q3' EH &3D' E' 9 4 E2'
QO' F3' <&& N34' NH J J $ED E2' E' NF 3&' 8 C' P $(3C O C' 6H4N3C' E' ! '
8 #' $ED' $!% #&' H4' E' F3' 3 J 1H4$4O' QC3EN3' H&' C-NF' <&& N34' QO'
F3' D(- $E' M3E34$' 'H4' F3E' F343' CF$' EH' Q3' $EO' @H J J $ED34'
E @F 3&' H&' 8 C' P $(3C O C' 6H4N3C' E' ! ' " #' $ED' $!% #&' F3E'
9 ' F3' ?3N43 $4O' $' 9 $4' H4' F C' G31- O' H' $EO' 5-D23' H&' F3' % E2 C'
; 3ENF' @H J JHE' I 3$C' H4' ; NF3X-34' E' 8#(% #&' , ' $!% #&' $ED'
F343-1HE' C-NF' 5-D23' CF$' J $+3' $E' < 4D34' &H4' F3' * $EC1H4 $ HE' H&'
C-NF' <&&3ED34' E' NHE&H4 J O' F' C-NF' , H & N$ HE' $ED' CF$' $ CH' DH'
$' C-NF' H F34' N C' NHEC3X-3E' -1HE' FX' C$ J 3' $C' C-NF' 5-D23' C'
$- FH4 T3D' H' DH' QO' $EO' N ' E' &H4N3' H-NF E2' F3' * 4$EC1H4 $ HE' H&'
H F34' < &&3ED34C' $ED' F3' I 34CHE' E' FHC3' @-C HDO' C-NF' < &&3ED34'
CF$' $' F$' * J 3' Q3' $ED' $' H F34' I 34CHEC' F$ CH3 34' FH J') !'

?G' C$ D

C$D' <4D3 ' J$O' NHEN34E' CF$ ' Q3' QH-ED' H' HQ3O' $ED' CF$ ' Q3' $CC C $E '
E' F3' ; 3N- HE' F343H&' $ED' CF$ ' Q3' $Q 3' H' F3' C$J3' I-E CFJ3E'
&H4' G CHQ3D 3EN3' H4' &H4' E 344-1 E2' F3' ; 3N- HE' H&' F3' C$J3' $C'
&' F3' <4D34' F$D' Q33E' J$D3' -ED34' F3' - FH4 O' H&' $EO' C-NF' N '
$C' $&H43C$ D' $ED' 3 34O' I34CHE' CH' H4D343D' H' Q3' 4$EC1H4 3D' CF$ ' Q3'
C-Q(3N' H' 3 34O' I4H C HE' J$D3' QO' >$ ' $ED' E' &H4N3' NHEN34E E2'
I34CHEC' NHE N 3D' H&' $EO' @4 J3' $ED' -ED34' ?3E 3EN3' H&' *4$EC1H4 $R
HE' ' $ED' &4HJ' F3' * J3' F3E' C-NF' <4D34' H&' *4$EC1H4 $ HE' CF$ ' Q3'
J$D3' 3 34O' N 'EH ' E' &H4N3' H-NF E2' F3' ; CN$13' H&'63 HEC' CF$ '$11 O'
H' C-NF' <&&3ED34' $ED' H' $ ' I34CHEC' $ D E2' $ED' $Q3 E2' NHE 4 E2'
H4' $CC C E2' E' $EO' ; CN$13' H4' E 3ED3D' ; CN$13' H&' $EO' C-NF' <&&3ED34'
$ED' F3' 5-D23' FH' CF$ ' J$+3' $EO' <4D34' H&' *4$EC1H4 $ HE' $C'
$&H43C$ D' CF$ ' D 43N' F3' , H & N$ HE' H&' 8 C' P$(3C O C' I 3$C-43' $ED'
F C' H E' <4D34' J$D3' F343-1HE' H' Q3' & 3D' $ED' +31 ' H&' ' 3NH4D' E'
F3' <&& N3' H&' F3' @ 34+' H&' F3' @4H E' H&' F3' @H-4 'H&' % E2 C' B3ENF'
$ED' F3' C$ D' @ 34+' CF$ ' F$ 3' $' 633' H&' * H' ?F E2C' $ED' ? 13EN3'
' HE O' &H4' & E2' F3' ?$J3' $ED' CF$ ' HE' 11 N$ HE' D3 34' $' @34 & N$ 3'
E' 9 4 E2' ^EH ' $+ E2' JH43' F$E' * H' ?F E2C' $ED' ? 13EN3' &H4'
F3' C$J3_' H' C-NF' @&3ED34' H4' H' $EO' I34CHE' $11 O E2' E' F C' H4'
8 C' P$(3C O C' B3F$ &' CF3 E2' F3' @F4 C $E' $ED' ?-4E$J3' H&' C-NF'
<& &3ED34' F C' <&&3EN3' F3' I $N3' F343' F3' @H-4 ' $C' F3 D' Q3&H43'
FHJ' F3' $C' NHE N 3D' $ED' F3' @HED HEC' HE' F NF' F3' <4D34'
H&' *4$EC1H4 $ HE' $C' 2 3E ' F NF' @34 & N$ 3' CF$ ' Q3' C-&& N 3E '
I 4HH&' H&' F3' @HE N HE' $ED' ?3E 3EN3' H&' C-NF' <&&3ED34 ' $ED' $ CH'
H&' F3' *34JC' HE' F NF' C-NF' <4D34' &H4' -C' *4$EC1H4 $ HE' $C' 2 3E '
E' $EO' @H-4 ' $ED ' E' $EO' I 4HN33D E2' F343 E' ' J$O' Q3' E3N3CC$4O' H'
EX- 43' E H' F3' C$J3

*4$ C1H# ' W W ' ED' Q3' ' 3E$N 3D' *F$ ' F3E3 34' $EO' ?3E 3EN3' H&' *4$EC
#; @' ?!+@' #J(' 1H4 $ HE' F343 H&H43' H4' F343$& ' 1$CC3D' QO' $E(' @H-4 J$4 $' FH D3E'
@H H- 3C J' F3' 8 1 ' $#& !1' H4' E' $EO' I$4 ' H&' 8 C' P$(3C O C' 6H43 2E' GHJ R
E HEC' C' H' Q3' N$44 3D' E H' 3 3N- HE' H4' F3E' ?3E 3EN3' H&' G3$ F'
F$C' Q33E' H4' CF$ ' $C' $&H43C$ D' Q3' NHJ J - 3D' H' *4$EC1H4 $ HE' F3'
C$J3' CF$ ' Q3' EH & 3D' QO' F3' <&& N34' NHJ J$ED E2' E' NF 3&' 8 C'
P$(3C O C' 6H4N3C' $' F3' I 43C D3ENO' H4' ? $ HE' H4' E' F C' QC3EN3' QO'
F3' D(- $E 'M3E34$' &H4' F3' * J3' Q3 E2' H' CHJ3' (-D23' H&' <E3' H&'
F3' ?-143J3' @H-4 C' H&' 5-D N$ -43' E' F3' 8 1 ' $#& !1' #4' @F 3&'
5-C N3' H4' CHJ3' H F34' 5-D23' $C' F3' @$C3' J$O' Q3' E' $EO' I$4 'H&' 8 C'
P$(3C O C' 6H43 2E' GHJ E HEC' FH' CF$ ' J$+3' <4D34' &H4' F3' *4$ECR
1H4 $ HE' H4' E 34J3D $ 3' @-C HDO' H&' GHJ' <&&3ED34' E' +3' P$EE34'
$C' &H4' F3' *4$EC1H4 $ HE' H4' E 34J3D $ 3' @-C HDO' H&' $EO' H F34'
@HE N ' -ED34' $E' N ' 1$CC3D' E' 3' ? F' =3$4' H&' F3' ' 3 2E' H&' 8 C'
' : 9O' H' -' $ 3' P$(3C O' % E2' !, (!' F3' 6H-4 F' E - 3D' / #' / ' ' , '53# 1) #('
6 !#'!1' ', !&') '$* #15, 1' !5' ,'% 4,3 ' #')!' I ,%,# !1' #&'
4! ! ' !(3% #(')!' *,F! 1' , '?31 '!1' , ')!' *! '!' #' ,3 ' ?H- F'
9$ 3C' $ED' $E' <4D34' H&' 8 C' P$(3C O' E' @H-EN ' D$ 3D' F3' ; 3 3E F'
G$O' H&' E,0! 4! ' <E3' FH-C$ED' 3 2F 'F-ED43D' $ED' 3E O & 3' ' $ED'
F3' E3N3CC$4O' I 4HN33D E2C' CF$ ' Q3' $+3E ' $NNH4D E2' H' C-NF' <4D3 '
&H4' F3' *4$EC1H4 $ HE' H4' E 34J3D $ 3' @-C HDO' H&' C-NF' <&&3ED34'
$ED' $ ' N C' E' &H4N3' E' GHJ' I $N3' H-NF E2' H F34' <&&3ED34C' H' Q3'
$EC1H4 3D' CF$ ' E' $ '43C13N C' $11 O' $C' 3 ' H' F3' <&&3ED34' F JC3 &'
CH' H' Q3' 4$EC1H4 3D' $C' H' : ' < F34' I34CHEC' F$ CH3 34' F343 E'
NHEN34E3D

WW ' ED

WW' ED' Q3' '3E$N 3D' *F$ '$ '@4 J3C' $ED' <&&3EN3C' F NF' F$ 3' H&&3EN3C'
Q33E' NH J J 3D'2 EC '$EO' N '&H4' 1-E CF E2' P - EO' $ED' <3C34 HE' 2EC' &H4'
$ED' &H4' F3' Q3 34' I$0 J 3E ' H&' F3' 4 J O' $ED' F3 4' \-$4 34C' Y47
2 EC '$EO' H&' F3' 4 N 3C' H&' 9 $4' J $D3' $ED' 3C $Q CF3D' QO' 4 -3
H&' F3' C$ J 3' J $0' D-4 E2' F3' @HE E-$EN3' H&' F C' N 'Q3 EX-(43D' H&' F C' N'
$ED' 1-E CF3D' E' +3' P $EE34' $C' &' F30' F$D' Q33E' NH J J 3D' 2 EC'
F C' N ' $ED' 3 340' 9 44E' &H4' FH D E2' $EO' @H-4 J $4 $' -ED34'
$EO' &H4 J 34' N ' CF$ ' 43 J $ E' E' &- ' 6H4N3' EH FC $ED E2' F3'
; 1 4$ H 'H&' C-NF' / ' ' $ED' $ ' I 4HN33D E2C' H&' $EO' @H-4 J $4 $'
-1HE' $EO' *4 $ 'Q32-E' -ED34' F3' - FH4 O' H&' C-NF' &H4 J 34' N ' CF$ '
EH ' Q3' D CNHE E-3D' QO' F3' ; 1 4$ HE' H&' F3' C$ J 3' ' 14H D3D' F$'
EH' I 34CHE' CF$ ' Q3' $Q 3' H' Q3' 4 3D' $ED' 1-E CF3D' &H4' $EO' <&&3EN3'
2 EC ' $EO' H&' F3' ?$ D' N C' H4' 4 N 3C' H&' 9 $4' 9 F NF' CF$ '$113$4'
H' F$ 3' Q33E' NH J J 3D' J H43' 4$E' *F433' =3$4C' Q3&H43' F3' CC- E2'
H&' F3' @H J J CC HE' H4' 9 44E' &H4' C-NF' *4 $ ' -E 3CC' F3' I 34CHE'
$NN-C3D' QO' 43$CHE' H&' F C' F$ E2' $QC3E 3D' F J C3 &' H4' H&' CH J 3' H F34'
J $E &3C' J 13D J 3E ' CF$ ' EH ' F$ 3' Q33E' $ J 3E$Q 3' ' H' 5-C N3'
F E' F$ ' I 34 HD' E' F NF' @$C3' ?-NF' I 34CHE' CF$ ' Q3' $Q 3' H' Q3'
4 3D' $' $EO' * J 3' EH ' 3 N33D E2' * H' =3$4C' $& 34' F3' J 13D J 3E'
CF$ ' F$ 3' N3$C3D

WW ' ED' Q3' ' 3E$N 3D' *F$ ' 3 340' ?H D 34' CF$ ' Q3' $Q 3' H' ?-QC3X-3E'
Q3' 4 3D' $ED' 1-E CF3D' &H4' G3C34 HE' &4H J' $EO' @H41C' E H' F NF' F3' ;E C J3E'
J $O' F$ 3' 3E C 3D' H4' &4H J' 8 C' P $(3C O C' ?34 N3' $ FH-2F' F3' J $0
H&' 4 2F' Q3 HE2' H' F3' @H41C' &4H J' F NF' F3' CF$ ' F$ 3' H4 2 E$ O' J3E' &H4'
D3C34 3D' $ED' &' C-NF' I 34CHE' CF$ ' Q3' N $ J 3D' $C' $' G3C3 34' QO' F3' G3C34 HE'
@H41C' H' F NF' Q3' H4 2 E$ O' Q3 HE23D' $ED' Q3' 4 3D' $C' $' G3C34 34'
F343&4H J ' H4' CF$ ' Q3' 4 3D' $C' $' G3C34 34' &4H J ' $EO' H F34' @H41C' E H'
F NF' F3' J $O' F$ 3' 3E C 3D' H4' &' F3' CF$ ' Q3' 4 3D' F 3' $N -$ O'
C34 E2' E' CH J 3' @H41C' &H4' G3C34 HE' &4H J' $EO' H F34' @H41C' 3 340'
G3C34 HE' 143 H-C' H4' C-QC3X-3E' H' F$ ' &H4' F NF' F3' CF$ ' Q3' -ED34'
*4 $ ' $C' 9 3 ' $C' 3 340' 143 H-C' @HE N HE' &H4' $EO' H F34' <&&3EN3' '
J $O' Q3' 2 3E' E' ; D3EN3' $C' $E' 224$ $ HE' H&' F3' @4 J 3' &H4'
F NF' F3' CF$ ' Q3' -ED34' *4 $ ' $ED' E' +3' P $EE34' -1HE' F3' *4 $'
H&' $EO' ?H D 34' &H4' $EO' <&&3EN3' F$ 3 34' $EO' 143 H-C' @HE N HEC'
J $O' Q3' 2 3E' E' ; D3EN3' 2 EC' F J ' 14H D3D' F$ ' EH' C-NF'
; D3EN3' CF$ ' Q3' 43N3 3D' E' $EO' @$C3' -E ' $& 34' F3' @H-4 ' CF$ '
F$ 3' &H-ED' F3' I 34CHE' 2- O' $ED' F3E' HE O' &H4' F3' I -41HC3' H&'
$&& E2' I -E CF J 3E ' $ED' 14H D3D' F$ ' E' $ ' @$C3C' 143 H-C' , H N3'
CF$ ' F$ 3' Q33E' 2 3E' H' F3' <&&3ED34' H&' F3' E 3E HE' H' 14HD-N3'
C-NF' ; D3EN3' -1HE' F C' *4 $

WW ' ED' Q3' '3E$N 3D' *F$ ' ' CF$ ' Q3' $ &- ' &H4' F3' @HEC $Q 3' 113F3E'
H&' $EO' I $N3' F343' $EO' I 34CHE' 43$CHE$Q O' C-C13N 3D' H' Q3' $' G3C34 34' H&'
CF$ ' Q3' &H-ED' H4' H&' $EO' $D(H E E2' I $N3' $ED' &' EH' C-NF' @HEC $Q 3
N$E' Q3' J J 3D $ 3 O' J 3' F' F3E' &H4' $EO' <&& N34' H4' ?H D 34' E' 8 C'
P $(3C O C' ?34 N3' H' $1143F3ED' H4' N$-C3' C-NF' C-C13N 3D' I 34CHE' H'
Q3' $(X 43F3ED3D' $ED' < N$-C3' F J' H' Q3' Q4H-2F' Q3&H43' $EO' 5-C N3'
E2' E' H4' E3$4' C-NF' I $N3' $ED' $N E2' &H4' F3' C$ J 3' H4' $EO' $&& H E E2'
@H-E O' FH' F$ F' F343QO' I H 34' H' 3 $ J E3' C-NF' C-C13N 3D' I 34CHE'
$ED' &' QO' F C' @HE&3CC HE' HE' F3' *3C J HEO' H&' <E3' H4' J H43' 9 E3CC3C'
-1HE' <$ F' H4' QO' F3' %EH 3D23' H&' C-NF' 5-C N3' ' CF$ ' $113$4' F$'
C-NF' C-C13N 3D' I 34CHE' C' $' ?H D 34' $ED' H-2F' H' Q3' F' F3' @H41C
H

H F NF F3 Q3 HE2C C-NF 5-C N3 CF$ &H4 F F N$-C3 F J H Q3 NHE 3O3D 1 CH J 3 1-Q N I 4 CHE E C#NQ I $N3 H4 & F343 Q3 EH 1-Q N I 4 CHE E C-NF I $N3 F3E $ F3 G CN43 HE H& C-NF 5-C N3 H& F3 I 3$N3 H F3 E3$43C H& J HC NHE 3E 3E 1-Q N I 4 CHE E F3 C$ J 3 H4 $ E3 $D(H E E2 @H-E O H4 H F3 I 4H HC P $4CF$ E N$C3 C-NF G3C34 34 CF$ Q3 $1143F3ED3D F E F3 @ O H4 Q34 3C 23)O# H4 I $N3C $D($N3E H4 & C-NF G3C34 34 CF$ Q3 $1143R F3ED3D QO $EO I $4 O H& ?H D 34C H& F C H E '32 J 3E H4 CF$ Q3 $1143F3ED3D E F3 N E O H& F3 8 3$D \-$4 34C H4 H& $EO G31 H& F3 '32 J 3E H F NF F3 CF$ Q3 HE2 F3E C-NF 5-C N3 J $O D3 34 C-NF G3C34 34 H P F3 I $4 O H& F C '32 J 3E H4 J $O H4D34 C-NF G3R C34 34 H Q3 $+3E H F3 8 3$D \-$4 34C H4 G31 H& F3 '32 J 3E H F NF F3 CF$ Q3 HE2 EC 3$D H& NH J J E2 F J H I 4 CHE $ED C-NF 5-C N3 CF$ 4$EC J $E NNH-E F343H& E F3 6H4 J 143CN4 Q3D E F3 ?NF3D- 3 $EE3 3D H F C N H F3 ?3N43 $4O $ $4 H4 & F3 G3C34 34 Q3 $1143F3ED3D E $!% #& H F3 @F 3& ?3N43 $4O C13N &OR E2 $ F3 6HH F343H& F3 @H J J J 3E H I 4 CHE H4 G3 34O H& C-NF G3C34 34 H F3 I $4 O H& F C '32 J 3E E H4D34 &H4 F C Q3 E2 $+3E H F3 8 3$D \-$4 34C H4 G31 H H& F C '32 J 3E $C F3 @$C3 J $O Q3 H F3 3ED F$ C-NF I 34CHE J $O Q3 43 J H 3D QO $E <4D34 &4H J F3 <&& N3 H& F3 C$ D ?3N43 $4O $ 9 $4 H4 @F 3& ?3N43 $4O E $!% #& $ED 14HR N33D3D 2 EC $NNH4D E2 H G $ $ED C-@F 5-C N3 CF$ $ CH C3ED H F3 ?3N43 $4O $ 9 $4 $ '31H4 C $ E2 F3 , $ J 3C H& F3 I 34CHEC QO FH J F3 G3C34 34 $C $1143F3ED3D $ED C3N-43D $ED F3 ?3N43 $4O $ 9 $4 CF$ 4$EC J H C-NF 5-C N3 $E <4D34 &H4 F3 I $O J 3E H C-NF I 34CHEC H& C-NF ?-4$ EH 3 N33D E2 6H4 O ?Q # J 2C $C F3 ?3N43 $4O $ 9 $4 CF$ Q3 C$ C& 3D F3O $43 3E 3D H $NNH4D E2 H F3 4-3 E 3E $ED P 3$E E2 H& F C N : I 4H D3D $ CH F$ EH 633 H4 '3 $4D CF$ Q3 $+3E QO $EO 5-C N3 H4 F C @ 34+ E 43C13N H& $EO E&H4 J $ HE @H J J J 3E H4 '31H4 $C $&H43C$ D

64$-D- 3E @HE&3CC HE H& G3C34 HE — WW ED Q3 3-$N 3D *F$ $EO I 34CHE FH CF$ H -E $4 O D3 34 F J C3 & -1 $C $ G3C34 34 &4H J 8 C P $(3C O $ 6H4N3C H4 F3 3 J QHD 3D P $ H4 F3 6H4N3C H& F3 Z $#& @H J 1$EO H4 FH -1HE Q3 E2 $1143F3ED3D &H4 $EO <&&3EN3 CF$ E F3 I 43C3EN3 H& F3 5-C N3 NHE&3CC F J C3 & H Q3 $ G3C34 34 $C $&H43C$ D CF$ Q3 D33 J 3D H F$ 3 Q33E D- O 3E C 3D $ED H Q3 $?H D 34 $ED CF$ Q3 $Q 3 H C34 3 E $EO H& 8 C P $(3C O C 6H4N3C $C 8 C P $(3C O CF$ F E+ & H $11H E F3 F34 C-NF I 34CHE CF$ F$ 3 Q34E 3 34 $N -$ O 3E C 3D $C $?H D 34 H4 EH H4 CF$ F3 $Q 3 H Q3 1-E CF3D $C $ 'H2-3 $ED 2QHED H4 J $O Q3 14HC3N- 3D $ED 1-E CF3D &H4 HQ $ E E2 P HE3O -DD34 &$ C3 I 43 3EN3C $ED F3 @HE&3CC HE $ED 43N3 E2 ?-QC C 3EN3 $C $?H D 34 QO C-NF I 34CHE CF$ Q3 ; D3EN3 H& F3 &$ C3 I 43 3EN3 $ED HQ $ E E2 P HE3O $ED & F3 I 34CHE CH NHE&3CC E2 F J C3 & H Q3 $ G3C34 34 CF$ Q3 C34 E2 $ F3 * J 3 E $EO H& 8 C P $(3C O C 6N4N3C F3 CF$ Q3 D33 J 3D H Q3 $ED CF$ Q3 D3$ F $C $ G3C34 34

I 3E$ O &H4 ED-N E2 14 $CC C E2 H D3C34 — WW ED Q3 3E$N 3D *F$ 3 34O I 34CHE FH CF$ E $EO I $4 H& 8 C P $(3C O C GH J E HEC D 43N O H4 ED 43N O 134C-$D3 $EO ?H D 34 H D3C34 CE$ C-&&34 C-NF I -E CF J 3E QO 6 E3 H4 J 14 CHER J 3E H4 QH F $C F3 @H-4 Q3&H43 F NF F3 @HE N HE J $O $+3 1 $N3 CF$ $D(-D23 $ED 3 34O I 34CHE FH CF$ $CC C $EO G3C34 34

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+EH E2ʻ F Jʻ Hʻ Q3ʻ C-NFʻ Eʻ D3C34 E2ʻ H4ʻ Eʻ NHEN3$ E2 ʻF 4$ 3&ʻ CF$ ʻ &H4&3 ʻ&H4ʻ 3 340ʻ C-NFʻ <&&3EN3ʻ F3ʻ ?-Jʻ H&ʻ * 3E Oʻ IH-EDCʻ

ʻ EDʻ Q3ʻ ʻ3E$N 3Dʻ *F$ʻ 3 340ʻ @H J J CC HE3Dʻ <&& N34ʻ L J+ʻ I3E$ Oʻ?+!ʻ CF$ ʻ FH-ʻ 9 44E ʻ&4H Jʻ <E3ʻ H4ʻ J H43ʻ H&ʻ 8 Cʻ P $(3C O Cʻ 5-C N3Cʻ &H4N Q Oʻ 3E 34ʻ E Hʻ H4ʻ Q43$+ʻ H13Eʻ F3ʻ G 3 E2ʻ 8 H-C3ʻ H4ʻ <- FH-C3C H&ʻ $EOʻ I 34CHEʻ FH J CH3 34ʻ-ED34ʻ I 43 3EN3ʻ H&ʻ C3$4NF E2ʻ&H4ʻ G3C34 34Cʻ CF$ ʻ-1HEʻ D-3ʻ I 4HH&ʻ F343H&ʻ&H4&3 ʻ F3ʻ ?-Jʻ H&ʻ * 3E Oʻ IH-EDC

WW ʻ EDʻ Q3ʻ ʻ 3E$N 3Dʻ *F$ʻ 3 340ʻ M$H 34ʻ $EDʻ %33134ʻ H&ʻ -C HDOH&ʻ $EOʻ I 4 CHEʻ H4ʻ 8 H-C3ʻ H&ʻ @H443N HEʻ Eʻ 3 340ʻ I $4ʻ H&ʻ 8 Cʻ P $(3C O Cʻ GH J E HECʻ CF$ ʻ-1HEʻ F3ʻ <4D34ʻ Eʻ 9 4 E2ʻ H&ʻ $EOʻ @H J J $ED E2ʻ <&& N34ʻ H&ʻ $ʻ G C 4 N ʻ M$44 CHEʻ ʻ 32 J 3E ʻ H4ʻ @H41Cʻ ^$Cʻ F3ʻ @$C3ʻ J $Oʻ 3kN3ʻ Q3 _ʻ43N3 3ʻ E Hʻ F Cʻ @-C HDOʻ $EOʻ ?H D 34ʻ -ED34ʻ ?3E 3EN3ʻ H&ʻ J 14 CH"7 J 3E ʻ QOʻ $ʻ M3E34$ʻ H4ʻ H F34ʻ @H-4 J $4 $ ʻ $EDʻ +331ʻ F Jʻ Eʻ $ʻ 14H134ʻ I $N3ʻ H&ʻ @HE& E3 J 3E ʻ Fʻ H4ʻ FH-ʻF$4Dʻ >$QH-4ʻ $NNH4D E2ʻ Hʻ F3ʻ ?3E 3EN3ʻ H&ʻ F3ʻ @H-4 ʻ $EDʻ D-4 E2ʻ F3ʻ * J 3ʻ C13N & 3Dʻ Eʻ F3ʻ C$ Dʻ <4D34ʻ <4 -E ʻ F3ʻ Q3ʻ D CNF$423Dʻ H4ʻ CF$ ʻ $ FH-2Fʻ F3ʻ I 34 HDʻ &H4ʻ F NFʻ F3ʻ ?H D 34ʻ $Cʻ H4 2 E$ Oʻ NH J J 3Dʻ J $Oʻ EH ʻ F$ 3ʻ 3 1 43Dʻ D3 34ʻ F Jʻ -1ʻ Hʻ $EOʻ I 34CHEʻ 14HD-N E2ʻ $Eʻ <4D34ʻ Eʻ 9 4 E2ʻ Hʻ F$ʻ ;&&3N ʻ &4H Jʻ $EOʻ C-NFʻ @H J J $ED E2ʻ <&& N34ʻ $Cʻ $&H43C$ Dʻ $EDʻ 3 340ʻ C-NFʻ M$H 34ʻ FHʻ CF$ ʻ 43&-C3ʻ Hʻ 43N3 3ʻ $EDʻ Hʻ NHE& E3ʻ $EOʻ C-NFʻ , HER NH J J CC HE3Dʻ <&& N34ʻ H4ʻ ?H D 34ʻ Eʻ J $EE34ʻ $Cʻ $&H43C$ Dʻ CF$ ʻ &H4&3 ʻ &H4ʻ 3 340ʻ C-NFʻ <&&3EN3ʻ F3ʻ ?-Jʻ H&ʻ <E3ʻ F-ED43Dʻ IH-EDC

WW ʻ EDʻ Q3ʻ ʻ3E$N 3Dʻ *F$ʻ F3ʻ M$H 34ʻ H4ʻ I 34CHEʻ F$ E2ʻ F3ʻ @-C HDOʻ H&ʻ J J 3D $ 3ʻ EC13N HEʻ H&ʻ $EOʻ I 4 CHEʻ M $H ʻ H4ʻ 8 H-C3ʻ H&ʻ @H443N HEʻ G3C34 34Cʻ Eʻ 3 340ʻ I $4ʻ H&ʻ 8 Cʻ P $(3C O Cʻ GH J E HECʻ CF$ ʻ D 3ʻ $EDʻ C-11 Oʻ 3 340ʻ ?H D 34ʻ Fʻ 6-3ʻ $EDʻ H F34ʻ , 3N3CC$4 3Cʻ $NNH4D E2ʻ Hʻ F3ʻ ʻ 32- $ HEC H&ʻ F3ʻ I 4 CHEʻ Hʻ F NFʻ F3ʻ CF$ ʻ Q3ʻ NH J J 3Dʻ $EDʻ CF$ ʻ 43N3 3ʻ HFʻ $NNH-Eʻ H&ʻ 3 340ʻ ?H D 34ʻ D-4 E2ʻ F3ʻ I 34 HDʻ H&ʻ F Cʻ J 14 CHE J 3E ? 13EN3ʻ 5! ʻ 2 ! ʻ F NFʻ F3ʻ ?3343 $ Oʻ $ʻ 9 $4ʻ CF$ ʻ N$-C3ʻ Hʻ Q3ʻ CC-3Dʻ H-ʻ H&ʻ F3ʻ ?-QC C 3EN3ʻ H&ʻ C-NFʻ ?H D 34ʻ -1HEʻ 11 N$ HEʻ Eʻ 9 4 E2ʻ C 2E3Dʻ QOʻ $EOʻ 5-C N3ʻ F Eʻ FHC3ʻ 5-4 CD N HEʻ C-NFʻ I $N3ʻ H&ʻ @HE& E3 J 3Eʻ CF$ ʻ Q3ʻ HN$ Oʻ C -$ 3Dʻ H23 F34ʻ Fʻ $ʻ @H1Oʻ H&ʻ F3ʻ <4D34ʻ H&ʻ @H J J J 3E ʻ $EDʻ F NFʻ ?-Jʻ H&ʻ ? 13EN3ʻ 5! ʻ 2 !)1+/ʻ Q3ʻ N$44 3Dʻ Hʻ F3ʻ @43D ʻ H&ʻ F3ʻ 6-EDʻ &4H Jʻ F NFʻ F3ʻ ; 13EN3ʻ H&ʻ C-NFʻ I 4 CHEʻ H4ʻ 8 H-C3ʻ H&ʻ @H443N HEʻ Cʻ D& &4$03Dʻ $EDʻ C-NFʻ M$H 34ʻ Cʻ F343QOʻ 43X- 43Dʻ Hʻ 43N3 3ʻ $EDʻNHE& E3ʻ 3 340ʻ G3C34 34ʻ FHʻ CF$ ʻ Q3ʻ D3 343Dʻ E Hʻ F Cʻ @-C HDOʻ QOʻ $EOʻ ?H D 34ʻ NHE 30 E2ʻ C-NFʻ G3C34 34ʻ -ED34ʻ $ &-ʻ - FH4 Oʻ HEʻ I 4HD-N HEʻ H&ʻ F3ʻ 9 44E ʻ H&ʻ F3ʻ 5-C N3ʻ H&ʻ F3ʻ I 3$N3ʻ HEʻ F NFʻ C-NFʻ G3C34 34ʻ CF$ ʻ F$ 3ʻ Q33Eʻ $+3E ʻ H4ʻ CH J 3ʻ <4D34ʻ &4H Jʻ F3ʻ <&& N3ʻ H&ʻ F3ʻ ?3N43 $40ʻ $ ʻ 9 $4ʻ H4ʻ @F 3&ʻ MH 34EH4ʻ H4ʻ MH 34EH4Cʻ , ʻ$!% #&=ʻ $EDʻ C-NFʻ M$H 34ʻ CF$ ʻ Q3ʻ 3E 3Dʻ Hʻ <E3ʻ ?F E2ʻ &H4ʻ F3ʻ C$&3ʻ @-C HDOʻ H&ʻ F3ʻ C$ Dʻ G3C34 34ʻ F 3ʻ F$ 3Dʻ HEʻ F3ʻ P $4NFʻ $EDʻ Hʻ C-NFʻ ?-QC C 3EN3ʻ &H4ʻ F Cʻ P $ E 3E$EN3ʻ $Cʻ CF$ ʻ Q3ʻ D 43N 3Dʻ QOʻ 8 Cʻ P $(3C O Cʻ ʻ 32- $ HECʻ

WW ʻ EDʻ Q3ʻ ʻ3E$N 3Dʻ *F$ʻ 3 340ʻ M$H 34ʻ Hʻ FH Jʻ $EOʻ , H N3ʻ H&ʻ , H N3ʻ CF$Dʻ F$ 3ʻ Q33Eʻ 2 3Eʻ F$ʻ $EOʻ I 34CHEʻ Eʻ F Cʻ @-C HDOʻ &H4ʻ $EOʻ b 1 4$ Hʻ H&ʻ <& &3EN3ʻ Cʻ $ʻ ?H D 34ʻ $Q 3ʻ Hʻ C34 3ʻ 8 Cʻ P 3C Oʻ HEʻ F3ʻ ; 1 4$ HEʻ H& F Cʻ J 14 CHE J 3E ʻ CF$ ʻ 2 3ʻ <E3ʻ PHE F Cʻ , H N3ʻ H&ʻ F3ʻ I 34 HDʻ H&ʻ C-NFʻ ; 1 4$ HEʻ H&ʻ J 14 CHE J 3E ʻ H4ʻ &ʻ F343ʻ CF$ ʻ EH ʻ Q3ʻ C-&& N 3Eʻ

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* J3' &H4' $' PHE FC' ,F X3' F3E' F3' HE23C ' 14$N N$Q3' ,H N3' F343H&' H' &3' ?3N43 $40' $' 9$4' H4' &' E' $!% #&' H' F3' @F 3&' ?3N43 $40

I34CHEC' C-Q' 53N' H' FC' N

WW W ' ED' Q3' ' 3E$N 3D' *F$' 4D' F3' I4H CHEC' H&' FC' N' CF$ ' $11 O' H' $ ' I34CHEC' 3J1 HO3D' HE' F3' '3N4- E2' ?34 N3' 43N3 E2' I$O' E' 43C13N' H&' C-NF' ?34 N3' $ED' H' F3' 6H4N3C' H&' F3' 8 1'$#& '@HJ1$EO' F 3' F3O' CF$ ' Q3' E' $EO' I$4' H&' F3' #E 3D' % E2DHJ'$4D' -E ' F3 4' 44 $' E' F3' *344 H4 3C' H&' +3' 8 1'$#& ' @HJ1$EO' $ED' H' F3' <& (N34C' $ED' I34CHEC' EH 'H4' F343$& 34' C34 E2' $ED' F 43D' H' Q3' 3J1 HO3D' E' F3' 'HO$' 4 34O' $ED' 6 3 D' *4$ E' $ED' P$C 34' M-EE34C' $ED' M-EE34C' $ED' @HED-N H4C' H&' ? H43C' $ED' E' F3' '32 J3E' H&' 'HO$' ;E2 E334C' $ED' F3' @H41C' H&' 'HO$' ?$1134C' $ED' P E34C' $ED' E' F3' @H41C' H&' 'HO$' P $40' ?-4 3OH4C' $ED' G4$& CJ3E' E' F3' <4DE$EN3' $ED' E' F3' @HJJ CC$4 $' G31$4 J3E C' $ED' FH' $43' H4' C $ 'Q3' C34 E2' F' $EO' I$4' H&' 8 C' PJ3C O C' 6H4N3C' $' 8HJ3' H4' Q4H$D' -ED34' F3' @HJJ$ED' H&' $EO' # %334' F$ E2' @HJJ CC HE' &4HJ' 8 C' P$(3C O' $ED' $' ? H43+33134C' $ED' H F34' @ -' <&& N34C' FH' $43' H4' CF$ ' Q3' 3J1 HO3D' QO' H4' $N' -ED34' F3' <4DE$EN3' $'$EO' H&' 8 C' P$(3C O C' <4DE$EN3' ;C $Q CFJ3E C' $'6H43 2E' ? $ HEC' 14H D3D' F$' EH F E2' E' FC' N' NHE $ E3D' CF$ ' 3 3ED' H' $&&3N' $EO' ?3N-4 O' F NF' F$C' Q33E' 2 3E' QO' C-NF' ? H43+33134' B44N+' P$C 34' H4' H F34' <&& N34' H4' F3 4' ?-43 3C' &H4' F3' D-3' I34&H4J$EN3' H&' F3 4' 43C13N 3' <&& N3C' #ED34' F3' I4H CHEC' H&' $F' N' 1$CC3D' E' F3' 6 & 3 F' =3$4' H&' F3' '3 2E' H&' 8 C' $ 3' P$(3C O' H' 432- $ 3' F3' $+ E2' H&' ?3N-4 3C' E' $ ' <&& N3C' Q- ' F$' C-NF' BHEDC' $ED' H F34' ?3N-4 3C' CF$ ' Q3' $ED' 43J$ E' E' &- ' 6H4N3' $ED' ;&&3N

6H43 2E' *4HH1C' E' FC' @H-E 40'

WWW ' ED' Q3' ' 3E$N 3D' *F$' $ ' <&& N34C' $ED' ? DD 34C' H&' $EO *4HH1C' Q3 E2' J-C 343D' $ED' E' I$O' F NF' CF$ ' Q3' 4$ C3D' $ED' C34 E2' J' $EO' H&' 8 C' P$(3C O C' GHJ E HEC' Q4H$D' H4' E' I $N3C' E' IHCC3CC HE' H&' H4' HNN-1 3D' QO' 8 C' P$(3C O C' ?-Q(3N C' -ED34' F3' @HJJ$ED' H&' $EO' <&& N34' F$ E2' $EO' @HJJ CC HE' JJ3D $ 3 O' &4HJ' 8 C' P$(3C O' CF$ ' Q3' $Q 3' F' P$4 $' >$ ' E' +3' P$EE34' $C' 8 C' P$(3C O C' H F34' 6H4N3C' $43 ' $ED' &' C-NF' <&& N34C' $-'' ?H D 34C' F$ E2' Q33E' J$D3' I4 CHE34C' Q3' C3E' E H' 8#(% #&' H4' $!% #&' $ FH-2F' EH' $ H 3D' H' C34 3' F343 E' $ ' F3' I4H CHEC' H&' FC' N' E' 432$4D' H' Q 3 E2' ?H D 34C' CF$ ' $11 O' H' C-NF' <&& N34C' $ED' ?H D 34C

P $$ED' =3HJ$E40'

WWW ' ED' Q3' ' 3E$N 3D' *F$' EH F E2' E' FC' N' NHE $ E3D' CF$ ' E' $EO C3' Q3' NHEC 4-3D' H' 3 3ED' H' $EO' H&' F3' P $' 6H4N3C' H4' =3HJ$E40' H4' H -E 334' @H41C' E' ! '" #' ,J' $!% #&' 3 N31 R E2' HE O' E' C-NF' @$C3C'' F343 E' QO' $EO' N' H4' N C' &H4' 432- $ E2' $EO' H&' F3' C$ D' 6H4N3C' H4' @H41C' F3' I4H CHEC' NHE $ E3D' E' $EO' N' &H4' 1-E CF E2' P- EO' $ED' G3C34 HE' CF$ ' Q3' C13N & N$ O' J$D3' $11 N$Q 3' H' F3' C$ D' @H41C

> J $ HEC' $C' H' N34 $ E' C $EDC'

WWW ' ED' Q3' ' 3E$N 3D' *F$' FC' N' CF$ ' Q3' NHEC 4-3D' H' 3 3ED' H' F3' C $EDC' H&' ?! 1! ' 3! #1! '/%&! #! '+ '$ED' #' $ED' F3' C $EDC' F343 H' Q3 HE2 E2' $C' H' F3' I4H CHEC' F343 E' &H4' J-C 34 E2' $ED' 1$O E2' $ED' H' F3' I4H CHEC' &H4' F3' *4 $'$ED' I-E CFR J3E' H&' <EN34C' $ED' ?H D 34C' FH' CF$ ' Q3' NF$423D' F' P- EO' $ED' G3C34 HE' H4' $EO' H F34' H&' F3' <&&3EN3C' F NF' $43' QO' FC' N

' D' ' D3N $43D

D3N $43Dʻ Hʻ Q3ʻ 1-E CF$Q 3ʻ QOʻ F3ʻ ?3E 3EN3ʻ H&ʻ $ʻ M3E34$ ʻ H4ʻ M$44 CHE ʻ
H4ʻ G3 $NF J 3E ʻ H4ʻ ʻ 32 J 3E $ʻ @H-4 J $4 $ ʻ $EDʻ $ CHʻ Hʻ F3ʻ I 4HR
C HECʻ F NFʻ 43 $ 3ʻ Hʻ F3ʻ I -E CF J 3E ʻ H&ʻ I 34CHECʻ FHʻ CF$ ʻ NHEN3$ʻ
G3C34 34C ʻ H4ʻ CF$ ʻ +EH J Oʻ Q-O ʻ 3 NF$E23 ʻ H4ʻ H F34 C3ʻ 43N3 3ʻ $EOʻ
4 J Cʻ @ H F3C ʻ P $40ʻ 6-4E -43 ʻ H4ʻ ʻ 32 J 3E $ʻ , 3N3CC$4 3Cʻ &4H J ʻ
$EOʻ ?H D 34ʻ H4ʻ G3C34 34 ʻ H4ʻ FHʻ CF$ ʻ N$-C3ʻ F3ʻ @H H-4ʻ H&ʻ $EOʻ C-NFʻ
@ H F3Cʻ Hʻ Q3ʻ NF$E23D

WWW ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ 8 $ ʻ 3 340ʻ I 34CHE ʻ FHʻ CF$ ʻ 43N3 3ʻ ;E C E2ʻ $EDʻ
6E C E2ʻ 8 HE3Oʻ &4H J ʻ $EOʻ I 34CHEʻ 3 J 1 HO3Dʻ Eʻ F3ʻ ʻ 3N4- E2ʻ ?34
N3 ʻ F3ʻ Q3 E2ʻ $Eʻ <&& N34 ʻ , HE NH J J CC HE3Dʻ <&& N34 ʻ H4ʻ $Eʻ $ 3C 3Dʻ
?H D 34 ʻ CF$ ʻ Q3ʻ D33 J 3Dʻ Hʻ Q3ʻ 3E C 3Dʻ $Cʻ $ʻ ?H D 34ʻ Eʻ 8 Cʻ 8 3C O Cʻ
?34 N3 ʻ $EDʻ F 3ʻ F3ʻ CF$ ʻ 43 J $ Eʻ Fʻ F3ʻ ʻ 3N4- E2ʻ I $4 Oʻ CF$ ʻ Q3ʻ
3E 3Dʻ Hʻ Q3ʻ Q 3 3D ʻ $EDʻ 3 340ʻ I 34CHEʻ FHʻ CF$ ʻ 3E C ʻ $EOʻ
ʻ 3N4- ʻ CF$ ʻ & 4C ʻ $C+ʻ F3ʻ I 34CHEʻ H&&34 E2ʻ Hʻ 3E C ʻ F3 F34ʻ F3ʻ DH3Cʻ ʻ
H4ʻ DH3Cʻ EH ʻ Q3 HE2ʻ Hʻ F3ʻ P $ ʻ $EDʻ CF$ ʻ N$-C3ʻ Hʻ Q3ʻ $+3Eʻ DH Eʻ
Eʻ 9 4 E2 ʻ F3ʻ , $ J 3ʻ $EDʻ I $N3ʻ QHD3ʻ H&ʻ C-NFʻ ʻ 3N4- ʻ($EDʻ
F3Eʻ $EOʻ I 34CHEʻ CF$ ʻ F3ʻ 3E C 3Dʻ $Cʻ $ʻ ?H D 34ʻ Eʻ 8 ʻ P (23C O Cʻ 8 $EDʻ
?34 N3 ʻ F3ʻ CF$ ʻ F Eʻ 6H-4ʻ G$OC ʻ Q- ʻ EH ʻ CHHE34ʻ F$Eʻ * O &H-4ʻ
8 H-4Cʻ $& 34ʻ C-NFʻ ;E C E2 ʻ $113$4 ʻ H23 F34ʻ Fʻ CH J 3ʻ I 34CHEʻ 3 J R
1 HO3Dʻ E F3ʻ ʻ 3N4- E2ʻ ?34 N3ʻ H&ʻ F3ʻ I $4 Oʻ Fʻ F NFʻ F3ʻ CF$ ʻ
F$ 3ʻ 3E C 3D ʻ Q3&H43ʻ $ʻ 5-C N3ʻ 43C D E2ʻ Eʻ F3ʻ N E Oʻ H&ʻ F3ʻ I $N3 ʻ
$EDʻ $N E2ʻ &H4ʻ F3ʻ G 4 C HEʻ H4ʻ G C 4 N ʻ F343ʻ C-NFʻ ʻ 3N4- ʻ CF$ ʻ F$ 3ʻ
Q33Eʻ 3E C 3D ʻ $EDʻ EH ʻ Q3 E2ʻ $Eʻ <&& N34ʻ Eʻ F3ʻ 4 J O ʻ $EDʻ &ʻ
C-NFʻ ʻ 3N4- ʻ CF$ ʻ D3N $43ʻ F Cʻ F$ E2ʻ H -E $4 Oʻ 3E C 3D ʻ F3ʻ C$ Dʻ
5-C N3ʻ CF$ ʻ 1- ʻ Hʻ F J ʻ F3ʻ C3 34$ ʻ \ -3C HECʻ NHE $ E3Dʻ Eʻ F3ʻ
?NF3D- 3ʻ Hʻ F Cʻ N ʻ $EE3 3D ʻ $EDʻ CF$ ʻ 43N34Dʻ H4ʻ N$-C3ʻ Hʻ ʻ Q3 ʻ
43NH4D3D ʻ Eʻ 9 4 E2 ʻ F Cʻ EC 34Cʻ F343-E Hʻ ! $EDʻ F3ʻ C$ Dʻ 5-C N3ʻ ʻ
Cʻ F343QOʻ 43X- 43Dʻ &H4 F Fʻ Hʻ N$-C3ʻ F3ʻ EC 34Cʻ CHʻ 43NH4D3Dʻ Eʻ
9 4 E2 ʻ $EDʻ F3ʻ 6 4C ʻ $ED ʻ ?3NHEDʻ 4 N 3Cʻ H&ʻ F3ʻ ?3NHEDʻ ?3N HEʻ H&ʻ
F3ʻ 4 N 3Cʻ H&ʻ 9 $4ʻ 2 EC ʻ P - EOʻ $EDʻ G3C34 HEʻ Hʻ Q3ʻ 43$Dʻ H 34 ʻ
Eʻ F Cʻ < Eʻ I 43C3EN3 ʻ Hʻ C-NFʻ ʻ 3N4- ʻ $EDʻ Hʻ $D J E C 34ʻ Hʻ C-NFʻ
ʻ 3N4- ʻ F3ʻ <$ Fʻ Eʻ F3ʻ ?NF3D- 3ʻ Hʻ F Cʻ N ʻ $EE3 3D ʻ &H4ʻ J 3Dʻ H4ʻ
-E J 3Dʻ ?34 N3 ʻ H4ʻ &H4ʻ ?34 N3ʻ Eʻ F3ʻ 6H4N3Cʻ H&ʻ M ʻ $#& ʻ
@H J 1$EO ʻ $Cʻ J $Oʻ Q3ʻ $11 N$Q 3ʻ Hʻ F3ʻ @$C3ʻ H&ʻ F3ʻ ʻ 3N4- ʻ $EDʻ EHʻ
H F34ʻ <$ FC ʻ $ ʻ F E2ʻ Eʻ $EOʻ N Cʻ Hʻ F3ʻ NHE 4$40ʻ EH FC $ED E2 ʻ
$EDʻ F3ʻ C$ Dʻ 5-C N3ʻ Cʻ F343QOʻ 43X- 43Dʻ Hʻ 2 3 ʻ -ED34ʻ F Cʻ 8 $ED ʻ
F3ʻ @34 & N$ 3ʻ Eʻ F3ʻ ?NF3D- 3ʻ Hʻ F Cʻ N ʻ $EE3 3Dʻ (ʻ $EDʻ &ʻ $EOʻ
C-NFʻ ʻ 3N4- ʻ CHʻ Hʻ Q3ʻ N34 & 3Dʻ CF$ ʻ 43&-C3ʻ Hʻ $+3ʻ F3ʻ <$ Fʻ Eʻ F3ʻ
?NF3D- 3ʻ Hʻ F Cʻ N ʻ $EE3 3D ʻ Q3&H43ʻ F3ʻ C$ Dʻ 5-C N3 ʻ ʻ CF$ ʻ Q3ʻ
$ &- ʻ &H4ʻ F3 ʻ <&& N34ʻ H4ʻ , HE NH J J CC HE3Dʻ Fʻ FH J ʻ F3ʻ J C 3Dʻ
Hʻ D3 $ Eʻ $EDʻ NHE& E3ʻ C-NFʻ I 34CHEʻ -E ʻ F3ʻ CF$ ʻ $+3ʻ F3ʻ C$ Dʻ <$ Fʻ H&ʻ
6 DD O ʻ ʻ

WWW ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ * F$ ʻ $EOʻ ʻ 3N4- ʻ $113$4 E2ʻ $Cʻ $&H43 ʻ G CC3E ʻ $EDʻ
C$ Dʻ Q3&H43ʻ C-NFʻ 5-C N3ʻ CF$ ʻ Q3ʻ $ ʻ Q34 Oʻ Hʻ D3N $43ʻ F Cʻ G CC3E ʻ &4Hbʻ
Hʻ C-NFʻ ;E C E2 ʻ $EDʻ -1HEʻ C-NFʻ G3N 4 HE ʻ $EDʻ 43 -4E E2ʻ F3ʻ DJ P3E ʻ
;E C E2ʻ P HE3O ʻ $EDʻ $ CHʻ 1$O E2ʻ F3ʻ ?- J ʻ H&ʻ * 3E Oʻ ?F E2Cʻ &H4
F3ʻ @F$423Cʻ 3 13ED3Dʻ -1HEʻ F J ʻ H23 F34ʻ Fʻ F3ʻ &- ʻ J H-E ʻ H&ʻ
?-QC C 3EN3ʻ $EDʻ B334ʻ P HE3Oʻ F NFʻ CF$ ʻ F$ 3ʻ Q33Eʻ 1$ Dʻ Hʻ C-NFʻ
ʻ 3N4- ʻ C-QC3X-3E ʻ Hʻ F3ʻ I 34 HDʻ H&ʻ F Cʻ F$ E2ʻ Q33Eʻ 3E C 3D ʻ CF$ ʻ
Q3ʻ &H4 F Fʻ D CNF$ 23Dʻ $EDʻ C3 ʻ $ ʻ Q34 Oʻ Eʻ F3ʻ I 43C3EN3ʻ H&ʻ C-NFʻ
5-C N3 ʻ Q- ʻ &ʻ C-NFʻ I 34CHEʻ &H$ ʻ 43&HC3ʻ H4ʻ E32 3N ʻ F Eʻ F3ʻ ?1$N3

U[4 ' M#> %> P ' ' @$1 U$

1&' * 34 O &HN 4' 8 H-4C' $ & 34' CH' D3N $4 E2' F C' G CC3E ' H' 43 -4E' C-NF'
P HE3(' $C' $&H43C$ D ' F3' CF$ ' Q3' D33 J 3D' $ED' $+3E' H' Q3' 3E C 3D' $C' &'
F3' F$D' 2 3E' F C' CC3E ' F343 H' Q3&H43' F3' C$ D' 5 - C N3' : I 4H D3D' $ CH '
F$ ' ' CF$ ' Q3' $ & - ' &H4' $EO' 5 - C N3' H' D CNF$423' $EO' I 34CHE' FH'
CF$ ' F$ 3' F$C O' 3E C 3D ' $ED' FH' CF$ ' $11 O' H' F J ' 1' D3N $43' F C'
G CC3E ' F E' C - NF' 6H - 4' G$OC' $C' $&H43C$ D ' - 1HE' I $O J 3E ' H &' F3'
? - J ' H &' P HE3O' 43X - 43D' H' Q3' 1$ D' QO' $EO' ' 3N4 - ' D3N $4 E2' F ?
G CC3E ' - ED34' F C' N ' EH FC $ED E2' EH' I 34CHE' Q3 HE2 E2' H' F3'
' ' 3N4 - E2' I $4 O' CF$ ' Q3' F' F3' ' 3N4 - ' &' ' CF$ ' $113$4' H' C - NF'
5HC @&3' - 1HE' I 4HH&' H' F C' ?$ C&$N HE ' F$ ' F3' ' 3N4 - E2' I $4 O' F$C'
3& ' F3' I $N3' F343' C - NF' ' 3N4 - ' $C' 3E C 3D ' H4' F$ ' F3' ' 3N4 - '
NH - D' EH ' 14HN - 43' $EO' I 34CHE' Q3 HE2 E2' H' C - NF' I $4 O' H' 2H' F'
F J ' Q3&H43' F3' 5 - C N3 ' $ED' F3' ? - J ' 1$ D' QO' C - NF' ' 3N4 - ' - 1HE' F C'
G CNF$423' CF$ ' Q3' +31 ' QO' F3' 5 - C N3 ' $ED' 1$ D' H' $EO' I 34CHE'
Q3 HE2 E2' H' F3' ' 3N4 - E2' I $4 O' 3E 3D' F343 H' D3 J $ED E2' F3'
' C$ J 3 ' 14H D3D' F$ ' EH' ' 3N4 - ' FH' F$C' Q33E' $N - $ O ' FH - 2F' 344H '
E3H - C O ' D CNF$423D' QO' F3' 5 - C N3' Q3&H43' F3' ; 1 4$ HE' H &' * 34 O '
&H - 4' 8 H - 4C' $& 34' F3' * J 3' H &' F C' ; E C J 3E ' CF$ ' Q3' $Q 3' HE' F$ '
NNH - E ' H' Q3' 14HN33D3D' 2 EC ' $C' F$ E2' D3C34 3D' &4H J ' 8 C'
P $(3C O C' ?34 N3 ' $ED' F3' 5 - C N3' FH' CF$ ' D CNF$423' $EO' ' 3N4 - '
CF$ ' E' 3 34O' @$C3' 2 3' $' @34 & N$ 3' F343H& ' C 2E3D' F' F C' 8$ED '
H' F3' ' 3N4 - ' C13N &O E2' F3' @$ - C3' F343H&

<&&3433C' NHER E3N 3D' F' 5?E C J3E

WWW ' ED' Q3' ' 3E$N 3D ' * F$ ' &' $EO' ' 3N4 - ' CF$ ' 43N3 3' F3'
; E C E2' P HE3O' &4H J ' $EO' I 34CHE' 3 J 1 HO3D' E' F3' ' 3N4 - E2' ?34 N3'
^+EH E2' ' H' Q3' C - NF_ ' $ED' CF$ ' $QCNHED' H4' 43& - C3' < 2H' Q3&H43'
C - NF' 5 - C N3 ' <4 CF$ ' F343$& 34' $QC3E ' F J C3 &' &4H J ' F3' ' 3N4 - E2'
I $4 O' H4' I 34CHE' F' FH J ' F3' 3E C 3D ' $ED' CF$ ' EH ' H - E $4 O' '
43 - 4E' H' 2H' Q3&H43' CH J 3' 5 - C N3' F E' C - NF' I 34 HD' H &' 6H - 4' G$OC'
$&H43C$ D ' C - NF' ' 3N4 - ' ?F$ ' Q3' D33 J 3D' H' Q3' 3E C 3D' $ED' $' ?H D 34'
E' 8 C' P $(3C O C' ?34 N3 ' $C' & - O' H' $ ' E 3E C' $ED' I - 41HC3C' $C' &'
F3' F$D' Q33E' D - O' $ 3C 3D ' $ED' J $O' Q3' $1143F3ED3D' $ED' 1 - E CF3D' $C'
$' G3C34 34 ' H4' &H4' Q3 E2' $QC3E ' FH - ' >3$ 3 ' - ED34' $EO' 4 N 3C'
H &' 9 $4' J $D3' &H4' I - E CF J 3E ' H &' P - EO' $ED' G3C34 HE ' $ED' C - NF'
' 3N4 - ' CF$ ' EH ' Q3' D CNF$423D' QO' $EO' 5 - C N3' H &' F3' I 3$N3' $& 34'
F3' ; 1 4$ HE' H &' C - NF' 6H - 4' G$OC' $C' $&H43C$ D ' - E 3CC' ' CF$ ' Q3'
14H 3D' H' F3' ?$ C&$N HE' H &' ? - NF' 5 - C N3' F$ ' F3' 4 - 3' , $ J 3' $ED'
' 3C D3EN3' H &' F3' ' 3N4 - ' $C' D CN HC3D' $ED' +EH E' H' F3' ' 3N4 - E2'
I $4 O ' $ED' F$ ' EH' , H N3' $C' 2 3E' H' F3' ' 3N4 - ' H4' 3& ' $ ' F C'
- C - $ ' I $N3' H &' QHD3 ' H &' F C' F$ E2' C< 3E C 3D' ' 14H D3D' F$ ' E'
3 34O' @$C3' F343 E' $EO' ' 3N4 - ' CF$ ' F$ 3' 43N3 3D' ; E C E2' P HE3O '
$ED' CF$ ' F$ 3' $QCNHED3D' &4H J ' F3' I $4 O ' CH' F$ ' ' CF$ ' EH ' Q3' 1HCR
C Q 3' J J 3D $ 3 O' H' $1143F3ED' $4 D' Q4 E2' F J ' Q3&H43' $' 5 - C N3 ' F3'
<&& N34' H4' , HE NH J J CC HE3D' <& N34' NH J J $ED E2' F3' I $4 O' CF$ '
14HD - N3' H' F3' 5 - C N3' Q3&H43' FH J ' F3' ' 3N4 - ' H - 2F ' 432 - $4 O' H'
F$ 3' Q33E' Q4H - 2F ' &H4' 3C $ HE' $' @34 & N$ 3' H&H F3' , $ J 3' $ED'
I $N3' H &' ' 3C D3EN3' H &' C - NF' ' 3N4 - ' $ED' F3' 5 - C N3' H' FH J ' C - NF'
@34 & N$ 3' CF$ ' Q3' 14HD - N3D' CF$ ' $& 34' C$ C&O E2' F J C3 &' F$ ' F3'
' 3N4 - ' FH' F$D' $QCNHED3D' N$EEH ' Q3' &H - ED' $ED' $1143F3ED3D '
4$EC J ' $' G - 1 N$ 3' F343H&' H' 8 C' P $(3C O C' ?3N43 $4O' $ ' 9 $4' H4'
&' #' $!% T ' , ') !' @F 3&' ?3N43 $4O ' E' H4D34' F$ ' E' F3' ; 3E ' H&'
C - NF' ' 3N4 - ' Q3 E2' $& 34 $4DC' $1143F3ED3D' $ED' 431H4 3D' $C' $G3C34 34 '
F3' 6$N C' H &' F C' F$ E2' 43N3 3D' ; E C E2' P HE3O ' $ED' F$ E2' $QR
CNHED3D

6 NHED3D' $& 34' F$ E2' Q33E' 3E C 3D ' J $O' Q3' $CN34 $ E3D' Q3&H43' F3' Q3''.
& E$ O' $D(-D23D' H' Q3' $' G3C34 34 ' $ED' $EO' & 3N4- ' FH' CF$ ' 3E C '
E H' 8 C' P $(3C O C' 6H4N3C ' $ED' FH' CF$ ' Q3' D CNH 343D' H' Q3' EN$R
1$Q 3' H&' $N 3' ?34 N3' QO' 43$CHE' H&' $EO' E& 4 J O' NHEN3$ 3D' H4' EH '
D3N $43D' QO' C-NF' ' 3N4- ' Q3&H43' F3' 5-C N3' $ ' F3' * J 3' H&' Q C' 3C '
$ HE ' $ED' J 3E HE3D' F343 E ' J $O' Q3' 4$EC&3443D' E H' $EO' M$44 CHE '
H4' 3 34$E' H4' E $ D' B$ $ HE ' H4' E H' 8 C' P $(3C O C' P $4 E3' &H4N3C '
EH FC $ED E2' F3' CF$ ' F$ 3' 3E C 3D' &H4' $EO' 1$4 N- $4' ' 32 J 3E)'
$ED' CF$ ' Q3' 3E 3D' H' 43N3 3' C-NF' 64H1H4 HE' H4' ' 3C D-3' H&' BH-E O'
HE O' $C' 8 C' P $(3C O' J $O' $ H ' E' F$ ' B3F$ &' EC 3$D' H&' F3' BH-E O '
-1HE' F NF' C-NF' P $E' CF$ ' F$ 3' Q33E' 3E C 3D ' $EO' F E2' E' $EO' N '
H4' N C ' H4' $EO' ' - 3C' $ED' ' 32- $ HEC' 43 $ E2' H' ?H D 34C ' H' F3'
NHE 4$4O' EH FC $ED E2 ' $ED' ' CF$ ' Q3' $ &- ' &H4' $EO' * H' 5-C N3C'
Q3&H43' FH J ' C-NF' ' 3N4- ' CF$ ' Q3' Q4H-2F ' $ED' FH' CF$ ' Q3' 14H 3D '
-1HE' <$ F' Q3&H43' F3 J ' H' F$ 3' NHEN34E3D' F C' F$ E2' Q33E' $' ?H D 34'
$ED' D CNF$423D ' H4' H' F$ 3' NHEN3$ 3D' F C' F$ E2' Q33E' D CNF$423D'
-1HE' $EO' 14 H4' ; E C J 3E ' H4' H' F$ 3' &- O' NHEN3$ 3D' $EO ' ?-NF'
E& 4 J O' -1HE' Q3 E2' $ 3C 3D ' H4' H' F$ 3' D3C 2E3D O' J $D3' $EO' &$ C3'
' 3143C3E $ HE' $C' $&H43C$ D ' H' $D(-D23' C-NF' I 34CHE' H' Q3' $' ' H2-3'
$ED' 2QHED ' $ED' H' C3E 3EN3' F J' H' C-NF' I -E CF J 3E ' $C' QO' $EO'
>$ ' EH ' E' &H4N3' J $O' Q3' E& N 3D' -1HE' ' H2-3C' $ED' 2QHEDC' $ED'
24E C' $ED' ENH44 2 Q 3' ' H2-3C' ($ED' $EO' ' 3N4- ' FH' CF$ '
D3C 2E3D O' J $+3' $EO' &$ C3' ' 3143C3E $ HE' H&' $EO' I $4 N- $4' NHE $ E3D'
E' F3' <$ FC' $ED' @34 & N$ 3C' E' F3' ?NF3D- 3' H' F C' N ' $EE3 3D' '
Q3&H43' F3' 5-C N3' $ ' F3' * J 3' H&' F C' 3C $ HE ' $ED' CF$ ' HQ $ E'
$EO' ; E C E2' P HE3O ' H4' $EO' BH-E O' &H4' 3E 34 E2' E H' 8 C' P 3C O C'
?34 N3 ' H4' $ ' H F34' P HE3O ' CF$ ' Q3' D33 J 3D' 2- O' H&' HQ $ E E2'
P HE3O' -ED34' &$ C3' I 43 3EN3C ' F E' F3' 4-3' E 3E ' $ED' P 3$E E2 .'
&' E' ? #(% #&' H&' $E' N ' E - 3D' / #' / ' ' , ' ' ,#1,% & #(' #&' K'ZM '
!#& #(')!' < F1' #' ; E2 $ED' !% 0,!' ,' < '!# ' #&' ,)! '@ !#'!1' N UV'
',##!' !&')! !)' $ED' &' E' $!% #&' H&' $E' N ' 1$CC3D' E' F3'
, E F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O ' E - 3D' / #' / ' ' , ' ' &' ('11 '
',#1,% & #(' #&' !#& #(')!' < F1' #' 43 $ED' !% 0!' ,' < '!# '
#&' ,)! ' 6 !#'!1' I ,##!' !&')! !F)' =' $ED' F3' I 4HD-N HE' H&' C-NF'
@34 & N$ 3' ' $ED' I 4HH&' H&' F3' 8 $ED 4 E2' H&' F3' 5-C N3' 2 E2' C-NF'
@34 & N$ 3' ' CF$ ' Q3' C-&& N 3E ' ; D3EN3' H&' C-NF' I $4 O' F$ E2' 43143R
C3E 3D' F3' C3 34$ ' I $4 N- $4C' NHE $ E3D' E' F3' <$ F' C H4E' QO' F J '
$ED' C13N & 3 E' F3' @34 & N$ 3' H&' F3' 5-C N3' $ ' F3' * J 3' H&' F C' Q3 E2'
$ 3C 3D ' $ED' F$ ' I 4HH&' QO' F3' <$ F' H&' < E3' H4' J H43' N43D Q 3' 9 R
E3CC3C ' F$ ' F3' I 34CHE' CH' 14HC3N- 3D' F$ F' H -E $4 O' $N+EH 3D23D'
F$ ' $ ' F3' * J 3' H&' F C' ; E C J 3E ' F3' Q3 HE23D' H' F3' P $ ' H4' H'
$EO' ' 32 J 3E ' E' 8 C' P $(3C O C' ?34 N3 ' H4' H' 8 C' P $(3C O C' , $ O' H4
P $4 E3C ' CF$ ' Q3' D33 J 3D' $ED' $+3E' $C' ; D3EN3' H&' F3' 6$N ' CH' QO'
F J' $N+EH 3D23D ' FH- ' I 4HD-N HE' H&' $EO ' ' H ' H4' H F34' GHN-R
J 3E ' H' 14H 3' F3' C$ J 3 ' $ED' $EO' P $E' F$ E2' Q33E' 3E4H 3D' H'
C34 3' E' F3' P $ ' $ ' F3' * J 3' H&' H&&34 E2' H' 3E C ' CF$ ' D3EO' F$ '
& 3' C' $' P $' P $E' F3E' $N -$ O' 3E4H 3D' $ED' 3E2$23D' H' C34 3' H4'
CF$ ' D3EO' H' F3' 5-C N3' Q3&H43' FH J ' F3' CF$ ' Q3' $ 3C 3D' F$ ' F3'
Q3 HE2C' H' F3' P $ ' CF$ ' 3 ' @HE N HE' F343H&' Q3&H43' $EO' < E3'
5-C N3' -E' F3' # E 3D' % E2DH J ' 3 F34' -1HE' M$ F' H&' < E3' 9 E3CC'
H4' #1HE' F C' H E' @HE&3CC HE ' H4' -1HE' F3' I 4HD-N HE' H&' F3' 3CR
$ HE ' $ED' F&3Q3&H43 J 3E HE3D' G3N 4 HE' H&' C-NF' I 34CHE ' N34 & 3D'
QO' F3' ?3N43 $4O $ 9 $4' H4' G31- O' ?3N43 $4O' $ ' 9 $4 ' Q3' NH J J 3D'
' ' ' ? 6 ' ' ' ' H

H' F3' @H J& DHE' M$H ' H4' 8 H - C3' H&' @H4433 H ' F343' H' 43 J $ E' FH '
B$ ' H4' P $ E14 T3' &H4' $ED' D - 4 E2' $EO' * J 3' EH ' 3 N33D E2' ? ' @$ 3ED$4'
P HE FC ' H 34' $ED' $QH 3' $EO' 43E J O' H4' B - E CFE 3E ' H' F NF' C - NF'
I 34CHE' CH' H &3ED E2' J $O' Q3' H F34 C3' $Q 3 ' $ED' CF$ ' &4H J ' F3' G$O/'
HE' F NF' F C' ; E2$23 J 3E ' H' C34 3' E' F3' P $' CF$ ' 3ED ' $ED' EH '
CHHE34 ' Q3 HE2' $C' $' ?H D 34' H' F3' @H41C' H&' 8 C' P $(3C O C' B>32- $4'
6H4N3C ' H4' H&' F3' 1 ' $#& ' @H J 1$EO C' 6H4N3C ' E H' F NF' F3' CF$ '
F$ 3' CH' 3E C 3D' ' 14H D3D' F$ ' 3 340' C - NF' I 34CHE' CF$ ' Q3' $Q 3' H'
C34 3' F E' F3' 4$ 3D' % E2DH J ' H&' ! ' " #' $ED' $!O &' E'
$EO' ' 32 J 3E ' B$ $ HE ' H4' @H41C' H&' 8 C' P $(3C O C' ' 32 - $4' 6H4N3C '
H4' H&' F3' 8 1 ' $#& ' @H J 1$EO C' 6H4N3C ' E' F NF' F3' F$C' CH' 3E C 3D'
D - 4 E2' $ ' F3' * J 3' F3' P $' H' 9 F NF' F3' CF$ ' Q3 HE2' CF$ ' 43 J $ E'
D C3 J QHD 3D ' H4' CF$ ' EH ' Q3' N$ 3D' H - ' &H4' * 4$ E E2' H4' ; 34N C3 ' $ED'
CF$ ' D - 4 E2' $ ' C - NF' * J 3' Q3' C - Q(3N ' H' $ ' F3' I 4H C HEC' H&' F C' N '
$ED' $Q 3' H' Q3' $1143F3ED3D' $ED' D3$ ' F' $ED' 1 - E CF3D' $C' $'
G3C34 34' &4H J ' F3' @H41C' E' F NF' F3' CF$ ' F$ 3' CH' 3E C 3D' ' &' F3' CF$ '
E32 3N ' H4' 43& - C3' H' (D E ' $ED' C34 3 ' E' C - NF' @H41C' $C' $& E3C$DD

I 3E$ O' HE' <&& N34C' H&&3ED E2' 2 EC ' >$ C $4D E2' ' ; E C J 3E

WWW ' ED' Q3' ' 3E$N 3D ' * F$ ' 3 340' P $40' <&& N34 ' FH'
CF$ ' $N ' NHE 4$40' H' F3' I 4H C HEC' H&' F C' N ' E' $EO' 43C13N ' 432$4D:'
E2' F3' 3E C E2' $ED' $ 3C E2' H&' ' 3N4 - C' &H4' 8 C' P $(3C O C' ?34 N3 '
CF&D ' - 1HE' 14HH&' F343H&' - 1HE' <$ F' QO' * H' 9 E3CC3C' Q3&H43' E'
M3E34$ ' @H - 4 J $4 $ ' F NF' C' F343QO' $ - FH4 T3D' H' $D J E C 34' C - NF'
<$ F ' Q3' N$CF 343D ' $ED' D C$Q 3D' H' FH D' $EO' @ ' H4' P $40' <&& N3'
H4' ; J 1 HO J 3E ' E' 8 C' P $(3C O C' ?34 N3

; E 3E '

Q4H$D'

WWW ' ED' 9 F343$C' ' C' 3. 13D 3E ' F$ ' I 4H 4 HEC' CFH - D'
Q3' J $D3' &H4' F3' 3E C E2' $ED' $ 3C E2' H&' ?H D 34C' D3C 4H - C' H&'
43 3E C E2 ' $ED' H F34C' D3C 4H - C' H&' 3E C E2 ' Q4H$D ' Q3' ' F343:'
&H43' 3 J N 3D ' * F$ ' ' CF$ ' Q3' $ ' ' &H4' $EO' I 34CHE' D - O' $(H E 3D'
QO' 8 C' P $(3C O' QO' $EO' 9 44E ' C 2E3D' QO' F3' ?3N43 $40' $ ' 9 $4'
E' F$ ' B3F$ &' $ED' EH ' Q3 E2' $' M3E34$ ' <&& N34' EH4' FH D E2' $EO'
' 32 J 3E $ ' @H J J CC HE ' H' 3EBC ' $ED' $ 3C ' H - ' H&' ! ' " ' '
$!% #& ' $EO' ?H D 34C' H4' I 34CHEC' D3C 4H - C' H&' 3E C E2' H4' 43 3E C E2'
E H' 8 C' P $(3C O C' ?34 N3 ' $ED' $EO' I 34CHE' CH' $11H E 3D' CF$ ' F$ 3'
F3' C$ J 3' I H 34C' E' F$ ' B3F$ &' $C' $43' 2 3E' H' 5 - C N3C' E' F3' # E 3D'
% E2DH J ' &H4' $ ' C - NF' I - 41HC3C' H&' ; E C J 3E ' $ED' 3C $ HE ' $ED'
$EO' I 34CHE' CH' 3E C 3D' H4' 43 3E C 3D' 4 $8' Q3' D33 J 3D' H' Q3' $E'
$ 3C 3D' ?H D 34 ' $ED' $C' H& 3E' $C' $EO' @H41C' CF$ ' Q3' 43 3 3D' H4' Q3'
D CQ$ED3D' $ ' $EO' ? $ HE' Q3OHED' F3' ?3$C' ' CF$ ' Q3' $ & - ' &H4' $EO'
<&& N34C' F343 - E H' $ - FH4 T3D' QO' F3' <&& N34' NH J J $ED E2' E' NF 3&'
$ ' C - NF' ? $ HE' H' 3E C ' $C' J $EO' H&' F3' ?H D 34C' Q3 HE2 E2' H' F3'
@H41C' 3$ E2' F3' ? $ HE' $C' CF$ ' Q3' E2' $ED' & ' &H4' ?34 N3' &H4'
$EO' @H41C' $11H E 3D' H' 43 J $ E ' $ED' 3 340' ?H D 34' CH' 3E C 3D' C'
F343QO' D33 J 3D' H' Q3' D CNF$423D' &4H J ' F C' &H4 J 34' @H41C ' $ED' $E'
$ 3C 3D' @34 & N$ 3' H &' * 4$EC&34' CF$ ' Q3' D3 343D' H' F3' ?H D 34

(; E C E3E$N H&' , 324H3C'

WWW ' ED' Q3' ' 3E$N 3D ' * F$ ' $ ' , 324H3C' 1 - 4NF$C3D' QO' H4'
]E' $NNH - E ' H&' 8 C' P $(3C O ' 8 C' 8 3 4C' $ED' ? - NN3CCH4C ' $ED' C34 E2'
E' $EO' H&' 8 C' P $(3C O C' 6H4N3C ' CF$ ' Q3' D33 J 3D' $ED' $+3E' H' Q3' &433'
E' 3 340' 43C13N ' $C' &' QH4$' &433' E' $EO' I $4 ' H&' 8 C' P $(3C O C' GH J :'
E HEC ' $ED' CF$ ' Q3' NHEC D343D' $C' ?H D 34C' F$ E2' H - E $4 O' 3E C 3D'
E' 8 C' P $(3C O C' ?34 N3 ' 14H D3D' F$ ' EH F E2' NHE $ EC' E' F C
N

? M#> ;>P ʼ ʼ @$1ʼUZ

N ʼ$C H 3E C E2 &H4 J 3D I 34 HDC H&?34 N3 ʼ H4 E $EO H F34 N ʼ $C H $EO ʼ - 3C H4 ʼ 32- $ HEC &H4 24$E E2 I 3EC HEC H4 H $EN3C H ?H D 34C D CNF$423D $& 34 N34 $ E I 34 HDC H&?34 N3 ʼ CF$ ʼ 3 3ED H $EO , 324H3C CH 1-4NF$C3D

WWW W ʼ ED Q3 ʼ 3E$N 3D ʼ *F$ ʼ $EO I 34CHE D- O QH-ED $C $E 1143E N3 FH CF$ ʼ 3E C ʼ $C $?H D 34 E 8 C P$(3C O C H4 F3 1 ʼ $#& ʼ @H J 1$EO C ?34 N3 ʼ $ED CF$ ʼ C $ 3 H F3 P$2 C 4$ 3 Q3&H43 FH J ʼ F3 CF$ ʼ Q3 N$44 3D $ED $ 3C 3D F$ ʼ F3 C EH ʼ $E 1143E N3 ʼ CF$ ʼ Q3 D33 J 3D 2- O H& HQ $ E E2 P HE3O -ED34 &$ C3 I 43 3EN3C F E F3 4-3 E 3E ʼ $ED P 3$E E2 H& F3 Q3&H43 43N 3D N C $ED CF$ ʼ $& 34 F3 ; 1 4$ HE H& F C 1143E N3CF 1 ʼ F3 F34 F3 CF$ ʼ F$ 3 Q33E CH NHE N 3D $ED 1-E CF3D H4 EH ʼ Q3 $Q 3 H C34 3 $C $?H D 34 E $EO H& 8 C P$(3C O C ʼ 32- $4 6H4N3C ʼ H4 E F3 6H4N3C H& F3 1 ʼ $#& ʼ @H J 1$EO ʼ $NNH4D E2 H F3 *34 J C H& F3 ; E C J 3E ʼ $ED & HE F3 ; 1 4$ HE H& F C 1143E N3CF 1 F3 CF$ ʼ EH ʼ D3 34 F J C3 & -1 H CH J 3 <&& N34 $- FH4 T3D H 43N3 3 ʼ 3N4- C ʼ J $O Q3 $+3E $C $ G3C34 34 &4H J ʼ 8 C P$(3C O C 6H4N3C

3E C E2 H Q3 $Q 3 H C34 3 $& 34 F3 ; 1 4$ ʼ HE H& F C 1143E N3

W> ʼ ED Q3 ʼ 3E$N 3D ʼ *F$ ʼ EH P$C 34 CF$ ʼ Q3 3E 3D H N $ J ʼ @C JC1& $E 1143E N3 FH CF$ ʼ 3E C ʼ $C $?H D 34 E 8 C P$(3C O C H4 F3 P$C 34C H 1 ʼ $#& ʼ @H J 1$EO C ?34 N3 ʼ -E 3CC F3 CF$ ʼ F E <E3 @$ 3ED$4 P HE F $& 34 C NF 1143E N3 CF$ ʼ F$ 3 3& ʼ Q C ?34 N3 ʼ 2H Q3&H43 CH J 3 5-C N3 $ED $+3 F3 <$ F J 3E HE3D E F3 ?NF3D- 3 H F C N ʼ $EE3 3D ʼ $ED 14HD-N3 F3 @34 & N$ 3 H& C-NF 5-C N3 H& F C F$ E2 $+3E C-NF <$ F ʼ F NF @34 & N$ 3 C-NF 5-C N3 C 43X- 43D H 2 3 E F3 6H4 J ʼ E F3 ?NF3D- 3 H F C N ʼ $EE3 3D ($ED -E 3CC C-NF 1143E N3 CF$ ʼ F$ 3 Q33E QH-ED ʼ & E #(% #& ʼ &H4 F3 &- ʼ *34 J ʼ H& ?3 3E =3$4C ʼ EH ʼ F$ E2 Q33E $QH 3 F3 23 H& 6H-4 33E F3E CH QH-ED ʼ $ED ʼ & E $!% #& H4 E F3 " 1) ʼ &H4 F3 &- ʼ *34 J ʼ H& 6 3 =3$4C $ ʼ F3 3$C ʼ EH ʼ F$ E2 Q33E $QH 3 F3 23 H& ʼ ? 33E F3E CH QH-ED ʼ $ED ʼ & E +ʼ, % #& ʼ &H4 F3 &- ʼ *34 J ʼ $ ʼ 3$C ʼ H& 6H-4 =3$4C ʼ QO $ 432- $4 @HE 4$N ʼ H4 ED3E -43 H& 1143E N3R CF 1 ʼ D- O 3 3ED3D ʼ C 2E3D ʼ $ED 3C 3D ʼ $ED Q ED E2 HE QH F I $4 3C QO F3 >$ ʼ H&ʼ+ʼ, % #& ʼ 14 H4 H F3 I 34 HD H& ; E C J 3E ʼ ($ED -E 3CC C-NF @HE 4$N ʼ H4 ED3E -43 CH D- O 3 3N- 3D CF$ ʼ F E ʼ *F433 P HE FC $& 34 F3 @H J J 3EN3 J 3E ʼ H& F3 1143E N3CF 1 ʼ $ED Q3&H43 F3 I 34 HD H& ; E C J 3E ʼ F$ 3 Q33E 14HD-N3D H $ 5-C N3 H& F3 I 3$N3 H& F3 @H-E O F343 E F3 I $4 3C 43C D3 ʼ $ED F343 CF$ ʼ F$ 3 Q33E EDH4C3D F343HE QO C-NF 5-C N3 $ @34 & N$ 3 H4 G3N 4 ʼ HE C 2E3D QO F J ʼ C13N &O E2 F3 G$ 3 F3E $ED F3 I 34CHE QO FH J ʼ C-NF @HE 4$N ʼ H4 ED3E -43 CF$ ʼ F$ 3 Q33E CH 14HD-N3D ʼ F NF @34 & N$ 3 H4 G3N 4 HE C-NF 5-C N3 H& F3 I 3$N3 C F343QO 43X- 43D H EDH4C3 $ED C 2- ʼ $ED -E 3CC C-NF 1143E N3 CF$ ʼ F3E N $ J 3D QO C-NF P$C 34 ʼ Q3 -ED34 * DE O HE3 =3$4C H& 23 ʼ 14H D3D F$ ʼ $EO P$C 34 H& $E 1143E N3 ED3E -43D &H4 F3 ?3$?34 N3 CF&& ʼ Q3 3E 3D H N $ J ʼ $ED 43NH 34 F J ʼ E F3 6H4 J ʼ $ED P $EE34 $QH 3 D 43N 3D ʼ EH FC $ED E2 C-NF 1143E N3 J $O F$ 3 Q33E QH-ED &H4 $ 3CC *3E4 ʼ F$E ?3 3E ʼ 6 3 ʼ H4 6H-4 =3$4C $C $&H43C$ D ʼ $ED $EO C-NF P$C 34 ʼ FH CF$ ʼ 2 3 -1 F3 ED3E -43C H& 1143E N3CF 1 ʼ F E <E3 P HE F $& 34 F3 3E C E2 H& C-NF 1143E N3 ʼ CF$ ʼ Q3 3E 3D D 43N3 3 ʼ H F C H E #C3 ʼ CH J -NF H& F3 BH-E O 1OQ 3 H C-NF ʼ 3N4- ʼ $& 34 D3D-N E2 F343&4H J ʼ * H M- E3$C H 14H D3 F J

F J' F' , 3N3CC$4 3C ' $C' CF$ ' EH ' F$ 3' Q33E' 1$ D' H' C-NF' ' 3N4- ''
Q3&H43' , H N3' 2 3E' H&' F C' Q3 E2' $E' 1143E N3

(I-EC E3E' H&' 1143ER N3C' 3E C R E2

W> ' ED' Q3' ' 3E$N 3D' * $' EH' 1143E N3' N $ J 3D' QO' F C'
P $C 34' CF$ ' Q3' $+3E' &4H J' $EO' @H41C' H4' ' 3N4- E2' I $4 O' Q- ' -ED34'
' $' 9 44E ' H&' $' 5-C N3' 43C D E2' E3$4' $ED' F E' FHC3' 5-4 CD N HE'
C-NF' 1143E N3' CF$ ' F3E' F$113E' H' Q3 ' Q3&H43' FH J' F3' CF$ ' Q3'
N$44 3D' $ED' C-NF' 5-C N3' CF$ ' EX- 43' E H' F3' P $ 34' -1HE' <$ F'
F NF' <$ F' F3' C' F343QO' 3 J 1H 343D' H' $D J E C 34' $ED' CF$ '43X- 43'
' F3' I 4HD-N HE' $ED' I 4HH&' H&' F3' ED3E -43' $ED' F$ ' , H N3' H&' F3''
C$ D' 9 $4 $E ' F$C' Q33E' 2 3E' H' F3' @H J J $ED E2' <&?N<4' $ED' $' @X_O'
F343H&' 3&' F' CH J 3' <&& N34' <&' , HE NH J J CC HE3D' <&& N34' H&' F3'
I $4 O' $ED' F$ ' C-NF' I 34CHE' C< 3E C 3D' D3N $43D' F$ ' F3' $C' EH'
1143E N3' $ED' C-NF' 5-C N3' &' 43X- 43D' QO' C-NF' <&& N34' H4' , HER
NH J J CC HE3D' <&& N34' CF$ ' NH J J ' F3' <&&3ED34' H' F3' @H J J HE'
M$H ' H&' F3' C$ D' I $N3' $ED' CF$ ' +331' F3' ED3E -43' <' Q3' 14HD-N3D'
F3E' 43X- 43D' $ED' CF$ ' Q ED' H 34' C-NF' I 34CHE' $C' F3' J $O' F E+'
14H134' H' 2 3' ; D3EN3' 2 EC ' F3' <&&3ED34' FH' ?F$ ' Q3' 4 3D' $'
F3' E3 '+! $' F3' ?3CC HE' J J 3D $ 3 O' C-NN33D E2' F3' E3 'M3E34$'
H4' \ -$4 34' ?3CC HEC' H&' F3@1-E O' G C HE ' H4' I $N3' -E 3CC' F3'
@H-4 ' CF$ ' HE' 5-C '@$-C3' 1- ' H&&' F3' * 4 $ '(J-5 F ' I 43 -N HE' H&'
F3' ED3E -43' F' F3' @34 ?N$ 3' H&' F3' 5-C N3C' F$ ' F3' C$ J 3' $C'
14H 3D 'CF$ 'Q3' C-&& N 3E ' ; D3EN3' H&' F3' C$ D' ED3E -43' ' $ED' 3 340'
C-NF' <&&3ED34' E' +' , % #&' J $O' Q3' 4 3D' QO' F3' 5-D23' <4D E$4O' E'
F3' @H-E O' H4' ? 3 $4 40' E' C-NF' $ED' F3' +3' P $EE34' $C' $EO' I 34CHE'
J $O' Q3' 4 3D' E' +' , % #&' &H4' $EO' <&&3EN3' EH ' E&344 E2' $' @$1 $'
I -E CF J 3E ' ! 14H D3D' F$ ' $EO' 5-C N3' EH ' 43X- 43D' $C' $&H43C$ D' H'
NH J J 'C-NF' 1143E N3' J $O' D3 34' F J' H' F C' P $C 34

P -C 34C '$ED' I 3E$ O'HE' &$ C3 P -C 34C

W 8 ' ED' Q3' '3E$N 3D' * F$ ' P -C 34C' $ ' QN' $+3E' H&' 3 340'
' 32 J 3E ' * 4HH1' H4' @H J 1$X' E' 8 C' P $(3C O C' ?34 N3' * N3' $'
3$C ' E' 3 340' =3$4' $ ' C-NF' * J 3C' $C' CF$ ' Q3' $11H E 3D' $ED' EH'
?H D 34' CF$ ' Q3' $QC3E ' &4H J' C-NF' P -C 34C ' -E 3CC' 14H134 O' N34 & 3D'
H' Q3' 3 J 1 HO3D' HE' CH J 3' H F34' G- O' H&' F3' ' 32 J 3E ' H4' H' Q3' C N+'
H4' E' I 4 C<#_' H4' HE' 6-4 H-2F' ' $ED' 3 340' I 34CHE' FH' CF$ ' 2 3' H4'
14HN-43' H' Q3' 2 3E' $EO' -E 4-3' @34 & N$ 3' F343QO' H' 3 N-C3' $EO'
?H D 34' &H4' F C' QC3EN3' &4H J' $EO' P -C 34' H4' $EO' H F34' ?34 N3' F NF'
F3' H-2F' H' $ 3ED' H4' 134&H4 J' H4' CF$ ' J $+3' $EO' &$ C3' H4' -E 4-3'
P -C 34' H&' P $E' H4' 8 C3' H4' C $ ' E2 O' H4' #- O' $ H ' H4'
C 2E' F3' P -C 34' ' H ' F343 E' C-DQ' &$ C3' P -C 34' C' NHE $ E3D' H4' $EO'
G-1 N$ 3' F343H&' H4' FH' CF$ ' D 43N O' H4' ED 43N O' $+3' H4' N$-C3'
H' Q3' $+3E' $EO' P HE3O' H4' M4$ - O' &H4' J -C 34 E2' $EO' ?H D 34C ' H4' &H4'
C 2E E2' $EO' P -C 34' ' H C' H4' G-1 N$ 3' F343H&' H4' CF$ ' +EH E2 O'
J -C 34' $EO' I 34CHE' QO' $' 4HE2' , $ J 3' -1HE' I 4HH&' F343H&' -1HE' <$ F'
J $D3' QO' * H' 9 E3CC3C' Q3&H43' $' M3E34$' @H-4 J $4 $ ' CF$ ' &H '
C-NF' <&&3EN3' Q3' &H4 F F' N$CF 343D' $ED' CF$ ' Q3' F343QO' - 34 O'
D C$Q 3D' H' F$ 3' H4' FH D' $EO' @ ' E4 P $4O' <&& N3' H4' ; J 1 HO J 3E '
F E' F3' ; 4E '% E2DH J' H&' ! ' " #' $ED' $!) &' H4' E' 8 C'
P $(3C O C' ?34 N3' $ED' &' F3' I N&?H$' 2 E2' C-NF' -E 4-3' @34 & N$ 3'
CF$ ' EH ' F$ 3' $EO' P $4O' @H J J CC HE ' F3' CF$ ' &H4&3 ' &H4' 3 340'
C-NF' <&&3EN3' F3' ?- J' H&' 6 & O' I H-EDC ' $ED' $EO' I 34CHE' FH' CF$ '
&$ C3 O' Q3' J -C 343D' H4' H&&34' F J C3 &' H' Q3' J -C 343D' H4' 3ED' H4' &-4E CF'
$EO' 8 H4C3' H' Q3' &$ C3 O' J -C 343D' CF$ ' -1HE' <$ F' J $D3' QO' * H
9 E3CC3C

9 E3CC3C‘ Q3&H43‘ CH J 3‘ 5-C N3‘ H&‘ F3‘ I 3$N3‘ 43C D E2‘ E3$4‘ F3‘ I $N3‘
F343‘ C-NF‘ P -C 34‘ CF$ ‘Q3‘ J $D3 ‘&H4&3 ‘ F3‘?- J‘H&‘ * 3E O‘ I H-EDC ‘
$ED‘ F3‘ E&H4 J 34 ‘ &‘ Q3‘ Q3 HE2C‘ H‘ 8 C‘ P $(3C O C‘ ?34 N3 ‘ CF$ ‘ &‘ F3‘
D3 J $ED‘ ‘ Q3‘ &H4 F F‘ D CNF$423D

W J ‘ ED‘ Q3‘ ‘3E$N 3D ‘ * F$ ‘ 6H4 O 3 2F ‘ 8 H-4C‘ , H N3‘ CF$ ‘ P -C 34C‘ E‘
Q3‘ 2 3E‘ H‘ ? ‘ 5-C N3C ‘ EH ‘ Q3 E2‘ <&& N34C‘ H&‘ F3‘ 4 J O ‘ 43C D E2‘
F E‘ F3‘ @ O‘ $ED‘ Q34 3C‘ H&‘ !1 #1 ! ‘ $ED‘ BH4H-2F‘ H&‘ + , 3) ‘ ‘ ‘
_F ?‘‘ H&‘ F3‘ P -C 34‘ H‘ Q3‘ $+3E‘ H&‘ 8 C‘ P $(3C O C‘ 6H4N3C‘ X-$4 343D‘
F E‘ F3‘ C$ D‘ @ O‘ $ED‘ > Q34 3C‘ $ED‘ BH4H-2F ‘ $ED‘ EH‘ <&& N34‘ CF$ ‘
14HN33D‘ H‘ $+3‘ C-NF‘ P -C 34C ‘ -ED34‘ I 3E$ O‘ H&‘ 6 & O‘ I H-EDC ‘ 3 N31 ‘
E‘ F3‘ I 43C3EN3‘ H&‘ * H‘ H4‘ J H43‘ 5-C N3C ‘ FH‘ CF$ ‘ $+3‘ NH2E T$EN3‘
H&‘ C-NF‘ P -C 34 ‘ $ED‘ C 2E‘ F3‘ C$ J 3‘ -E 3CC‘ C-NF‘ 5-C N3C‘ CF$ ‘ E32 3N ‘
H‘ $ 3ED ‘ H&‘ F NF‘ , 32 3N ‘ $C‘ 3 ‘ $C‘ H&‘ F3‘ 14H134‘ , H N3‘ Q3 E2‘
2 3E‘ H‘ C-N+‘ 5-C N3C ‘ <$ F‘ CF$ ‘ Q3‘ J $D3‘ F E‘ 6H4 O 3 2F ‘ 8 H-4C‘
$& 34‘ C-NF‘ P -C 34 ‘ Q3&H43‘ $EO‘ 5-C N3 ‘ $ED‘ F3‘ <&& N34‘ $11H E 3D‘ H‘
$+3‘ F3‘ 8 $ & O3$4 O‘ P -C 34C‘ H&‘ $EO‘ H&‘ 8 C‘ P $(3C O C‘ 6H4N3C ‘ $ ‘ $EO‘
1 $N3‘ * 3E‘ P 3C‘ D C $E ‘ &4H J ‘ < , #& , # ‘ CF$ ‘ N HC3‘ F3‘ P -C 34‘ ; HEC‘
F E‘ * 3E O &H-4‘ 8 H-4C‘ $& 34‘ F3‘ C$ D‘ P -C 34‘ F$C‘ Q33E‘ J $D3 ‘ $ED‘
C3ED‘ $‘ @H1O‘ F343H& ‘ F E‘ ?3 3E‘ G$OC ‘ H‘ F3‘ ?3N43 $4O‘ $ ‘ 9 $4

W> ‘ ED‘ Q3‘ ‘3E$N 3D ‘ * F$ ‘ $EO‘ ?H D 34‘ FH‘ CF$ ‘ $QC3E ‘ F J ‘ 6H4&3 -43‘ H&‘
C3 &‘ FH- ‘ >3$ 3‘ J $O ‘ HE‘ @HE N HE‘ QO‘ $‘ M3E34$ ‘ H4‘ H F34‘ @H-4 ‘
J $4 $ ‘ E‘ $DD HE‘ H‘ $EO‘ H F34‘ I -E CF J 3E ‘ Q3‘ D314 3D‘ H&‘ F C‘
432- $4‘ I $O‘ &H4‘ F3‘ G$OC‘ HE‘ F NF‘ F3‘ F$C‘ CH‘ $QC3E 3D‘ F J C3 & ‘ $ED‘
F$ ‘ EH‘ ?H D 34‘ CF$ ‘ Q3‘ 3E 3D‘ H‘ I $O ‘ H4‘ H‘ 43N+HE‘ ?34 N3‘ H $4DC‘
I ‘H4‘ I 3EC HE ‘ D-4 E2‘ # ‘ QC3EN3‘ &4H J ‘ G- O‘ QO‘ @H J J J 3E ‘ HE‘
$‘ @F$423‘ H&‘ $EO‘ @4 J E$ ‘ <&&3EN3 ‘ H4‘ F3E‘ E‘ @HEF-3 J 3E ‘ -ED34‘ $EO‘
?3E 3EN3‘ H&‘ $EO‘ @H-4 ‘ H4‘ QO‘ 43$CHE‘ H&‘ $EO‘ 443C ‘ &H4‘ G3Q ‘ H4‘ $C‘ $
14 CHE34‘ H&‘ 9 $4 ‘ 14H D3D‘ F$ ‘ $EO‘ , HE NH J J CC HE3D‘ <&& N34 ‘ H4‘
$EO‘ ?H D 34 ‘ $NX- 3D‘ H&‘ F3‘ <&&3EN3‘ &H4‘ F NF‘ F3‘ $C‘ @H J J 3D ‘
CF$ ‘ -1HE‘ ; 3 -4E‘ H‘ F C‘ G- O‘ -‘ F C‘ @H C‘ Q3‘ 3E 3D‘ H‘ 43N3 3‘ $ ‘
443$4C‘ H&‘ I $O‘ 2 E2 ‘ D-3 ‘ $ED‘ H‘ 43N+HE‘ ?34 N3‘ D-4 E2‘ Q C‘
QC3EN3‘ H4‘ @HE& E3 J 3E ‘ $ED‘ -1HE‘ 43(H E E2‘ 8 C‘ P $(3C O C‘ ?34 N3‘
&4H J ‘ Q3 E2‘ $‘ I 4 CHE34‘ H&‘ 9 $4 ‘ D-3‘ EX- 4O‘ CF$ ‘ Q3‘ J $D3‘ QO‘ $‘ @H-4 ‘
J $4 $ ‘ $ED‘ &‘ ‘ CF$ ‘ Q3‘ 14H 3D‘ H‘ F3‘ ?$ C&$N HE‘ H&‘ C-NF‘ @H-4 ‘
F$ ‘ F3‘ C$ D‘ ?H D 34‘ $C‘ $+3E‘ I 4 CHE34‘ FH- ‘ &- ‘ , 32 3N ‘ H&‘
G- O‘ HE‘ F C‘ I $4 ‘ $ED‘ F$ ‘ F3‘ F$ F‘ EH ‘ C34 3D‘ F‘ H4‘ -ED34‘ H4‘ E‘
$EO‘ P $EE34‘ $ D3D‘ F3‘ ; E3 J O ‘ $ED‘ F$ ‘ F3‘ F$ F‘ 43 -4E3D‘ $C‘ CHHE‘ $C‘
1HCC Q 3‘ H‘ 8 C‘ P $(3C O C‘ ?34 N3 ‘ F3‘ J $O‘ F343-1HE‘ Q3‘ 43NH J J 3ED3D‘
QO‘ C-NF‘ @H-4 ‘ H‘ 43N3 3‘ 3 F34‘ F3‘ 9 FH 3‘ H&‘ C-NF‘ 443$4C‘ H&‘ I $O ‘
H4‘ $‘ I 4H1H4 HE‘ F343H& ‘ 14H D3D‘ F$ ‘ ‘ CF$ ‘ Q3‘ $ &- ‘ &H4‘ 8 C‘
P 3C O C‘ ?3N43 $4O‘ $ ‘ 9 $4‘ H‘ H4D34‘ H4‘ FFH D‘ F3‘ I $O J 3E ‘ H&‘ F3‘
9 FH 3‘ H4‘ $EO‘ I $4 ‘ H&‘ F3‘ I $O‘ H&‘ $EO‘ <&& N34‘ H4‘ ?H D 34‘ D-4 E2‘ F3‘
I 34 HD‘ H&‘ QC3EN3‘ QO‘ $EO‘ , ‘ !‘ @$-C3C‘ $&H43C$ D

W> ‘ ED‘ Q3‘ ‘3E$N 3D ‘ * F$ ‘ F3E‘ F343‘ ?F$ ‘ EH ‘ Q3‘ $EO‘ ; 3EC HE‘
P $4O‘ <&& N34‘ H&‘ ; $E+ ‘ EH ‘ E&34 H4‘ H‘ @$1 $ E ‘ H4‘ $EO‘ D(- $E ‘ H&‘ 1&6-4 H- ‘
; 32- $4‘ P $ ‘ E F E‘ NHE 3E 3E ‘ G C $EN3‘ H&‘ F3‘ I $N3‘ F343‘ $EO‘
, HE NH J J CC HE3D‘ <&& N34‘ H4‘ ?H D 34‘ HE‘ 6-4 H-2F‘ CF$ ‘ Q3‘ D3 $ E3D‘
QO‘ ? N+E3CC‘ H4‘ H F34‘ @$C-$ O‘ 43ED34 E2‘ E3N3CC$4O‘ $EO‘ ; 3EC HE‘ H&‘
C-NF‘ 6-4 H-2F(‘ CF$ ‘ Q3‘ $ &- ‘ &H4‘ $EO‘ 5-C N3‘ FH‘ CE$ ‘ Q3‘ C$ C& 3D‘
H&‘ C-NF‘ , 3N3CC O ‘ H‘ 24$E ‘ $F‘ ; 3EC HE‘ H&‘ 6-4 H-2F‘ &H4‘ $‘ I 34 HD‘ EH ‘
S‘ ‘ 3 N33D E2

U˂M#> ;>P ˂ ˂ @$1 UZ

3 N33D E2˂<E3˂ PHE F˂($ED˂ F3˂C$ D˂5-C N3˂CF$ ˂ J J 3D $ 3 O˂N34 &O˂ C-NF˂ ; 3EC HE˂ $ED˂ F3˂@$-C3˂ F343H&˂ H˂ F3˂@H J J $ED E2˂<& ?N3& ˂H&˂ F3˂@H41C˂ H4˂G3 $NF J 3E ˂ H˂ F NF˂ F3˂ P$E˂Q3 HE2C˂ &˂+EH E˂ $ED˂ &˂EH ˂ F3E˂ H˂ F3˂ 23E ˂H&˂ F3˂ ' 32 J 3E ˂ E˂H4D34˂ F$˂ F3˂14H134˂ K J˂ J $O˂Q3˂43 J 3D˂ H˂ F3˂?H D 34˂ FH˂CF J ˂EH ˂D-4 E2˂ F3˂ I 34 HD˂ H&˂C-NF˂ ; 3EC HE˂H&˂; -4 H-2F˂Q3˂ $Q 3˂ H˂Q3˂ 43$ 3D˂$C˂$˂G3C34 34˂ 14H D3D˂ F$˂EH F E2˂F343 E˂NHE $ E3D˂CF$ ˂ Q3˂NHEC 4-3D˂ H˂3 3 J 1˂ $EO˂?H D 34˂&4H J˂ *4 $˂ $ED˂ I -E CF J 3E ˂ $NNH4D E2˂ H˂ F3˂ I 4H C HEC˂ H&˂ F C˂ N ˂&H4˂$EO˂&$ C3˂ ' 3143C3E $ HE˂ J $D3˂QO˂F J˂ E˂ F$˂B3F$ &˂ H˂ F3˂C$ D˂5-C N3˂H4˂&H4˂$EO˂B43$NF˂H&˂G CN 1 E3˂NH J J 3D˂QO˂F J˂ E˂$11 O E2˂&<4˂$#D˂HQ $ E E2˂ F3˂C$ D˂ ; 3EC HE˂H&˂; -4 H-2F

P$4NF E2˂ PHE3O˂HE˂ G CNF$423

WW ˂ ED˂ Q3˂ ˂3E$N 3D˂ *F$˂3 34O˂?H D 34˂ 3E 3D˂ H˂ F C˂ G CNF$423˂ CF$ ˂ &˂ F3E˂ C34 E2˂ Q4H$D˂Q3˂ C3E ˂ &˂ Q3˂ CF$ ˂CH˂ 43X- 43˂ ˂ H˂ ! ˂ " #˂ ,J˂$!% #&˂& 33˂H&˂; 13EN3˂$ED˂CF$ ˂Q3˂ 3E 3D˂ H˂43N3 3˂P$4NF E2˂ PHE3O˂&4H J˂ F3˂ I $N3˂H&˂F C˂Q3 E2˂ $ED3D˂ n<4˂ &˂ D CNF$423D˂$˂ 8H J 3˂CF$ ˂43N3 3˂ P $4NF E2˂ PHE3O˂&4H J˂ F3˂ 1 $N3˂H&˂F C˂G CNF$423 _˂ H˂ F3˂ I $4 CF˂H4˂ I $N3˂ E˂ F NF˂F3˂CF$ ˂F$ 3˂ Q33E˂H4 2 E$ O˂3 C 3D

@H J J CC$4 3C˂ =˂$ 3C˂ P4˂ NNH-E C˂

W ; ˂ ED˂ Q3˂ ˂ 3E$N 3D˂ *F$˂$ ˂@H J J CC$4 3C˂ -1HE˂ J $+ E2˂ #1˂ F3 4˂ NNH-E C˂$ED˂$ CH˂ -1HE˂43 -4E E2˂&4H J˂$EO˂6H43 2E˂?34 N3˂ <$ F˂D3CN4 Q3D˂ E˂ F3˂?NF3D- 3˂ H˂ F C˂ N ˂$EE3 3D F NF˂ <$ F˂ &˂ $+3E˂ E˂ $EO˂ I $4˂ H&˂ F3˂# E 3D˂ % E2DH J ˂CF$ ˂Q3˂ $+3E˂ Q3&H43˂ CH J 3˂5-C N3˂$ED˂ &˂ $+3E˂ HE˂6H43 2E˂?34 N3˂ Q3&H43˂ F3˂ <&& N34˂NH J J $ED E2˂ E˂NF 3&˂H4˂ F3˂?3NHED˂ E˂ NH J J $ED˂H4˂ F3˂ \ -$4 34˂ P$C 34˂H4˂G31- O˂ \ -$4 34˂ P$C 3˂M3E34$˂H4˂$EO˂ CC C $E˂ \ -$4 34˂ P$C 34˂M3E34$˂H&˂ F3˂ 4 J O˂ H˂ F XF˂F3˂CF$ ˂F3˂$ $NF3D˂ FH˂CF$ ˂43C13N 3 O˂F$ 3˂ I H 34˂ H˂$D J E C 34˂ F3˂C$ J 3

CC-3˂H&˂ I $O˂ H&˂ F3˂ 4 J O˂

W> ˂ ED˂Q3˂ ˂3E$N 3D˂ *F$˂EH˂?3N43 $4O˂$˂ 9 $4˂ I $O J $C 34˂ M3E34$˂H&˂ F3˂ 4 J O˂ I $O J $C 34˂ H4˂$EO˂H F34˂<&& N34˂ F$ CH3 34˂ H4˂ F3 4˂-ED34˂<&& N34C˂CF$ ˂ 43N3 3˂ $EO˂633C˂H4˂ J $+3˂ $EO˂G3D-NR HEC˂ F$ CH3 34˂ H- ˂H&˂ F3˂ I $O˂ H&˂$EO˂ <&& N34˂ H4˂?H D 34˂ E˂ 8 C˂ P$(3C O C˂ 4 J O˂H4˂&4H J˂ F3 4˂ 23E C˂ F NF˂CF$ ˂24H ˂ D-3˂&4H J˂ $ED˂ $& 34˂ F3˂ * 3E O & & F˂G$O˂H&˂ / 5 %˂ <E3˂ FH-C$ED˂ 3 2F˂F-ER D43D˂$ED˂ F 4 O H˂H F34˂ F$E˂ F3˂ #C-$˂G3D-N HEC˂H4˂C-NF˂ H F34˂ E3N3CC$4O˂G3D-N HEC˂$C˂CF$ ˂&4H J˂ * J 3˂ H˂* J 3˂Q3˂43X- 43D˂QO˂ 8 C˂ P$(3C O C˂ ' 32- $ HEC˂H4˂ QO˂ 8 C˂ P$(3C O C˂<4D34˂ C 2E & 3D˂QO˂ F3˂ ?3N43 $4O˂$˂ 9 $4˂ $ED˂ 3 34O˂ I $O J $C 34˂ H4˂ H F34˂ <&& N34˂ F$ E2˂ 43N3 3D˂ $EO˂ <&& N34 C˂H4˂?H D 34 C˂ I $O˂ FH˂ CF$ ˂ -E $ &- O˂D3 $ E˂ F3˂C$ J 3˂&H4˂ F3˂?1$N3˂H&˂<E3˂PHE F˂H4˂43&-C3˂ H˂1$O˂ F3˂C$ J 3˂ F3E˂ ˂CF$ ˂ Q3NH J 3˂ D-3˂$NNH4D E2˂ H˂ F3˂C3 34$˂ ' $ 3C˂$ED˂$2433$Q 3˂ H˂ F3˂ C3 34$˂ ' 32- $ HEC˂ 3C $Q CF3D˂ QO˂ 8 C˂ P$(3C O C˂<4D34C˂ CF$ ˂ H E˂ I 4HH&˂ F343H&˂Q3&H43˂ $˂MH-4 J $4 $ ˂ F3˂ D CNF$423D˂ &4H J˂ F C˂ ; J 1 HO J 3E ˂$ED˂CF$ ˂&H4&3 ˂<E3˂F-ED43D˂ I H-EDC˂$ED˂ F3˂ E&H4 J 34˂ &˂$˂ ?H D 34˂ &˂F3˂D3 J $EDC˂ ˂CF$ ˂Q3˂D CNF$423D˂&4H J˂$EO˂&-4 F34˂ ?34 N3˂ 14H D3D˂ F$˂ ˂CFX ˂Q3˂ $ &-˂&H4˂ 8 C˂ P$(3C O C˂?3N43 $4O˂ $˂ 9 $4˂ H˂ 2 3˂<4D34C˂ &H4˂ FFH D E2˂ F3˂ I $O˂H&˂$EO˂<&& N34˂ H4˂ ?Q D 34˂&H4˂$EO˂ I 34 HD˂D-4 E2˂ F NF˂C-NF˂<&& N34˂ , HE NH J J CC HE3D˂ <&&&334˂H4˂?H D 34˂CF$ ˂Q3˂$QC3E˂ FH-˂>3$ 3˂H4˂ J 14H134 O˂$QC3E˂ &4H J˂F C˂@H41C˂$ED˂&4H J˂F C˂G - O ˂H4˂ E˂N$C3˂H&˂$EO˂GH-Q˂$C˂ H˂ F3˂14H134˂ CC-3˂H&˂ I $O˂ H˂ FFH D˂ ˂&4H J˂ F3˂ I $4 3C˂$&H43C$ D˂-E # ˂ 8 C

U¢M # > ; > P 8 ' @$1'UZ

8 C' P $(3C O C' < 4D34C' CF$ ' F$ 3' Q33E' C 2$ & 3D' QO' F3' ?3N43 $4O'
$ ' 9 $4

W> W ' ED' &H4' 3E&H4N E2' $' 14H J 1 ' < QC34 $EN3' H&' F3' ' E 3C' $ED' I 3E$ O' &H4'
< 4D34C' &H4' F3' D 3' 114 4 $ HE' H&' F3' I - Q N' I - EDC' $11 N$Q 3' H' QCH 3D 3EN3
4 J O' ?34 N3C ' $ED' E' H4D34 $ ' $' 4 - 3' $ED' 432 - $4' NNH - E ' J $O' Q3'
+31 ' $ED' 43ED343D' QO' F3' 23E C' H&' F3' C3 34$ ' @H41C ' Q3' ' 3E$N 3D '
* F$ ' F3' C$ D' 23E C' $43' F343QO' 43X - 43D' H' HQC34 3' C - NF' < 4D34$' $C'
CF$ ' &4H J ' * J 3' H' * J 3' Q3' 2 3E' QO' 8 C' P $(3C O' - ED34' 8 C' ? 2E'
P $E - $ ' H4' QO' F3' ?3N43 $4O' $ ' 9 $4 ' H4' QO' 8 C' P $(3C O C' @F 3&'
MH 34EH4' H4' MH 34EH4C' H&' $!% #& ' H4' QO' F3' 5>H4D' * 43$C - 434' H4' @H J R
J CC HE34C' H&' F3' * 43$C - 4O ' $ED' &' $EO' I 34CHE ' Q3 E2' H4' F$ E2' Q33E'
$E' 23E ' CF$ ' 43& - C3' H4' E32 3N ' H' NH J 1 O' F' C - NF' < 4D34C' E'
43 $ HE' H' F C' G - O' $C' 23E ' H4' CF$ ' - E $ & - O' F H D' H4' D3 $ E'
F3' I $O' H&' $EO' < && N34' H4' ?H D 34' $& 34' F3' ?1$N3' H&' < E3' P HE F' $& 34'
F3' ' 3N3 1 ' F343H& ' F3' CF$& ' &H4' F3' ' 4C ' < &&3EN3' &H4&3 ' F3' ? - J ' H&'
< E3' F - ED43D' I H - EDC ' $ED' &' C ' $E' 23E ' &H4' F3' ?3NHED ' < &&3EN3'
Q3' D CNF$423D' &4H J ' F C' ; J 1 HO J 3E ' $C' $E' 4 J O' 23E ' $F ' Q3' - 34 O '
D C$Q 3D' H' F$ 3' H4' FH D' C - NF' ; J 1 HO J 3E ' F343$& 34 ' H4 ' &' F3' CF$ '
F$ 3' N3$C3D' H' Q3' $E' 4 J O' 23E ' CF$ ' &H4' F3' ?3NHED' $ED' 3 34O'
C - NN33D E2' < &&3EN3' &H4&3 ' F3' ? - J ' H&' * H' F - ED43D' I H - EDC

> ' ED' F343$C' QO' I 3 HE' H&' ' 2F ' E' F3' * F 4D' = 3$4' < &' H $1D'
% E2' I) %!1' F3' 6 4C ' (' C' 3E$N 3D' $ED' D3N $43D ' F$ ' F3' I 3H1 3' F343 HH1C'
H&' F3' > $ED' $43' FH ' QO' F3' ' $ C' H' Q3Q - 4 F3E3D' F' F3' CH(H - 4E E2' && 3D'
H&' ?H D 34C' 2 EC ' F3 4' 9 C' ($ED' QO' $' @ $ - C3' E' $E' N ' H&' F3' '
1$4 $ J 3E ' H&' J $D3' E' & 3' * F 4 O & 4C ' = 3$4' H&' F3' ' 3 2E' H&
% E2' I %!1' F3' ?3NHED ' &H4' 24$E E2' $' ? - 11 O' , ' 8 C' P $(3C O' H&'
* H' F - ED43D' $ED' C ' FH - C$ED' &H - 4' F - ED43D' $ED' C O H' I H - EDC'
?3 3E 33E' ?F E2C' $ED' * F433 13EN3 ' &H4' 1$O E2' $ED' D CQ$ED E2' F3'
6H4N3C ' ' C' D3N $43D' $ED' 3E$N 3D ' F$ ' EH' < && N34 ' @ ' H4' P R
$4O ' EH4' H F34' I 34CHE' FH J CH3 34 ' CFH - D' F3EN3&H4 F' 143C - J 3' H'
1 $N3 ' X - $4 34 ' H4' Q 3 ' $EO' ?H D 34' - 1HE' $EO' ? - Q(3N ' H4' EF$Q $E '
H&' F C' ' 3$ J ' H&' $EO' G 433 ' \ - $ O ' H4' I 4H&3CC HE' F$ CH3 34 '
FH - ' F C' @HEC3E ' $ED' F$ ' ' CF$ ' Q3' $ & - ' &H4' $EO' ? - Q(3N ' H4'
EF$Q $E ' H' 43& - C3' H' X - $4 34' $EO' ?H D 34 ' EH FC $ED E2' $EO'
9 44E ' H4' B 3 E2' F$ CH3 34.' ED' F343$C' QO' $E' N ' 1$CC3D'
E' $!% #&' E' F3' ? F' = 3$4' X&' F3' ' 3 2E' H&' \ - 33E' / ! ' E R
- 3D' / #' / ' ' 5 !0!# ') ' 2 Z , &! 1') ' ') 55!#' 4 ')!'
') #(' , ' + , %& ! 1' #&' 5 , 0 & #(' I (!1' , ')!' " (((!' V '
+ , %& ! 1' , #') ! ' ') ' ' $C' 3E$N 3D ' F$ ' EH' < && N34 ' ?H D 34 '
H4' * 4HH134' E' F3' 4 J O ' EH4' F3' ?34 $E ' H&' $EO' < && N3 ' EH4' $EO'
3ED$E ' HE' F3' * 4$ E' H&' 4 34O ' CFH - D ' $ ' $EO' * J 3' F343R
$& 34 ' Q3' $ H 3D' $EO' \ - $4 34C' E' $EO' I $4 ' H&' $!% #& ' C$ 3' HE O'
D - 4 E2' C - NF' * J 3' $C' F3' H4' F3O' CFH - D' Q3' $ED' 43 J $ E' E' CH J 3'
?3$1H4 ' * H E' E' H4D34' H' Q3' 4$EC1H4 3D ' H4' D - 4 E2' C - XF' * J 3' $C'
F343' CFH - D' Q3' $EO' @H J J H HE' E' $EO' I $4 ' H&' $!% #& ' QO' 43$CHE'
H&' F NF' ; J 3423ENO' F3' 4 J O' CFH - D' Q3' NH J J $ED3D' H' J $4NF'
&4H J ' $EO' I $4 ' H&' $!% #&' H' $EH F34.' B ' &H4$C J - NF' $C' $ ' F C'
* J 3 ' D - 4 E2' F3' @HE E - $EN3' H4' F C' N ' F343' C' $ED' J $O' Q3'
< NN$C HE' &H4' F3' J $4NF E2' $ED' X - $4 34 E2' H&' ' 32 J 3E C ' * 4HH1C '
$ED' @H J 1$E 3C' E' C3 34$ ' I $4 C' H&' F3' ' E 3D' % E2DH J ' H&' ! '
" #' $ED' $!% #& ' Q3' ' & - 4 F34' 3E$N 3D ' * F$ ' ' CF$& ' QX' $ & -
&H4

&H4ʻ $ ʻ @HEC $Q 3Cʻ H&ʻ I $4 CF3Cʻ $EDʻ I $N3C ʻ $EDʻ H F34ʻ I 34CHECʻ C13N & 3Dʻ
Eʻ F Cʻ N ʻ Eʻ 8#(% #&ʻ $EDʻ $!% #& ʻ $EDʻ F30ʻ $43ʻ F343Q0ʻ 43X- 43D ʻ
Hʻ Q 3 ʻ F3ʻ <&& N34Cʻ $EDʻ ?H D 34Cʻ Eʻ 8 Cʻ P $(3C O ? &3 N3 ʻ $EDʻ
I 34CHECʻ 4 KN3 E2 ʻ I $0ʻ Eʻ 8 Cʻ P $(3C O ʻ 4 J O ʻ $EDʻ F3ʻ 8 H4C3Cʻ
Q3 HE2 E2ʻ Hʻ 8 Cʻ P $(3C O Cʻ @$ $ 40 ʻ $EDʻ $ CHʻ $ ʻ ? $&&ʻ $EDʻ 6 3 Dʻ
<&& N34Cʻ 8Q4C3C ʻ $EDʻ $ ʻ B$ ʻ $EDʻ B$22$23ʻ 8 H4C3Cʻ Q3 HE2 E2ʻ Hʻ $E0ʻ
H&ʻ 8 Cʻ P $(3C O Cʻ H F34ʻ 6H4N3C ʻ F3Eʻ HEʻ $N -$ ʻ ?34 N3 ʻ EH ʻ 3 R
N33D E2ʻ &N4ʻ 3$NFʻ <&& N34ʻ F3ʻ , - J Q34ʻ &H4ʻ F NFʻ 6H4$23ʻ Cʻ H4ʻ CF$ ʻ
Q3ʻ $ H 3Dʻ Q0ʻ 8 Cʻ P $(3C O Cʻ ' 32- $ HEC ʻ Eʻ N -$ E2ʻ 8 H-C3Cʻ $EDʻ
H F34ʻ 8 H-C3Cʻ C13N & 3Dʻ Eʻ F Cʻ N ʻ ^ $ 4 E2ʻ N$43ʻ Eʻ ? !% #&ʻ EH ʻ Hʻ
Q 3 ʻ 3CCʻ F$Eʻ * Hʻ P 3Eʻ Eʻ $E0ʻ <E3ʻ 8 H-C3 ʻ 3 N31 ʻ HE 0ʻ Eʻ N$C3ʻ H&ʻ
Q 3 E2ʻ @$ $ 40ʻ $Cʻ C13N $ 0ʻ 14H D3D_ ʻ $EDʻ F$ ʻ F30ʻ CF$ ʻ Q3ʻ
43N3 3Dʻ Q0ʻ F3ʻ <NN-1 34Cʻ H&ʻ C-NFʻ 8 H-C3Cʻ Eʻ F NFʻ F30ʻ $43ʻ CHʻ
$ H 3Dʻ Hʻ Q3ʻ Q 3 3D ʻ $EDʻ Q3ʻ &-4E CF3Dʻ Fʻ 14H134ʻ NNH J J HD$ HEʻ
Eʻ C-NFʻ 8 H-C3C ʻ $EDʻ Eʻ 8#(% #&ʻ Fʻ G 3 ʻ $EDʻ ? J $ ʻ B334 ʻ $EDʻ Fʻ
? $Q 3C ʻ 8 $0 ʻ $EDʻ ? 4$ ʻ C-NFʻ 8 H4C3Cʻ $Cʻ $&H43C$ D ʻ 1$0 E2ʻ $EDʻ
$ H ʻ &H4ʻ F3ʻ C$ J 3ʻ F3ʻ C3 34$ ʻ ' $ 3Cʻ F343 E $& 34ʻ 14H D3D ʻ ʻ $EDʻ
$ ʻ EHʻ * J 3ʻ F3Eʻ * 4HH1Cʻ $43ʻ HEʻ $ʻ P $4NFʻ CF$ ʻ $E0ʻ H&ʻ F3 J ʻ F3 F34ʻ
E&$E 40ʻ H4ʻ @$ $ 40 ʻ Q3ʻ Q 3 3Dʻ $QH 3ʻ <E3ʻ P 3ʻ &4H J ʻ F3ʻ I $N3ʻ
J 3E HE3Dʻ Eʻ F3ʻ ' H- 3 ʻ $EDʻ Eʻ $ ʻ I $N3Cʻ F343ʻ @$ $ 40ʻ CF$ ʻ Q3ʻ
Q 3 3Dʻ Eʻ 1-4C-$EN3ʻ H&ʻ F Cʻ N ʻ F3ʻ P 3Eʻ $EDʻ F3 4ʻ 8 H4C3Cʻ CF$ ʻ
Q3ʻ Q 3 3Dʻ Eʻ HE3ʻ $EDʻ F3ʻ C$ J 3ʻ 8 H-C3 ʻ 3 N ʻ Eʻ N$C3ʻ H&ʻ , 3N3CC 0ʻ !ʻ
$EDʻ Eʻ E< H F34ʻ @$C3ʻ F$ CH3 34ʻ CF$ ʻ F343ʻ Q3ʻ 3CCʻ F$Eʻ <E3ʻ P $Eʻ
Q 3 3Dʻ F343ʻ F343ʻ CF$ ʻ Q3ʻ <E3ʻ H4ʻ * Hʻ 8 H4C3C ʻ EH4ʻ 3CCʻ F$Eʻ * Hʻ
P 3Eʻ F343ʻ F343ʻ CF$ ʻ Q3ʻ 6H-4ʻ 8 H4C3C ʻ $EDʻ CHʻ Eʻ 14H1H4 HEʻ &H4ʻ $ʻ
243$ 34ʻ , - J Q34 ʻ $EDʻ Eʻ EHʻ @$C3ʻ CF$ ʻ $ʻ P $Eʻ $EDʻ F Cʻ 8 H4C3ʻ Q3ʻ
Q 3 3Dʻ $ ʻ $ʻ 243$ 34ʻ G C $EN3ʻ &4H J ʻ 3$NFʻ H F34ʻ F$Eʻ <E3ʻ F-ED43Dʻ
=$4DC ʻ $EDʻ F3ʻ @HEC $Q 3Cʻ $43ʻ F343Q0ʻ 43X- 43Dʻ Hʻ Q B3 ʻ $ ʻ ?H D 3 Cʻ
$EDʻ F3 4ʻ 8 H4C3Cʻ HEʻ F3 4ʻ P $4NFʻ Eʻ $ʻ (-C ʻ $EDʻ 3X-$ ʻ I 4H1H4 HEʻ -1HEʻ
F3ʻ %33134Cʻ H&ʻ $ ʻ 8 H-C3Cʻ F Eʻ <E3ʻ P #3ʻ H&ʻ F3ʻ I $N3ʻ J 3E HE3Dʻ
Eʻ F3ʻ ' H- 3 ʻ $ FH-2Fʻ C1 E3ʻ H&ʻ C-NFʻ 8 H-C3Cʻ J $0ʻ Q3ʻ Eʻ F3ʻ $D(H E E2ʻ
@H-E O ʻ Eʻ +3ʻ P $EE34ʻ Eʻ 3 340ʻ 43C13N ʻ $Cʻ &ʻ C-NFʻ 8 H-C3Cʻ 343ʻ HN$ 0ʻ
C -$ 3ʻ F ʻ C-NFʻ I $N3 ʻ 14H D3Dʻ F$ ʻ EH F E2ʻ F343 Eʻ NHE $ E3Dʻ
CF$ ʻ Q3ʻ NHEC 4-3Dʻ Hʻ 3 3EDʻ Hʻ $- FH4 T3ʻ $E0ʻ @HEC $Q 3ʻ Hʻ Q ʻ
?H D 34Cʻ H- ʻ H&ʻ F3ʻ @H-E 0ʻ Hʻ F NFʻ C-NFʻ @HEC $Q 3ʻ B3 HE2C ʻ F3Eʻ
F3ʻ @HEC $Q 3ʻ H&ʻ F3ʻ $D(H E E2ʻ @H-E 0ʻ CF$ ʻ Q3ʻ 143C3E ʻ $EDʻ -ED34 $+3ʻ
Hʻ Q 3 ʻ F3ʻ D-3ʻ I 4H1H4 HEʻ H&ʻ P 3Eʻ Eʻ C-NFʻ $D(H E E2ʻ @H-E 0ʻ ʻ $EDʻ
EHʻ J H43ʻ B# 3 Cʻ CF$ ʻ $ ʻ $E0ʻ * J 3ʻ Q3ʻ H4D343Dʻ F$Eʻ F343ʻ $43ʻ 3&&3N 3ʻ
?H D 34Cʻ $EDʻ 8 H4C3Cʻ 143C3E ʻ Hʻ Q3ʻ Q 3 3D ʻ $ ʻ F NFʻ B 3 C ʻ F3Eʻ
J $D3ʻ H- ʻ Q0ʻ C-NFʻ @HEC $Q 3C ʻ CF$ ʻ Q3ʻ D3 343Dʻ E Hʻ 8 $EDCʻ H&ʻ
F3ʻ @H J J $ED E2ʻ <&& N34ʻ 143C3E ʻ $EDʻ &ʻ $E0ʻ I 34CHEʻ C $ ʻ & EDʻ
F J C3 &ʻ $224 3 3Dʻ Q0ʻ F$ E2ʻ $Eʻ -ED-3ʻ I 4H1H4 HEʻ H&ʻ ?H D 34Cʻ Q 3 3Dʻ
Eʻ F Cʻ 8 H-C3 ʻ $EDʻ CF$ ʻ 143&34ʻ F Cʻ @H J 1 $ E ʻ &ʻ 2 EC ʻ $ʻ @HEC $Q 3ʻ
H4ʻ H F34ʻ I 34CHEʻ EH ʻ Q3 E2ʻ $ʻ 5-C N3 ʻ Hʻ <E3ʻ H4ʻ J H43ʻ 5-C N3C ʻ $EDʻ &ʻ
2 EC ʻ $ʻ 5-C N3 ʻ F3Eʻ Hʻ * Hʻ H4ʻ J H43ʻ 5-C N3C ʻ F Eʻ FHC3ʻ 5-4 CD NR
HEʻ C-NFʻ ?H D 34Cʻ $43ʻ Q 3 3D ʻ C-NFʻ 5-C N3Cʻ 43C13N 3 0ʻ CF$ ʻ F$ 3ʻ
I H 34ʻ Hʻ H4D34ʻ C-NFʻ H&ʻ F3ʻ ?H D 34Cʻ Hʻ Q3ʻ 43 J H 3D ʻ $EDʻ Hʻ Q3ʻ Q 3 3Dʻ
-1HEʻ H F34ʻ I 34CHEC ʻ $Cʻ F30ʻ CF$ ʻ C33ʻ @$-C3ʻ ʻ $EDʻ F3E ʻ $E0ʻ H&ʻ 8 Cʻ
P $(3C O Cʻ @$ $ 40ʻ H4ʻ $E0ʻ 8 H4C3Cʻ $Cʻ $&H43C$ Dʻ CF$ ʻ Q3ʻ Q 3 3Dʻ -1HEʻ
F3ʻ <NN-1 34Cʻ H&ʻ 8 H-C3Cʻ Eʻ F NFʻ <&& N34Cʻ H4ʻ ?H D 34Cʻ J $0ʻ Q3ʻ
X-$4 343Dʻ Q0ʻ 4 -3ʻ H&ʻ F Cʻ N ʻ FHʻ CF$ ʻ F$ 3ʻ EHʻ ? $Q 3C ʻ F3Eʻ $EDʻ
Eʻ C-NFʻ @$C3 ʻ -1HEʻ F3ʻ 4 3Eʻ ' 3X- C HEʻ H&ʻ F3ʻ @H J J $ED E2ʻ
<&& N34ʻ H&ʻ F3ʻ ' 32 J 3E ʻ * 4HH1 ʻ <4ʻ G3 $DQ J 3$ ʻ &H3ʻ @HEC $Q 3ʻ C

F343QO' 43X- 43D' H' Q 3 ' F3' P 3E' $ED' F3 4' 8 H4C3C ' H4' 8 H4C3C' HE O '
-1HE' CH J 3' H F34' I 34CHE' H4' I 34CHEC' FH' F$ 3' ? $Q 3C' QO' F C' N '
$Q 3' H' F$ 3' <&& N34C' $4 D' ?H D 34C' Q 3 3D' -1HE' F3 J' ' $ED(' -1HE'
@H J 1 $ E ' Q3 E2' J $D3' QO' F3' I 34CHE' H4' I 34CHEC' H' FHC3' 8 H - C3' H4'
? $Q 3C' F3' C$ D' P 3E' $ED' 8 H4C3C' CF$ ' F$ 3' Q33E' CH' 43 J H 3D' H' * H'
H4' J H43' 5 - C N3C' F E' FHC3' 5 - 4 CD N HE' C - NF' P 3E' H4' 8 H4C3C' CF$ '
Q3' CH' Q 3 3D' ' CF$ ' Q3' $ &- ' &H4' C - NF' 5 - C N3C' H' H4D34' $' 14 H134
H $EN3' H' Q3' 1$ D' QO' F3' I 34CHEC' 43 3 3D' H' F3' I 34CHEC' 43N3 E2'
C - NF' P 3E' $ED' 8 H4C3C ' H4' H' Q3' $11 3D' E' F3' & - 4E CF E2' F3' 43X- C 3'
NNH J J HD$ HE' ' $ED' @H J J $ED E2' <&& N34C' J $O' 3 NF$E23' $EO' P $$'
H4' 8 H4C3' Q 3 3D' E' $EO' I $N3' F' $EH F34' P $E' H4' 8 H4C3' Q 3 3D'
E' F3' C$ J 3' I $N3 ' &H&' F3' B3E3& ' H&' F3' ?34 N3 ' 14H D3D' F3' , - J Q34'
H&' P 3E' $ED' 8 H4C3C' DH' EH ' 3 N33D' F3' , - J Q34' $ ' F$ ' * J 3' Q 3 3D'
HE' C - NF' 8 H - C3C ' $ED' F3' @HEC $Q 3C' $43' F343QO' 43X- 43D' H' Q 3 ' C - NF'
P 3E' $ED' 8 H4C3C' CH' 3 NF$E23D' $NNH D E2 O' ' $ED' ' CF$ ' Q3' $ &- '
&H4' $EO' 5 - C N3 ' $ ' F3' I 3X - 3C ' H&' $EO' <&& N34' H4' , HE NH J J CC HE3D'
<&& N34' NH J J $ED E2' $EO' ?H D 34C' 43X- 4 E2' B 3 C ' H' 3 3ED' $EO'
' H - 3C' H4' 3E $423' F3' G C 4 N ' F E' F NF' B 3 C' CF$ ' Q3' 43X- 43D '
E' C - NF' P $EE34' $C' CF$ ' $113$4' H' Q3' J HC ' @HE 3E 3E ' H' F3' * 4HH1C' '
14H D3D' F$ ' H' 143 3E ' H4' 1 - E CF' $ ' Q - C3C' E' Q 3 E2' ?H D 34C '
' CF$ ' Q3' $ &- ' &H4' $EO' 5 - C N3' F E' F C' 5 - 4 CD N HE ' QO' 9 44E '
H4' <4D34' -ED34' F C' 8 $ED ' H' 43X- 43' $EO' @HEC $Q 3' H' 2 3' F J ' $E'
NNH - E ' E' 9 4 E2' H&' F3' , - J Q34' H&' <&& N34C' $ED' ?H D 34C' FH'
CF$ ' Q3' X-$4 343D' QO' C - NF' @HEC $Q 3 ' H23 F34' F3' , $ J 3C' H&' F3'
I 34CHEC' -1HE' FH J ' C - NF' <&& N34C' $ED' ?H D 34C' $43' Q 3 3D ' C $ E2'
F3' ? 433 ' H4' I $N3' F343' C - NF' I 34CHEC' D 3 ' $ED' F3' ? 2E ' &' $EO '
Q3 HE2 E2' H' FHC3' 8 H - C3C' ' $ED' ' CF$ ' Q3' $ &- ' H' Q 3 ' <&& N34C'
$ED' ?H D 34C' E' + ' , % #&' $NNH4D E2' H' F3' I 4H C HEC' H&' F3' $ C'
E' &H4N3' E' + ' , % #&' $ ' F3' * J 3' H&' C' # E HE' F' 8 #(% #& =' $ED' EH'
<&& N34' CF$ ' Q3' HQ 23D' H' 1$O' &H4' F C' >HD2 E2' F343' F3' CF$ ' Q3'
432 - $4 O' Q 3 3D ' 3 N31 ' E' F3' ? - Q - 4QC' H&' 8 & #) ( )

> >' ED' Q3' ' 3E$N 3D ' * F$ ' F3' <&& N34C' $ED' ?H D 34C' H&' 8 C' B 3 E2'
P $(3C O C' 6HH ' M-$4DC' CF$ ' Q3' Q 3 3D' F E' F3' @ O' $ED' > Q34 ' F3' M-$4DC'
3C' H&' !1 #1 ' $ED' I $N3C' $D($N3E ' O E2' E' F3' @H - E O' H&' 3C' J 3C' *34'
&& 1! ' ^3 N31 ' F3' @ O' H&' < , #& , # A' $ED' E' F3' @H - E O' H&'
+3 ! ' $ED' E' F3' BH4H - 2F' H&' + , 3) ' E' F3' C$ J 3' P $EE34' $ED'
-ED34' F3' C$ J 3' ' 32 - $ HEC' $C' E' H F34' I $4 C' H&' 8 #(% #& ' E' $ '
@$C3C' &H4' F NF' 1$4 N - $4' I 4H C HE' C' EH ' J $D3' QO' F C' N ' $ED'
F3' 8 2F' @HEC $Q 3' CF$ ' HE' ' 3N3 1 ' H&' F3' <4D34' &H4' Q 3 E2'
?H D 34C ' D3 34' I 43N31 C' H' F3' C3 34$ ' @HEC $Q 3C' F E' F3 4'
43C13N 3' G C HEC ' E' 1 - 4C - $EN3' H&' F NF' F3' C$ D' @HEC $Q 3C' CF$ '
Q 3 ' C - NF' <&& N34C' $ED' ?H D 34C' 3X - $ O' $ED' 14H1H4 HE$ O HE' F3'
8 H - C3C' C - Q(3N 3D' F343 H' QO' F C' N ' $ED' F3' C$ D' @HEC $Q 3C' CF$ '
$ ' 3 34O' M3E34$ ' \ - $4 34' ?3CC HEC' H&' F3' I 3$N3' H' Q3' FH D3E' &H4' F3'
C$ D' @ O' $ED' > Q34 3C ' @H - E 3C' $ED' BH4H - 2FC' 43C13N 3 O ' J $+3'
$ED' D3 34' H' F3' 5 - C N3C' F3E' E' H13E' ?3CC HE' $CC3 J Q 3D ' -1HE'
<$ F ' F NF' <$ F' F3' C$ D' 5 - C N3C' $43' F343QO' 43X- 43D' H' $D J E C 34
> C C ' C 2E3D' QO' F3 J ' 43C13N 3 O ' H&' F3' 8 H - C3C' C - Q(3N ' QO' F C'
N ' H' 43N3 3' <&& N34C' $ED' ?H D 34C ' H23 F34' F' F3' , $ J 3C' $ED
' 4$E+' H&' $ ' <&& N34C)' $ED' ?H D 34C' Q 3 3D' HE' 3$NF' 43C13N 3 O '
F NF' > C C' CF$ ' 43 J $ E' F' F3' 43C13N 3' @ 34+C' H&' F3' I 3$N3 ' &H4'
F3' * EC13N H ' H&' $ ' I 34CHEC ' FH - ' 633' H4' ' 3 $4D ' $ED' C - NF'

@ 34+ʻ CF$ ʻ&H4 F Fʻ&4H Jʻ * J 3ʻ Hʻ * J 3ʻ D3 34ʻ Hʻ $EOʻ I 34CHECʻ FHʻ CF$ ʻ 43X- 43ʻ F3ʻ C$ J 3ʻ 4-3ʻ @H1 3Cʻ H&ʻ $EOʻ C-NFʻ > C 3ʻ -1HEʻ Q3 E2ʻ 1$ Dʻ * H 13EN3ʻ ?F33 ʻ &H4ʻ F3ʻ C$ J 3ʻ 3$3Fʻ ?F33 ʻ Hʻ 3HE CD$ʻ $ʻ 3$C ʻ <E3ʻ F-ED43Dʻ $EDʻ & & Oʻ 9 H4DC

P $4Oʻ <&& N34ʻ EH ʻ Hʻ $N ʻ $Cʻ $ 5-C N3ʻ E Q &3 $E2

ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ * F$ ʻ EHʻ 5-C N3ʻ F$ E2ʻ H4ʻ 3 3N- E2ʻ $EOʻ P $4Oʻ <&& N3ʻ H4ʻ @H J J CC HEʻ Eʻ $EOʻ I $4 ʻ H&ʻ F3ʻ #E 3Dʻ % E2DH Jʻ CF$ ʻ D 43N Oʻ H4ʻ ED 43N O ʻ Q3ʻ NHEN34E3Dʻ Eʻ F3ʻ Q# 3 E2ʻ H4ʻ $1 ʻ 1&& E E2ʻ \ -$4 34Cʻ &H4ʻ $EOʻ ?H D 34ʻ Eʻ F3ʻ ʻ 32 J 3E ʻ * 4HH1 ʻ H4ʻ @H J R 1$EOʻ -ED34ʻ F3ʻ J J 3D $ 3ʻ @H J J $EDʻ H&ʻ C-NFʻ 5-C N3 ʻ Q- ʻ F$ ʻ $ ʻ 9 44E C ʻ N C ʻ H4ʻ * F E2Cʻ CHʻ $11H E 3Dʻ QOʻ C-NFʻ 5-C N3ʻ &H4ʻ H4 @HBN34 8 B2ʻ F3ʻ ?$ J 3ʻ $ ʻ Q 3ʻ H D

Q $EN3ʻ Hʻ

> ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ * F$ ʻ F3ʻ EEFH D34ʻ H4ʻ H F34ʻ I 34CHEʻ HEʻ FH J ʻ $EOʻ ?H D 34ʻ Cʻ Q 3 3Dʻ Eʻ 8#(% #&ʻ CF$ ʻ &ʻ 3XH 3Dʻ QOʻ C-NFʻ ?H D 34 ʻ &-4E CFʻ F J ʻ &H4ʻ 3 34Oʻ G$Oʻ HEʻ F3ʻ P $4NF ʻ $EDʻ &H4ʻ $ʻ I 34 HDʻ 8H ʻ 3 N33D E2ʻ * Hʻ G$OCʻ F3Eʻ F$ 3Dʻ $ ʻ $EOʻ E 34 J 3D $ 3ʻ I $N3ʻ -1HEʻ F3ʻ P $4NF ʻ $EDʻ &H4ʻ F3ʻ G$Oʻ H&ʻ 44 $ ʻ $ ʻ &Q3ʻ I $N3ʻ H&ʻ &H$$ʻ G3C E$ HE ʻ Fʻ <E3ʻ FH ʻ P 3$ ʻ Eʻ 3$NFʻ G$O ʻ F3ʻ P 3$ ʻ Hʻ NHEC C ʻ H&ʻ C-NFʻ \ -$E 3Cʻ H&ʻ G 3 ʻ $EDʻ ?J $ ʻ B334ʻ $Cʻ J $Oʻ Q3ʻ & 3Dʻ QOʻ 8 Cʻ P $(3C OCʻ ʻ 32- $ HEC ʻ EH ʻ 3WN33D E2 <E3ʻ ʻ H-EDʻ $EDʻ $ʻ \ -$4 34ʻ H&ʻ P 3$ ʻ 143 H-Cʻ Hʻ Q3 E2ʻ D43CC3D ʻ <E3ʻ 5 I H-EDʻ <&ʻ B43$D ʻ <E3ʻ I H-EDʻ H&ʻ ʻ H $ H3Cʻ H4ʻ H F34ʻ 323 $Q 3C ʻ $EDʻ * Hʻ I E Cʻ H&ʻ ?J $ ʻ B334 ʻ $EDʻ E32$4 ʻ ?$ ʻ J Dʻ I 31134 ʻ $EDʻ &H4ʻ C-NFʻ P 3$ ʻ F3ʻ J &3H D34ʻ E4ʻ H F J ʻ I 34CHEʻ &-4E CF E2ʻ F3ʻ C$ J 3ʻ CF$ ʻ Q3ʻ 1$ Dʻ F3ʻ ?- J ʻ H&ʻ * 3 13EN3 ʻ $EDʻ $ ʻ EEFH D34Cʻ $EDʻ H F34ʻ I 34CHECʻ HEʻ FH J ʻ ?H D 34Cʻ J $Oʻ Q3ʻ Q 8 3 3Dʻ Eʻ 8#(% #& ʻ 3 N31 ʻ 9 F3Eʻ HEʻ F3ʻ P $ NF ʻ $EDʻ 3E 3Dʻ Hʻ F3ʻ &H J CF3Dʻ Fʻ F3ʻ FH ʻ P 3$ ʻ $Cʻ $&H43C$ D ʻ CF$ ʻ & -E CFʻ C-NFʻ ?H D 34ʻ Fʻ @$ED 3C ʻ E32$4 ʻ $EDʻ ?$ ʻ $EDʻ CF$ ʻ $ H ʻ F3 J ʻ F3ʻ #C3ʻ H&ʻ * 43 ʻ $EDʻ H&ʻ F3ʻ E333CC J (ʻ # 3EC ʻ &H4ʻ D43CC E2ʻ $EDʻ 3$ E2ʻ F3 4ʻ P 3$ ʻ $EDʻ CF$ ʻ Q3ʻ 1$ Dʻ Eʻ NHEC D34$ HEʻ F343H&ʻ F3ʻ ?- J ʻ 1&ʻ <E3ʻ 8 $ &13EEOʻ 134ʻ 2 ! ʻ &H4ʻ 3$NFʻ ?H D 34 ʻ $EDʻ F3ʻ ?- J ʻ Hʻ Q3ʻ 1$ Dʻ Hʻ F3ʻ EEFH D34ʻ <4ʻ H F34ʻ I 34CHEʻ HEʻ FH J ʻ $EOʻ H&ʻ F3ʻ 8 H4C3Cʻ Q3 HE2 E2ʻ Hʻ 8 Cʻ P $(3C (&Cʻ 6H4N3Cʻ CF$ ʻ Q3ʻ Q 3 3D ʻ Eʻ 8#( )#& ʻ &H4ʻ 8 $Oʻ $EDʻ ? 4$ ʻ CF$ ʻ Q3ʻ * 3E 13EN3ʻ 5! ʻ 2 ! ʻ &H4ʻ 3$NFʻ 8 H4C3 ʻ $EDʻ Eʻ $!% #&ʻ F3ʻ ʻ ?- J ʻ Hʻ Q3ʻ 1$ Dʻ &H4ʻ 6H4$23ʻ Hʻ F3ʻ EEFH D34ʻ H4ʻ H F34ʻ I 34CHE ʻ &H4ʻ 8 H4C3Cʻ Q 8 3 3D ʻ QOʻ 4 -3ʻ H&ʻ F Cʻ N ʻ CF$ ʻ Q3ʻ F3ʻ ʻ $ 3ʻ 34 $Q ; CQ3Dʻ QOʻ F3ʻ 6H4Dʻ > 3- 3E$E ʻ H4ʻ H F34ʻ C-&& N 3E ʻ - FH4 Oʻ &4H J ʻ * J 3ʻ Hʻ * J 3 ʻ F3ʻ C$ J 3ʻ Hʻ Q3ʻ 432- $ 3Dʻ QOʻ F3ʻ $ 34$23ʻ ʻ $ 3ʻ H&ʻ @HE 4$N Cʻ &H4ʻ 6H4$23ʻ Eʻ $!)#& ʻ & ʻ &H4ʻ F3ʻ #C3ʻ H& ʻ ? $Q 3Cʻ Eʻ F3E C-NFʻ 8 H4C3Cʻ $43ʻ 14H D3Dʻ Fʻ 8 $Oʻ $EDʻ ? 4$ ʻ QOʻ @HE 4$N ʻ $EDʻ EH ʻ QOʻ F3ʻ <NN-1 34Cʻ H&ʻ F3ʻ 8 H-C3Cʻ HEʻ F NFʻ F3Oʻ $43ʻ Q 3 3D ʻ F3ʻ ?- J ʻ H&ʻ 6H-(4 13EN3ʻ 134ʻ 9 33+ʻ &H4ʻ 3$NFʻ 8 H4C3ʻ CF$ ʻ Q3ʻ 1$ D(ʻ $EDʻ 3 34Oʻ <&& N34ʻ Hʻ FH J ʻ ʻ Q3 HE2Cʻ Hʻ 43N3 3ʻ H4ʻ FHʻ DH3Cʻ $N -$ Oʻ 43N3 3ʻ F3ʻ I $Oʻ &H4ʻ $EOʻ <&& N34Cʻ H4ʻ ?H D 34Cʻ CF$ ʻ 3 34Oʻ 6H-&ʻ G$OC ʻ H4ʻ Q3&H43ʻ F3Oʻ CF$ ʻ X- ʻ F3 4ʻ \ -$4 34Cʻ &ʻ F3Oʻ CF$ ʻ EH ʻ 43 J $ Eʻ CHʻ HE2 $Cʻ 6H-4ʻ G$OC ʻ C3 3ʻ F3ʻ (-C ʻ G3 J $EDCʻ H&ʻ $ ʻ N -$ 34Cʻ H4ʻ H F34ʻ I 34CHECʻ E1HEʻ FH J ʻ C-NFʻ <&& N34Cʻ $EDʻ ?H D 34Cʻ $43ʻ Q 3 3D ʻ H- ʻ H&ʻ F3 4ʻ I $Oʻ $EDʻ ?-QC C 3EN3 ʻ Q3&H43ʻ $EOʻ B$4 ʻ H&ʻ F3ʻ C$ Dʻ I $Oʻ H&ʻ ?$Q4&C 3EN3ʻ Q3ʻ D C 4 Q- 3Dʻ Hʻ F3 J ʻ 43C13N 3 O ʻ $EDʻ &ʻ $EOʻ <&& N34ʻ $Cʻ $&H43C$ Dʻ CF$ ʻ EH ʻ 1$Oʻ F3ʻ C$ J 3 ʻ -1HEʻ @HE4E $ E ʻ $EDʻ <$ Fʻ J $D3ʻ F343H&ʻ QOʻ $EOʻ * Hʻ 9 E3CC3C ʻ $ ʻ F3ʻ E3 ʻ 2 $4 3 4 ʻ ?3CC HEʻ &H4ʻ FHʻ @H-E Oʻ H4ʻ @ Oʻ F343ʻ C-NFʻ \ -$4 34Cʻ 343ʻ C -$ 3D ʻ F3ʻ ?3N43 $4Oʻ $ ʻ 9 $4ʻ Cʻ F343QO 43X- 43D

43X- 43Dʻ ^-1HEʻ @34 & N$ 3ʻ H&ʻ F3ʻ 5-C N3Cʻ Q3&H43ʻ FHJʻ C-NFʻ <$ Fʻ
$Cʻ J$D3ʻ H4ʻ F3ʻ ?- Jʻ D-3ʻ -1HEʻ C-NFʻ NNH-E Cʻ $EDʻ F3ʻ I34CHECʻ Hʻ
FHJʻ F3ʻ C$J3ʻ Cʻ H E _ʻ Hʻ 2 3ʻ <4D34Cʻ Hʻ F3ʻ '32 J3E $ʻ 23E ʻ
Hʻ 1$Oʻ F3ʻ C$ Dʻ ?- JCʻ $EDʻ Hʻ NF$423ʻ F3ʻ C$J3ʻ 2 ECʻ C-NFʻ <&& N34Cʻ (
$EDʻ Eʻ 3$C3ʻ H&ʻ $EOʻ ?H D 34ʻ Q3 E2ʻ C-DD3E Oʻ H4D343Dʻ Hʻ J$4NFʻ $EDʻ F$ʻ
F3ʻ 43C13N 3ʻ @H J J$ED E2ʻ <&& N34Cʻ $43ʻ EH ʻ 3E$Q 3Dʻ Hʻ J$+3ʻ I$O ʻ
J3$ʻ H&ʻ F3ʻ ?- JCʻ D-Qʻ &H4ʻ F3ʻ >HD2 E2ʻ H&ʻ F3ʻ P 3Eʻ $EDʻ ? $Q E2ʻ &H4ʻ
F3ʻ 8H4C3Cʻ 3 34Oʻ C-NFʻ <&& N34ʻ CF$ ʻ Q3&H43ʻ F Cʻ G31$4 -43ʻ J$+3ʻ -1ʻ
F3ʻ NNH-E ʻ Fʻ 3 34Oʻ I34CHEʻ -1HEʻ FHJʻ C-NFʻ ?H D 34ʻ J$Oʻ F$ 3ʻ
Q33Eʻ Q 3 3Dʻ $EDʻ C ʻ $ʻ @34 & N$ 3ʻ F343H&ʻ F NFʻ NNH-E ʻ $EDʻ
@34 & N$ 3ʻ CF$ ʻ 4!ʻ 4$EC J 3Dʻ Hʻ F3ʻ 23E ʻ H&ʻ F3ʻ '32 J3E ʻ FHʻ
Cʻ F343QOʻ 43X- 43Dʻ Hʻ J$+3ʻ J J3D $ 3ʻ I$O J3E ʻ F343H&ʻ $EDʻ Hʻ
NF$423ʻ F3ʻ C$J3ʻ Hʻ F3ʻ NNH-E ʻ H&ʻ C-NFʻ <&& N34

> ʻ EDʻ Q3ʻ ʻ 3E$N 3Dʻ *F$ʻ $ʻ @ $-C3Cʻ $EDʻ I4H C HECʻ Eʻ F Cʻ G3& E HEʻ H&ʻ
N ʻ NHE $ E3Dʻ 43 $ E2ʻ Hʻ 8#(% #&ʻ CF$ ʻ Q3ʻ NHEC 4-3Dʻ Hʻ 3 3EDʻ *3EECʻ
Hʻ)1ʻ $EDʻ F3ʻ *H Eʻ H&ʻ " # ' 35 70Z!!&ʻ $EDʻ $ʻ @ $-C3Cʻ $EDʻ
I4H C HECʻ 43 $ E2ʻ Hʻ F3ʻ " 1)ʻ 5C 3Cʻ CF$ ʻ Q3ʻ NHEC 4-3Dʻ Hʻ 3 3EDʻ
Hʻ Y#W #1! ʻ ?! 1! ʻ /%&! #! ʻ+)ʻ $EDʻ #ʻ $EDʻ $ʻ C 3Cʻ F343 Hʻ
$EDʻ Hʻ 8#(% #&ʻ $EDʻ $!% #&ʻ Q3 HE2 E2ʻ $EDʻ $ʻ @ $-C3Cʻ $EDʻ I4H C HECʻ
43 $ E2ʻ Hʻ ?H D 34Cʻ CF$ ʻ Q3ʻ NHEC 4-3Dʻ Hʻ 3 3EDʻ Hʻ , HE NH J J CC HE3Dʻ
<&& N34Cʻ -E 3CCʻ F3Eʻ H F34 C3ʻ 14H D3Dʻ $EDʻ $ʻ @ $-C3Cʻ $EDʻ I4HR
C HECʻ 43 $ E2ʻ <ʻ 5-C N3Cʻ CF$ ʻ Q3ʻ NHEC 4-3Dʻ Hʻ 3 3EDʻ Hʻ $ʻ
P $2 C 4$ 3Cʻ $- FH4 T3Dʻ Hʻ $N ʻ $Cʻ C-NFʻ Eʻ F3 4ʻ 43C13N 3ʻ 5-4 CD N HECʻ
$EDʻ Hʻ @F 3&ʻ P $2 C 4$ 3Cʻ <&ʻ 3 N -C 3ʻ HN$ʻ 5-4 CD N HECʻ !ʻ $EDʻ $ ʻ F3ʻ IH 34Cʻ $EDʻ
IH 34Cʻ 2 3Eʻ Hʻ $EDʻ '32- $ HECʻ J$D3ʻ &H4ʻ F3ʻ @HED-Nʻ H&ʻ @HE ʻ '32- $ HECʻ
C $Q 3Cʻ Eʻ 43 $ HEʻ Hʻ F3ʻ Q 3 E2ʻ H&ʻ <&& N34Cʻ $EDʻ ?H D 34Cʻ $EDʻ $ ʻ $5 H 3Cʻ
I3E$ 3Cʻ $EDʻ 6H4&3 -43Cʻ &H4ʻ $EOʻ , 32 3N ʻ F343H&ʻ CF$ ʻ 3 3EDʻ Hʻ $ ʻ
* F E2 J3E ʻ 83$DQH4H-2FCʻ $EDʻ C-NFʻ +3ʻ <&& N34Cʻ $EDʻ 8 2Fʻ @HER
C $Q 3Cʻ $EDʻ H F34ʻ @F 3&ʻ <&& N34Cʻ $EDʻ P $2 C 4$ 3Cʻ H&ʻ @ 3Cʻ *H EC
$23Cʻ 8$J 3 Cʻ I$4 CF3Cʻ $EDʻ I $N3Cʻ Eʻ 8#(% #&ʻ $EDʻ $!% #&ʻ FHʻ
CF$ ʻ $N ʻ Eʻ F3ʻ ; 3N- HEʻ H&ʻ F Cʻ N ʻ Eʻ 43 $ HEʻ Hʻ Q 3 E2ʻ $EDʻ
$ ʻ I4H C HECʻ &H4ʻ Q 3 E2ʻ <&& N34Cʻ $EDʻ ?H D 34Cʻ Eʻ N -$ E2ʻ 8H-C3Cʻ
CF$;ʻ 3 3EDʻ $EDʻ $11 Oʻ Hʻ $#ʻ EECʻ > 34Oʻ ? $Q 3Cʻ 3FH-C3Cʻ $EDʻ Hʻ
F3ʻ 8H-C3Cʻ H&ʻ ?3 34Cʻ H&ʻ 9 E3ʻ QOʻ '3 $ ʻ F3 F34ʻ " 1)ʻ , ʻ 6H43 E ʻ
Hʻ Q3ʻ D4$E+ʻ Eʻ F3 4ʻ H Eʻ 8H-C3Cʻ H4ʻ I $N3Cʻ F343-E Hʻ Q3 HE2 E2ʻ $EDʻ
Hʻ $ ʻ 8H-C3Cʻ H&ʻ I34CHECʻ C3 E2ʻ B4$EDOʻ ? 4HE2ʻ 9 $ 34Cʻ @ D34ʻ H4ʻ
P 3 F32 Eʻ QOʻ '3 $ ʻ # 8#(% #&ʻ $EDʻ $!% #&=ʻ $EDʻ Eʻ $!% #&ʻ F3Eʻ
F343ʻ CF$ ʻ EH ʻ Q3ʻ &H-EDʻ C-&& N 3E ʻ 'HHJʻ Eʻ C-NFʻ 8H-C3Cʻ F3Eʻ Hʻ
Q 3 E2ʻ ?H D 34Cʻ Eʻ C-NFʻ P $E134ʻ $Cʻ F$Cʻ Q33Eʻ F343 H&H43ʻ N-C H J$4Oʻ ʻ
14H D3Dʻ F$ʻ EHʻ <&& N34ʻ H4ʻ ?H D 34ʻ CF$ ʻ Q3ʻ Q 3 3Dʻ Eʻ 8#(% #&ʻ Eʻ ; 3J1 HEC
$EOʻ 14 $ 3ʻ 8H-C3Cʻ H4ʻ Eʻ $EOʻ @$E 33Eʻ F3 Dʻ H4ʻ HNN-1 3Dʻ -ED34ʻ F3ʻ &4H ʻ ʻ
- FH4 Oʻ H&ʻ F3ʻ <4DE$EN3ʻ G31$4 J3E ʻ H4ʻ -1HEʻ I34CHECʻ FHʻ +331ʻ
*$ 34ECʻ HE Oʻ Q3 E2ʻ E E34Cʻ H&ʻ F3ʻ @ Oʻ H&ʻ <,#&,#ʻ $D J 3Dʻ Hʻ
F3 4ʻ 6433DH Jʻ H&ʻ F3ʻ C$ Dʻ @H J 1$EOʻ Eʻ 4 2Fʻ H&ʻ I$ 4 J HEOʻ H4ʻ 1143E ʻ
'N3CF 1ʻ EH FC $ED E2ʻ C-NFʻ I34CHECʻ FHʻ +331ʻ C-NFʻ *$ 34ECʻ <E Oʻ
F$ 3ʻ $+3Eʻ H- ʻ N -$ E2ʻ > N3EN3Cʻ EH4ʻ Eʻ F3ʻ 8H-C3ʻ H&ʻ $EOʻ G CR
34ʻ +31 ʻ &H4ʻ D C E2ʻ B4$EDOʻ $EDʻ ? 4HE2ʻ 9 $ 34Cʻ EH4ʻ Eʻ F3ʻ 8H-C3ʻ
H&ʻ $EOʻ ?FH1+33134ʻ FHC3ʻ 14 EN 1$ʻ G3$ E2ʻ CF$ ʻ Q3ʻ JH43ʻ Eʻ H F34ʻ
8HHDCʻ $EDʻ P 34NF$ED T3ʻ F$Eʻ Eʻ B4$EDOʻ $EDʻ ? 4HE2ʻ 9 $ 34C ʻ CHʻ $Cʻ
C-NFʻ G C 3Jʻ $EDʻ ?FH1+33134Cʻ /DHʻ EH ʻ 134J ʻ * 11 E2ʻ Eʻ C-NFʻ
8H-C3Cʻ EH4ʻ Eʻ F3ʻ 8H-C3ʻ H&ʻ '3C D3EN3ʻ Eʻ $EOʻ I$4 ʻ H&ʻ F3ʻ #E 3Dʻ
% E2DH Jʻ H&ʻ $EOʻ 6H43 2Eʻ @HEC- ʻ D- Oʻ $NN43D 3Dʻ $Cʻ C-NF

> ʻ ED

?-11 O' H&' @$44 $23C

> ' ED' Q3' ' 3E$N 3D' *&3$' &H4' F3' 432- $4' I 4H C H$' H&' @$4R 4 $23C' &H ' 8 C' P$(3C O C' 6H4N3C' $ED' F3 4' B$22$23' E' F3 4' P $4NF3C' E' 55 2&3 D' $ED' $!% #&' $ ' 5-C N3C' H&' F3' I 3$N3' F E' F3 4' C3 34$' 5-4 CD N HEC' Q3 E2' D- O' 43X F3D' F343-E H' QO' $E' <4D34' &4H J' 8 C' P $(3C O' H4' F3' M3E34$' H&' 8 C' 6H4N3C' H4' F3' P $C 34' M3E34$' H4' > 3- 3E$E ' M3E34$' H&' 8 C' P $(3C O C' <4DE$EN3' &' E' 8#(% #&' H4' QO' $E' <4D34' &4H J' F3' >H4D' > 3- 3E$E ' H4' @F 3&' MH 34EH4C' H&' $!% #&' H4' &4H J' F3' <&& N34' NH J J $ED E2' 8 C' P $(3C O C' 6H4N3C' E' $!% #&' H4' H F34' 634CHE' D- O' $- FH4 T3D' E' F$ ' B3F$ &' CF$ ' HE' I 4HD-N HE' H&' C-NF' <4D34' H' C-NF' 5-C N3C' QO' CH J 3' <&& N34' N4' %EE 3N J 8m$ CC HE3D' <&& N34' H&' F3' B32 J 3E ' CH' H4D343D' H' J $4NF' C J 3' $' 9 44E ' H' $E (' @HEC $Q 3' F$ E2' - FH4 O' H' $N ' E' $E (' I $N3' &HH J ' F4H-2F' E3$4' <4 H' F NF' F3' *4HH1' CF$ ' Q3' H4D343D' H' E$4NF' ^&H4' 3$NF' H&' F NF' 9 44E C' F3' 633' H&' <E3' ?F E2' HE O' CF$ ' Q3' 1$ D _' 43X- 4 E2' F J' H' 14H D3' F3' @$44 $23C' 8 H4C3C' $ED' < 3E ' $ED' G4 34C' F343 E' J 3E HE3D' $ED' $ H E2' C-&& N 3E ' * J 3' H' DH' F3' C$ J 3' C13N &O E2' I $N3C' &4H J' $ED' H' F NF' F3' C$ D' @$44 $23C' CF$ ' 4$ 3 ' $ED' F3' , - J Q34' H&' P 3C' Q3 33E' F3' I $N3C' &H4' F NF' , - J Q34' HE O' CH' C13N & 3D' I $O J 3E ' CF$ ' F3' D3 J $ED3D' $ED' F NF' , - J Q34' H&' P 3C' CF$ ' EH ' 3 N31' E' @$C3C' H&' 143C$ ' ; J 3 ENO ' 3 N33D' $' G$O C' P $4NF' 143CN4 Q3D' E' F3' <4D34' H&' ' H- 3' $4 J' CF D' E' EH' @$C3C' 3 N33D' * 3E O & 3' P 3C' ($ED' F3' @HEC $Q 3C' 43N3 E2' C-NF' 9 44E C' CF$ ' H4D34' C-NF' I 34CHEC' $C' F3O' CF$ ' F E+' 14H134' F$ E2' @$44 $23C' H' &-4E CF' F3' 43X- C 3' ?-11 O' FH' $43' F343QO' 43X- 43D' H' &-4E CF' F3' C$ J 3' $NNH4D E2 OO' $ED' F3E' C-&& N 3E ' @$44 $23C' N$EEH ' Q3' 14HN-43D' F E' F3' 14H134' 5-4 CD N HE ' $EO' 5-C N3' H&' F3' E3 ' $D(H E E2' 5-4 CD N HE' CF$ ' QO' $' +3' @H-4C3' H&' 14HN33D E2 ' C-11 O' F3' G3& N 3ENO ' $ED' E' H4D34' F$ ' F3' B-4 F3E' H&' 14H D E2' @$44 $23C' J $O' &$ ' 3X-$ O ' $ED' H' 143 3E ' ENHE 3E 3EN3' $4 $E2' &4H J' F343' Q3 E2' EH' 5-C N3' 43C D E2' E3$4' F3' 8 $N3' F343' *4HH1C' J $O' Q3' X-$4 343D' HE' F3' P $4NF' $EO' 5-C N3' 43C D E2' E3$43C' H' C-NF' I $N3' J $O' N$-C3' $' > C ' H' Q3' J $D3' H- ' $' 3$C ' HEN3' ' 3 34O' =3$4' H&' $ ' I 34CHEC' $Q 3' H' &-4E CF' C-NF' @$44 $23C' $ED' H&' F3' , - J Q34' $ED' G3CN4 1 HE' H&' F3 4' C$ D' @$44 $23C' ^ F NF' > C C' CF$ ' $ ' $ ' C3CHEQ 3' 8 H-4C' Q3' H13E' H' F3' EC13N HE' H&' F3' C$ D' I 34CHEC _' $ED' J $O' QO' 9 44E ' -ED34' F C' 8 $ED' $- FH4 T3' F3' @HEC $Q 3C' F E' F C' 5-4 CD N HE' H' 2 3' <4D34C' H' 14H D3' @$44 $23C' FH- ' $EO' C13N $' 9 44E ' &H4' F$ ' I -41HC3' F NF' <4D34C' CF$ ' F3' $ D' E' $ ' 4 3 $ N C ' $ED' $ ' <4D34C' &H4' C-NF' @$44 $23C' DF$ ' Q3' J $D3' &4H J' C-NF' > C C' E' 432- $4' ' H $ HE ' $C' &$4' $C' F3' C$ J 3' N$E' F3' DHE3

' $ 3C' H' Q3' 1$ D' $ED' P HD3' H&' 14HN33D E2

> ' ED' Q3' ' 3E$N 3D' * F$ ' F3' ' $ 3C' H' Q3' 1$ D' &H4' @$44 $23C' J 143CC3D' CF$ ' Q3 ' E' 8#(% #&' &H4' 3 34O' P 3' F NF' $' 9 $22HE' F' 6H-4' H4' J H43' 8 H4C3C' H4' $' 9 $ E' F' ? ' < 3E ' H4' 6H-4' < 3E' $ED' * H' 8 E4C3C' CF$ ' 4$ 3 ' <E3' ?F E2 ' $ED' &H4' 3 34O' P 3' $EO' 9 $22HE' F' E$44H ' 9 F33 C' H4' $EO' @$4 ' F' 6H-4' 8 H4C3C' N$44O E2' EH ' 3CC' F$E' 6 & 33E' 8 -ED43D' 9 3 2F ' CF$ ' 4$ 3 ' , E3 13EN3 ' $ED' &H4' 3 34O' P 3' 3 34O' H F34' @$4 ' H4' @$44 $23' 9 F' 3CC' F$E' 6H-4' 8 H4C3C' $ED' EH ' N$44O E2' %&433E' 8 -ED43D' 9 3 2F ' CF$ ' 4$ 3 ' ? 13EN3 ' $ED' E' $!% #&' &H4' 3 34O' 8 -ED43D' 9 3 2F ' H$D3D' HE' $EO' 9 F33' @$44 $23' <E3' 8 $ &13E-O 134' P 3 ' $ED' E' 8#(% #&' C-NF' &-4 F34' ' $ 3C' J $O' Q3' $DD3D' EH ' 3 N33D E2' $' H $' DD HE' 5! ' P 3' H&' 6H-4 13EN3' * F433 13EN3' H4' * H 13EN3' H' F3' 43C13N 3

' $ 3C

@ 9 ? 6 ' : 6 ' ' '&2' #)

'$ 3C' H&' <$3' ?P E2' , E3 13 (N3' H4' ? .0 13 X3' $a' J$O' f33 J'
43CHEQ 3' H' F3' 5-C N3C' $CC3 J Q 3D' $' @43E34$' ?3CC HEC' &H4' F3 4'
43C13N 3' G C 4 N C' ($ED' F3' <4D34' H&' C-NF' 5-C N3C' $' ?3CC HEC' CF$ '
C13N &O' F3' $ 34$23' I 4 N3' H&' 8 $O' $ED' <$ C' $' F3' E3$43C' P $4+3'
*H E' $' F3' * J 3' H&' & E2' C-NF' $DD HE$' '$ 3C' F3' I 34 HD' &H4'
F NF' F3' <4D34' CF$ ' Q3' 3E&H4N3D' EH ' 3 N33D E2' * 3E' G$OC' Q3OHED'
F3' E3 ' M3E34$' ?3CC HEC' ^$ED' EH' C-NF' <4D34' CF$ ' Q3' $ D' -E 3CC'
$' @H1O' F343H&' C 2E3D' QO' F3' 143C D E2' P $2 C 4$ 3' $ED' <E3' < F34'
5-C N3' CF$ ' Q3' 4$EC J 3D' H' F3' ?3N43 $4O' $' 9 $4' F E' * F433'
G$OC' $& 34' F3' J $+ E2' F343H&_ '$ED' $ CH' E' 8 #(% #&' F3E' F3' G$O C'
P $4NF' ?F$ '3 N33D' 9 33E' P 3C' F3' 5-C N3' 24$E E2' F C' 9 44E ' '
J $O' & ' $' &14 F34' 43$CHE$Q 3' @H J 13EC$ HE' EH ' 3 N33D E2' F3' -C-$'
'$ 3' H& 8 43' & 3D' QO' F C' N ' $ED' F3E' $EO' $DD HE$' '$ 3C' H4'
@H J 13EC$ HE' CF$ ' Q3' 24$E 3D' F3' 5-C N3' CF ' EC34' E' F C' H E'
8 $ED' E' F3' 9 44E ' F3' J H-E' F343H&' $ED' F3' G$ 3' H&' F3'
<4D34' H&' ?3CC HEC' &' & 3D' QO' ?3CC HEC' $ED' 3' 9 44E ' CF$ ' Q3' 2 3E'
H' F3' <&& N34' NH J J $ED '$C' F C' H-NF34' 14H D3D' F$' F3' <&& N34'
H4' , HE" NH J J CS HE3D' < J N34' D3 J $ED E2' @$44 $23C' QO' 4 -3' H&' F3'
9 44E ' H&' $' 5-C N3' CF$ ' E' 8 #(% #&' 1$O' DH E' E' F$ED' F3' 14H134'
?- J C' E H' F3' 8 $EDC' H&' F3' @HEC $Q 3C' 14H D E2' @$44 $23C' FH'
CF$ ' 2 3' '3N J 1 C' &H4' F3' C$ J 3' HE' -EC $ J 13D' I $134' $ED' E'
$! % V ' F3' <& ?N34C' <4 , HE NH J J CC HE3D' <&& N34C' $C' $&H43C$ D' CF$ ' '
1$O' F3' < E34C' H4' G4 34C' H&' F3' @$44 $23C' $ED' <E3' * F 4D' I $4' H&'
C-NF' I $O J 3E' CF$ ' Q3' J $D3' Q3&H43' F3' @$44 $23' Q3' H$D3D' $ED'
$ ' F3' C$ D' I $O J 3E C' #' $! % #&' CF$ ' F3' J $D3' E' 43X- 43D' E' F3'
$ * 3C3EN3' H&' $' 5-C N3' H4' @HEC $Q 3' 14H D3D' F$' EH' @$44 $23' CF$ '
F3.' $Q 3' H' N$44O' J H43' F$E' * F 4 O' 8 -ED43D' 9 3 2F ' E' 8 #(% #&'
$ED' E' $! % #&' #, ' @$4' CF$ ' Q3' $Q 3' H' N$44O' J H43' F$E' ? ' 8 -ED43D'
9 3 2F ' $ED' EH' G4$O' J H43' F$E' * 3 3' 8 -ED43D' 9 3 2F ' Q- ' F3'
< E34' H&' C-NF' @$44 $23C' E' $! % #&' NHEC3E E2' H' N$44O' $' 243$ 34'
9 3 2F ' CF$ ' Q3' 1$ D' $' F3' C$ J 3' '$ 3' &H4' 3 34O' 8 -ED43D' 9 3 2F '
H&' F3' C$ D' ; N3CC ' $ED' F3' < E34C' H&' C-NF' @$44 $23C' E' $! % #&'
F .' EH ' Q3' NH J 13 3D' H' 14HN33D' FH-2F' F' $EO' 3CC' 9 3 2F '
-ED34' F3' ?- J' , ' * F433 13EN3' $' P 3' &H4' 3$NF' @$4' $ED' ? 13EN3'
$ P 3' &H4' 3$NF' G 4$O ' $ED' F3' >H$D E2' H&' C-NF' @$44 $23C' E' $! % #&'
' CF$ ' Q3' & 4C' 3 2F3D' &' 43X- 43D' $' F3' ; 13EN3' H&' F3' < E34' H&'
F3' @$44 $23' &' F3' C$ J 3' N$E' Q3' DHE3' E' $' 43$CHE$Q 3' * J 3' FH-'
8 ED4$EN3' H&' 8 C' P $(3C O C' ?34 N3' $ED' F3' 14H D E2' $ED' 1$O E2'
&H4' @$4E$23C' E' + ' , % #&' CF$ ' Q3' 432- $ 3D' QO' F3' >$ ' E' &H4N3'
$' F- * J 3' H&' F3' # E HE' F' 8 #(% #&- 14H D3D' F$' $' @$4' F'
<E3' H4' J H43' ' 8 H4C3C' &H4' F NF' F3' 6 -4E CF34' CF$ ' 43N3 3' , E3 '
13$N3' $' P 3' CF$ ' Q3' 43X- 43D' H' N$44O' 6 & 33E' 8 -ED43D' 9 3 2F '
$ F3' 3$C ' 14H D3D' F$' EH' I 3E$ 3C' H4' 6H4&3 -43C' E' $EO' N '
43 $ E2' H' 8 2F $OC' H4' * -4E1 +3' 'H$DC' E' F3' # E 3D' * N2DH J '
CF$ ' $11 O' H' F3' , - J Q34' H&' 8 H4C3C' $ED' < 3E ' H4' 9 3 2F ' H&' >H$D E2'
H&' F3' $&H43C$ D' @$44 $23C' F NF' CF$ ' EH ' X- ' F$' NNH-E ' ' Q3'
C H113D' H4' D3 $ E3D ' $ED' F3E3 34' 'CF$ ' Q3($ N3CC$4O' H' E (3CC'
' @$44 $23C' &H4' F3' P $4NF' H&' ?H D 34C' &4H J ' 2 34% # W 1 ' ! M1 ' * 3E O'
8 H-4C' , H N3' H&' C1NF' P $4NF' $ED J N$C3 X Y 23ENO C XE2'
' , H N3' $C' F3' @$C3' '$D J 'CF$ Q3 2 3E& 10 F3' >H4D P $OX H&'
2 34% # ' FH' CF$ ' C- J J HE' $' 14H1H4 HE$Q 3' , J Q34' H&' @$4C $ED'
G4$OC ' $' F C' G CN4X H ' H-&' H1' F3' N3EC3D' @$4C' $ED' G4$OC' $ED'
H F34' @$4C' $ED' G4$OC &F E F3 @H-E O' H&' F3' C$ D' @ O ' $ED' F3O'
' S ') CF$

CF$ ' QO' * -4EC' Q3' 3 J 1 HO3D' HE' F a' G - O ' $ ' F3' I 4 N3C' $ED' -ED34' 3'
' 32 - $ HEC' F343 E Q3&H43' J 3E HE3D' ' $ED' EH' @H - E 4O' @$4C ' G4$OC '
H4' H F34' @$44 $23C' @H J E2' H' P $4+3 C' E' $!% #&' CF$ ' Q3' D3 $ E3D' H4'
3 J 1 HO3D' 2 EC ' ' 9 D ' H&' F3' [3 4 C' E' N4E*4O 2' F3' B $ 2 2 3' '
4 3' 4 J O' HE' $EO' I 43 3EN3' F$ CH3 34

?-11 O' H&' > ' ED' Q3' ' 3E$N 3D ' * F$ ' ' CF$ ' Q3' $ &- ' &H4' 8 C' P 3C O
@$44 $23C' E' - ' F3' >H4D' > 3 - 3E$E ' H4' @F 3&' <H 3 J H4C' H&' $!% #& ' QO' 8 C' H4'
+3 ' <4D34 ' D C EN O' C $ E2' F$ ' $' @$C3' H&' ; J 3423ENO' DH F' 3 C
b C & 3D' QO' F3' ?3N43 $4O' $ ' 9 $4 ' H4' &' E' $!% & ' QO' F3' @F 3&'
7?3N43 $4O' H4' # ED ' ?3N43 $4O ' H4' F3' 6 4C ' @ 34+' E' F3' P $4O'
' G31$4 J 3E ' H' $ - FH4 T3' $EO' M3E34$ ' H4' I 3 D' <& ?N34' NH J J $FD J 2'
8 C' P $(3C O C' 6H4N3C' E' $EO' G C 4 N ' H4' I $N3 ' H4' <' F3' @F 3 ' N E2'
23E ' &H4' F3' ? - 11 O' H&' ? H43C' $ED' I 4H C HEC ' QO' 9 4 E2' -ED34' Q C'
8 $ED ' 43N E2' C - NF' <4D34' H&' 8 C' P $(3C O' H4' >H4D' > 3 - 3E$E ' H4'
@F 3&' MH 34EH4' $&H43C$ D ' H' 43X - 43' $ ' 5 - C N3C' F E' F3 4' C3 34$ '
5 4 CD 34 HEC' J ' 8#(% #&' $ED' $!O &' H' CC - 3' F3 4' 9 44E C' .&H4' F3'
I 4H C HE ' EH ' HE O' H&' 9 $22HEC ' 9 $ EC ' @$4 C ' $ED' M$4C' +31 ' QO' H4'
Q3 HE2 E2' H' $EO' I 34CHE ' $ED' &H4' $EO' # C3' F$ CH3 34 ' Q - ' $ CH' H&'
?$DD 3' 8 H4C3C ' @H$NF3C ' I HC ' @F$ C3C ' @F$ C3C ' $ED' H F34' 6H - 4 '
F33 3D' @$44 $23C' +31 ' &H4' 8 43 ' $ED' $ CH' H&' BH$ C ' B$423C ' $ED' H F34'
3CC3 C' - C3D' &H4' F3' * 4$EC1H4 ' H & ' J$O' MH J J HD & 3C' F$ CH3 34' - 1HE'
$EO' @$E$ ' H4' , $ 2$ ' ' 34 ' $C' CF$ ' Q3' J 3E HE3D' E' F3' C$ D'
9 44E C ' F343 E' C13N &O E2' F3' I $N3' $ED' G C $EN3' H' F NF'
C - NF' @$44 $23C' H4' 3CC3 C' CQ$ ' 2H' ($ED' HE' F3' I 4HD - N HE' H&' C - NF'
' 3X - C HE' H' C - NF' 5 - C N3' QO' $EO' <&& N34' H&' F3' @H41C' H4D343D' H' Q3'
NHE 3O3D ' H4' QO' $EO' <&& N34' H&' F3' @H J J CC$4 $ ' H4' <4DE$EN3' G31$4 R
J 3E ' C - NF' 5$C N3' CF$ ' $+3' $#' F3' ?$J 3' I 4HN33D E2C ' E' 432$4D' H'
CEDQ' $DD HE(D' ? - 11 O' CH' 43X - 43D' HE' F3' C$ D' ; J 3 - NO' $C' F3' C' QO'
F C' N ' 43X - 43D' H' $+3' &H4' F3' H4D E$4O' I 4H C HE' H&' @$44 $23C '
$ED' $#' I 4H C HEC' F$ CH3 34' H&' F C' N ' $C' 432$4DC' F3' 14HN - 4 E2' H&'
F3' H4D E$4O' ? - 11 O' H&' @$44 $23C ' $ED' F3' G - 3C' H&' <&& N34C' $ED' , HER
NH J J CC HE3D' <&& N34C ' 5 - C N3C ' @HEC $Q 3C ' $ED' < E34C' H&' @$44 $23C '
E' F$ ' B3F$ & ' CF$ ' Q3' H' $ ' E 3E C' $ED' I - 41HC3C' $11 N$Q 3' & ' F3'
' 14H D E2' $ED' I $O J 3E ' $NNH4D E2' H' F3' ' $ 3' H&' I HC E2' H4' H&' 8 43'
#C - $ O' 1$ D' &H4' C - NF' H F34' G3CN4 1 HE' H&' @$44 $23C' H4' 3CC3 C' CH'
43X - 43D' HE' ; J 3423ENO ' $NNH4D E2' H' F3' >3E2 F' H&' F3' 5H - 4E3O' H4'
HO$23' E' 3$NF' @$C3 ' Q - ' J $+ E2' EH' H $EN3' &H4' I HC ' 8 H4C3' G - O ' '
H4' * - 4E1 +3 ' @E ' ' 34 ' H4' >HN+' * H C ' F NF' G - O' H4' * H C' $43'
F343QO' D3N $43D' EH ' H' Q3' D3 J EDQ 3' &H4' C - NF' @$44 $23C' $ED' O3CC3 C'
' F 3' 3 J 1 HO3D' E' C - NF' ?34 N3' H4' 4 - J H2' F343& H J ' _' $ED' ' ($ '
Q3' $ & - ' H' NHE 3O' F343HE ' EH ' HE O' F3' B$22$23 ' I 4H C HEC ' $ED'
P $4O' ? H43C' H&' C - NF' ' 32 J 3E ' H4' G3 $NF J 3E ' Q - ' $ CH' F3'
<&& N34C ' ?H D 34C ' ?34 $E C ' 9 H J 3E ' @F D43E ' $ED' H F34' I 34CHEC' H&'
$ED' Q3 HE2 E2' H' F3' C$ J 3

5 C#N3C' 3 X ' > >' ED' Q3' ' 3E$N 3D ' * F$ ' ' CF$ ' Q3' $ & - ' &H4' F3' 5 - CR
1H 343D' H' N3C' H&' F3' I 3$N3' $CC3 J Q 3D' $ ' F3 4' \ - $4 34' ?3CC HEC' H' D 43N '
43 J Q - 4C3' F3' F3' * 43$C - 434' H' 1$O ' FH - ' 633 ' H - ' H&' F3' I - Q N' ? HN+' H&' F3'
@HEC' $Q 3C' @H - E O' H4' ' D E2' H4' &' C - NF' I - Q N' ? HN+' Q3' EC - && N 3E ' F3E' H - ' H&'
&H4' ? - J C' 3 ' F3' P HE 3C' F NF' F3' C$ D' 5 - C N3C' CF$ ' F$ 3' I H 34' H' 4$ C3' &H4' F$ '
' 13ED3D' QO I - 41HC3 ' E' +3' P $4 E34' $C' &H4' - E O' M$HQ' $ED' B4 D23C ' C - NF'
F3J 43CHEQ 3' ? - J C' $C' $ ' F$ 3' 3 13ED3D QO ' F3' @H E NF 3C

U/M#> ;>P ʽ ʽ &' ʽ -

F E ʽ F3 4ʽ 43C13N 3ʽ 5-4 CD N HECʽ &H4ʽ @$44 $23Cʽ $EDʽ 3CC3 C ʽ H 34ʽ $EDʽ $QH 3ʽ F$ ʽ $Cʽ H4ʽ 'H-2F ʽ H ʽ F$ 3ʽ Q33E ʽ 1$ Dʽ QOʽ F3ʽ <&& N34ʽ 43X- 4 E2ʽ F3ʽ C$ J 3ʽ '32$4Dʽ Q3 E2ʽ F$Dʽ H ʽ F3ʽ ?3$CHE ʽ H&ʽ F3ʽ =3$4ʽ $EDʽ @HED HE ʽ H&ʽ F3ʽ 9 $OCʽ QOʽ F NF ʽ C-NF ʽ @$44 $23Cʽ $EDʽ 3CC3 Cʽ $43ʽ H ʽ 1$CC

> W ʽ EDʽ Q3ʽ ʽ 3E$N 3D ʽ * F$ ʽ ʽ CF$ ʽ Q3ʽ $ &- ʽ &H4ʽ F3ʽ >H4Dʽ 'H- 3C E ʽ > 3- 3E$E ʽ H4ʽ H F34ʽ @F 3&ʽ MH 34EH4ʽ &H4ʽ F3ʽ * J 3ʽ Q3 E2ʽ H&ʽ $!% #&ʽ Q3 $-Dʽ H ʽ D31- 3ʽ QOʽ 9 44E ʽ -ED34ʽ F Cʽ 8 $EDʽ $EDʽ ?3$ ʽ CH J 3ʽ 14H134ʽ I 34CHE ʽ H ʽ C 2E ʽ 'H- 3Cʽ &H4ʽ F3ʽ J $4NF E2ʽ H&ʽ $EOʽ H&ʽ 8 Cʽ P $(3C O Cʽ I H4N3Cʽ E ʽ $!% #&ʽ E ʽ F3ʽ , $ J 3ʽ H&ʽ C-NF ʽ >H4Dʽ > 3- 3E$E ʽ H4ʽ @F 3&ʽ MH 34EH4

>W ʽ EDʽ Q3ʽ ʽ 3E$N 3D ʽ * F$ ʽ $ ʽ 8 Cʽ P $(3C O Cʽ <&& N34Cʽ $EDʽ *H Cʽ ?H D 34C ʽ Q3 E2ʽ E ʽ 14H134ʽ ? $&&ʽ H4ʽ '32 J 3E $ ʽ H4ʽ P $4Oʽ #E &H4 J G43CCʽ H4ʽ #ED43CC ʽ $EDʽ F3 4ʽ 8 H4C3C ʽ $EDʽ $ ʽ @$44 $23Cʽ $EDʽ 8 H4C3Cʽ Q3 HE2 E2ʽ H ʽ 8 Cʽ P $(3C O ʽ H4ʽ 3 J 1 HO3Dʽ E ʽ 8 Cʽ ?34 N3 ʽ F3E ʽ <HE 3O ʽ E2ʽ I 34CHECʽ H4ʽ B$22$23 ʽ -ED34ʽ F3ʽ I 4H C HECʽ H&ʽ F Cʽ N 7H4ʽ 43 -4E E2ʽ F343&4H J ʽ CF$ ʽ Q3ʽ 3 3 J 1 3Dʽ &4H J ʽ I $O J 3E ʽ H&ʽ $EOʽ G- 3Cʽ $EDʽ * H Cʽ HE ʽ 3 J Q$4+ E2ʽ H4ʽ D C3 J Q$4+ E2ʽ &4H J ʽ H4ʽ -1HE ʽ $EOʽ I 34 ʽ 9 F$4&ʽ \ -$O ʽ H4ʽ >$ED E2ʽ I $N3 ʽ H4ʽ 1$CC E2ʽ * -4E1 +3ʽ 'H$DCʽ H4ʽ B4 D23C ʽ H F34 C3ʽ D3 J EDQ 3ʽ QOʽ 4 -3ʽ H&ʽ $EOʽ N ʽ $ 43$DOʽ J $D3ʽ H4ʽ F343$& 34ʽ H ʽ Q3ʽ J $D3 ʽ 14H D3Dʽ F$ ʽ EH F E2ʽ F343 E ʽ NHE $ E3Dʽ CF$ ʽ 3 3 J 1 ʽ $EOʽ BH$ C ʽ B$423?_ʽ H4ʽ H F34ʽ 3CC3 Cʽ 3 J 1 HO3Dʽ E ʽ NHE 3O E2ʽ F3ʽ C$ Dʽ I 34CHEC ʽ 8 H4C3C ʽ B$22$23 ʽ H4ʽ ? H43Cʽ $ HE2ʽ $EOʽ @$E$ ʽ &4H J ʽ I $O J 3E ʽ H&ʽ * H C ʽ E ʽ +3ʽ P $EE34ʽ $Cʽ H F34ʽ BH$ C ʽ B$423C ʽ $EDʽ 3CC3 Cʽ $43ʽ $Q 3ʽ F343 H

>W ʽ EDʽ Q3ʽ ʽ 3E$N 3D ʽ * F$ ʽ F3E ʽ $EOʽ ?H D 34Cʽ HE ʽ ?34 N3ʽ F$ 3ʽ 63N4 3C ʽ HNN$C HE ʽ E ʽ F3 4ʽ P $4NF ʽ H ʽ 1$CCʽ 432- $4ʽ 6344 3Cʽ E ʽ + ' , % #&ʽ F3ʽ <&& N34ʽ NH J J $ED E2ʽ J $Oʽ $ ʽ F Cʽ <1 HE ʽ 1$CCʽ H 34ʽ F ʽ F Cʽ ?H D 34Cʽ $Cʽ I $CC3ER 234C ʽ $EDʽ CF$ ʽ 1$Oʽ &H4ʽ F J C3 &ʽ $EDʽ /3$NF ʽ ?H D 34ʽ <E3ʽ 8 $ &ʽ HE Oʽ H&ʽ F3ʽ H4D E$4Oʽ ' $ 3ʽ 1OQ 3ʽ QOʽ C E2 3ʽ I 34CHEC ʽ H4ʽ J $Oʽ F 43ʽ F3ʽ 6344Oʽ BH$ ʽ &H4ʽ F J C3 &ʽ $EDʽ F Cʽ I $4 O ʽ D3Q$44 E2ʽ H F34Cʽ &H4ʽ F$ ʽ * J 3 ʽ $EDʽ CF$ ʽ E ʽ C-NF ʽ @$C3Cʽ 1$Oʽ HE Oʽ 8 $ &ʽ F3ʽ H4D E$4Oʽ ' $ 3ʽ &H4ʽ C-NF ʽ BH$

>W ʽ EDʽ Q3ʽ ʽ 3E$N 3D ʽ * F$ ʽ &ʽ $EOʽ @HEC $Q 3ʽ H4ʽ H F34ʽ I 34CHE ʽ 13E$ 3Cʽ FH ʽ QOʽ 4 -3ʽ H&ʽ F Cʽ N ʽ CF$ ʽ Q3ʽ 3 J 1 HO3D ʽ E ʽ Q 3 E2ʽ $EOʽ <&& N34Cʽ H4ʽ ?DD 34Cʽ E ʽ $EOʽ I $4 ʽ H&ʽ F3ʽ #E 3Dʽ % E2DH J ʽ CF$ ʽ 143C- J 3ʽ H ʽ Q 3 ʽ $EOʽ C-NF ʽ <&& N34ʽ H4ʽ ?H D 34ʽ E ʽ $EOʽ 8 H-C3ʽ EH ʽ F E ʽ F3ʽ P 3$E ʽ F3 E2ʽ H&ʽ F Cʽ N ʽ FH- ʽ F3ʽ @HEC3E ʽ H&ʽ F3ʽ < E34ʽ H4ʽ <NN-1 34ʽ F343H&(C3 $ E2ʽ H4ʽ CF$ ʽ E32 3N ʽ H4ʽ 43&-C3ʽ H ʽ Q 3 ʽ $EOʽ <&& N34ʽ H4ʽ ?H D 34ʽ HE ʽ G- O ʽ [&& & 3 C $EDʽ F3E ʽ F343-E H ʽ 43X- 43D ʽ E ʽ C-NF ʽ P $EE34ʽ $Cʽ Cʽ QOʽ F Cʽ N ʽ D 43N 3D ʽ D$ J $23C ʽ 14H D3Dʽ C-&& N 3E ʽ , H N3ʽ Q3ʽ 2 3E ʽ Q3&H43ʽ F3ʽ 44 $ ʽ H&ʽ C-XF ʽ * 4HH1C ʽ H4ʽ CF$ ʽ 43N3 3 ʽ D3 J $ED ʽ H4ʽ $2433ʽ &H4ʽ $EOʽ P HE3Oʽ H4ʽ ' 3 $4Dʽ F$ CHR 3 34 ʽ E ʽ H4D34ʽ H ʽ 3 N-C3ʽ $EOʽ I 34CHE ʽ &4H J ʽ 43N3 E2ʽ C-NF ʽ <&& N34ʽ <4 ?H D 34 ʽ H4ʽ CF$ ʽ X-$4 34ʽ $EOʽ H&ʽ F3ʽ 9 3C ʽ @F D43E ʽ P 3E ʽ H4ʽ P $ Dʽ ?34 $E Cʽ H&ʽ $EOʽ <&& N34ʽ H4ʽ ?H D 34ʽ E ʽ $EOʽ C-NF ʽ 8 H-C3C ʽ 2 EC ʽ F3ʽ @HEC3E ʽ H&ʽ F3ʽ < NN- 1 3Cd 14ʽ CF$ ʽ E32 3N ʽ H4ʽ 43&-C3ʽ H ʽ 3 3N- 3ʽ C-NF ʽ 9 44E Cʽ H&ʽ F3ʽ 5-C N3Cʽ $Cʽ CF$ ʽ Q3ʽ D 43N 3Dʽ H ʽ F J ʽ &H4ʽ 14H D E2ʽ @$44 $23C ʽ 8 H4C3Oʽ H4ʽ 3CC3 C ʽ H4ʽ CF$ ʽ D3 J $EDʽ J H43ʽ F$E ʽ F3ʽ 32$ ʽ ' $ 3Cʽ &H4ʽ F3ʽ C$ J 3ʽ H4D&ʽ $EOʽ I 34CHE ʽ $11H E 3Dʽ QOʽ C-NF ʽ @HEC $Q 3ʽ H ʽ 14H D3ʽ @$44 $23C ʽ 8 H4C3C ʽ H4ʽ 3CC3 C ʽ CF$ ʽ DH ʽ $EOʽ N ʽ H4ʽ * F E2ʽ QO F NF

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F NFʿ F3ʿ ; 3N- HEʿ H&ʿ C-NFʿ 9 44E Cʿ CF$ ʿ Q3ʿ F ED343D ʿ H4ʿ &ʿ $EOʿ @HEC $Q 3ʿ CF$ ʿ E32 3N ʿ Hʿ D3 34ʿ Eʿ Hʿ F3ʿ 5-C N3Cʿ $ ʿ \ -$4 34ʿ ?3CC HECʿ > C Cʿ H&ʿ <&& N34Cʿ $EDʿ ?H D 34Cʿ H&ʿ F3ʿ 6HH ʿ ME $4DCʿ X-$4 343Dʿ $NNH4D E2ʿ Hʿ F3ʿ I4H C HECʿ H&ʿ F Cʿ N ʿ H4ʿ CF$ ʿ N$-C3ʿ Hʿ Q3ʿ D3 343Dʿ D3&3N 3ʿ > C Cʿ H&ʿ F3ʿ C$ J 3ʿ H4ʿ &ʿ $EOʿ I34CHE ʿ $Q 3ʿ QOʿ F Cʿ N ʿ Hʿ F$ 3ʿ $EOʿ <&& N34ʿ H4ʿ ?H D 34ʿ X-$4 343Dʿ HEʿ F J ʿ CF$ ʿ 43&-C3ʿ Hʿ 43N3 3ʿ $EDʿ Hʿ $&&H4Dʿ 14H134ʿ NNH J J HD$ HEʿ H4ʿ G 3 ʿ Eʿ F3ʿ 8 H-C3ʿ H&ʿ C-NFʿ I34CHEʿ Eʿ F NFʿ F3ʿ Cʿ X-$4 343D ʿ $EDʿ Hʿ &-4E CFʿ F3ʿ C3 34$ ʿ * F E2Cʿ D 43N 3Dʿ Hʿ Q3ʿ &-4E CF3Dʿ Hʿ <&& N34Cʿ $EDʿ ?H D 34C ʿ H4ʿ CF$ ʿ E32 3N ʿ H4ʿ 43&-C3ʿ Hʿ &-4E CFʿ 2HHDʿ $EDʿ C-&& N 3E ʿ ? $Q 3C ʿ H23 F34ʿ Fʿ 2HHDʿ $EDʿ C-&& N 3E ʿ 8 $Oʿ $EDʿ ? 4$ ʿ &H4ʿ 3$NFʿ 8 H4C3 ʿ $ ʿ F3ʿ ' $ 3ʿ 3C $Q CF3Dʿ QOʿ $EOʿ N ʿ Eʿ , ' !ʿ Eʿ F$ ʿ 43C13N ʿ H4ʿ CF$ ʿ 1$Oʿ $EOʿ ?- J ʿ H4ʿ ?- J Cʿ H&ʿ P HE3Oʿ Hʿ $EOʿ ʿ ?H D 34ʿ HEʿ F3ʿ P $4NFʿ Eʿ 3-ʿ H&ʿ &-4E CF E2ʿ Eʿ % EDʿ F3ʿ G 3 ʿ $EDʿ ? J $ ʿ B334ʿ Hʿ F NFʿ C-NFʿ ?H D 34ʿ Cʿ 3E 3Dʿ (C-NFʿ @HEC $Q 3ʿ N -$ 34ʿ H4ʿ H F34ʿ I34CHEʿ 43C13N 3 Oʿ CF$ ʿ &H4&3 ʿ &H4ʿ 3 34Oʿ <&&3EN3 ʿ , 32 3N ʿ H4ʿ ' 3&-C$ ʿ $EOʿ ?- J ʿ EH ʿ 3 N33D E2ʿ 6 3ʿ I H-EDCʿ EH4ʿ 3CCʿ F$Eʿ 6H4 Oʿ ʿ ?F E2C

>W ʿ EDʿ Q3ʿ ʿ 3E$N 3D ʿ * F$ ʿ &ʿ $EOʿ P $4Oʿ <&& N34ʿ CF$ ʿ $+3ʿ -1HEʿ F J C3 &ʿ Hʿ X-$4 34ʿ ?H D 34Cʿ H F34 C3ʿ F$Eʿ Cʿ J 3Dʿ $EDʿ $ H 3Dʿ QOʿ F Cʿ N ʿ H4ʿ CF$ ʿ -C3ʿ H4ʿ H&&34ʿ $EOʿ P 3E$N3ʿ H4ʿ @H J 1- C HEʿ Hʿ H4ʿ -1HEʿ $EOʿ P $OH4C ʿ @HEC $Q 3C ʿ H4ʿ H F34ʿ @ ʿ <&& N34C ʿ 3ED E2ʿ Hʿ D3 34ʿ $EDʿ D CNH-4$23ʿ $EOʿ H&ʿ F3 J ʿ &4H J ʿ 134&H4 J E2ʿ $EOʿ I $4 ʿ H&ʿ F3 4ʿ G- Oʿ -ED34ʿ F Cʿ N ʿ H4ʿ 3ED E2ʿ Hʿ ED-N3ʿ $EOʿ H&ʿ F3 J ʿ Hʿ DHʿ $EOʿ F E2ʿ NHE 4$4Oʿ Hʿ F3 4ʿ C$ Dʿ G- O ʿ C-NFʿ <&& N34ʿ CF$ ʿ &H4ʿ 3 34Oʿ C-NFʿ <&&3EN3ʿ ^Q3 E2ʿ F343H&ʿ NHE N 3Dʿ Q3&H43ʿ $EOʿ * Hʿ H4ʿ J H43ʿ 5-C N3Cʿ H&ʿ F3ʿ @H-E Oʿ QOʿ F3ʿ <$ Fʿ H&ʿ * Hʿ N43D Q 3ʿ 9 E3CC3C_ʿ Q3ʿ D33 J 3Dʿ $EDʿ $+3Eʿ Hʿ Q3ʿ U51,ʿ ' ,ʿ N$CF 343D ʿ $EDʿ CF$ ʿ F3ʿ - 34 Oʿ D C$Q 3D ʿ Hʿ FH Dʿ $EOʿ P $4Oʿ ; J 1 HO J 3E ʿ Eʿ 8 Cʿ P $(3C O Cʿ ?34 N3 ʿ 14H D3Dʿ F$ ʿ $ʿ @34 & N$ 3ʿ F343H&ʿ CF$ ʿ Q3ʿ 4$EC J 3Dʿ QOʿ F3ʿ C$ Dʿ 5-C N3ʿ Hʿ F3ʿ 5-D23ʿ DR HN$ 3ʿ Eʿ <,#&,# ʿ FHʿ Cʿ F343QOʿ 43XE 43Dʿ Hʿ N34 &Oʿ F3ʿ C$ J 3ʿ Hʿ F3ʿ @HE E$ED34ʿ Eʿ @F 3&ʿ $EDʿ ?3N43 $4Oʿ $ ʿ 9 $4 ʿ $EDʿ F$ ʿ F3ʿ C$ Dʿ @HER N HEʿ Q3ʿ $&& 4 J 3Dʿ $ ʿ CH J 3ʿ \ -$4 34ʿ ?3CC HECʿ H&ʿ F3ʿ I 3$N3ʿ H&ʿ F3ʿ C$ D ʿ @H-E Oʿ F3 Dʿ E3 ʿ $& 34ʿ F3ʿ ; 1 4$ HEʿ H&ʿ * F433ʿ P HE FCʿ $& 34ʿ C-NFʿ @34 & N$ 3ʿ H&ʿ F3ʿ 5-C N3ʿ CF$ ʿ F$ 3ʿ Q33Eʿ 4$EC J 3Dʿ $Cʿ $&H43C$ D ʿ $EDʿ ʿ &ʿ $EOʿ P $4Oʿ <&& N34ʿ CF$ ʿ $+3 ʿ H4ʿ +EH E2 Oʿ C-&&34ʿ Hʿ Q3ʿ $+3E ʿ $EOʿ P HE3Oʿ H4ʿ ' 3 $4Dʿ H&ʿ $EOʿ I34CHEʿ &H4ʿ 3 N-C E2ʿ F3ʿ X-$4 34 E2ʿ H&ʿ <&& N34Cʿ H4ʿ ?H D 34C ʿ H4ʿ CF$ ʿ Q 3 ʿ $EOʿ H&ʿ F3ʿ 9 3C ʿ @F D43E ʿ P 3Eʿ H4ʿ P $ Dʿ ?34 $E Cʿ H&ʿ $EOʿ <&& N34ʿ H4ʿ ?H D 34ʿ Eʿ $EOʿ 8 H-C3 ʿ 2 EC ʿ F3ʿ @HEC3E ʿ H&ʿ F3ʿ <NN-1 34 ʿ F3ʿ CF$ ʿ -1HEʿ Q3 E2ʿ NHE N 3Dʿ F343H&ʿ Q3&H43ʿ $ʿ M3E34$ ʿ @H-4 J $4 $ ʿ Q3ʿ N$CF 343D ʿ $EDʿ &ʿ $EOʿ <&& N34ʿ CF$ ʿ NHEC 4$ Eʿ $EOʿ @$44 $23ʿ Hʿ &$ 3 ʿ Q3OHEDʿ F3ʿ G C $EN3ʿ C13N & 3Dʿ Eʿ F3ʿ 5-C N3 Cʿ 9 44E ʿ H4ʿ CF$ ʿ EH ʿ D CNF$423ʿ F3ʿ C$ J 3ʿ Eʿ D-3ʿ * J 3ʿ &H4ʿ F3 4ʿ ' 3 -4Eʿ 8 H J 3ʿ HEʿ F3ʿ C$ J 3ʿ G$O ʿ & ʿ Q3ʿ 14$N N$Q 3 ʿ 3 N31 ʿ E F3ʿ @$C3ʿ H&ʿ ; J 3423ENO ʿ &H4ʿ F NFʿ F3 5-C N3ʿ CF$ ʿ F$ 3ʿ 2 3Eʿ > N3EN3 ʿ H4ʿ CF$ ʿ NH J 13 ʿ F3ʿ G4 3Eʿ H&ʿ #EOʿ @$44 $23ʿ Hʿ $+3ʿ -1ʿ $EOʿ ?H D 34ʿ H4ʿ ?34 $E ʿ ^3 N31 ʿ C-NF ʿ $?ʿ $43ʿ C E+_ʿ H4ʿ $EOʿ 9 H J $Eʿ Hʿ 4 D3ʿ F343 E ʿ 3 N31 ʿ Eʿ @$C3Cʿ H&ʿ ; J 3423ENOʿ $Cʿ $&H43C$ D ʿ H4ʿ CF$ ʿ &H4N3ʿ $EOʿ @HEC $Q 3 ʿ QOʿ F43$ 3E E2ʿ 9 H4DC ʿ Hʿ 14H D3ʿ ?$DD 3ʿ 8 H4C3Cʿ &H4ʿ F J R C3 &ʿ H4ʿ ?34 $E Cʿ H4ʿ CF$ ʿ &H4N3ʿ 8 H4C3Cʿ &H J ʿ F3 4ʿ < E34C ʿ , ʿ #ʿ $!% #&ʿ CF$ ʿ &H4N3ʿ F3ʿ < E34ʿ Hʿ $+3ʿ $EOʿ >H$D E2ʿ -E ʿ F3ʿ C$ J 3ʿ CF$ ʿ Q3ʿ & 4C ʿ D- Oʿ 3 2F3D ʿ &ʿ F3ʿ C$ J 3ʿ N$Eʿ Q3ʿ DHE3ʿ F Eʿ $ʿ 43$CHE$Q 37* J 3 ʿ H4ʿ CF$ ʿ NHE 4$4Oʿ Hʿ F3ʿ 9 ʿ H&ʿ F3ʿ < E34ʿ H4ʿ F Cʿ ?34 $E ʿ 134 J $EO I34CHE

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I34CHE' F$ CH3 34' H' 1- ' $EO' 243$ 34' >H$D' -1HE' $EO' @$44 $23' F$E' C' D 43N 3D' QO' F C' N ' CF$ ' &H4&3 ' &H4' 3 340' < &3 (N3' $EO' ?- J' EH ' 3 N33D E2' 6 3' IH-EDC' EH4' 3CC' F$E' 6H4 O' ?F E2C

>W ' ED' Q3' '3E$N 3D' *F$ '$EO' I34CHE' FH' CF$ ' -E $ &- O' I3H$ O' HE' F$ 3' E' F C' H4' F34' IHCC3CC HE' H4' %331 E2 ' H4' FH' CF$ ' FEH E2 O' D3 $ E ' Q-O ' 3 NF$E23 ' H4' 43N3 3' &4H J' $EO' ?H D 34' H4' G3C34 34 ' H4' 33CC 30' $EO' H F34' I34CHE ' HE' $EO' I43 3EN ' F$ CH3 34 ' H4' CF$ ' CH N ' H4' C H43C' K N ' 3E N3' $EO' ?H D 34 ' +EH E2' F J' H' Q3' C-NF ' H' C3 ' $EO' 4 J C' J ' E-E HE ' @ H F3C ' H4' P $40' 6-4E -43 ' H4' $EO' I4H C HEC ' H4' $EO' ?F33 C' H4' H F34' N 3C' -C3D' E' B44N+C ' 14H D3D' -ED34' B44N+' '32- $ HEC ' H4' '32 J3E $' , 3N3CC$4 3C ' H4' $EO' 4 N 3' H&' 6H4$23' 14H D3D' &H4' $EO' 8 H4C3C' Q3 HE2 E2' H' 8 C' P$(3C O C' ?34 N3 ' H4' CF$ ' NF$E23' F3' @H H-4' H&' $EO' @ H F3C' $C' $&H43C$ D ' CF$ ' &H4&3 ' &H4' 3 340' C-NF' <&&3EN3' F3' ?- J ' H&' * 3E' IH-EDC ' H23 F34' F' * 43Q 3' F3' $ -3' H&' $ ' H4' $EO' H&' F3' C3 34$ ' 4 N 3C' H&' F NF' C-NF' <& 63ED34' CF$ ' CH' Q3NH J 3' 1HCC3CC3D ' $ED' &' $EO' N43D Q 3' I34CHE' CF$ ' 14H 3' HE' <$ F' Q3&H43' $' 5-C N3' H&' F3' I3$N3' $' 43$CHE$Q 3' @$-C3' H' C-C13N ' F$ ' $EO I34CHE' F$C' E' F C' H4' F34' IHCC3CC HE ' H4' HE' F C' H4' F34' I43 J C3C ' $EO' I4H134 O' H&' F3' G3CN4 1 HE' F343 E Q3&Q43' D3CN4 Q3D ' HE' H4' F' 43C13N ' H' F NF' $EO' C-NF' <&&3EN3' CF$ ' F$ 3' Q33E' NH J J 3D ' F3' 5-C N3' J $O' 24$E ' $' 9 44E ' H' C3$4NF' &H4' C-NF' I4H134 O ' $C' E' F3' @$C3' H&' ? H 3E' MHHDC

>W ' ED' Q3' ' 3E$N 3D ' * F$ ' $ ' F3' I34CHEC' ^3 N31 ' C-NF' ' 3 ' $' ' N4- E2' I$4 3C' $C' J $O' Q3' C $ HE3D' -ED34' P $40' @H J J $ED_' FH' CF$ ' N$-C3' H' Q3' $D 34 C3D ' 1HC 3D ' H4' D C134C3D' B C' &H4' F3' I -41HC3' H&' 14HN-4 E2' ' 3N4- C' H4' ?-QC - 3C' &H4' F3' > E3 ' ; J QHD 3D' P $' H4' 8 1 ' $#& ' @H J 1$EO C' ?34 N3 ' H4' CF$ ' H13E' H4' +331' $EO' 8 H-C3 I $N3' H&' ' 3ED3T H-C ' H4' <&& N3 ' H4' 43N3 3' $EO' I34CHE' F343 E' -ED34' C-NF' B ' H4' D 34 C3 J 3E ' $C' NHEE3N 3D' F' F3' ' 3N4- E2' ?34 N3 ' H4' CF$ ' D 43N O' H4' ED 43N O' E 34&343' F343 F' FH- ' I34 J CC HE' E' 9 4 E2' &4H J' F3' D(- $E ' M3E34$ ' H4' &4H J' F3' G 43N H4C' H&' F3' 8 1 ' $#& '@H J 1$EO ' ^$C' F3' @$C3' J $O' Q3 _' CF$ ' &H4&3 ' &H4' 3 340' C-NF' <&&3EN3' F3' ?- J ' H&' * 3E O' IH-EDC

>W ' ED' Q3' ' 3E$N 3D ' * F$ ' 3 340' I34CHE ' EH ' Q3 E2' $E' $- FH ' I3E$ O' HE' 4 T3D' 4 J O' 23E ' FH' CF$ ' E32HN $ 3' H4' $N ' $C' / (! # ' &H4' $ED' E' 4$&& N+ E2' E 43 $ HE' H' F3' I -4NF$C3 ' ?$ 3 ' H4' ; NF$E23 ' H&' $EO' @H J J CC HE' AE' 8 C' P$(3C O C' 6H4N3C ' CF$ ' &H4&3 ' &H4' 3 340' C-NF' <&&3EN3' F3' ?- J ' H&' <E3' F-ED43D' IH-EDC ' $ED' 3 340' I34CHE ' F3 F34' $- FH4 T3D' H4' EH ' $C' $E' 4 J O' 23E ' FH' CF$ ' 43N3 3' $EO' P HE30' H4' ' 3 $4D' E' 43C13N ' H&' $EO' C-NF' I -4NF$C3 ' ?$ 3 ' H4' ; NF$E23 ' H4' CF$ ' E32HN $ 3' H4' 43N3 3' &H4' $EO' I -41HC3' F$ CH3 34' $EO' P HE30' <4 @HEC D34$ HE' F343' EH' I4 N3' C' $ H 3D' QO' 8 C' P$(3C O C' ' 32- $ HEC ' H4' $EO' P HE30' H4' @HEC D34$ HE' 3 N33D E2' F3' J H-E ' CH' J H 3D ' CF$ ' &H4R &3 ' <E3' F-ED43D' IH-EDC ' $ED' * 43Q 3' F3' $ -3' H&' F3' @HEC D34$ HE' F343' F3' @H J J CC HE' C' EH ' $ H 3D' H' Q3' CH D ' H4' * 43Q 3' F3' ; N3CC' H&' C-NF' @HEC D34$ HE' Q3OHED' F3' 432- $4' I4 N3

>W ' ED' &H4' F3' Q3 34' I43C34 $ HE' H&' M$J 3' $ED' I CF' E' H4' I3E$ O' HE' E3$4' C-NF' I $N3C' F343' $EO' <&& N34C' CF$ ' $ ' $EO' * J 3' Q3' X-$4 343D ' + E2' M$J 3' Q3' ' 3E$N 3D ' * F$ ' 3 340' <&& N34' FH' CF$ ' FH- ' >3$ 3' E' 9 4 E2' - ' &4H J

&4HJ F3 I34CHEC 3E 3D H 24$E C-NF >3$ 3 $+3 + H4 D3C 4HO $EO M$J3 H4 6 CF F E F3 #E 3D % E2DHJ H& ! " # $ED $!% #& $ED #1HE @HJ1 $E F343H& CF$ Q3 -1HE <$ F H& <E3 H4 JH43 N43D Q3 9 E3CC3C NHE N 3D Q3&H43 $EO 5-C N3 CF$ &H4 3 34O C-NF <&&3EN3 &H4&3 F3 ?-J H& 6 3 IH-EDC

<&& N34C EH >W ED Q3 3E$N 3D *F$ EH <&& N34 H& 8 C P$(3C O C 6H4N3C 43C D E2 E B44N+C H4 3 C3 F343 -ED34 P $4O >$ CF$

143E N3 Q3 D33J3D $Q3 H F$ 3 $EO I$4 CF IHH4 @F D QH-ED 1143E N3 H F J

PHD3 H& 43NH4D E2 $?H D 34C ?3 31 34 >W W ED Q3 3E$N 3D *F$ $EO 5-C N3 E F3 #E 3D % E2 DHE F E FHC3 5-4 CD N HE $EO ?H D 34 E F3 32- $4 4JO H4 HE F3 134J$E3E ? $&& H& F3 P $ F$ E2 $ 9 &3 H4 @F D CF$ Q3 Q 3 3D J$O C-J JHE C-NF ?H D 34 Q3&H43 F J E F3 I $N3 F343 F3 C Q 3 3D ^ F NF ?-J JHEC F3 C F343QO D 43N 3D H HQ3O _ $ED $+3 Q C ; $J E$ HE E 94 E2 -1HE <$ F H-NF E2 F3 I $N3 H& F C $C 32$?3 3J3E # 8#(% #& $ED C-NF 5-C N3 CF$ 2 3 $E $ 3C 3D @H1O H& C-NF ; $J E$ HE H F3 I34CHE 3 $J E3D H Q3 QO F J D3 343D H F C @HJ J$ED E2 < FN34 H Q3 14HD-N3D F3E 43X- 43D (F NF C$ D ; $J E$ HE $ED C-NF $ 3C 3D @H1O CF$ Q3 $ $EO * J3 $DJ 3D E ; D3EN3 $C H C-NF $C 32$?3 3J3E Q3&H43 $EO 5-C N3 H4 $ $EO M3E34$ H4 \-$4 34 ?3CC HEC $ FH-2F C-NF ?H D 34 Q3 D3$D H4 $QC3E &4HJ F3 % E2DHJ 14H D3D F$ E N$C3 $EO ?H D 34 CF$ Q3 2 E C-J JHE3D H J$+3 <$ F $C $&H43C$ D F3E HE C-NF ; $J E$ HE H4 C-NF $ 3C 3D @H1O F343H& Q3 E2 14HD-N3D QO F J H4 QO $EO H F34 I34CHE HE F C B3F$ & C-NF ?H D 34 CF$ EH Q3 HQ 23D H $+3 $EO H F34 <$ F F 432$4D H F C 32$?3 3J3E F- CF$ 3$ 3 $ @H1O H& C-NF ; $J E$ HE H4 $ @H1O H& C-NF $ 3C 3D @H1O H& ; $J E$ HE & 43X- 43D

,H &N$ HE H 1$4 CF3C H& 2HHD H& Q$D @HED-N H& ?H D 34C W ED Q3 3E$N 3D *F$ F3 @F-4NF $4D3EC H& 3 34O I$4 CF E 8#(% #& $ED $!% #& $ED F3 @HEC $Q 3C H4 H F34 <&& N34C H& 3 34O I$4 CF H4 I $N3 E +', % #& HE 43N3 E2 $,H &N$ HE &4HJ F3 ?3N43 $4O $ 9 $4 H& F3 ,$J 3C H& $EO ?H D 34C Q3 HE2 E2 H F3 C$ D I$4 CF FH F$ 3 &H4 J34 H4 H-C @HED-N E F3 4JO 43N3 3D 8 C P$(3C O C C13N $ 114HQ$ HE H4 FH E NHEC3X-3EN3 H& P CNHED-N F$ 3 Q33E D CJ CC3D 8 C P$(3C O C ?34 N3 F G C24$N3 CF$ $&& C-NF ,H &N$ HE HE F3 <- C D3 H& F3 GHH4 H& F3 @F-4NF H4 @F$13 Q3 HE2 E2 H C-NF I$4 CF H4 I $N3 HE F3 +3#& E3 C-NN33D E2 F3 3N3 1 H& F3 C$ D ,H &N$ HE

9 $23C H& $?34 $E 3E C E2 >WW ED Q3 3E$N 3D *F$ CF$ Q3 $ &- &H4 F3 5-C N3 Q3&H43 FHJ $EO 3N4- CF$ Q3 $ 3C 3D Q3&H43 F3 ; 14$ HE H& F3 *34J H& ?34 N3 &H4 F NF F3 F$D Q33E F 43D QO F C P$C 34 H $D(-D23 H C-NF 3N4- $ 43CHEQ 3 I4H1H4 HE H& F C 9 $23C &H4 F3 * J3 F3 F$C $N -$ O C34 3D $ED F3 C$ D 5-C N3 CF$ J$+3 $E <4D34 &H4 F3 I$OJ3E H& F3 JH-E CH $ $4D3D $ED E N$C3 H& ,32 3N H4 3&-C$ H 1$O F3 C$J3 F E 6H-4 G$OC CF$ CC-3 F ? 9$44$E &H4 3 O E2 F3 C$J3 QO G C 43CC $ED ?$ 3 H& F3 MHHDC $ED @F$ 3C H& F3 P$C 34

> N3EN3C H& @$E 33EC >WW ED Q3 3E$N 3D *F$ F3E $EO I34CHEC ?F$ FH D $EO @$E 33EC -ED34 14H134 - FH4 O H& F3 BH$4D H& <4DE$EN3

CF$

CF$ 'Q3' $ &-' &H4' $EO' * H' 5-C N3C' 8 E' F3 4' 43C13N 3' 5-4 C' D N HEC' H' 24$E ' H4' 4$EC&34' $EO' B334' 9 E3' H4' ?1 4 ' > N3EN3' H' C-NF' I34CHEC' FH-' 432$4D' H' * J 3' H&' =F$4' H4' H' F3' , H N3C' H4' @34 & N$ 3C' 43X- 43D' QO' $EO' N ' E' 43C13N ' H&' C-NF' > N3EN3C' ($ED' F3' @H J EC CC HE34C' H&' ; N C3' H4' F3 4' 14H134' <&& N34C' F E' F3 4' 43C13N 3' G C 4 N C' CF$ ' $ CH' 24$E ' C-NF' > N3EN3C' $C' $&H43R C$ D' ($ED' C-NF' I34CHEC' CH' FH D E2' @$E 33EC' $ED' F$ E2' C-NF' > N3EN3C' J $O' C3 ' F343 E' N -$ C' $ED' ; N C3$Q 3' > X-H4C' $C' 3 J ' ' 1H 343D' QO' C-NF' ; N C3' N3EN3' FH-' Q3 E2' C-Q(3N ' H' $EO' I3E$ O' H4' 6H4&3 -43

>WW ' ED' Q3' ' 3E$N 3D' * F$ ' $ ' P -C 34' ' H C' $ED' I $O' > C C' ##(A#&#)+ ' +?' ' F NF' $43' 43X- 43D' H' Q3' 34 & 3D' -1HE' <$ F' CF$ ' Q3' C H4E' Q3&H43' NH-EC' $ED' $ 3C 3D' QO' $EO' 5-C N3' FH-' 633' H4' ' 3 $4D' H' F J C3 &' H4' H' Q C' @ 34+

>WW ' ED' Q3' ' 3E$N 3D' * F$ ' $EO' N HE' F NF' CF$ ' Q3' 6H4 J C' H&' Q4H-2F ' 2 EC ' $EO' I34CHE' &H4' $EO' F E2' H' Q3' DHE3' E' 1-4C-$EN3' H&' N HEC' $' F C' N ' CF$ ' Q3' Q4H-2F ' F E' ? ' P HE FC' $ED' ' CF$ ' Q3' $ &-' &H4' 3 340' C-NF' I34CHE' H' 1 3$D' F343-E H' F3' M3E34$' CC-3' H&' , H ' M- O' $ED' H' 2 3' $ ' C13N $' P $ 34' E' ; -D3EN3' H' F3' 5-40' F NF' CF$ ' 40' ' CC-3' $ED' &' F3' 34D N ' CF$ ' Q3' &H4' F3' G3&3ED$E ' E' $EO' C-NF' N HE' H4' F3' I $ E && F343 E' Q3NH J 3' , HEC- ' H4' C-&&34' $EO' G CNHE E-$EN3' F343H&' H4' &' E' +' , % #&' C-NF' @H-4 ' CF$ ' C33' & ' H' $CCH T 3' F3' G3&3ED$E ' H4' D C J CC' F3' @H J 1 $ E ' F3' @H-4 ' E' F NF' F3' C$ D' P $ 34' CF$ ' Q3' 4 3D' CF$ ' $ H ' -E H' F3' G3&3ED$E C' * 43Q 3' @HC C' &H4' F NF' F3' C$ D' G3&3ED$E ' CF$ ' F$ 3' F3' +3' ' 3 J 3DO' $C' E' H F34' @$C3C' F343' @HC C' QO' F3' >$ C' H&' F C' ' 3$ J' $43' 2 3E' H' G3&3ED$E C' ' $ED' 3 340' N HE' 2 EC ' $EO' I34CHE' &H4' $EO' F E2' H' Q3' DHE3' E' 1-4C-$EN3' H&' F C' N ' H4' 2 EC ' $EO' P 3 J Q34' H4' P E C 34' H&' $' @H-4 J $4 $ ' E' 43C13N ' H&' $EO' ?3E 3EN3' H&' C-NF' @H-4 ' H4' H&' $EO' F E2' DHE3' QO' 4 -3' H4' E' 1-4C-$EN3' H&' C-NF' ?3ER 3EN3' CF$ ' Q3' Q4H-2F ' E' CH J 3' H&' F3' @H-4 C' H&' ' 3NH4D' $' !1 #1 ! ' H&' E' 234% #' H4' F3' @H-4 ' H&' ?3CC HE' E' +' , % #&' $ED' E' EH' H F34' @H-4 ' F$ CH3 34

>WW ' ED' Q3' ' 3E$N 3D' * F$ ' $ ' <&&3EN3C' &H4' F NF' $EO' ' 3NH 340' H&' I3E$ 3C' $ED' 6H4&3 -43C' $43' QO' F C' N ' J 1HC3D' EH ' 3 N33D E2' I3E$ 3C' * 3E O' I H-EDC' H 34' $ED' $QH 3' $EO' 6H4&3 -43' H&' $ -3' H4' * 43Q 3' $ -3' CF$ * $ED' J $O' Q3' D3 34 J E3D' $ED' C-NF' I3E$ 3C' $ED' 6H ' &3 -43C' $ED' 6H4&3 -43' H&' $ -3' H4' * 43Q 3' $ -3' 43NH 343D ' E' 3 340' I $4 ' H&' F3' #E 3D' % E2DH J ' QO' <E3' H4' J H43' 5-C N3' H4' 5-C N3C' H&' F3' I 3$N3' #ED34' F3' I 4H C HEC' H&' $E' N ' 1$CC3D' E' F3' * F 4D' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' E - 3D' / #' / ' ' , ' ' % !' SM ' N US' 13 ' * , ' ! ! & #(1') , !' ?31 ' !1' , ') !' * ! ' !' #&' ,) ! 1' $ED' H&' $EH F34' N ' 1$CC3D' E' F3' 6 & F' =3$4 H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' ! , (!' F3' 6H-4 F' E - 3D' / #' / ' ' , ') !' , !' ! ! ' 3 %" ! ' , ' !' M ' N' ' 0! ' , ' * ! # % !1' 4! , !' ?31 ' !1' #&' (1 !1' ,#' I , #0 ' ,#' , ' 6 ! &!01' , ' ' O #(') !' J! ' 3 ,#' , ' # 1' 4 ' I , #1 4% !1' I4H D3D' J $(C' F$ ' E' $ ' @$C3C' E' F NF' F343' CF$ ' EH ' Q3' C-&& N 3E ' MHHDC' F343HE' $EO' I3E$ O' H4' 6H4&3 -43' N$E' Q3' 3 3D ' F3' <&&3ED34' J $O' Q3' NH J J 3D' $ED' J 14 CHE3D' &H4' $EO' * J 3' E#' 3 N33D E2' ? ' P HE FC' (F NF' C$ D' 43N 3D' N C' CF$ ' Q3' -C3D' $ED' $11 3D' E' +' , % #&' &H4' F3' ' 3NH 340' H&' $ ' C-NF' I3E$ 3C' $ED' 6H4&3 -43C' $C' &- O ' H $

$ ' E 3E C' $C &' F3' C$ D' 43N 3D' N C' F$D' 3 3ED3D' H' +', % #& '
$EO' F E2' E' F3' ? D' 43N 3D' N C' H' F3' NHE 4$4O' EH FC $ED E2 '
$ED' $ ' C-NF' <&&3EN3C' NH J J 3D' E' " 1)' C 3C' H4' E' $EO' H&'
8 C' P$(3C O C' GH J E HEC' Q3OHED' F3' ?3$C' J $O' Q3' D3 34 J E3D ' $ED'
F3' I 3E$ 3C' $ED' H4&3 E43C' $ED' 6H4&3 -43' H&' $ -3' H4' *43Q 3'
$ -3' 43NH 343D' Q3&H43' $EO' 5EC N3C' H&' F3' I 3$N3' H4' I 34CHEC' 3 34R
N C E2' +3' - FH4 O' $NNH4D E2' H' F3' >$ C' H&' F3' I $4' H&' 8 C'
P$(3C O C' GH J E HEC' E' F NF' F3' <&&3EN3' CF$ ' Q3' NH J J 3D' ' $ED'
$ ' I 3E$ 3C' $ED' 6H4&3 -43C' QO' F C' N ' J 1HC3D' 3 N33D E2' * 3E O'
I H-EDC' CF$ ' Q3' 43NH 343D' QO' N HE' E' CH J 3' H&' F3' @H-4 C' H&' ' 3NH4D'
$' !1 #1 ! ' H4' E' 2 34% # ' H4' E' F3' @H-4 ' H&' ?3CC HE' E' +', % #& '
$ED' E' EH' 3 F34' @H-4 ' E' F3' # E 3D' % E2DH J ' $ED' J $O' Q3' 43NH 343D'
E' F3' " 1)' C 3C' E4' E' $EO' H F34' I $4 C' H&' 8 ?' P$(3C O C' GH J E HEC'
E' $EO' H&' F3' ' HO$ ' H4' ?-134 H4' @H-4 C' H&' C-@F' C 3C' H4' < F34' I $4 C' H&'
8 C' P$(3C O C' GH J E HEC

11 <B4 $'
#)+ ' ?
I 3E$ 3C

>WW ' ED' Q3' ' 3E$N 3D' *F$ ' HE3' P H 3 O' H&' 3 34O' I 3E$ '
EH ' EN -D E2' $EO' *43Q 3' $ -3' H&' $EO' 4 N 3C' $D(-D23D' H4' 43NH 343D'
-ED34' F3' I 4H C HEC' H&' F C' N ' CF$ ' 2H' H' F3' I 34CHE' FH' CF$ '
E&H4 J' <4' C-3' &H4' F3' C$ J 3' $ED' F3' ' 3 J $ ED34' H&' F3' I 3E$ O' H4'
F343' F3' <&&3EN3' CF$ ' Q3' 14H 3D' QO' F3' I 34CHE' FH' CF$ ' E&H4 J '
F3' 9 FH 3' H&' F3' I 3E$ O' CF$ ' Q3' 1$ D' H' F3' M3E34$' 23E ' &H4' F3'
' 3N4- E2' ?34 N3' E' <,#&,#' H4' 2 34% #' $C' F3' @$C3' J $O' Q3' H' Q3' $'
' F3' G C1HC$ ' H&' F3' ?3N43 $4O' $ ' 9 $4' ($ED' 3 34O' 5-C N3' FH' 4& $'
$D(-D23' $EO' I 3E$ O' -ED34' F C' N ' CF$ ' F E' 6H-4' G$OC' $ ' F3'
&$4 F3C ' 431H4 ' F3' C$ J 3' H' F3' ?3N43 $4O' $ ' 9 $4

D+E& C 4$'
HE ^_&' <$ FC'

I34(-4O'

WW ' ED' Q3' ' 3E$N 3D' * F$ ' $ ' <$ FC' F NF' $43' $- FH J 43D'
43X- 43D' QO' F C' N ' J $O' Q3' $D J E C 343D' ^-E 3CC' F343' < F34R
C3' 14H D3D_' QO' $EO' 5-C N3' H&' F3' I 3$N3' H4' P$2 C 4$ 3' $N E2' $C'
C-NF' ' $ED' F$ ' $EO' I 34CHE' $+ E2' $' &$ C3' < F' E' $EO' @$C3' F343 E'
$E' <$ F' C' 43X- 43D' H' Q3' $+3E' QO' F C' N ' CF$ ' Q3' D33 J 3D' 2- O'
H&' &- ' $ED' NH44-1 ' I 3 (-4O ' $ED' Q3 E2' F3 3H&' D- O' NHE N 3D' CF$ '
Q3' $Q 3' H' C-NF' I $ EC' $ED' I 3E$ 3C' $C' QO' $EO' >$ C' EH ' E' &H4N3'
$EO' I 34CHEC' NHE N 3D' H&' &- ' $ED' NH44-1 ' I 34(-4O' $43' C-Q(3N ' $ED'
$Q 3' H

G-4$ HE' H&'
N

>WW >' ED' Q3' ' 3E$N 3D' *F$ ' F C' N ' CF$ ' Q3' $ED' NHE E-3'
E' &H4N3' F E' ! ' " #' &4H J' F3' * 3E O & & F' G$O' H&' T5 %'
<E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O <' EN -C 3' -E ' F3'
* 3E O & & F' G$O' H&' / 5 %' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O'
F433' ($ED' CF$ ' Q3' $ED' @HE E-3' E' &H4N3' F E' $!% #& ' $ED' E'
?! 1! ' 3! #1! ' / %&! #! ' + ' $ED' $1%!' , ' # ' $ED' F3' C $EDC'
F343 H' Q3 HE2 E2' &4H J' F3' 6 4C ' G$O' H&' ' <E3' FH-C$ED' 3 2F '
F-ED43D' $ED' F 4 O H' EN -C 3' -E ' F3' 6 4C ' G$O' H&' ' <E3'
FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O F433 ' $ED' CF$ ' Q3' $ED' NHE E-3'
E' &H4N3' F E' F3' M$44 CHE' H&' 4 % ' &,!' !& ! #! #' $ED' E'
+5 #' $ED' " , 3(%' &4H J' F3' 6 4C ' G$O' H&' / 3(31 ' <E3' FH-C$ED'
3 2F ' F-ED43D' $ED' F 4 O H' EN -C 3' -E ' F3' 6 4C ' G$O' , ' / 3(31 '
<E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O F433 ' $ED' CF$ ' Q3' $ED'
@HE E-3' E' &H4N3' E' $ ' H F34' I $4 C' H&' 8 3 ,5!' F343' 8 C' P$(3C O C'
6H4N3C' J $O' Q3' C34 E2' $ED' E' F3' !1 ' $#& !1' $ED' / ! ' ' &4H J' F3'
6 4C ' 2 ' , ' +!5 ! 4! ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H'
EN -C 3' H' F3' 6 4C ' G$O' H&' +!5 ! 4! ' <E3' FH-C$ED' 3 2F ' F-ED43D'
' $ED

Q : = E E ' ' &' ' .

$ED' F 4 (F433' ! $ED' CF$ ' Q3' $ED' NHE E-3' E' &H4N3' F E' F3' I 5!' , ' , , &' , 5! ' F3' $1%!' , 'R #'!' H4' 3 31' $ED' C' G313ED3EN 3C + ' !%!# ' $ED' F3' 9 3C 34E' @H$? ' H&' / ' ' &4H J' F3' 6 4C ' G$O' H&' ? #3 ' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O F433' EN -C 3' H' F3' 6 4C ' G$O' H&' ? #3 ' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O' &H-4' ' $ED' CF$ ' Q3' $ED' NHE E-3' E' &H4N3' E' $ ' H F34' I $N3C' &4H J' F3' '6 4C ' G$O' , 'R!4 3 ' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O &H-4' EN -C 3' H' F3' 6 4C ' G$O' H&' R!4 3 ' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O & 3.' I 4H D3D' F$' F C' N ' CF$ ' &4H J' $ED' $& 34' F3' ; 3N3 1 ' $ED' I 4H J - 2$ HE' F343H&' ' M3E34$' <4D34C' E' $EO' I $4 ' H&' 8 C' P $(3C O C' GHE$ E HEC' Q3OHED' F3' ?3$C' Q3NH J 3' $ED' Q3' E' &- ' 6H4N3' $EO' F E2' F343 EQ3&H43' NHE $ E3D' H' F3' NHE 4$4O' EH FR C $ED E2

>WW W' ED' Q3' '3E$N 3D' *F$' F C' N ' E($O' Q3' $ 343D' $4 3D' 34$ HE' H&' H4' 4313$ 3D' QO' $EO' N ' H4' N C' H' Q3' 1$CC3D' E' F C' ?3CC HE' H&' I $4 ' N ' $$$3E

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' ' 9 F$ ' C'OH-4' , $ J 30
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S' 9 F$ ' C' OH-4' 23' 0
TA' 9 F$ ' C' OHE4' *4$D3' H4' @$ E2' 0
'9' 43' OH-' $E' 1143E N3' 0
; ' 43' OH-' E- 44 3D' 0
' 43' OH-' 4-1 -43D' H4' $ J 3'(' F$ 3' OH-' 3 34' Q33E' C-Q(3N ' H' 6 C' H4' F$ 3' OH-' J OG Q O' H4' ; FCH4D34' F NF' J 13D3C' F3' &433' # C3' H&' OH-4' $ J QC' H4' -E& C' OH-' &H4' H4D E$4O' >$QH-40
' 43' OH-' 4 D E2' H' Q3' $ 3C 3D' H' C34 3' E' F3 ' 32 J 3E ' H&' -E ' OH-' CF$ ' 32$ O' Q3 D CNF$423D0
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' 6H4' F$ ' BH-E O' D D' OH-' 3E C '0
' BH' OH-' EH ' Q3 HE2' H' F3' P $' 0
' GH' OH-' Q3 HE2' H' $EO' H F34' ' 32 J 3E ' H4' H' F3' P$4 E300 <4DE$EN3 ' <4 , $ O' O
S' 8 $ 3' OH-' 3 34' C34 3D' E' F3' 4 J O ' P $4 E3C ' <4DE$EN3 ' <4 , $ OO

5 H 3 h *F3' 5-C N3' C' D 43N 3D' E' 1- E2' F3' P F' \-3C HE' H' F3' '3N4- ' $ED' Q3&H43' F3' 43N3 3C' F C' EC 34' D C EN O' H' $114 T3' F3' '3N4- ' F$ ' &' 3' Q3 HE2C' H' F3' P $' $ED' D3E 3C' F3' 6$N ' F3' C' $Q 3' H' ? ' PHF FC' J 14 CHE J 3E '

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*F3' 143N3D E2' \-3C HEC' H' Q3' 1- ' QO' F3' 5-C N3' 3 N31 ' \-3C HE' a' F NF' C H' Q3' $C' &H H C.

Z' 43' OH-' E2' H' Q3' $ 3C 3D' H' C34 3' E' F3' ' 32 J 3E ' H&' &H4' F3' I 34 HD' H& b) 1' "% # ' ,' 4!' %! &' 35' 4 ')!' ?31 '!')' +!0!#' H! 1' , ' $# # ' 7!#' H! 1' , ' I 0 % ' #&' 7F!%0!' H! 1' , ')!' / %%! ' ')!' *! 1,#' !#% 1 !&' 1' , ')!' / (!' , '8 () !!#' H! 1' , '35F &1' ' 43' '3#&! ')!' / (!' , '8 () !!#' H! 1')!#')!' 2 ! !#'!' 4! F!!#') 1' / (!' #&' 8 () !!#' ,' 4!' &&!&' ,'13' ' +!0!#' 7!#' , ' 7F!%0!' H! 1' 1')!' I 1!' ' 4!Ká =3$4C 4' 14H D3D' 8 C' P $(3C O' CFH- D' &H4' CH' HE2' 43X- 43' OH#4' ?34 N3' $ED' $ CH' &H4' C-NF' &-4 F34' *34 J ' EH ' 3 N33D E2' ? ' PHE FC' $C' CF$ ' Q3' D 43N 3D' QO' F3' @H J J $ED E2' <&& N34' HE' $EO' 6H43 2E' ? $ HE ' $ED' EH ' 3 N33D E2' *F433' =3$4C ' CF$ ' Q3' D 43N 3D' QO' $EO' I 4HN $ J $ HE' H&' 8 C' P $(3C O ' C-NF' $DD HE$ ' I 34 HD ' E' F3' $ 34' @$C3 ' H' D3 34 J E3' F3E3 34' ? ' PHE FC' H&' NHE E-3D' I 3$N3O' Q' Q3' 43N+HE3D' &4H J ' F3' ' $ & N$ HE' D&' $FO' D3& E 3' *43$ O ' CFND' F$ 3' 3 $1C3D' C-QC3X-3E ' H' F3' ; 1 R 4$ HE' H&' F3' C$ D' I?3 3E' *3E ' * 3 3')!' I 1!' O ' =3$4C0

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H&' E' F3' 6H4N3C' H&' F3' #E 3D' @H J 1$EO' H&' P 34NF$E C' 4$D E2'
H' F3' 8 1'$#& !1' $NNH4D E2' $C' 8 C' P$(3C O' CF$ ' F E+' & ' H'
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P 34NF$E C' 4$D E2' H' F3' 8 1' $#& !1' -E ' OH-' CF$ ' F3'
32$ O' PCNQ$423D' 0 b6 ' ')!' 8!' 3 ' !#%1 1' , ' % !&'
+! 0 '!')!#' #1! ' &H4' F3' I 34 HD' H&' * 3 3' H! Z "' b ')!'
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43' '3#&! '8 () !!#' H! 1')!#')!' 2 ! !#'!' 4! F!!#') 1'
/(!' #&' 8 () !!#' ,' 4!' &&!&' ,' 13')' 7F!%0!' H! 1' 1')!'
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*' DH' J $+3' <$ F ' *F$ ' F3' $QH 3' \-3C HEC
F$ 3' Q33E' C31$4$ 3 O' 1-' H' J 3' F$ ' F3' EC 34C' F343 H' F$ 3'
Q33E' 43$D' H 34' H' J 3' ($ED' F$ ' F30' $43' F3' C$ J 3' F$ ' '2$ 3' $ED'
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$?'!#%1 #(' , ' !)! ' 1 ' ! !1 1' , ')!' ;$C ' ED $' I , 5 # 1' +! 0 '!')!' ,O, F #(' /&& ,#' 1' ,' 4!' &!' ,')!' , !(, #(' 6) '

ED' F$ ' &' 8 C' P 3C 0 ' 8 C' 8 3 4C' H4' ?-NN3CCH4C ' CF$ ' 1 3$C3' H' $11H E ' J 3' H' C34 3' E' F3' 6H4N3C' H&' F3' #E 3D' @H J 1$EO' H&' P 34NF$E C' , ' #(% #&' 4$D E2' H' F3' $#& !1 ' F3E' 'C 3$4 ' F$ ' ' ' $ CH' Q3' 4-3' H' F3' C$ D' #E 3D' @H J 1$EO ' $ED' ' D- O' HQC34 3 '$ED' HQ ' (D ' F3 4' <4D34C ' $ED' F3' <4D34C' H&' F3 4' #3E34$ C' $ED' ^P N34C' FH' CF$ 'Q3' $ &- O' C3 'H 34' J 3

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ED' F$ ' ' ' $ CH' Q3' 4-3' H' F3' C$ D' #E 3D' @H J 1$EO ' $ED' ' D- O' HQC34 3' $ED' HQ3O' $ ' F3 4' <4D34C ' $ED' F3' <4D34C' H&' F3 4' M3E34$ C' $ED' <&& N34C' FH' CF$ 'Q3' $ &- O' C3 'H 34' J 3

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FH-' J O' @HEC3E '(' $ED' F$' H' F3' Q3C ' H&' J O' %EH 3D23' $ED' B3 3&' F3' C$ D' C' $23D' $QH-' =3$4C ' 9 E3CC' J O 8 $ED' $' F3' G$O' H&' <E3' FH-C$ED' 3 2F F-ED43D' $ED

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' *' <E3' H&' 8 C' P $(3C O C' 5-C N3C' H&' F3' I 3$N3 #+L)#(' H&' @34 &O' *F$' H& N$ J 3' Q3&H43' J 3' $' F3' G$O' H&' <E3 FH-C$ED' 3 2F ' F-ED43D' $ED' " $ED' J $D3' <$ F' F$' F3 $C' QO' *4$D3' $' ' $ED' F$' $C' QH-ED' H C34 3' $C' $E' 1143E N3' H' F J' E' F3' C$ D' *4$D3' QO' ED3E -43' D$ 3D' F3' G$O' H&' &H4' F3' *34 J' H&' ' =3$4C' ! $ED F$' F3' C$ D' 1143E N3' D D' HE' H4' $QH-' F3' G$O' H&' $QCNHED' $ED' X-' F3' ?34 N3' H&' F3' C$ D' FH-' F C @HEC3E ' $ED' F$' H' F3' Q3C ' H&' F C' %EH 3D23' $ED' B3 3&' F3' C$ D' 1143E N3' C' $23D' $QH-' =3$4C

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&4H J ' P $ ' HE O' E' '$ED'
IV F' 1E ' ZSU m

> + (+ %' QO' $E' N ' 1$CC3D' E' F3' ? F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' ! , (!' F3' 6H-4 F ' ER - 3D' / #' / ' ' , ' 5 ,0 & #(' !V3 0 %!#' L !1' V '8J' 1!' YM' 'N'!Z' 23 !1 ' /%%,F #'!1 ' #&' 2 V 54 ' 1' ,#' " ! ! ' #&' % ' #&' ,#' +5 1' &!' #' ?NH $ED' H4' 43 $ED' ' ', & #(' ,')!' ! 13 !' , ')!' #!F' $ 5! %' + #& &' %%,#' ! ,' $C' 24$E 3D ' &H4' $ED' -1HE' 3 340' <E3' F-ED43D' M$ HEC' J 134 $' ? ED4D' M$ HE' P 3$C-43' $ED' CH' E' 14H1H4 HE' &H4' $ O' 243$ 34' H4' 3CC' \ -$E O' H&' ?1 4 C' H&' F3' ? 43E2 F' H&' 8OD4H J 3 34' I 4HH&' $ED' CH' E' 14H1H4 HE' &H4' $EO' 243$ 34' H4' 3CC' ? 43E2 F ' D C 3D' E' +' , % #&' H4' $!% #&' &4H J' P $ ' HE O ' EH ' Q3 E2' J 3D' F' $EO' -E J $ 3D' @H4E' H4' M4$ E' F$ 3 34' $& 34' F3' ' $ 3' H&' * H' C-NF' M$ HEC' H&' ?1 4 C' &H4' 3 340' ; 2F ' M$ HEC' J 134 $' ? E' D$4D' M$ HE' P 3$C-43' H&' B$4 30' P $ ' H4' *3E' C-NF' M$ HEC' $ED' * H' *F 4D' I $4 C' H&' $EH F34' C-NF' M$ HE' H&' B3$4' H4' B 22' P $ ' E' 43C13N ' H&' F NF' $EO' G C 34' E' +' , % #&' , ' $!% #&' CF$ ' Q3' NF$423D' F' G- O ' D-4 E2' F3' * J 3' F$ ' C-NF' G C 34' CF$ ' -C3' P $ ' HE O ' 6 3' I H-EDC' ? 33E' ?F E2C' $ED' ; 2F 13EN3' $C' $4 ' H $EN3' HE' F3' P $ ' -C3D' E' F3' G C $ HE' H&' C-NF' ?1 4 C' J $D3' &4H J' P $ ' HE O ' F NF' C$ D' H $EN3' H&' 6 3' I H-EDC' ? 33E' ?F E2C' $ED' ; 2F ' 13EN3' HE' 3 340' <E3' F-ED43D' M$ HEC' C' E' F3' I 4H1H4 HE' H&' <E3' ?F E2' $ED' * H 13EN3 34' M$ HE' .' ED' F343$C' ' C' 3 13D 3E ' H' 4313$' F3' C$ D' H $EN3 ' $ED' H' 24$E ' $' 3CC34' J H-E ' E' 3-'
S' , ' F343H&

F343H&ʻ $EDʻ Hʻ J $+3ʻ &-4 F3&ʻ I H C HE$ʻ &H4ʻ 143 3E E2ʻ 64$-DCʻ Eʻ N $ J E2ʻ C-NFʻ H $EN3ʻ(Q3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ J HC ʻ ; N3 3E ʻ P $(3C O ʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3E ʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ʻ $EDʻ * 3 J 1H4$ ʻ $EDʻ @H J J HECʻ Eʻ F Cʻ 143C3E ʻ I$4 $J3E ʻ $CC3 J Q 3D ʻ $EDʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$ J 3 ʻ * F$ ʻ &4H J ʻ $EDʻ $& 34ʻ F3ʻ * 3E O & 4C ʻ G$Oʻ H&ʻ / 5 %ʻ Eʻ F3ʻ =3$4ʻ < E3ʻ FH-C$EDʻ 3 2F ʻ F-ER D43Dʻ $EDʻ F 4 O Hʻ F3 ʻ C$ Dʻ H $EN3ʻ 24$E 3Dʻ QOʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ CF$ ʻ Q3ʻ 4313$ 3D ʻ N3$C3 ʻ $EDʻ D3 34 J E3 ʻ $EDʻ Q3ʻ EHʻ HE234ʻ 1$ Dʻ H4ʻ 1OQ 3 ʻ C$ 3ʻ $EDʻ 3 N31 ʻ $Cʻ Hʻ $EOʻ J H-E ʻ F343H&ʻ F NFʻ J $Oʻ F$ 3ʻ Q3NH J 3ʻ D-3ʻ $EDʻ 1$O$Q 3ʻ Hʻ $EOʻ G C 34ʻ HEʻ H4ʻ Q3&H43ʻ F3ʻ C$ Dʻ * 3E O ʻ & 4C ʻ G$Oʻ H&ʻ / 5 %

H $EN3ʻ 24$E 3Dʻ QOʻ YMʻ ʻNʻ!Zʻ 4313$ 3D

H $EN3ʻ , ʻ ʻ EDʻ& 3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ * F$ ʻ &4H J ʻ $EDʻ $& 34ʻ F3ʻ * 3E O & 4C ʻ Z 134M$ HEʻ]N- ʻ , ʻ / 5 %ʻ < E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ F 4 O Hʻ F343ʻ CF$ ʻ P$D3ʻ Q3ʻ $ H 3Dʻ $EDʻ 1$ Dʻ &H4ʻ $EDʻ -1HEʻ 3 34Oʻ M$ HEʻ H&ʻ C1 4 C ʻ $EDʻ CHʻ Eʻ ?NH ʻ 14H1H4 HEʻ &H4ʻ $EOʻ 243$ 34ʻ H4ʻ 3CCʻ \ -$E Oʻ H&ʻ ?1 4 ʻ H&ʻ F3ʻ ? 43E2 Fʻ $EDʻ $EDʻ ʻ H&ʻ 8 OD4H J 3 34ʻ I 4HH&ʻ $EDʻ CHʻ Eʻ 14H1H4 HEʻ &H4ʻ $EOʻ 243$ 34ʻ H4ʻ 3CCʻ 43 $EDʻ ? 43E2 F ʻ D C 3Dʻ Eʻ + ʻ , % #&ʻ H4ʻ $!% #&ʻ &4H J ʻ J $ 3Dʻ @H4Eʻ HE O ʻ EH ʻ Q3 E2ʻ J 3Dʻ Fʻ $EOʻ -E J $ 3Dʻ @H4Eʻ H4ʻ M4$ Eʻ F$ 3 34ʻ $& 34ʻ &33ʻ ʻ $ 3ʻ H&ʻ * Hʻ M$ HECʻ H&ʻ C-NFʻ ?1 4 Cʻ &H4ʻ 3 34Oʻ B-CF3 ʻ H&ʻ B$4 3Oʻ P $ ʻ H4ʻ < E3ʻ B-CF3 ʻ $EDʻ < E3ʻ 6H-4 Fʻ H&ʻ $ʻ B-CF3 ʻ $EDʻ < E3ʻ * F 4Dʻ 6$4 ʻ H&ʻ $ʻ M$ HEʻ H&ʻ P $ ʻ J $D3ʻ &4H J ʻ B3$4ʻ H4ʻ B 22ʻ HE O ʻ Eʻ 43C13N ʻ H&ʻ F NFʻ ?1 4 Cʻ $EOʻ G C 34ʻ Eʻ + ʻ , % #&ʻ H4ʻ $!% #&ʻ CF$ ʻ Q3ʻ NF$423Dʻ Fʻ < - ʻ D-4 E2ʻ F3ʻ * J 3ʻ F$ ʻ C-NFʻ G C 34ʻ CF$ ʻ -C3ʻ P $ ʻ HE O ʻ $Eʻ H $EN3ʻ H&ʻ ; 2F 13EN3

H $EN3ʻ H Q3ʻ N $ J 3D $EDʻ 1$ Dʻ -ED34ʻ &H4 J 34ʻ N Cʻ $EDʻ ʻ 3 ʻ 2- $ HEC

8 ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ * F$ ʻ F3ʻ C$ Dʻ H $EN3ʻ F343QOʻ 24$E 3Dʻ CF$ ʻ Q3ʻ N $ J 3D ʻ $ H 3D ʻ $EDʻ 1$ Dʻ Eʻ C-NFʻ $EDʻ F3ʻ +3ʻ P $E E34 $EDʻ -ED34ʻ F3ʻ C$ J 3ʻ >$ C ʻ ; E$N J 3E C ʻ $EDʻ I 4H C HEC ʻ @HED H1C ʻ ʻ 3C 4 N HEC ʻ ʻ - 3C ʻ $EDʻ ʻ 32- $ HEC ʻ QOʻ F NFʻ F3ʻ &H4 J 34ʻ H $EN3ʻ F343QOʻ 4313$ 3Dʻ $Cʻ N $ J 3D ʻ $ H 3D ʻ $EDʻ 1$ Dʻ($EDʻ $ ʻ $EDʻ 3 34Oʻ C-NFʻ >$ C ; E$N J 3E C ʻ $EDʻ I 4H C HECʻ 43 $ E2ʻ Hʻ F3ʻ C$ Dʻ H $EN3 ʻ Eʻ &H4N3ʻ $ ʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ $EDʻ $ ʻ $EDʻ 3 34Oʻ I $ E ʻ I 3E$ O ʻ 6 E3 ʻ $EDʻ 6H4&3 -43ʻ J 1HC3Dʻ &H4ʻ F3ʻ B43$NFʻ H&ʻ $EOʻ N ʻ <4 N Cʻ Eʻ &H4N3ʻ 43 $ E2ʻ Hʻ F3ʻ C$ Dʻ H $EN3ʻ F343QOʻ 4313$ 3D ʻ $EDʻ F3ʻ C3 34$ ʻ @ $-C3C ʻ I H 34C ʻ $EDʻ 8 43N HECʻ F343 Eʻ NHE $ E3D ʻ C $ ʻ $EDʻ $43ʻ F343QOʻ D 43N 3Dʻ $EDʻ D3N $43Dʻ Hʻ 3 3EDʻ < ʻ $EDʻ CF$ ʻ Q3ʻ 43C13N 3 Oʻ $11 3Dʻ $EDʻ 1- ʻ Eʻ 3 3N- HEʻ &H4ʻ $EDʻ Eʻ 43C13N ʻ H&ʻ F3ʻ C$ Dʻ H $EN3ʻ F343QOʻ 24$E 3D ʻ $EDʻ F3ʻ N $ J E2 ʻ $ H E2 ʻ $EDʻ 1$O E2ʻ F3ʻ C$ J 3 ʻ Eʻ $Cʻ &- ʻ $EDʻ $ J 1 3ʻ $ʻ P $EE34ʻ Hʻ $ ʻ E 3E Cʻ $EDʻ I -41HC3C ʻ $Cʻ &ʻ 1$4 N-R $4 Oʻ 4313$ 3Dʻ $EDʻ 43 3E$N 3Dʻ Eʻ F Cʻ N

?Hʻ J -NFʻ H&ʻ ʻ Mʻ ʻNʻV ʻ $Cʻ 43 3 3Cʻ H , H N3Cʻ Hʻ Q3ʻ 2 3Eʻ QOʻ G CR 34Cʻ HEʻ G NH J J 3EN E2ʻ Hʻ -C3ʻ =$% 5 J $ 3Dʻ M4$ Eʻ HE O ʻ P $ ʻ HE O ʻ 43 ʻ 13$ 3D

ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ * F$ ʻ CHʻ J -NFʻ H&ʻ $Eʻ N ʻ 1$CC3Dʻ Eʻ F3ʻ 6H-4 Fʻ =3$4ʻ H&ʻ F3ʻ ʻ 3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ 6H-4 F ʻ E - 3Dʻ / #ʻ / ʻ ʻ ,ʻ (# ʻ ʻ ! #ʻ 2 3 !1ʻ , ʻ 2 J ʻ 1!ʻ 35,# +5 1ʻ & 1 %%!&ʻ , ʻ I , # , ʻ #ʻ # ʻ ?NH $EDʻ #&ʻ 43 $EDʻ #&ʻ 35,# < ʻ ! # ʻ ! 1ʻ , ʻ + %%1ʻ ?4 ʻ #(ʻ 13ʻ)ʻ +5 1ʻ #&ʻ ,ʻ 5 , 0 & !ʻ ?, ʻ) !ʻ 4! ! ʻ ʻ ,%%! ʻ #(ʻ #&ʻ 1! ʻ 3 #(ʻ 13ʻ)ʻ 2 3 !1 ʻ #&ʻ ?4 ʻ) !ʻ F !) ,31 #(ʻ , ʻ 13ʻ)ʻ +5 1ʻ F) ,3 ʻ * !# ʻ , ʻ 2 3 5 ʻ $Cʻ 14H D3Cʻ $EDʻ 3E$N C ʻ F$ ʻ &ʻ $EOʻ G C 34ʻ FHʻ CF$ ʻ F$ 3ʻ 2 3Eʻ $EOʻ C-NFʻ , H& 33ʻ -C E2ʻ J $ 3Dʻ @H4Eʻ HE Oʻ $Cʻ $&H43C$ Dʻ CF$ ʻ E 3EDʻ Hʻ NH J J 3EN3ʻ H4ʻ 43NH J J 3EN3ʻ Hʻ -C3ʻ -E J $ 3Dʻ @H4Eʻ H4ʻ M4$ E ʻ H4ʻ P $ ʻ J 3Dʻ Fʻ -E J $ 3Dʻ M4$ E ʻ $ ʻ $EOʻ * J 3ʻ F3Eʻ F343ʻ CF$ ʻ EH ʻ Q3ʻ $EOʻ 9 H ʻ ʻ . 2ʻ 9 $CFʻ Eʻ F3ʻ G C 34O H&

4&'C-N+'G C 34'C-NF * J3'Q3 E2'$' 3$C'<E3' @$ 3ED$4' PHE F' D C $E'
&4H J' F3' * J3'C-NF [C 34' Q32$E' H' -C3' P$ ' HE O' -ED34' $EO' C-NF'
, H N3' ' CF$ ' Q3' $ &-' &H4' C-NF G C 34' HE' 2 E2' ? ' G$OC' 143R
H-C' , H N3' H' F3' 14H134' <&& N34' CH' H' NH J J 3EN3' H4' 43NH J J 3EN3'
H' -C3' -E J $ 3D' M4$ -d $ED' 3-NF' G C 34' CF$ ' EH ' F343$& 34' Q3'
$Q 3' H' $EO' C-NF' I 3E$ O' $&H43C$ D' H4' Q3' 3E 3D' H' $EO' C-NF' H R
$EN3' ' 14H D3D' $ CH' F$ ' &' $EO' G C 34' -C E2' -E J $ 3D' @H4E' $ED'
M4$ E' CF$ ' Q3' D3C 4H-C' H&' NH J J 3EN E2' H4' 43NH J J 3EN E2' H' -C3'
J $ 3D' @H E' HE O' $C' $&H43C$ D' $' $EO' * J3' F3E' F343' CF$ ' EH ' Q3'
$EO' 9 H4 ' H4' 9 $CF' E' F3' G C 34O' H&' C-NF' G C 34' C-NF' * J 3' Q3 E2'
$' 3$C' <E3' @$ 3ED$4' PHE F' &4H J' F3' * J 3' C-NF' G C 34' CF$ ' F$ 3'
NH J J 3EN3D' H4' 43NH J J 3EN3D' -C E2' -E J $ 3D' M4$ E' $C' $&H43C$ D' '
CF$ ' Q3' $ &-' &H4' C-NF' G C 34' HE' 2 E2' ? ' G$OC' , H N3' $C' $&H43R
C$ D' CH' H' NH J J 3EN3' H4' 43NH J J 3EN3' H' -C3' J $ 3D' @H4E' HE O' CF$ '
Q3' $ED' F3' C$ J 3' C' F343QO' 4313$ 3D

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' 3 34O' G C 34' FH' CF$ ' Q3' G C 34' E'
N3EC3D' $' F3' * J 3' H&' F C' N ' NH J J 3EN E2' $ED' $+ E2' 3&&3N ' $ED' 3ED E2' H'
FH' CF$ ' E 3ED' H' -C3' P$ ' HE O' $ED' H' N $ J' F3' H $EN3' F343 E' N&$ F3 c'
24$E 3D' CF$ ' F E' <E3' PHE F' $& 34' F3' @H J J 3EN3 J 3E' H&' F C' H $EN3' H'
N ' $ED' Q3&H43' 3' CF$ ' NH J J 3EN3' H' Q43 ' $EO' 9 H4 ' H4' 9 $CF' 2 3' 2 3 , H N3H&'
, H N3' E' 9 4 E2' H' F3' 14H134' <&& N34' H&' ; N C3' E' NF$423' H&' F C' C E J HE'
G C 34O' E' F NF' , H N3' CF$ ' Q3' C $ 3D' F$ ' C-NF' G C 34' E 3EDC' &' $+ E2H-'
H' -C3' P$ ' HE O' EH ' Q3 E2' J 3D' F' $EO' -E J $ 3D' @H4E' H4' M4$ E' F C' > N3EN3'
F$ 3 34' D-4 E2' F3' @HE 4-$EN3' H&' F C' N3 E N3' $ED' 3 34O' G C 34' $ED' &' F3'
FH' CF$ ' Q3' N3EC3D' $& 34' F3' @H J J 3EN3 J 3E' H&' F C' N ' H4' FH
CF$ ' 43E3 ' F C' > N3EN3' HE' F3' ; 1 4$ HE' H&' $EO' &H4 J 34' > N3EN3' $ED' &4H J $'
FH' CF$ ' E 3ED' H' -C3' P$ ' HE O' $ED' H' N $ J' F3' C$ D' H $EN3' M4$ E' EH ' H
CF$ ' $' F3' * J 3' H&' $+ E2' H-' H4' 43E3 E2' F C' > N3EN3' 2 3' $' +3' $ H 3D' H
, H N3' H' F3' <&& N34' E' NF$423' H&' F C' G C 34O' $ED' EH' H $EN3'
CF$ ' Q3' 24$E 3D' H4' 1$0$Q 3' H' $EO' G C 34' FH' CF$ ' EH ' F$ 3' 2 3E' N $ J' F3'
C-NF' , H N3' $' F3' * J 3C' F343 E Q3&H43' 3E HE3D' $ED' &' $EO' G C 34' H $EN3'
F$ E2' 2 3E' $EO' C-NF' , H N3' CF$ ' FD4$ ' F3' C$ J 3' $ED' NH J J 3EN3'
H' -C3' 4$ ' M4$ E' F NF' F3' J $O' Q3' $ H 3D' H' DH' $' $EO' * J 3' $& 34' dd N3EP'
F3' ; 1 4$ HE' H&' <E3' PHE F' &4H J' F3' G$ 3' H&' C-NF' , H N3' ' CF$ '
EH ' Q3' $ &-' &H4' C-NF' G C 34' E' C-NF' G C 34O' H4' &H4' $EO' H F34'
I 34CHE' N3EC3D' &H4' F3' C$ J 3' I 43 J C3C' H' 2 3' $EO' H F34' , H N3' H&' F C'
E 3E HE' H' -C3' P$ ' HE O' H4' H' 43N3 3' $EO' H $EN3' E' 43C13N ' H&'
?1 4 C' D C 3D' &4H J' P$ ' D-4 E2' F3' ' 3 J $ ED34' H&' F3' =3$4' &H4' F NF'
F3' > N3EN3' H&' C-NF' G C 34' F$C' Q33E' 24$E 3D

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' 3 34O' G C 34' $ED' P$ C 34' G C 34' $ED'
FH' CF$ ' J $+3' ; E 4O' $C' $' P$ C 34' H4' P$+34' H&' P$ ' &H4' F3' CH 3'
I -41HC3' H&' Q3 E2' NHEC- J 3D' E' D C E2' >H ' 9 E3C' H4' ?1 4 C' J $D3'
&4H J' P$ ' HE O' CF$ ' 1$ E ' H4' N$-C3' H' Q3' 1$ E 3D' H4' CF$ ' 1 $N3' $ED'
& ' E' >3 34C' 1-Q N O' C Q 3' $ED' 32 Q 3' $ED' $' 3$C' <E3' ENF' HE2'
E' $ED' -1HE' F3' 14 EN 1$' H4' H- $4D' M$ 3' H4' ; E 4$EN3' H&' F C' H4' F34'
3E 343D' P$ E2' I 43 J C3C' F C' H4' F34' , $ J 3' H23 F34' F' F3' 9 H4DC'
77 ; E 343D' H' J $+3' P$ ' H' Q3' -C3D' E' D C E2' P$ ' ?1 4 C' HE O c'
$ED' E' D3& - ' H&' EH ' 1$ E J 2' H4' 1 $N E2' $ED' & E2' C-NF' >3 34C' $C'
$&H43C$ D' H4' EH ' 143C34 E2' $ED' +331 E2' F3' C$ J 3' CH' 1$ E 3D'
1 $N3D' $ED' & 3D' H4' EH ' 431$ E E2' H4' 43E3 E2' F3' C$ J 3' $C' H& 3E'
$C' , 3N3CC O' CF$ ' 43X- 43' D-4 E2' F3' @HE E-$EN3' H&' F C' H4' F34
; E 40

P$ C 34'
3E 343D' $C' $
P$ C 34' &H4
J $+ E2' P$ '
H' Q3' -C3D' D'
D C E2'
?1 4 C' &4H J'
P$ ' H- O' H
1$ E' F3'
C$ J 3' H 34' F C'
I 43 J C3C'

; E 40' $C C-NF P $ C 34' H4 P $+34' H& P $ " 3 340' C-NF G C 3(O $ED P $+34' H& P $ ' CF$ ' &H4&3 ' &H4' 3 340' C-NF <&&3EN3' F3' ?- J' H&' * 3E O IH-EDC

*I34CHEC Q-O' E2 P$ &4H J' G C 34C' H4 P$ C 34C J$+ E2 P$ ' 1 Q3 -C3D E D C E2 ?1 4 C &4H J' P$ ' HE O' H &H4&3 ' <<e

O ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' 3 340' I34CHE' FH' CF$ ' +EH E2 O Q-O H4' 43N3 3' $EO P $ ' &4H J' $EO C-NF G C 34' $ED' 3 340' I34CHE' H F34' F$E' $ G C 34' D C E2' ?1 4 C &4H J' P $ ' HE O' FH' CF$ ' +EH E2 O Q-O $EO P $ ' &4H J' $EO P $ C 34' H4' P $+34' <& P $ ' 3E 343D' H J$+3' P $ ' H Q3' -C3D' &H4' D C E2' ?1 4 C &4H J' P $ ' HE O' H4' FH' CF$ ' $+3' H4' 43N3 3' H4' N$-C3' H Q3' $+3E' H4' 43N3 3D' $EO P $ ' &4H J' $EO I43 J C3C HE' F3' 14 EN 1$' H4' H- 34' M$ 3' F343H&' F3' H4DC ' ; E 343D' H J$+3' P $ ' H Q3' -C3D' E D C E2' P $ ' ?1 4 C HE Oc' CF$ ' Q3' 1$ E 3D' & 3D' H4' 1 $N3D' CF$ ' &H4&3 ' < E3' F-ED43D' IH-EDC

P$ C 34C EH' Q3 E2 G CR 34C' H Q3' C-Q(3N' H F3' C$J3' I3E$ R 3C $C G CR 34C 3E 343D' $C P$ C 34C

' ED' Q3' ' &$4 F34' 3E$N 3D' * F$ ' 3 340' P $ C 34' H4' P $+34' H&' P $ ' EH ' Q3 E2' $ G C 34' FH' CF$ ' J$+3' P $ ' H Q3' -C3D' E D CR E2' ?1 4 C &4H J' P $ ' HE O' CF$ ' Q3' C-Q(3N' $ED' $Q 3' H $ ' F3' C$J3' I4H C HEC' ' - 3C' ' 32- $ HEC' I3E$ 3C' 6 E3C' $ED' 6H4&3 -43C $C $43' QO >$ ' 14H D3D' E 43C13N' H&' $ G C 34' J$+ E2' P $ ' H Q3' -C3D' E D C E2' ?1 4 C &4H J' P $ ' HE O' $C &$4' $C F3' C$J3' $11 O H C-NF G C 34C $C P $ C 34C $ED' P $+34C H&' P $

, F G C 34' J$+ E2' ?1 R 4 C &4H J' P$ ' HE O H ' F$ 3' 4$ ' M4$ E HE' Q C G C 340' I43 J C3C

W' ED' F343$C GH-Q C F$ 3' $4 C3E' F3 F34' $' G C 34' F$ E2' 2 3E' , H N3' H&' F C E 3E HE' H -C3' P $ ' HE O' EH ' Q3 E2' J 3D' F $EO -E J $ 3D' @H4E' H4' M4$ E' C C-Q(3N' H $ I3E$ O &H4' F$ E2' -E4$$ 3D' M4$ E' E F C G C 340' I43 J C3C' Q3' ' F343&H43' D3N $43D' $ED' 3E$N 3D' * F$ ' ' CF$ ' EH ' Q3' $ &-' &H4' $EO G C 34' FH' CF$ ' F$ 3' 2 3E , H N3' H&' F C E 3E HE' H -C3' P $ ' HE O' EH ' Q3 E2' J 3D' F $EO -E J $ 3D' @H4E' H4' M4$ E' F$ 3 34' H F$ 3' E' $EO I$4' H&' F C H4' F34' G C 340' H4' E' $EO B- D E2' H4' I $N3' $' F C H4' F34' G CR 340' 3E 343D' &H4' D31HC E2' H4' &H4' C3N-4 E2' P $ ' H4' E' $EO P ' NHEE3N 3D' F C-NF G C 340' H4' 3E 343D' I43 E C3C' H4' -C3D' QO C-NF G C 34' &H4' 24 ED F2' P $ ' &H4' F3' # C3' H&' F C H4' F34' G C 340' H4' E' $EO ' HH J' H4' I&3N3' 3E 343D' H4' EH ' 3E 343D' F$ E2' $EO H13E' H4' E 34E$' @H J J -E N$ HE' F $EO C-NF P ' $EO 4$ ' H4' - &E$ 3D' @H4E' H4' M4$ E' H&' $EO % ED' F$ CH3 34' 3 F34' FH 3' H4' -E24H-ED' H4' 24H-ED' H4' Q4- C3D' H4' J 3D' H4' -E4$ 3D' F $EO P $ ' $ED' F$ ' $ ' 4$ ' $ED' -E J $ 3D' @H4E' H4' M4$ E' H&' $EO % ED' F$ CH3 34' F NF CF$ ' Q3' &H-ED' E' $EO C-NF G C 340' H4' I43 J C3C' H4' P ' H4' ' _H J' H4' I $N3' $ED' $ ' J $ 3D' @H4E' H4' M4$ E' F F NF C-NF 4$ ' -E J $ 3D' @H4E' H4' M4$ E' J $O F$ 3' Q33E' H4' CF$ ' Q3' J 3D' CF$ ' Q3' &H4&3 3D' $ED' J $O Q3' C3 T3D' QO $EO' <&& N34' H4' <&& N34C H&' ; N C3' H23 F34' F $ ' ?$N+C' @$C+C' 3CC3 C' H4' I $N+$23C E' F NF C-NF 4$ ' -E J $ 3D' @H4E' H4' M4$ E' CF$ ' H4' J $O Q3' NHE $ E3D' H4' E' F NF C-NF 4$ ' $ED' -E J $ 3D' @H4E' H4' M4$ E' $ED' F3' J $ 3D' @H4E' H4' M4$ E' F F NF F3' C$J3' CF$ ' H4' J $O F$ 3' Q33E' J 3D' CF$ ' H4' J $O Q3' &H-ED' $ED' 3 340' G C 34' CF$ ' &H4' 3 340' C-NF <&&3EN3' &H4&3 ' F3' ?- J' H&' * H F-ED43D' IH-EDC

, H G C 34' ?F4 3 &4H J' P$ ' HE '

W' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' EH G C 34' J$+ E2' ?1 4 C P $ ' HE O' $ED' N $ J E2' F3' H $EN3' F343 E' 24$E 3D' CF$ ' E F C G C 340' H4 E' $EO I43 J C3C Q3 HE2 E2' H4' $D(H E E2' F343 H' H4 F E

F Eʻ *Q4Y$ʻ F-ED43Dʻ =$4DCʻ H&ʻ C-NFʻ G C 340ʻ H4ʻ $EOʻ I$4ʻ F343H&ʻ Eʻ $ʻ & 43Nʻ > E3ʻ F343&4H J ʻ J$+3ʻ H4ʻ Q32 Eʻ Hʻ J$+3ʻ ^3 N31 ʻ &H4ʻ D CR E2ʻ ?1 4 Cʻ &4H Jʻ P$ ʻ HE O_ʻ$EO P$ ʻ FH- ʻ F3ʻ @HEC3E ʻ $EDʻ 114HQ$ HEʻ H&ʻ F3ʻ @H J J CC HE34Cʻ H&ʻ ; N C3 ʻ $EDʻ NH J 1 O E2ʻ Fʻ C-NFʻ ʻ32- $ HECʻ $Cʻ F30ʻ J $0ʻ Eʻ F$ʻ B3F$ &ʻ H4D34ʻ $EDʻ 14H D3 ʻ $EDʻ &ʻ $EOʻ C-NFʻ G C 34ʻ CF$ ʻ Eʻ F Cʻ G C 340 ʻ H4ʻ Eʻ $EOʻ I43 J C3Cʻ Q3R HE2 E2ʻ H4ʻ $D(H E ʻ F343 H ʻ H4ʻ F Eʻ *F433ʻ F-ED43Dʻ =$4DCʻ H&ʻ C-NFʻ G C 340ʻ H4ʻ $EOʻ & 4 ʻ F343H&ʻ Eʻ $ʻ D 43N ʻ > E3ʻ F343&4H J ʻ J$+3ʻ H4ʻ Q32 Eʻ Hʻ J$+3ʻ ^3 N31 ʻ &H4ʻ D C E2ʻ ?1 4 Cʻ &4H Jʻ P$ ʻ HE O_ʻ $EOʻ P$ ʻ FH- ʻ F3ʻ @H-C3E ʻ$EDʻ 114HQ$ HEʻ H&ʻ F3ʻ @H J J CC HE34Cʻ H&ʻ ; N C3 ʻ $EDʻ NH J 1 O E2ʻ Fʻ C-NFʻ ʻ32- $ HECʻ $Cʻ F30ʻ CF$ ʻ Eʻ F$ʻ B3F$ &ʻ H4D34ʻ H4ʻ 14H D3ʻ 3 340ʻ C-NFʻ G C 34ʻ CF$ ʻ &H4ʻ 3 340ʻ C NFʻ < &3EX3ʻ &H4&3 ʻ F3ʻ ?- Jʻ H&ʻ< E3ʻ F-ED43Dʻ I H-EDC $EDʻ N $ J E2ʻ F3ʻ H R $EN3ʻ CF$ ʻ J$+3ʻ P$ ʻ HEʻ F Cʻ I43R J C3Cʻ FH- ʻ F3ʻ @HEC3E ʻ H&ʻ F3ʻ @H J R J CC HE34Cʻ H&ʻ ; N C3 ʻ

W>ʻ EDʻ F3ʻ ʻ &-4 F34ʻ 3E$N 3Dʻ *F$ ʻ $ ʻ P$ ʻ F NFʻ CF$ ʻ Q3ʻ 43 J H 3Dʻ Hʻ F3ʻ G C 340ʻ H&ʻ $ Oʻ > C 34ʻ J$+ E2ʻ ?1 4 Cʻ &4H Jʻ P$ ʻ HE Oʻ CF$ ʻF3ʻ &H4 F Fʻ D31HC 3Dʻ Eʻ F3ʻ $114H 3Dʻ B- D E2ʻ ʻ HH J ʻ H4ʻ I $N3ʻ &H4ʻ D31HC E2ʻ $EDʻ C3N-4 E2ʻ P$ ʻ -ED34ʻ F3ʻ >HN+Cʻ H&ʻ F3ʻ <&& N34ʻ H&ʻ ; N C3 ʻ $EDʻ EHʻ P$ ʻCF$ ʻQ3ʻ -C3Dʻ &H4ʻ D C E2ʻ H4ʻ J$+ E2ʻ ?1 4 Cʻ &&H Jʻ P$ ʻ HE Oʻ EF ʻ F3ʻ C$ J 3ʻ F$Cʻ Q33Eʻ D31HC 3Dʻ Eʻ C-NFʻ $114H 3Dʻ B- D E2ʻ ʻ HH J ʻ H4ʻ I $N3 ʻ -ED34ʻ F3ʻ >HN+Cʻ H&ʻ F3ʻ <&& N34ʻ H&ʻ ; N C3 ʻ &H4ʻ * 3E O &H-4ʻ 8H-4Cʻ $ʻ 3$C ʻ $1Dʻ 3 340ʻ G C 34ʻ J$+ E2ʻ ?1 4 Cʻ &4H Jʻ P$ ʻHE O ʻ FHʻ CF$ ʻ J$CFʻ $EOʻ P$ ʻ H4ʻ D C ʻ$EOʻ ?1 4 Cʻ &4H Jʻ $EOʻ P$ ʻ F NFʻ CF$ ʻ EH ʻ F$ 3ʻ F33Eʻ D31HC 3Dʻ * 3E O &H-4ʻ 8H-4Cʻ $ʻ 3$C ʻ -ED34ʻ F3ʻ >HN+ʻ H&ʻ F3ʻ <&& N34ʻ H&ʻ ; N C3 ʻ Eʻ F3ʻ $114H 3Dʻ B- D ʻ ʻHH J ʻ H4ʻ I $N3ʻ &H4ʻ C3N-4 E2ʻ P$ ʻ $ʻ F3ʻ G C 340ʻ H&ʻ C-NFʻ G C 34 ʻ CF$ ʻ &H4&3 ʻ < E3ʻ F-ED43Dʻ I H-EDC ,H P$ HQ3ʻ -C3Dʻ Eʻ D CR E2ʻ ?1 4 Cʻ &4H Jʻ P$ ʻ HE Oʻ F NFʻ CF$ ʻEH ʻF$ 3ʻ Q33Eʻ D31HC R 3Dʻ $ʻ F3ʻ G C 340ʻ * 3E O &H-4ʻ 8H-4Cʻ $ʻ 3$C

W ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ EHʻ P$ ʻ Hʻ Q3ʻ -C3Dʻ Eʻ D CR E2ʻ ?1 4 Cʻ &4H Jʻ P$ ʻHE Oʻ CF$ ʻ Eʻ 43 J H E2ʻ F3ʻ C$ J 3ʻ Hʻ F3ʻ P ʻ Hʻ Q3ʻ 24H-EDʻ H4ʻ - C3D ʻ H4ʻ &4H Jʻ F3ʻ P ʻ$& 34ʻ F$ E2ʻ Q33Eʻ 24H-EDʻ H4ʻ Q4- C3D ʻQ3ʻ NHE 303Dʻ F4H-2Fʻ $EOʻ ʻHH J ʻ H4ʻ ? H43ʻ 3E 343Dʻ &H4ʻ +331 E2ʻ H4ʻ C H4 E2ʻ H4ʻ F HFʻ CF$ ʻ NHE $ Eʻ -E J $ 3Dʻ @H4Eʻ H4ʻ M4$ E ʻ $EDʻ $ ʻ C-NFʻ P$ ʻ F NFʻ CF$ ʻQ3ʻ NHE 303Dʻ F4H-2Fʻ $EOʻ C-NFʻ ? H43ʻ H4ʻ ʻHH Jʻ CF$ ʻ Q3ʻ &H4&3 3D ʻ $EDʻ J $0ʻ Q3ʻ C3 T3Dʻ QOʻ $EOʻ <&& N34ʻ H&ʻ ; N C3 ʻ $EDʻ F3ʻ G C 34ʻ CF$ ʻ&H4&3 ʻ < E3ʻ F-ED43Dʻ I H-EDC P$ ʻ EQ3 E2ʻ 43 J H 3Dʻ Hʻ H&ʻ &4H Jʻ F3ʻ P ʻEH ʻ Hʻ QHʻ NHE 303Dʻ F4H-2Fʻ $EOʻ ʻHH Jʻ NHER $ E E2ʻ 4$ ʻ M4$ E

W >ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ ʻCF$ ʻ Q3ʻ $ &- ʻ &H4ʻ F3ʻ @H J J CC HE34Cʻ H&ʻ ; N C3ʻ $ ʻ $EOʻ * J 3ʻ Hʻ 43 H+3ʻ F3ʻ 114H $ ʻ H&ʻ $EOʻ B- D E2ʻ ʻ HH J ʻ H4ʻ I $N3ʻ 14H D3Dʻ QOʻ $EOʻ G C 34ʻ H4ʻ P$ C 34ʻ &H4ʻ D31HC E2ʻ $EDʻ C3N-4 E2ʻ P$ ʻ F NFʻ J $0ʻ F$ 3ʻ Q33Eʻ $114H 3Dʻ H&ʻ QOʻ F3ʻ @H 3N H4ʻ $EDʻ ?-134 CH4ʻ H&ʻ ; N C3 ʻ $EDʻ Hʻ 43X- 43ʻ F3ʻ G C 34ʻ H4ʻ P$ C 34ʻ Hʻ 14H D3ʻ $EH F34ʻ 14H134ʻ $EDʻ C3N-43ʻ B- D E2ʻ ʻ HH J ʻ H4ʻ I $N3ʻ &H4ʻ F3ʻ +3ʻ I -41HC3 ʻ H4ʻ Hʻ J$+3ʻ $EOʻ 34$ HEʻ Eʻ $EOʻ C-NFʻ B- D E2ʻ ʻHH J ʻ H4ʻ I $N3 ʻ H4ʻ Hʻ 14H D3ʻ $EOʻ $DD HE$ʻ >HN+C 6$C 3E E2C ʻ H4ʻ H F34ʻ ?3N-4 3Cʻ Hʻ F3ʻ ?$ C&$N HEʻ H&ʻ F3ʻ C$ Dʻ @H J R J CC HE34Cʻ ʻ $EDʻ ʻ N$C3ʻ H&ʻ ,HE NH J 1 $EN3ʻ Fʻ $EOʻ <4D34ʻ H&ʻ F3ʻ @H J J CC HE34Cʻ H&ʻ ; N C3ʻ Hʻ C-NFʻ ; &&3N ʻEHʻ H $EN3ʻ CF$ ʻQ3ʻ 24$E 3Dʻ H4ʻ 1$0$Q 3ʻ HEʻ $EOʻ ?1 4 Cʻ D C 3Dʻ QOʻ F3ʻ G C 34 ʻ H4ʻ &4H Jʻ P$ ʻ J $D3ʻ QOʻ F3ʻ P$ C 34 ʻ FHʻ CF$ ʻ43&-C3ʻ Hʻ NH J 1 Oʻ Fʻ $EOʻ C-NFʻ <4D34 ʻ @H J J CCHE ʻ 34Cʻ J$0ʻ 43 H+3ʻ @H R 3N H4 Cʻ 114H $ʻ H&ʻ B- D E2ʻ &H4ʻ D31HC E2ʻ P$ ʻ KN

W ʻ EDʻ F3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ CHʻ J -NFʻ H&ʻ F3ʻ I4H C HEʻ ; N31 HEʻ Eʻ NHE $ E3Dʻ Eʻ $Eʻ N ʻ 1$CC3Dʻ Eʻ F3ʻ ; 3 3E Fʻ =3$4ʻ H&ʻ F3ʻ ʻ3 2Eʻ H&ʻ 8 Cʻ N&ʻ ʻNʻ#

P$ C 34C E ?NH $ED $ED 43 $ED J$+ E2 P$ ʻ &H4 D C E2 ?1 4 C &4H J ʻ P$ ʻHE O ʻ 4313$ 3D

$ 3 P$(3C O % E2 ! , (! F3 6H-4 F ʻ E - 3D / # / ' ' , ʻ , % ! ʻ #& !#& # / ' ' , ʻ) ! +!0!#) ʻ #& ( )) ʻ H! 1 V ʻ 1 5 !1!# ʻ V !1 ʻ , ʻ ' ,#1,% & #(#& !#& #( ) ! < F1 , ʻ 8J ' 1! ,# % ʻ &! #) ! C# !& #(&, ʻ #& , ʻ !#& #( ) ! < 0 1 !% #(, ʻ " !!&! 1 # 43 $ED ʻ #&) ! % ʻ / %%, F # ' ! ,# +5 1 # ?NH $ED #& 43 $ED ʻ $C 3 N31 C $ P$ C 34 H4 P$+34 H& P$ ʻ E + ' , % #& H4 $!% #& J$+ E2 P$ ʻ H Q3 NHEC-J3D E D C E2 >H ʻ 9 E3C $ED ?1 4 C &4H J ʻ P$ ʻ HE O &4H J ʻ -C E2 $EO % E 3E 343D &H4 J$+ E2 $ED D40 E2 P$ ʻ H D40 $ED D40 E2 F343HE $EO @H4E H4 M4$ E EH ʻ J$+ E2 E H P$ ʻ CF$ ʻ Q3 $ED F3 C$J3 C F343QO 4313$ 3D ! $ED ʻ CF$ ʻ Q3 $ &- ʻ &H4 $EO C-NF P$ C 34 H4 P$+34 H& P$ ʻ E + ' , % #& H4 $!% #& H -C3 $EO C-NF 3E 343D % E &H4 D40 E2 $ED H D40 F343HE $EO @H4E H4 M4$ E EH ʻ J$+ E2 E H P$ ʻ -ED34 F3 C$J3 ' 32- $ HEC $ED E F3 C$J ʻ P$EE34 $C $EO H F34 P$ C 34 H4 P$+34 H& P$ ʻ C QO F3 C$ D I 4H C HEC $- FH4 T3D H DH

@"JJ3E ʻ J3E H& N ʻ

W ʻ ED Q3 ʻ &-4 F34 3E$N 3D ʻ *F$ ʻ F C N ʻ CF$ ʻ @H J J3EN3 $ED $+3 3&&3N ʻ HE F3 * 3E O C3NHED G$O H& / 5 % < E3 FH-C$ED 3 2F ʻ F-ED43D $ED F 4 O H

N ʻ J$O Q3 $ 343D F C ?3CC HE

W ʻ ED Q3 ʻ &-4 F34 3E$N 3D ʻ *F$ ʻ F C N ʻ H4 $EO H& F3 14H C HEC F343H& ʻ J$O Q3 $J3ED3D ʻ $ 343D ʻ H4 4313$ 3D QO $EO N ʻ H4 N C H Q3 1$CC3D E F C 143C3E ʻ ?3CC HE H& I $4 $J3E

> < , G < , ⁚ I 4 E 3D QO # + . (/ + & (+ $ED) > (+ , ʻ 01 . 223% , . . * + ʻ
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E' N ' H' $11 O' F3' ?- J' H&' * F433' P HEC ' H- '
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P HC ' M4$N H - C' ?H 343 2E

> ; ' =H - 4' P $(3C O C' J HC ' D- &- ' $ED' HO$ ' ? - Q(3N C ' F3' @H J J HEC' H&' F3' # E 3D' % E2DH J' ! ' " #' $ED' $ & #& ' E' I $4 $ J 3E ' $CC3 J Q 3D ' H $4DC' J $+ E2' 2<HD' F3' E3N3CC$4O' ? - 11 3C' F NF' 3' F$ 3' NF334& - O' 24$E 3D' H' =H - 4' P $(3C O' E' F C' ?3CC HE' H&' I $4 $ J 3E ' F$ 3' 43CH 3D' H' 2 3' $ED' 24$E ' - E H' =H - 4' P $(3C O' F3' ? - J ' F343 E $& 34' J 3E HE3D' ($ED' DH' F343&H43' J HC ' F - J Q O' Q3C33NF' =H - 4' P $(3C O' F$ ' ' J $O' Q3' 3E$N 3D' ($ED' Q3' ' 3E$N 3D' QO' F3' % E2 C' J HC ' ; N3 3E ' P $(3 ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 - $ ' $ED' * 3 J 1H4$ ' $ED' @H J R J HEC ' E' F C' 143C3E ' I $4 $ J 3E ' $CC3 J Q 3D ' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3' * F$ ' F343' CF$ ' $ED' J $O' Q3' CC - 3D' $ED' $11 3D ' &H4' H4' * F343' CF$ ' H $4DC' J $+ E2' 2HHD' F3' ? - 11 O' 24$E 3D' H' 8 C' P $(3C O' &H4' F3' Q3' $11 3D' ?34 N3' H&' F3' =3$4' < E3' FH - C$ED' 3 2F ' F - ED43D' $ED' F 4 O < ' F3' ? - J' H&' * F433' P HEC' H - ' H&' F3' @HECH D$ 3D' 6 - ED' H&' F3' # E 3D' =3$4 ' % E2DH J ' H&' ! ' #' $ED' $!% #& ' ' F3' @H J J CC HE34C' H&' S [[[[[[' 8 C' P $(3C O C' * 43$C - 4O' H&' F3' # E 3D' % E2DH J ' H&' ! ' " #' $ED' $!% #&' EH ' H4' &H4' F3' * J 3' Q3 E2 ' H4' $EO' * F433' H4' J H 3' H&' F3 J ' @HECH D$ 3D 6 - ED H4' F3' >H4D' 8 2F' * 43$C - 434' H&' F3' # E 3D' % E2DH J ' H&' ! ' " #' $ED' $!% #&' &H4' F3' * J 3' Q3 E2 ' $43' H4' C' F343QO' $ - FH4 T3D' $ED' 3 J 1H 343D' H' CC - 3' $ED' $11 O' F3' C$ J 3' $NNH4D E2 O

Z' I' ' ED

UL' M # > ; > P ' ' @$1 ' S[

*F3 *43$C& O' J O'N$-C3' S [[[[[[' H&' ; NF3X-34' B C' H' Q3' J$D3' H- ' E' J$EE34' 143CN4 Q3D' QO' ZM S ' @

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' 'CF$ ' $ED' J $O' Q3' $ &- '& ' F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' * 43$C- ' H4' $EO' * F433' H4' J H 3' H&' F3 J' &H4' F3' * J 3' Q3 E2 ' &4H J' H' * J 3 ' QO' 9 44E ' -ED34' F3 4' 8 $EDC ' H' N$-C3' H4' D 43N ' $EO' , - J Q34' H&' ; NF3X-34' B C' H' Q3' J$D3' H- ' $ ' F3' ' 3H3 1 ' H&' 8 C' P $(3C O C' ; NF3X-34' $ ' !1 #1 ! ' &H4' $EO' ?- J' H4' ?- J C' H&' P HE3O' EH ' 3 N33D E2' E' F3' FH 3' F3' ?- J' H&' * F433' P HEC ' $ED' C-XF' ; NF3X-34' B C' CF$ ' Q3' J $D3' H- ' E' F3' C$ J 3' H4' +3' P $EE34 ' 6H4 J ' $ED' <4D34 ' $ED' $NNH4D E2' H' F3' C$ J 3' H4' F3' +3' ' - 3C' $ED' G 43N HEC ' $C' $43' D 43N 3D' $ED' 143CN4 Q3D' E' $ED' QO ' $E' N ' 1$CC3D' E' F3' 6H4 O 3 2F F' =3$4' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' ' E2' ! , (!' F3' * F 4D ' E - 3D' / #' / ' ' , ' ! (& #(')!' 1 #(' #&'5 #(' , 5 '8 J ') !V3! ' " O1

*F3N $- ' KN' E'43N 3D' H' DC' N /' '

8 ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' $ ' $ED' 3 34O' F3' @ $-C3C ' 14H CH3C ' I H 34C ' I 4 323C ' D $E $23C ' I 3E$ 3C ' 6H4&3 -43C ' G C$Q 3C'C NHE $ E3DI ' E' F3' ?$ D ' 43N 3D' N ' 1$CC3D' E' F3' 6H4 O 3 2F F' =3$4' H&' F3' ' 3 2E' H&' 8 C' C$ D' P $(3C O' CF$ ' Q3' $11 3D' $ED' 3 3ED3D' H' F3' ; NF3X-34' B C' H' Q3' J $D3' H- ' E' 1-4C-$EN3' H&' F C' N ' $C' &- O' $ED' 3&&3N -$ O ' H' $ ' E 3E C' $ED' I -41HC3C ' '$C' &' F3' C$ D' C3 34$ ' @ $-C3C' $ED' I 4H C HEC' F$D' Q33E' 1$4 N- $4 O' 4313$ 3D' $ED' 43 3E$N 3D' E' F3' BHDO' H&' F C' N

E 343C ' !#' ; NF3X-34' B C

' ED' Q$' ' &-4 F34' J $N 3D' *F$ ' F3' ; NF3X-34' B C' H' Q3' J $D3' H- ' E' 1-4C-$EN3' H&' F C' N ' CF$ ' $ED' J $O' Q3$4' $E' E 343C ' EH ' 3 N33D E2' F3' ' $ 3' H&' *F433 13EN3' 8 $ &13EEO' 5 ! ' !# 3 ' 5 ! ' 2 ! ' -1HE' H4' E' 43C13N ' H&' F3' FH 3' H&' F3' P HE 3C' 43C13N 3 O' NHE $ E3D' F343 E' .

B C' H' Q3' 1 $N3D' $C' CH' J -NF' @$CF' E' F3' ; ' NF3X-34' '

O' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' * 43$C-4O' &H4' F3' * J 3' Q3 E2 ' H4' $EO' * F433' H4' J H43' H&' F3 J ' CF$ ' $ED' F3O' $43' F343QO' $- FH4 T3D' $ED' 3 J 1H 343D' H' @$-C3' C-NF' ; NF3X-34' B C' $C' CF$ ' Q3' J $D3' H- ' E' 1-4C-$EN3' H&' F C' N ' H' Q3' 1 $N3D ' $C' CH' J -NF' @$CF ' E' F3' 43C13N 3' <&& N3C ' H&' F3' * 3 34C' H&' F3' ' 3N3 1 ' H&' 8 C' P $(3C O C' ; NF3X-34' $ ' !1 #1 ! ' 3$NF' $ED' 3 34O' H&' F NF' * 3 34C' CF$ ' Q3' C3 34$ O' NF$423D' F' F3' I 4H1H4 HE' H&' F3' C$ D' B C' F NF' CF$ ' Q3' CH' 1 $N3D' E' F C' <&& N3' 43C13N 3 O' $C' CH' J -NF' @$CF' ' $EO' >$ ' H4' # C$23' H' F3' NHE 4$4O' EH FC $ED E2

$ED' J $O' Q3' $11 3D' QO' F3' * 43$C-4O

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' F3' C$ D' ; NF3X-34' B C' E' F1' 8 $EDC' H&' F3' C$ D' * 3 34C' CF$ ' Q3' HN+3D' -1' $ED' C3N-43D' $C' @$CF ' $NNH4D E2' H ' F3' @H-4C3' H&' F3' ' 3N3 1 ' H&' F3' ; NF3X-34' $ ' !1 [#1 ! ' CF$ ' Q3' $+3E' $ED' 3C 33 J 3D' $C' CH' J -NF' E' 1$4 ' H&' F3' ' 3 J $ EC' E' ' 3$ ' P HE3O' F343 F' 3$NF' H&' F3' C$ D' * 3 34C' CF$ ' &4H J' * J 3' H' * J 3' C $ D' NF$423D ' E' NH J J HE' F' H F34' F3' P HE 3C' E' F3' C$ D' ; NF3X-34 ' $EO' >$ ' H4' # C$23' H' F3' NHE 4$4O' EH FC $ED E2' ($ED' ' CF$ ' Q3' $ &- ' &H4' F3' C$ D' @H J J CC HE34C' H&' F3' * 43$C-4O' H' CC-3' $ED' $11 O' F3' C$ J 3' &4H J' * J 3' H' * J 3' H' C-NF' ?34 N3C' $C' $ ' F3E' F$ 3' Q33E' H 3D' QO' F3' @H J J HEC' H&' F3' # E 3D' % E2DH J' H&' ! ' " #' $ED' $!% #&'O ' F C' 143C3E ' ?3CC HE' H&' I $4 $ J 3E

; NF3X-3 ' B C' J $D3' NF$423$Q 3' -1HE' F3

' ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' F3' I 4 EN 1$ ' ?- J' H4' ?- J C' H& P HE3O' H' Q3' @HE $ E3D' E' $ ' C-NF' ; NF3X-34' B C' H' Q3' J $D3' &H4 F' QO' 4 -3' H&' F C' N ' D23 F34' F' F3' E 343C " F$ ' J $ O Q3NH J 3

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D-3' F343HE' CF$ 'Q3' $ED' F3' C$J3'$43' F343QO' J$D3' NF423Q 3' $ED' 24H E2' I4H' NF$423D' -1HE' F3' 24H E2' I4HD-N3' H&' F3' @HECH D$ 3D' 6-ED' H&' F3' F3 #E 3D' % E2DH J' H&' ! ' " #' $ED' $!% #&' E' F3' E3 'C-NN33D E2' @F$4 34' H' F$' E' F NF' F3' C$D' ; NF3X-34' B C' F$ 3' Q33E' CC-3D' $ED' 'CF$ 'Q3' $ &-' &H4' F3' @HE$J CC HE34C' H&' 8 C' P$(3C O C' *43$R C-4O' &H4' F3' * J3' Q3 E2'H4' $EO' *F433' H4' JH43' H&' F3J' $ED' F3O' ' $43' F343QO' $- FH4 T3D' &4HJ' * J3' H' * J3' QO' 9$44$E' -ED34' F3 4' 8$EDC' H' D 43N' F3' -D H4' H&' F3' '3N3 1' H&' F3' ; NF3X-34' $' !1 #1 ! ' E' C-NF' P$EE34' $C' F3O' CF$ ' F E+' E3N3CC$40' H' CC-3' -E H' C-NF' I34CHE' H4' I34CHEC' $C' CF$ 'Q3' E$J3D' E' F3' C$D' 9$44$E ' H-' H&' F3' 24H E2' 14HD-N3' H&' F3' C$D' @HECH D$ 3D' 6-ED' H&' F3' E3 'C-NN33D E2' \ -$4 34' H' F$' E' F NF' F3' C$D' ; NF3X-34' B C' F$ 3' Q33E' CC-3D' $EO' ?-E' H4' ?-JC' H&' PHE3O' EH '3 N33D E2' E' F3' FH 3' $' ?-J' C-&& N 3E' H' D CNF$423' $ED' 1$O' H&&' F3' I4 EN 1$' ?-4$' H4' ?-JC' H&' PHE3O' NDE $ E3D' E' C-NF' ; NF3X-J4' B C' F3E' H- C $ED E2' $ED' F NF' J$O' F$ 3' Q33E' J$D3' H-'$ED' CC-3D' QO' 4 -3' H&' F C' N ' H23 F34' F' $ 'C-NF' E 343C $C' J$O' Q3' D-3' F343-1HE

8 :' ED' Q3' ' D3N $43D' $ED' &-4 F34' 3E$N 3D ' *F$' ' CF$ ' $ED' J$O' Q3' $ &-' &H4' F3' MH 34EH4' $ED' @HJ1$EO' H&' F3' B$E+' H&' 8#(% #&' $ED' F3O' $43' F343QO' 3J1H 343D' H' $+3' $NN31 ' $ED' 43N3 3' F3' ; NF3X-34' B C' $- FH4 T3D' H' Q3' J$D3' H-' E' 1-4C-$EN3' H&' F C' N ' $ED' H' $D $EN3' H4' 3ED' H' 8 C' P$(3C O' $' F3' '3N3 1' H&' ' F3' ; NF3X-34' $' !1 #1 ! ' -1HE' F3' @43D ' <*' F3' ?-4$' 24$E 3D' QO' F C' N ' H-' H&' F3' @HECH D$ 3D' 6-ED' H&' F3' #E 3D' % E2DH J' H&' ! ' " #' $ED' $!% #&' $EO' ?-J' H4' ?-JC' H&' PHE3O' EH '3 N33D E2' E' F3' FH 3' F3' ?-J' H&' *F433' P HEC' ' $EO' F E2' E' $E' N ' 1$CC3D' E' F3' 6 & F' $ED' ? F' =3$4C' H&' F3' '3 2E' H&' % E2' %% ' $ED' \ -33E' ' E - 3D' / #' / ' ' , ' (# #(' ,' 7) ! ' U!1 !1' 1!, ! %' L !1' #&' 23 !1' 35,#' 7,## (!', '+) 51' #&' C!11!%1' #&' 35,#' "!! ' /%!' #&' ,)! '< V3, 1=' #&' , '1!'3 #('! #' L!', 5!#' !1' #&' / &0 # (!1' #')!'1 &' / ' ' !# ,#!&' ,' 13')' *! 1,#1' 1' 1) %%' 0,%3# %' &0 #' !')!' +3 ' , '6#!' %% ,#' 0!')3#& !&'),31 #&' *,3#&1' ,F &1' ' #(' ,#')!' ' (#1' 64$EN3' H4' E' $EO' H F34' N ' H4' N C' H' F3' NHE 4$4O' F343H&' EH FC $ED E2

B$E+' H&' ; E2 $ED' J$O' $D $EN3 S[[[[[[. HE' F3' @43D ' H&' F C' N ' EH F C $ED E2 !KY9 KP N' U[

>< , G< ,' I4 E 3D' QO' #+. (/ +' (+' $ED')*(+,' ?1H** C HHG; ' I4 E 34C' H' F3' % E2 C' JHC' ; N3 3E' P$(3C O' ZSU

, , <ʻ ? ; @# , G<

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Eʻ N ʻ Hʻ 432- $ 3ʻ F3ʻ B$+ E2ʻ *4$D3ʻ Eʻ
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9 8 ; ' ; ?ʻ ʻ Cʻ 3 13D 3E ʻ Hʻ 432- $ 3ʻ F3ʻ ?$ 3ʻ H&ʻ B43$Dʻ #ʻ $!% #&ʻ $EDʻ Eʻ J $EE34ʻ F343 E $& 34ʻ J 3E HE3D.ʻ B 3 ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ J HC ʻ ; N3 3E ʻ P $(3C Oʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3E ʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ʻ $EDʻ *3 J 1H4$ ʻ $EDʻ @H J J HEC ʻ Eʻ F Cʻ 143C3E ʻ I $4 $ J 3E ʻ $CC3 J Q 3D ʻ $EDʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$ J 3ʻ *F$ ʻ $ ʻ B43$Dʻ F NFʻ CF$ ʻ F343 ʻ $& 34ʻ Q3ʻ CH Dʻ H4ʻ 3 1HC3Dʻ H4ʻ H&&343Dʻ &H4ʻ ?$ 3ʻ Eʻ $!% #&ʻ CF$ ʻ Q3ʻ J $D3ʻ ^&&ʻ $EOʻ F3ʻ C3 34$ʻ E243D 3E Cʻ F343 E $& 34ʻ J 3E HE3D ʻ F$ ʻ Cʻ Hʻ C$O ʻ H&ʻ F3ʻ 6 H-4ʻ H4ʻ P 3$ ʻ H&ʻ 9 F3$ ʻ B$4 30 ʻ ' O3 ʻ <$ C ʻ B -N+ F3$ ʻ ED $Eʻ @H4E ʻ I 3$C ʻ B3$EC ʻ ' N3 ʻ H4ʻ H F34ʻ M4$ E ʻ H4ʻ H&ʻ I H $ H3C ʻ C#NFʻ E243D 3E Cʻ Q3 E2ʻ J 3Dʻ Fʻ NH J J HEʻ + % ʻ 53 !ʻ 9 $ 34ʻ ; 22C ʻ P +ʻ =3$C ʻ B$4 J ʻ >3$ 3E ʻ H4ʻ I H $ H3ʻ =3$C ʻ H4ʻ Fʻ $EOʻ H&ʻ C-NFʻ $C J 3E HE3Dʻ E243D 3E C ʻ Eʻ C#NFʻ I 4H1H4 HECʻ $Cʻ F3ʻ P $+34Cʻ H4ʻ ?3 34Cʻ H&ʻ B43$Dʻ CF$ ʻ F E+ʻ &

B43$Dʻ H&&343Dʻ &H4ʻ ?$ 3 E 43 ʻ $E ʻ F3ʻ C3 34$ʻ E243D 3E Cʻ F343 Eʻ J 3E ʻ

8 ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ B43$Dʻ CF$ ʻ F3EN3&H4 Fʻ Q3ʻ CH Dʻ Eʻ $!% #&ʻ QOʻ 9 3 2F ʻ HE O ʻ $EDʻ EH ʻ QOʻ P 3$C-43 ʻ $EDʻ F$ ʻ ʻ CF$ ʻ EH ʻ Q3ʻ NH J 13 3E ʻ &H4ʻ $EOʻ I 34CHEʻ H4ʻ I 34CHECʻ Hʻ J $ E $ Eʻ $EOʻ ?- ʻ H4ʻ N HEʻ $ʻ >$ ʻ H4ʻ ; X- Oʻ &H4ʻ F3ʻ I 4 N3ʻ H4ʻ $ -3ʻ H&ʻ $EOʻ B43$Dʻ CH Dʻ Eʻ H F34 C3ʻ F$Eʻ QOʻ 9 3 2F ʻ $EDʻ F$ ʻ 3 J Oʻ I 34CHE FHʻ CF$ ʻ C3 ʻ H4ʻ 3 1HC3ʻ H4ʻ H&&34ʻ &H4ʻ ?$ 3ʻ Eʻ $!% #&ʻ EOʻ B43$Dʻ CF$ ʻ +331ʻ NHE E-$ Oʻ Eʻ CH J 3ʻ NHE 3E 3E ʻ I $4 ʻ H&ʻ F3ʻ ?FH1 ʻ H4ʻ N$44Oʻ Fʻ F J ʻ &ʻ F3ʻ B43$Dʻ Q3ʻ N$44 3Dʻ $QH- ʻ &H4ʻ ?$ 3 ʻ $ʻ B3$ J ʻ $EDʻ ?N$ 3C ʻ Fʻ 14H134ʻ 9 3 2F C ʻ Eʻ H4D34ʻ F$ ʻ 30340ʻ I 34CHEʻ FHʻ Sʻ \ʻ ʻ J $O

B43$Dʻ CF$ ʻ Q3ʻ CH Dʻ QOʻ 9 3 2F ʻ HE O

?3 34Cʻ H&ʻ B43$Dʻ Hʻ +331ʻ ?N$ 3C $EDʻ 9 3 2F Cʻ &H4ʻ F3ʻ 3 2F E2ʻ H&ʻ B43$D

J $O' 1-4NF$C3' $EO' C-NF' B43$D' J $O ' &' F3' H4' CF3' CF$ ' F E+' 14H134 '
43X- 43' F3' C$ J 3' X' Q3' 3 2F3D' E' F C' H4 ' F34' I 43C3EN3

I -E CF J 3E '
H&' I 34CHEC'
$N E2' NHER
4$4O' H' F3'
; E$N J 3E C'
F343H&

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' &' $EO' I 34CHE' CF$ ' C3 ' H4' 3 1HC3' H4' H&&Q4' &H4' ?$ 3' $EO' B43$D' QO' P 3$C-43 ' H4' H F34 C3' F$E' QO' 9 3 2F ' H4' CF$ ' C3 ' H4' H&&34' H4' 3 1HC3' &H4' ?$ 3' $EO' B43$D' J $D3' FH O' H4' E' 1$4 ' H &' $EO' E243D 3E ' H4' * F E2' EH ' F343 E Q3&H43' J 3E HE3D ' H4' CF$ ' C3 ' H4' 3 1HC3' H4' H&&34' &H4' ?$ 3' $EO' B43$D' E' $EO' ?FH1' H4' H F34' I $N3' E' F NF' C-NF' B3$ J ' ?N$ 3C ' $ED' 9 3 2F C' $C' $&H43C$ D' CF$ ' EH ' Q3' F343' +31 ' E' J $EE34' $&H43C$ D ' &H4' F3' I -41HC3' $&H43C$ D ' H4' CF$ ' F3E' F343-E H' 43X- 43D' QO' $EO' I 34CHE' FH' J $O' Q3' D3C 4H-C' H4' $QH- ' H' 1-4NF$C3' $EO' C-NF' B43$D ' 43&-C3 ' E' F3' I 43C3EN3' H&' C &NF' ' I 34CHE ' H' 3 2F' F3' C$ J 3' E' C-NF' ?N$ 3C' $ED' F' C-NF' 9 3 2F C' $C' $&H43C$ D ' 3$NF' $ED' 3 34O' I 34CHE' CH' H&&3ED E2' CF$ ' &H4' 3$NF' $ED' 3 34O' C-NF' <&&3EN3' EN-4' $' I E3' EH ' 3 N33D E2' 6 3' I H-EDC' H4' 3CC' F$E' 6 3' ?F E2C ' $C' F3' P $2 C 4$ 3' H4' P $2 C 4$ 3C ' 5-C N3' H4' 5-C N3C ' Q3&H43' FH J ' C-NF' <&&3ED34' CF$ ' Q3' NHE N 3D ' CF$ ' F E+' & ' H' H4D34' $ED' D 43N ' $ED' E' D3&$- ' H&' I $O J 3E ' H&' C-NF' 6 E3' F E' * F433' G$OC' $& 34' , H N3' H&' C-NF' @HE N HE ' ' CF$ ' Q3' $ &- ' H' $ED' &H4' F3' 5-C N3' H4' 5-C N3C' Q3&H43' FH J ' C-NF' <&&3ED34' CF$ ' F$ 3' Q33E' NHE N 3D ' QO' F C' <4 F3 4' 9 44E ' H4' 9 44E C' -ED34' F C' H4' F3 4' 8 $ED' $ED' ?3$ ' H' N$-C3' C-NF' <&&3ED34' H' Q3' $1143F3ED3D' $ED' NH J J 3D' H' F3' 8 H-C3' H&' @H443N HE' H&' F3' @ O ' @H-E O ' H4' I $N3' F343' F3' <&&3EN3' CF$ ' F$ 3' Q33E' NH J J 3D' H4' F343' F3' <&&3ED34' CF$ ' F$ 3' Q33E' $1143F3ED3D ' F343' H' 43 J $ E' &H4' $EO' * J 3' EH ' 3 N33D E2' < E3' @$ 3ED$4' P HE F' &4H J ' F3' * J 3' H&' C-NF' @H J J ' 13E ' $C' C-NF' 5-C N3' H4' 5-C N3C' CF$ ' F E+' & ' H' H4D34

11%N$ HE'
H&' 6 E3C

' ED' Q3 ' &-4 F34' 3E$N 3D ' * F$ ' $ *' 6 E3C' J 1HC3D' -ED34' F C' N ' CF$ ' Q3' $11 3D' H' F3' B3E3& ' H&' F3' 8 HC1 $ ' E& 4 J $4O' H4' G C13EC$4O' H&' F3' I $4 CF' E' F NF' C-NF' <&&3EN3' CF$ ' F$ 3' _33E' NH J J 3D

6H4 J ' H&'
1 J HE '

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' E' $ ' @$C3C' F343' $EO @HE N HE' CF$ ' Q3' F$D' &H4' $EO' <& 3EN3' H4' <&&3EN3C' NH J J 3D' 2 EC ' F C' N ' F3' 6H4 J ' H&' @HE N HE' CF$ ' Q3' E' F3' 9 H4DC' H4' H' F3' ; &&3N ' &H H E2 ' ^ F$ ' C' H' C$O _

7 ' ; ' ' 43 J 3 J Q343D ' * F$ ' HE' F C' G$O' H&
7 E' F3' =3$4' H&' F3' ' 3 2E' H&
' C' NHE N 3D' Q3&H43' J 3' I H4' -C(' 5-C N3' &H4' 5-C N3Cd' H&' F3'
7 I 3$N3' &H4' F3' H&' F$ E2' I $C' J 3' Y !#' !' 1) %%' 4! a
7 $ED' ' I H4' 3 ' F3' C$ D' ' DH' $ -D23' F J ' I H4' F34d
7 H' &H4&3 ' $ED' 1$O' F3' ? - J ' H&'
7 M 3E' -ED34' J O' 8 $ED' $ED' ?3$ ' I H4' <-4' 8 $EDC' $ED' ? 3 D Cd' F3' G$O' N $ED' =3$4' $&H43C$ D

113$ '

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' $EO' I 34CHE' CH' NHE N 3D -ED34' F C' N ' CF$ ' F$ 3' F3' I H 34' H' 113 ' 2 EC ' C-NF' @HER N HE ' HE' 2 E2' C-&& N 3E ' ?3N-4 O' F$ ' F3' ' 14HC3N- 3' C-NF' 113$ ' H' F3' E3 ' M3E34$ ' \ -$4 34' ?3CC HEC' H&' F3' I 3$N3' &H4' F3' @H-E O ' @ O ' H4' I $N3' F343' C-NF' @HE N HE' CF$ ' F$ 3' Q33E' J $D3

$ M#> ;>P ʻ ʻ @$1 S U

O ʻ I4H D3Dʻ$ $OCʻ$ED Q3ʻ ʻ3E$N 3DʻQOʻ F3ʻ - FH4 Oʻ$&H43C$ Dʻ I4H CHʻ&H4ʻ *F$ʻ EH F E2ʻ Eʻ F Cʻ N ʻ NHE $ E3Dʻ CF$ ʻ Q3ʻ NHEC 4-3Dʻ Hʻ 3 3EDʻ I $N3Cʻ Eʻ Hʻ$EOʻ @H-E O ʻ @ O ʻ *H Eʻ H4ʻ G C 4 N ʻ Eʻ$!% #&ʻ &H4ʻ F NFʻ$ʻ 1$4ʻ N- $4ʻ ? $ - 3ʻ &H4ʻ 432- $ E2ʻ F3ʻ B$+ E2ʻ *4$D3ʻ H4ʻ F3ʻ CC T3ʻ H&ʻ C$ - 3C B43$Dʻ Cʻ EH ʻ Eʻ &H4N3ʻ $EDʻ CF$ ʻ NHE E-3ʻ Hʻ F3ʻ Eʻ &H4N3 3 C

ʻ EDʻQ3ʻ ʻ&-4 F34ʻ3#$N 3Dʻ *F$ʻEH F E2ʻ Eʻ F Cʻ N ʻNHE $ E3Dʻ ,H PE2ʻ 3 3EDCʻ H4ʻ CF$ ʻ F3ʻ NHEC 4-3Dʻ Hʻ 3 3EDʻ Hʻ F3ʻ J $+ E2ʻ H4ʻ ?$ 3ʻ H& C-NFʻ B43$Dʻ$Cʻ Cʻ -C-$ Oʻ J $D3ʻ $EDʻ CH Dʻ -ED34ʻ F3ʻ G3EH J E$ HEʻ H&ʻ ENOʻ B43$Dʻ 643ENFʻ H4ʻ 6$ENOʻ B43$D ʻ H4ʻ ' H Cʻ H4ʻ @$+3C

W ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ *F$ ʻ F Cʻ N ʻ $EDʻ 3 34Oʻ P$ 34ʻ $EDʻ @H $ J 3E33 *F E2ʻ F343 ($ʻ NHE $ E3D ʻ CF$ ʻ F$ 3ʻ 3&&3N ʻ $EDʻ Q3ʻ Eʻ &H4N3ʻ &4H J ʻ $EDʻ N $& 34ʻ F3ʻ ; 1 4$ HEʻ H&ʻ <E3ʻ @$ 3ED$4ʻ P HE Fʻ E3 ʻ $& 34ʻ F3 ʻ 1$CC E2ʻ F343H& ʻ $EDʻ EH ʻ CHHE34

W ʻ EDʻ F3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ F Cʻ N ʻ CF$ ʻ Q3ʻ D33 J 3Dʻ I-Q Nʻ N ʻ $EDʻ $+3Eʻ Hʻ Q3ʻ $ʻ I -Q Nʻ N ʻ $EDʻ CF$ ʻ Q3ʻ (-D N $ Oʻ $+3Eʻ EH N3 H&ʻ$Cʻ C-NFʻ QOʻ$ ʻ5-D23C ʻ5-C N3C ʻ $EDʻ H F34C ʻ FH- ʻ Q3 E2ʻ C13N $ Oʻ O 3$D3D ʻ .

>< , G<Q):ʻ I4 E 3Dʻ QOʻ #+.(/+ʻ &++ʻ $EDʻ)*(+,ʻ O1.223%, ..*+ʻ
I4 E 34Cʻ Hʻ F3ʻ % E2 Cʻ J HC ʻ ; N3 3E ʻ P$(3C O ʻ ZSU

, , <ʿ ? ; @# , G<

M # > ; > P ʿ ʿ ' ; M ?

@ʿ ʿ I ʿ WWW

Eʿ 3 ʿ&H4ʿ F3ʿ ; 43N HEʿH&ʿ$ʿ , C ʿ I 4 -Cʿ @H-4 ʿ 8 H-C3ʿ
Eʿ , ʿ IUSDʿ , ʿ ZSU ㎜

> 8 ; ' ; ?ʿ QOʿ $Eʿ N ʿ 1$2C3Dʿ Eʿ F3ʿ I $4 $ J 3E ʿ H&ʿ$!% #&ʿ Eʿ F3ʿ * F 4 3 Fʿ =3$4ʿ H&ʿ F3ʿ ' 3 2Eʿ H&ʿ 8 Cʿ $ 3ʿ P $(3C Oʿ % E2ʿ ! , (!ʿ F3 ʿ * F 4D ʿ E - 3Dʿ / #ʿ / ' ʿ , ʿ !# 4% #(ʿ S[ʿ : ʿ ʿ` Sʿ ) !ʿ < , &ʿ ( )ʿ I ) #' !%%, ʿ #&ʿ ) !ʿ I ,3 ʿ , ʿ8J' ) !V3! ʿ !15! ' 0!% ʿ ,ʿ !ʿ 6 &! 1ʿ ,#ʿ ) !ʿ ,0! #, ʿ #&ʿ I , 5 # ʿ , ʿ ) !ʿ " # ʿ , ʿ 43 $ED ʿ , ʿ " !# ! ,3 ʿ , ) !ʿ !#! %ʿR3#&ʿ , ʿ ,# !1ʿ4!%,#( #(ʿ ,ʿ ) !ʿ +3 , 1ʿ , ʿ ) !ʿ I ,3 1ʿ ` ʿ I) #' ! ʿ #&ʿ 8J') !V3! ʿ , ʿ) !ʿ +3 ʿ) ! ! #ʿ !# ,#!&ʿ ,F &1ʿ 43 %& #(ʿ) !ʿ 5 #' 5 %ʿ I ,3 1ʿ , ʿ?31 ' !ʿ ʿ G-Q Eʿ #&ʿ < Fʿ 6 ' !1ʿ-ʿ #&ʿ , ʿ !#& #(ʿ #ʿ / ' ʿ # 3%!&ʿ ʿ / #ʿ / ' ʿ , ʿ 4! ! ʿ1! '3 #(ʿ ʿ ʿ ?Fʿ ,# !1ʿ #&ʿ 8 ! ' 1ʿ , ʿ) !ʿ +3 , 1ʿ , ʿ) !ʿ I ,3 ʿ , ʿ I) #' ! ʿ #&ʿ 7 I ,3 ʿ @ ʿ8J') !V3! ʿ 4 ʿ 5 ,1 #(ʿ) !ʿ 1 !ʿ #ʿ) !ʿ E ,# %ʿ " # 7 #&ʿ ,ʿ 5 !0!# ʿ) !ʿ , (#(ʿ #&ʿ ' ,3# ! ! #(ʿ # ʿ 2 ʿ 6 &! ʿ , ʿ 7 ,) ! ʿ C,3') ! ʿ , ʿ) !ʿ * !# ʿ , ʿ 2 !% 0! ʿ , ʿ 13')ʿ ,#! ʿ , ʿ 7 8 ! ' 1ʿ #&ʿ , ʿ ,) ! ʿ*3 5,1!1 ʿ ʿ Cʿ $ J HE2C ʿ H F34ʿ F E2Cʿ 3E$N 3D ʿ F$ ʿ H- ʿ H&ʿ F3ʿ M3E34$ ʿ 6 -EDʿ H&ʿ F3ʿ P HE 3Cʿ H&ʿ F3ʿ ?- H4Cʿ H&ʿ 8 Cʿ P $(3C O Cʿ 8 2Fʿ @H-4 ʿ H&ʿ@F$EN34Oʿ $EDʿ @H-4 ʿ H&ʿ ; NF3X-34 ʿ F NFʿ F3Eʿ 343ʿ H4ʿ CFH- Dʿ Q3ʿ D31HC 3Dʿ Eʿ F3ʿ B$E+ʿ H&ʿ $!% #& ʿ F3ʿ MH 34EH4ʿ $EDʿ @H J 1$EOʿ H&ʿ F3ʿ B$E+ʿ H&ʿ $!% #&ʿ CFH- D ʿ F Eʿ F3ʿ ?1$N3ʿ H&ʿ * F433ʿ =3$4Cʿ &4H J ʿ F3ʿ * 3E O & & Fʿ G$Oʿ H&ʿ ')ʿ < E3ʿ FH-C$EDʿ C3 3Eʿ F-ED43Dʿ $EDʿ E E3 O ʿ 1$Oʿ Hʿ F3ʿ > H4Dʿ 8 2Fʿ @F$EN3 H4ʿ $EDʿ @F 3&ʿ5-D23C ʿ H $4DC ʿ Q- D E2ʿ F3ʿ @H-4 Cʿ $EDʿ < && N3Cʿ F343 Eʿ J 3E HE3D ʿ F3ʿ ?- J ʿ H&ʿ * F 4 Oʿ FH-C$EDʿ I H-EDC ʿ Eʿ J $EE34ʿ F343 Eʿ 14H D3D.ʿ EDʿ F343$Cʿ QOʿ $EH F34ʿ N ʿ 1$CC3Dʿ Eʿ F3ʿ I $4 $ J 3E ʿ H&ʿ
>
> Sʿ ' ʿ $!% #&

S 'M'S'^ _

$!% #& ' E' F3' *F 4 0 &H-4 F' =3$4' H&' F3' '3 2E' H&' 8 C' C$ D' $ 3' P $(3C 0'% E2' !, (!' F3' *F 4D' E -3D' /#' /'' , ' !# 4%#(')!' <, &' ()' I) 7 '!%%,' , ' 43 $ED' #&')!' I ,3 ' , '8J')!V3! ' !15!'[0!% ' ,')!' 6 &! 1' ,#')!' ,0! #, ' #&' I, 5 #' , ')!' " # ' V ' 43 $ED' * !# ' ,3 'V ')!' !#! %' R3#&' , ' ,# !1' 4!%,#(#(' ,')!'+3 , 1' , ')!' I ,3 1' , ' I) #'! ' #&' 8J')!V3! ' V ')!' 3)! ' +3 ')! !#' !# ,#!&' ,0, &1' 43 %& #(')!'5 #' 5 %' I ,3 1' , '?31 '!' ' G-Q E' #&' <& ' 6 '!1' #&' , '&!'% #(') ' %%' ,0! # !#' +!'3 !1'53 ') 1!&' , ')!' ,0! #, ' #&' 2 !' , 1' , ')!' 1 &' " # ' #&' * , 1' 1 #(')! ! , ' 1),3%&' 4!' 5% '!&' ,')!' /'' ,3#' , ')!' ,0! #, ' #&' I, 5 #' , ')!' 1 &' " # ' ' $C' $ J HE2C 'H F34' F E2C' 3E$N 3D' F$ ' $' &-4 F34' ?-J' H&' *F 4 33E' FH-C$ED' & 3' F-ED43D' I H-EDC' CFH-D' Q3' 1$ D' H-' H&' F3' C$ D' 6-ED' H' F3' >H4D' 8 2F' ' @F$EN3 H4' $ED' @F 3&' 5-D23C' H $4DC' Q- D E2' F3' C$ D' @H-4 C' $ED' <&& N3C' : ED' F343$C' F3' G C1$ NF' H&' B-C E3CC' E' F3' C$ D' @H-4 C' 9H-D' Q3' J -NF' &$N $ 3D' QO' 14H D E2' $E' $DD HE$' @H-4 ' 8H-C3' E' F NF' @$-C3C' J $0' Q3' 4 3D' $' , C' I4 -C' D-4 E2' *34 J 'CH' $C' EH ' H' E 344-1 ' F3' B-C E3CC' H&' $E0' H&' F3' H F34' @H-4 C' $ED' E' F NF' F3' @H-4 ' 3&' ; 44H4' NH J J HE 0' N$ 3D' F3' ; NF3X-34' @F$ J Q34C' J $0' $ CH' FH D' C' ? E2C' FH-' E 344-1 HE' H' F3' B-C E3CC' H&' F3' 'H C' @H-4 : B3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC' ; N3 3E ' P $(3C 0' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' Fb' >H4DC' ?1 4 -$' $ED' *3 J 1H4$ ' $ED' @H J J HEC' E' F C' 143C3E' I$4 $ J 3E '$CC3 J Q 3D' $ED' QO' F3' - FH4 0' H&' F3' C$ J 3' *F$ 'H-'H&' F3' C$ D' M3E34$' 6-ED' H&' F3' P HE 3C' H&' F3' ?- H4C' H&' F3' C$ D' 8 2F' @H-4 'H&' @F$EN34O' $ED' @H-4 'H&' ; NF3X-34' F NF' EH '$43' H4' CF$ 'Q3' D31HC 3D' E' F3' B$E+' H&' $!% #&' F3' MH 34EH4' $ED' @H J 1$E0' H&' F3' B$E+' H&' $!% #&' CF$ ' &4H J' $ED' $& 34' F3' * 3E 0 & & F' G$0' H&' +!5 ! 4! ' <E3' FH-C$ED' 3 2F 'F-ED43D' $ED' F 4 0 H' &4H J' * J 3' H' * J 3 '$C' J $0' Q3' 43X- 43D' 1$0' H' F3' @H J J CC HE34C' &H4' F3' ; 3EC HE' $ED' I4H J H HE' H&' I -Q N' 9 H4+C' E' $!% #&' &H4' Q- D E2' F3' C$ D' @H-4 ' 8H-C3' ^$ED' $ CH' &H4' J 14H E2' F3' NNH J J HD$ HEC' E' F3' 143C3E ' 14 EN 1$' @H-4 C' H&' 5-C N3' E' 234% #A' $E0' &-4 F34' ?-J' H4' ?-J C' H&' P HE30' EH '3 N33DR E2' E' F3' FH 3' Q3' ?-J' H&'6H-4' FH-C$ED' I H-EDC' -1HE' $E0' <4D34' H4' <4D34C' F N&&' F3' >H4D' 8 2F' @F$EN3 H4' H4' F3' '>H4D' 8 2F' %33134' H4' >H4DC' @H J J CC HE34C' &H4' F3' @-C HDO' H&' F3' M43$ '?3$ 'H&' $!% #&' &H4' F3' * J 3' Q3 E2' $ED' F3' >H4D' @F 3&' B$4HE' H&' F3' @H-4 ' H&' ; NF3X-34' &H4' F3' * J 3' Q3 E2' CF$ ' 43C13N 3 0' J $+3' &H4' F$' I -41HC3' E' 3$NF' =3$4' 43C13N 3 0

PHE 3C' $- FH4 T3D' H' $DR $EN3D' H-'H&' F3' M3E34$' 6-ED' H&' F3' PHE 3C' H&' F3' ?- H4C' H&' F3' @H-4 'H&' @F$EN34O' $ED' @H-4 'H&' ; R NF3X-34' &H4' F3' Q- D E2' $' E3 ' @H-4 ' H&' , C' I4 -C

' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' 'CF$ ' $ED' J $0' Q3' $ &-' &H4' F3' 5-D23C' H&' F3' @H-4 'H&' % E2 C' B3ENF 'H4' $E0' <E3' H4' J H43' H&' F3 J ' $ED' &H4' F3' 5-D23C' H&' F3' @H-4 ' H&' @H J J HE' I 3$C' H4' $E0' <E3' H4' J H43' H&' F3 J ' $ED' &H4' F3' B$4HEC' H&' F3' @H-4 'H&' ; NF3X-34 'H4' $E0' <E3' H4' J H43' H&' F3 J ' H' C ' E' F3' C$ D' E3 '@H-4 ' 8H-C3 ' $ED' F343' H' F3$4' 40 ' $ED' D3 34 J E3' $ 'H4' $E0' CC-3C' @ 'H4' @4 J E$ '(H E3D' H4' H' Q3' (H E3D' E' F3' C$ D' 43C13N 3' @H-4 C' $ED' H' 14HEH-EN3' 5-D2R J 3E ' $ED' J $+3' <4D34C' $ED' H' F$ 3' $ED' 3 34N C3' E' F3' C$ D' E3 ' @H-4 ' 8H-C3' $ ' F3' C$ J 3' I H 34C' I4 323C' $ED' - FH4 3C' $C' &' C-NF' 5-D23C' H4' B$4HEC' 43C13N 3 0' 343' C E2' E' F3 4' C$ D' 43C13N 3' @H-4 C' ' $ED' F$ ' ' I4HN3CC' <4D34C' N C' $ED' I4HN33D E2C' CH' H ' &4H J ' $ED' E' F3' C$ D' E3 ' @H-4 ' 8H-C3' H' Q3' J $D3' $ED' F$D' CF$ 'Q3' $ D' $ED' 3&&3N -$ '$C' &' J $D3' $ED' F$D' E' F3' C$ D' @H-4 C' 43C13N 3 0

5-D23C' H&' F3' % E2 C' B3ENF' $ED' @HE J HE' I 3$C' $ED' B$4HEC' H&' F3' ; NF3 ' X-34' J $0' C ' E' F3' E3 ' ' @H-4 ' 8H-C3

' $ED

$ED F$ ' $ ' 5-4H4C ' I$4 3C ' 9 E3CC3C ' ?F34 &&C ' B$ &&C ' $ED H F34C CF$ ' Q3 QH-ED $(D $43 F343QO 43X- 43D H $ 3ED Q3&H43 F3 C$ D 5-D23C $ED B$4HEC 43C13N 3 O ' H4 $EO 5-D23 H4 ' B$4HE 143C D E2 $C $&H43C$ D ' E F3 C$ D E3 ' @H-4 ' 8H-C3 ' $C &- O $ED 3&&3N -$ O $C & F3 C$ D 5-D23C H4 5-D23 ' B$4HEC H4 B$4HE ' 343 C E2 E F3 4 C$ D 43C13N 3 @H-4 C

8 ' ED Q3 ' &-4 F34 3E$N 3D ' *F$ ' & ' CF$ ' F$113E F$ ' F3 M3E34$ ' 6-1D Q3 HE2 E2 H F3 ?- H4C H& F3 ' C$ D @H-4 C CF$ ' $ ' $EO * J 3 Q3 43D-N3D H $?- J ' EH ' 243$ 34 F$E F3 J H-E ' H& F3 ?- J C E F3 C$ D 43N 3D N C J 3E HE3D $ED 43X- 43D H Q3 1$ D QO F3 MH 34EH4C $ED @H J 1$EO H& F3 C$ D B$E+ ' $ED F3 ?- J ' H& 6H-4 FH-C$ED I H-EDC ' F NF QO F C N ' J $O Q3 1$ D H- ' H& C-NF M3E34$ ' 6-ED ' F3 MH 34EH4 H& F3 C$ D B$E+ CF$ ' &4H J ' * J 3 H * J 3 Q3 43 J Q-4C3D ' &4H J ' $ED H- ' H& F3 @HECH D$ 3D 6-ED H& F3 #E 3D % E2DH J ' CH J -NF H& F3 C3 34$ ' ?- J C E F3 C$ D N C J 3E HE3D ' $ED H& F3 C$ D ?- J ' H& 6H-4 FH-C$ED I H-EDC ' $C CF$ ' F$ 3 Q33E 1$ D QO F3 C$ D MH 34EH4 $ED @H J 1$EO QO 4 -3 H& F C N ' H4 CH J -NF $C CF$ ' $113$4 H F3 @H J J CC HE34C H& 8 C P $(3C O C * 43$C-4O &H4 F3 * J 3 Q3 E2 ' <4 H F3 >H4D 8 2F * 43$C-434 &H4 F3 * J 3 Q3 E2 ' H Q3 E3N3CC$4O H 14H D3 $ 6-ED C-&& N 3E ' H $EC 34 F3 G3 J $EDC H& F3 ?- H4C H& F3 C$ D @H-4 C -1HE F3 C$ D B$E+

I4H D E2 E N$C3 F3 C$ D M3E34$ ' 6-ED CF$ ' Q3 43 ' D-N3D E F$ ' P$EE34 ' CF$ ' Q3 43 J ' Q-4C3D&H4 F3 I -41HC3C H& F C N

>< , G< , ' ' I4 E 3D QO # + . (/ + & (+ $ED) * (+ , ' O1 . 223% , . . * + '
I4 J 34C H F3 % E2 C J HC ' ; N3 3E ' P $(3C O ' ZSU

, , <ʹ ?%@# ,G<

M # > ; > P ʹ ʹ ' ; M ?

@ I ʹ WWW

Eʹ Nʹ Hʹ 3&&3N -$ 3ʹ F3ʹ ?34 N3ʹ H&ʹ I 4HN3CCʹ CC- E2ʹ
&4H Jʹ F3ʹ @H-4 Cʹ H&ʹ @F$EN34Oʹ $EDʹ ; NF3X-34ʹ Eʹ
) 4 ʹ $EDʹ ʹ 43C13N 3 O
IUSDʹ , ʹ ZSU ⅿ

9 * *ʹ 8 ; ' ; ?ʹ 243$ʹ ENHE 3E 3EN3ʹ $EDʹ G3 $OCʹ H&ʹ 5-C N3ʹ $4 C3ʹ &4H Jʹ F3ʹ G3&3Nʹ H&ʹ 5-4 CD N HEʹ Eʹ @H-4 Cʹ H&ʹ ; X- Oʹ Hʹ Sʹ *ʹ 3?3N -$ 3ʹ F3ʹ ?34 N3ʹ H&ʹ F3 4ʹ I 4HN3CCʹ Eʹ C-NFʹ I $4 Cʹ H&ʹ F3ʹ #E 3Dʹ % E2DH Jʹ H&ʹ ! ʹ " #ʹ $EDʹ $!% #&ʹ $Cʹ $43ʹ EHʹ F Eʹ F3ʹ 5-4 CD N HEʹ H&ʹ F3ʹ C$ Dʹ 43C13N 3ʹ @H-4 Cʹ &H4ʹ ' 3 J 3DOʹ F343H&ʹ Q3ʹ ʹ 3E$N 3Dʹ 9ʹ F3ʹ % E2 Cʹ J HCʹ ; N3 3Eʹ P $(3C Oʹ QOʹ $EDʹ Fʹ F3ʹ D N3ʹ $EDʹ @HEC3Eʹ H&ʹ F3ʹ >H4DCʹ ?1 4 -$ʹ $EDʹ * 3 J 1H4$ʹ $EDʹ @H J J HECʹ Eʹ F Cʹ 143C3Eʹ I $4 $ J 3Eʹ $CC3 J Q 3Dʹ $EDʹ QOʹ F3ʹ - FH4 Oʹ H&ʹ F3ʹ C$ J 3ʹ * F$ʹ &4H Jʹ $EDʹ $& 34ʹ F3ʹ 1$CC E2ʹ H&ʹ F Cʹ Nʹ ʹ CF$ʹ $EDʹ J $Oʹ Q3ʹ $ &-ʹ &H4ʹ F3ʹ @H-4 Cʹ H&ʹ @F$EN34Oʹ $EDʹ H&ʹ ; NF3X-34ʹ Eʹ 8#(% #&ʹ 43C13N 3 Oʹ &ʹ F3Oʹ CF$ʹ CHʹ F E+ʹ & ʹ -1HEʹ C13N $ʹ P H HEʹ H&ʹ F3ʹ @H J 1 $ E$Eʹ H4ʹ @H J 1 $ E$E Cʹ Eʹ $EOʹ ?- ʹ F NFʹ F$Cʹ Q33Eʹ H4ʹ CF$ʹ Q3ʹ EC - 3Dʹ Eʹ C-NFʹ @H-4 Cʹ 43C13N 3 Oʹ NHEN34E E2ʹ >$EDCʹ H4ʹ * 3E3 J 3E Cʹ H4ʹ 8 343D $ J 3E Cʹ C -$ 3ʹ H4ʹ Q3 E2ʹ F Eʹ F$ʹ I $4ʹ H&ʹ F3ʹ #E 3Dʹ % E2DH Jʹ N$ 3Dʹ 8#(% #&ʹ H4ʹ %!1ʹ Hʹ H4D34ʹ $EDʹ D 43Nʹ F$ʹ ?34 N3ʹ Eʹ $ Oʹ I $4ʹ H&ʹ F3ʹ #E 3Dʹ % E2DH Jʹ H&ʹ ! ʹ " #ʹ $EDʹ $!% #&ʹ $EDʹ Eʹ F3ʹ $1%!ʹ , ʹ #ʹ 43C13N 3 Oʹ H&ʹ $EOʹ ?-Q1H3E$ʹ H4ʹ ?-Q1H3E$Cʹ >3 34ʹ P CC 3ʹ H4ʹ >3 34Cʹ P CC 3ʹ $EDʹ H&ʹ $ ʹ C-QC3X-3Eʹ I 4HN3CCʹ Hʹ Q3ʹ F$Dʹ F343HEʹ -1HEʹ $EOʹ G3&3ED$Eʹ H4ʹ G3&3ED$E Cʹ Eʹ C-NFʹ ?- ʹ F3Eʹ 43C D E2ʹ Eʹ C-NFʹ I $4ʹ H4ʹ F3ʹ C$ Dʹ #E 3Dʹ % E2DH Jʹ H4ʹ $1 ʹ , ʹ #ʹ Eʹ F NFʹ F3ʹ CF3ʹ H4ʹ F3Oʹ CF$ʹ Q3ʹ CHʹ C34 3Dʹ CF$ʹ Q3ʹ D33 J 3D Sʹ ? 2HHD

@H-4 Cʹ H&ʹ @F$EN34Oʹ $EDʹ ; NF3X-34ʹ H&ʹ ; E2 $EDʹ ?- Cʹ 3HEʹ ʹ N34 E2ʹ >$EDCʹ ? 3R Eʹ ; E2 $EDʹ 3 J 1H 343Dʹ Hʹ K43Nʹ I 4HR N3CCʹ Hʹ Q3ʹ C34 3Dʹ Eʹ H F34ʹ I $4 Cʹ ʹ H&ʹ F3ʹ #E 3Dʹ % E2DH J

2HHD' ?34 N3' H&'H4' Q3' J $D3' -1HE' C-NF' G3&3ED$E 'H4' G3&3ED$E C' -1HE' C-NF' *34 J C' $ED' E' C-NF' P $EE34' $ED' $ ' C-NF' * J 3' $C' H' C-NF' @H-4 C' 43C13N 3 O' CF$ ' C33 J' 43CHEQ 3' $ED' F$ ' F343-1HE' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' C-NF' @H-4 C' 43C13N 3 O' H' 14HN33D' -1HE' C-NF' ?34 N3' CH' J $D3' $C' $&H43C$ D' $C' & O' $ED' $C' 3&&3N -$ O' $C' &' F3' C$ J 3' F$D' Q33E' D- O' J $D3' F E' F3' 5-4 CD N HEC' H&' C-NF' @H-4 C' 43C13NR 3 O

@H-4 C' H&' @F$EN34O$ED' ; NF3X-34' H&' 43 $ED' ' E' ?- C' NHER N34E E2' >$EDC' KN' E' 43 $ED' 3 J 1H 343D' H' D 43N' I 4HN3CC' H' F3' C34 3D' E' H F34' I $4 C' H&' F3' # E 3D' % E2DH J

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' F3' @H-4 C' H&' @F$EN34O' $ED' H&' ; NF3X-34' E' $!% #&' 43C13N 3 O ' &' F3O' CF$ ' CH F E+' & ' -1HE' C13N $ ' P H HE' H&' F3' @H J 1 $ E$E ' H4' @H J 1 $ E$E C' E' $EO' ?- ' F NF' F$C' Q33E' H4' CF$ ' Q3' EC - 3D' E' C-NF' @H-4 C' 43C13N 3 O ' NHEN34E E2' >$EDC' H4' * 3E3 J 3E C' H4' 8 343D $ J 3E C' C -$ 3' H4' Q3 E2' F E' F$ ' I $4 ' H&' F3' # E 3D' % E2DH J ' N$ 3D' $!% #& ' H' H4D34' $ED' D 43N ' F$ ' ?34 N3' E' $EO' I $4 ' H&' F3' # E 3D' % E2DH J ' H&' ! ' " #' $ED' $!% #&' $ED' E' F3' $1%!' , ' #' 43C13N 3 O ' H&' $EO' ?-Q1H3E$' H4' ?-Q1H3E$C' >3 34' P CC 3' H4' >3 34C' P CC 3 ' $ED' H&' $ ' C-QC3X-3E ' I 4HN3CC' H' Q3' F$D' F343-1HE ' -1HE' $EO' G3&3ED$E ' H4' G3&3ED$E C' E' C-NF' ?- ' F3E' 43C D E2' E' C-NF' I $4 ' H&' F3' C$ D' # E 3D' % E2DH J ' H4' $1%!' , ' #' E' F NF' F3 ' CF3 ' H4' F3O' CF$ ' Q3' CH' C34 3D ' CF$ ' Q3' D33 J 3D' 2HHD' ?34 N3' H&' H4' Q3' J $D3' -1HE' C-NF' G3&3ED$E ' H4' G3&3ED$E C' -1HE' C-NF' * 34 J C' $ED' E' C-NF' P $EE34' $ED' $ ' C-NF' * J 3' $C' H' C-NF' @H-4 C' 43C13N 3 O' CF$ ' C33 J' 43CHEQ 3'($ED' F$ ' F343-1HE' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' C-NF' @H-4 C' 43C13N 3 O' H' 14HN33D' -1HE' C-NF' ?34 N3' CH' J $D3' $C' $&H43C$ D' $C' &- O' $ED' $C' 3&&3N -$ O' $C' &' F3' C$ J 3' F$D' Q33E' D- O' J $D3' F E' F3' 5-4 CD N HE' H&' C-NF' @H-4 C' 43C13N 3 O

9 F' ?-QR 1H3E$' C34 3D' ' -ED34' F C' N ' $ @H1O' H&' F3' I 4$O34' H&' F3' B ' H' Q3' C34 3D ' $ED' EH' I 4HN3CC' H&' @HE 3 J 1 ' H' Q3' 3E 343D' FH- ' C13 ' N $ ' <4D34

' I 4H D3D' $ $OC' $ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' $ HE2' F' C-NF' ?-Q1H3E$' H4' >3 34' P CC 3' C34 3D' -ED34' $EO' C-NF' <4D34' $C' $&H43C$ D' H&' F3' C$ D' @H-4 C' H&' @F$EN34O' $ED' H&' ; NF3X-34' H&' 8 #(% #&' $ED' H&' $!% #&' 43C13N 3 O ' $' @H1O' H&' F3' I 4$O34' H&' C-NF' @H J 1 $ ER $E C' B ' CF$ ' Q3' C34 3D' -1HE' 3 34O' C-NF' G343ED$E ' $ED' 14H D3D' $ CH ' F$ ' EH' I 4HN3CC' H&' @HE 3 J 1 ' CF$ ' Q3' 3E 343D' -1HE' $EO' C-NF' I 4HR N33D E2C' $C' F343 E Q3&H43' J 3E HE3D ' EH4' $EO' G3N&33' J $D3' $QCH - 3' E' $EO' H&' F3' C$ D' @H-4 C' E' 8 #(% #&' H4' $!% #&' 43C13N 3 O ' FH- ' F3' C13N $ ' <4D34' H&' C-NF' @H-4 ' -1HE' C13N $ ' P H HE' J $D3' &H4' C#NF' I -41HC3.' I 4H D3D' $ CH ' F$ ' EH F E2' E' F C' N ' CF$ ' Q3' F3 D' H' J $+3' ' NH J 1- CH4O' -1HE' F3' @H J 1 $ E$E ' H4' @H J 1 $ E$E C' E' $EO' ?- ' E' $EO' H&' F3' C$ D' 43C13N 3' @H-4 C' H' C34 3' F' I 4HN3CC' H4' Q4 E2' Q3&H43' C-NF' @H-4 C' 43C13N 3 O' $EO' I $4 O' H4' I $4 3C' I 34CHE' H4' I 34CHEC' &-4 F34' H4' H F34 C3' F$E' C-NF' @H J 1 $ E$E ' H4' @H J 1 $ E$E C' $43' EH ' QO' >$ ' H4' F3' I 4$N N3' H&' C-NF' @H-4 C' 43C13N 3 O' 43X- 43D' H' DH

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M # > ; > J ʿ ʿ ' ; W5 ?

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Eʿ Nʿ &H4ʿ NHECH D$ E2ʿ $EDʿ $ J 3ED E2ʿ F3ʿ >$ Cʿ
2 EC ʿ <&&3EN3Cʿ 43 $ E2ʿ Hʿ F3ʿ @H E

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> 8 ; ' ; ?ʿ F3ʿ <&&3EN3ʿ H&ʿ NH-E 34&3 E2ʿ F3ʿ @H E ʿ $Cʿ 3 ʿ $Cʿ N34 $ Eʿ H F34ʿ <&&3EN3Cʿ 43 $ E2ʿ Hʿ F3ʿ @H E ʿ $43ʿ EH ʿQOʿ 4 -3ʿ H&ʿ C3 34$ʿ ? $ - 3Cʿ 1-E CF$Q 3ʿ Fʿ G3$ F.ʿ EDʿ F343$Cʿ ʿ Cʿ 3 13D 3E ʿ Hʿ $QH CFʿ F3ʿ I -E CF J 3E ʿ H&ʿ G3$ Fʿ Eʿ ʿ C-NFʿ @$C3C ʿ $EDʿ Hʿ 4313$ʿ F3ʿ C3 34$ʿ ? $ - 3Cʿ 2 EC ʿ <&&3EN3Cʿ 43 $ E2ʿ Hʿ F3ʿ @H E ʿ Eʿ H4D34ʿ F$ ʿ F3ʿ I4H C HECʿ F343H&ʿ J $Oʿ Q3ʿ $ J 3ED3Dʿ $EDʿ NHECH D$ 3Dʿ E Hʿ <E3ʿ N ʿ Q3ʿ ʿ F343&H43ʿ 3E$N 3Dʿ QOʿ D 3ʿ % E2 Cʿ J HC ʿ ; N3 3E ʿ P $(3C Oʿ QOʿ $EDʿ Fʿ F3ʿ D N3ʿ $EDʿ @HEC3E ʿ H&ʿ 3ʿ >H4DCʿ ?1 4 -$ʿ $EDʿ *3 J 1H 7$ ʿ $EDʿ @H J J HEC ʿ Eʿ F Cʿ 143C3E ʿ I $4 $ J 3E ʿ $CC3 J Q 3D ʿ $EDʿ QOʿ F3ʿ - FH4 Oʿ H&ʿ F3ʿ C$ J 3ʿ '313$ʿ H&ʿ *F$ ʿ F3ʿ &H H E2ʿ ? $ - 3Cʿ $EDʿ I $4 Cʿ H&ʿ ? $ - 3Cʿ J $D3ʿ Eʿ F3ʿ I $4R ? $ ʿ D3ʿ $ J 3E ʿ H&ʿ 8#(% #& ʿ F$ ʿ Cʿ Hʿ C$Oʿ F3ʿ ? $ - 3Cʿ NHEN34E E2ʿ P HE3O ʿ PHE3 $ʿ NH J J HE Oʿ N 3Dʿ $Cʿ H&ʿ F3ʿ * 3E 3 Fʿ =3$4ʿ H&ʿ F3ʿ ' 3 2Eʿ H&ʿ % E2ʿ 3 J 1 EN34 ʿ 8&F &ʿ F3ʿ 6 4C ʿ $EDʿ 43C13N 3 Oʿ E - 3Dʿ + 3%3 ʿ &!ʿ ,#! ʿ 2)) * I ʿ <L ʿ + 3 3 ʿ &!ʿ ,#! 5 03 ʿ $EDʿ / '3% ʿ &!ʿ ,#! ʿ= $EDʿ $ʿ ? $ - 3ʿ #ʿ 9 1 . 1ʿ 4ʿ ʿ J $D3ʿ Eʿ F3ʿ * 3E O C3 3E Fʿ =3$4ʿ H&ʿ F3ʿ C$ J 3ʿ ' 3 2E ʿ E - 3Dʿ + ʿ U ʿ ; D ʿ 3 3 ʿ &!ʿ %1 ʿ ,#! ʿ $EDʿ $ʿ ? $ - 3ʿ J $D3ʿ Eʿ F3ʿ , E Fʿ =3$4ʿ H&ʿ #ʿ F3ʿ ' 3 2Eʿ H&ʿ % E2ʿ 8&F &ʿ F3ʿ *F 4D ʿ NH J J HE Oʿ E - 3Dʿ 7) !ʿ + ʿ - <L A# 3 !ʿ , ʿ ,#! ʿ $EDʿ F3ʿ ? $ - 3ʿ J $D3ʿ Eʿ F3ʿ ?3 3E 33E Fʿ =3$4ʿ H&ʿ ʿ <L ʿ F3ʿ C$ J 3ʿ ' 3 2E ʿ $EDʿ CHʿ J -NFʿ H&ʿ $ʿ ? $ - 3ʿ J $D3ʿ Eʿ F3ʿ ; 2F 33E Fʿ ʿ6 ʿ =3$4ʿ H&ʿ F3ʿ C$ J 3ʿ ' 3 2Eʿ $Cʿ 43 $ 3Cʿ Hʿ &$ C3ʿ P HE3O ʿ $EDʿ CHʿ J -NFʿ H&ʿ #ʿ

Sʿ *ʿ $ʿ ? $ - 3

U!;D 4S' #'!'N'U 56 $' ? $ - 3' J$D3' E' F3' * 3E O & & F' =3$4' H&' F3' C$J3' '3 2E' $C' 43 $ 3C' H' NH-E 34&3 E2' F3' % E2 C' PHE3O' $ED' H' Q4 E2 E2' &$ C3' PHE3O' E H' F C' '3$ J'! $ED' CH' J-NF' H&' F3' C$J3' ? $ - 3' $C' 43 $ 3C' H' $+ E2' I 4H& ' QO' ; NF$E23' 3&' MH D' $ED' ? 34' $ED' H' F3' J 1$ 4 E2' F3' PHE3O' H&' MH D' $ED' ? 34' ($ED' CH' J-NF' H&' $' ? $ - 3' J$D3' E'

U';D 'S' #'U'N' F3' * 3E O C3 3 F' =3$4' H&' F3' C$J3' '3 2E' E - 3D' 6 & # ,' + 53% 3 '$C' 43 $ 3C' H' F3' 6H4&3 -43' H&' &$ C3' PHE3O'' $ED' CH' J-NF'

S83E!C U N&YK H&' $' ? $ - 3' J$D3' E' F3' *F 4D' =3$4' H&' F3' '3 2E' H&' % E2' !# ' F3' a ?#J' $C' 43 $ 3C' H' N 11 E2' $CF E2' $ED' & E2' H&' F3' PHE3O' H&' F3' >$ED' $ED' H' F3' I 34CHEC' FH' CF$ ' F$ 3' IH 34' H' F3$4' D3 34 J E3' H4' EX- 43' H&' F3' NH-E 34&3 E2' $ED' H&' F3' Q4 E2 E2' H&' &$ C3' PHE3O' E H' F3' '3$ J' $ED' H&' N 11 E2' $CF E2' $ED' 3 34O' H F34' 6$ C O' H&' F3' C$ D' PHE3O' $ED' $E' N' 1$CC3D' E' F3' , E3R 33E F' =3$4' H&' F3' '3 2E' H&' % E2' !# ' F3' ?3 3E F' E - 3D'

V83 '' N'! * ,' ! , ' ,#!' *!'3# 3 =' $ED' $E' N' 1$CC3D' E' F3' 6 & F' $ED' ? F' =3$4C' H&' F3' '3 2E' H&' % E2' 8&F &' F3' ? F' E - 3D' /#'

!' K'Y';D 'Y / '' ,3') #(')!' 8J') #(!' , ' ,%&' #&' + %0! =' $ED' $E' N' 1$CC3D' E' F3' 6 4C' =3$4' H&' F3' '3 2E' H&' \ -33E' ' E - 3D' /#' / ''

'P$4O'C 'U' N'Y (#1'' ,3# ! ! #(' , '1 #(!' I , #1' 4! #(' '3 !#' F) #') 1' L! % ' , ' , ')!' Y3!!# 1' ()#!11' + ()' #3 %' + (#! ' , ' * 0 ' +! %= $ED' $E' N'' 1$CC3D' E' F3' 6 4C' $ED' ?3NHED' =3$4C' H&' F3' '3 2E'

'K'U' IF' KP' a H&' (' *) % 5' $ED' \ -33E' E - 3D' /#' / '' , ')!' *3# 1)[!#' @ '4 #(#(' #' , '' ,3# ! ! ' I , #1' , 'R, ! (#' L! % 1' 4! #(' '3 !#' F) #') 1' L! % =' $ED' $E' N' 1$CC3D' E' F3' 6 & F'

!'; T'N' ' =3$4' H&' F3' '3 2E' H&' \ -33E' 8% 4!)' E - 3D' /#' / '' (#1' '% 55 #(' F 1) #(' ,3#& #(' , ' % #(' , ' I , #1=' $ED' $E' N'

P'; T'N S 1$CC3D' E' F3' 6H-4 33E F' =3$4' H&' F3' C$J3' '3 2E' E - 3D' /#' / '' (#1')!' , (#(' #&' '' ,3# ! ! #(' , 'R, ! (#' I , #' 4! #(' #, ' '3 !#' F) #') 1' L! % '' $ED' $E' N' 1$CC3D' E' F3' ; 2F 33E F'

Z'; T'N' =3$4' H&' F3' C$J3' '3 2E' E - 3D' /#' / '' (#1')!' & #1) #(' #&' 5 #(' , ')!' Y3!!# 1' U!1 1' I , #' #&' ,)! ' I , #1' % F[3%% ' '3 !#' F) ') 1' L! % '=' $ED' CH' J-NF' H&' $E' N' 1$CC3D' E' F3' ? F' $ED' ?3 3E F' =3$4C' H&' F3' '3 2E' H&' % E2' %% ' F3'

YK 9 S' N' CC'U 'K' U *F 4D' E - 3D' /#' / '' ,' 5 !0!#' '' ,3# ! ! #(' #&' '% 55 #(')!' I , #' , ') 1' #(&, '$C' 43 $ 3C' H' $EO' I 34CHE' FH' CF$ ' 3 NF$E23' 3ED' C3 ' QH44H ' Q-O' 43N3 3' H4' 1$O' $EO' B4H$D' ? 34' PHE3O' H4' ? 34' PHE3O' -ED 113D' &H4' J H43' F$E' F3' C$J3' $C' NH E3D' &H4' H4' H-2F' QO' >$ ' H' 2H' &H4' H4' FH' CF$ ' Q-O' H4' C3 ' H4' +EH E2 O' F$ 3' E' F C' @-C HDO' H4' I HCC3CC HE' $EO' @ 11 E2C' H4' 6 ECC' H&' F3' N-443E' @H E' $ED' CH' J-NF' H&' F3' C$ D' N' $C' 43 $ 3C' H' F3' G CNH 34O' H&' $EO' <&&3EN3C' H-NF E2' D 3' @H E' H&' F3' '3$ J' ($ED' $E' N' 1$CC3D'

ZKV9 S' N'U& E' F3' ; 2F F' $ED' , E F' =3$4C' H&' F3' C$J3' '3 2E' JJJJ/!&' /#' / '' , ')!' 4! ! '5 !0!# #(')!' '' ,3# ! ! #(')!' '3 !#' I , #' , ') 1' #(&, =' $ED' $E' N' 1$CC3D' E' F3' , E F' $ED' *3E F' =3$4C' H&'

VK' [9 S ' 1 1 F3' C$J3' '3 2E' E - 3D' /#' / '' , ')!' 4! ! ' !0!# #(')!' '' ,3#' ! ! 0)(' '% 55 #(' #&' ,)! '& #1) #(')!' @HJ' , ') 1' #(&, =' $ED' + J-NF' H&' $E' N' 1$CC3D' E' F3' 6 4C' =3$4' H&' F3' '3 2E' H&'

' EE' □' ' N'V \ -33E' /##!' E - 3D' /#' / '' , '' ,# #3 #(')!' / '' &!' #')!' 8 ())' H! ' , ' 1' % !' U!1 1' L! (#' , ' 4! ! '5 !0!# #(')!' '' ,3# ! ! #(')!' '3 !#' I , #V ') 1' #(&, '$C' 43 $ 3C' H' NHE E- E2' F3' C$ D' $C J <E H-3D' N' $ED' H' F3'' I 34 HDC' &H4' NH J J 3EN E2' ' I 4HC3N- HEC' &H4' 134 $ E' < &3EN3C' 2 EC' F3' C$ D' $C J 3E HE3D' N' $ED' F3' &H H E2' N C' $ED' I $4 C' H&' N C' 1$CC3D' E' F3' I $4'

$J3E

$ E3E ' H&' ! ' " # ' F$ ' C' H' C$O ' CH' J -NF' H&' $E' N ' 1$CC3D'
E' F3' ?3 3E F' =3$4' H&' F3' ' 3 2E' H&' \ -33E' /##! ' E - 3D' / #' / ' ' EE N'U
, ' ' ,# #3 #(')!' , ! ' / ' ' , ')!' 8#' ,3 (! !#' , ')!' I , # (!' 9
#&' ,' !#' ,3 (!')!' 4 #(#(' R, ! (#' I , #1' #&' B4 CF' , ' R, ! (#'
*% !' ,' 4!' ' , #!&' #&' , ' %' #(' 5 ,0 1 ,#' , ')!' # 1' #' ?NH $ED'
#&' , ')!' 5 ,1!' 3 #(' 6 !#' !1' ' ,#' ! # #(')!' I , # #' ; E2 $ED' $C'
43 $ 3C' H' F3' ; 13EN3C' H&' 14HC3N- E2' <&&3EN3C' E' NH-E 34&3 E2'
D E J CF E2' H4' H F34 C3' NHEN34E E2' F3' N-443E ' @H EC' H&' ! '
" #' E' Fa ' I $4 ' F343H&' N$ 3D' 8#(% #&-' $ED' CH' J -NF' H&' $F' N '
1$CC3D' E' F3' C$ J 3' =3$4' E - 3D' / #' / ' ' , ' #(' 5! 5! 3 %' # ' EE'N U! '
/ ' ' , ')!' 4! ! ' 5 !0!# #(')!' ' ,3# ! ! #(')!' ' 3 !#' I , # , ') 1' CC' ' K U
#(&, ' 1' %1,' #' / ' ' , ' (0 #(' % !' L! !&5' 35,#' * , 11, '
?+7, !1' 1' 1' 31!&' 35,#' " O1' , ' 8 ') #(! ' #&' , ')!' 4! ! ' * !#'
, '$#% #&' " %%1' , '8J') #(! ' #&' %1,' , ' ' ,# #3 #(' 1!0! %' / ' 1' &!'
#')!' R,3)' #&' R)' H! 1' , ' ! ' U!1 1' L! (#' , ' 5 ![
0!# #(' R 3&1' ' , !&' 4 ' " # 35 1 ' $C' 43 $ 3C' H' J $+ E2' 13413 -$'
F3 ' N ' H&' F3' ; 2F F' =3$&' H&' F3' ' 3 2E' H&' % E2' %% ' F3' * F 4D'
F343 E' J 3E HE3D ' $ED' H' F3' I 34 HD' &H4' NH J J 3EN E2' I 4HC3N- HEC' &H4'
N34 $ E' <&&3EN3C' 2 EC ' F3' C$ D' N ' H&' % E2' %% -' $ED' $E' N '
1$CC3D' E' F3' 6 & 33E F' =3$4' H&' F3' ' 3 2E' H&' % E2' ! , (!' F3' ?3NHED'
E - 3D' / #' / ' ' , ')!' , !' ! !' 3 %' 5 !0!# #(')!' ' , ! ! (' !M U N UZ'
, ')!' ' 3 !#' I , # ' ') 1' #(&, ' #&')!' 3 ! #(' , ' 5 #(' %1!'
, ' ' ,3# ! ' I , #-' $ED' $E' N ' 1$CC3D' E' F3' ; 3 3E F' =3$4' H&' F3'
' 3 2E ' H&' % E2' ! , (!' F3' * F 4D' E - 3D' E' N ' , ')!' , !' / 9 JE'
! !' 3 %%' 5 !0!# #(')!' ' ,3# ! ! #(')!' I ,55! ' I , # , ') 1' L! % ' -'
$ED' $E' N ' 1$CC3D' E' F3' * F 4 33E F' =3$4' H&' F3' C$ J 3' ' 3 2E ' E - 3D'
/ #' / ' ' , ')!' 4! ! ' 5 !0!# #(')!' ' ,3# ! ! #(' ' % 55 #(' #&' ,)! ' SM S N '
& # 1) #(')!' ,%&' I , # #') 1' #(&, -' $ED' CH' J -NF' H&' $E'
N ' 1$CC3D' E' F3' * F 4 0 C3 3E F' =3$4' H&' F3' C$ J 3' ' 3 2E ' E - 3D' / #' C M S N UY'
/ ' ' ,' 5 !0!# ')!' ' ,3# ! ! #(' # ' I ,55! ' I , # #') 1' L! % ' &!' 5'
, ' ,' 4!' &!' ' 3 !#' 4 ' * ,' % ,#' , ' # ' R, ! (#' ,%&' , ' + %0! '
I , #' #&' ,' 5 !0!# ')!' 4 #(#(' # ,') 1' L! % ' , ' 3 ! #(' # '
' ,3# ! ! ' R, ! (#' ,%&' , ' + %0! ' I , #' $C' 43 $ 3C' H' @H1134' P HE3O '
$ED' N34 $ E' I $4 C' H&' F3' &H H E2' N C' 1$CC3D' E' F3' I $4 $ J 3E ' H&'
F3' # E 3D' % E2DH J ' H&' ! ' " #' $ED' $!% #&' -' F$ ' C' H' C$O ' CH'
J -NF' , ' $E' N ' 1$CC3D' E' F3' 6 & O C F' =3$4' H&' F3' ' 3 2E' H&'
% E2' ! , (!' F3' * F 4D' E - 3D' / #' / ' ' ,' 5 ,0 &!' , ' ' #!F' + %0! ' !YM S'N'YZ'
I , # (!' #&' ,' !(3% !')!' I 3 !#' ' , ')!' ,%&' #&' + %0! ' I , # , ' CC' S' H' Y
) 1' L! % ' $C' 43 $ 3C' H' $EO' I 34CHE' FH' CF$ ' 43N3 3' H4' 1$O' &H4' $EO'
MH D' @H E' $EO' J H43' H4' 3CC' F$E' F3' 4-3' $ -3' F NF' C-NF' MH D'
@H E' CF$ ' QO' C' G3EH J E$ HE' J 1H4 ' H ' FH' CF$ ' - 34' H4' 43N3 3'
$EO' MH D' @H E' $ ' $EO' 243$ 34' H4' 3CC' ' $ 3' H4' $ -3' F$E' F3' C$ J 3'
CF$ ' Q3' N-443E ' &H4' $C' F343 E' J 3E HE3D ' $ED' CH' J -NF' H&' $E' N '
1$CC3D' E' F3' * F 4D' =3$4' H&' F3' ' 3 2E' H&' % E2' ! , (!' F3' 6H-4 F'
E - 3D' / #' / ' ' ,' 5 ,0 &!' , ')!' , !' ! !' 3 %' * 3# 1) !#' H SM N '
' ! #' 6 !#' !1' 4 ' $ 5 1,# !#' F)') &' % 4,3 ' $C' 43 $ 3C' H' $EO'
I 34CHE' @HE N 3D' H&' Q3 E2' $E' # 3434' H&' NH-E 34&3 ' P HE3O ' $ED' CH'
J -NF' H&' $E' N ' 1$CC3D' E' F3' ?3 3E F' =3$4' H&' F3' C$ J 3' ' 3 2E '
E - 3D' / #' / ' ' ,' 5 ,0 &!' , ')!' , !' ! !' 3 %' * 3# 1) !#' H&' 'M' 'N'V'
' ! #' 6 !#' !1' #' 43 $ED' % ' $ 5 1,# !#' F)') &' < 4,3 ' $C'
43 $ 3C' H' $EO' I 34CHE' NH N 3D' H&' Q3 E2' $E' # 3434' H&' NH-E 34&3 '
P HE3O ' $ED' F3' &H H E2' N C' 1$CC3D' E' F3' I $4 $ J 3E ' H&' +' , [?NH NF' N C'
% #&' -' F$ ' C' H' C$O ' $E' N ' 1$CC3D' E' F3' ? F' I $4 $ J 3E ' H&' % E2 4313$ 3D
? !1 Y' I $4 ' 5$N' U

? !1' F3' ?3NHED' H&' +', % #&' NHEN34E E2' P HE3O' $ED' 6$ C3' @H E('
?I$4#$N C' $ED' $E' N ' 1$CC3D' E' F3' 6 & F' I$4 $J3E ' H&' % E2' ? !1' F3'
*F 4D' H&' +', % #&' NHEN34E E2' B $N+' P HE3O' H&' < F34' B3$ J C' $ED'
Z I$4A 5$N S' @H-E 34&3 C' H&' F3' % E2 C' B $N+' P HE3O ' $ED' $E' N ' 1$CC3D' E'
F3' ; 2F K' I$4 $J3E ' H&' F3' C$ D' % E2' ? !1' F3' *F 4D ' H4D$ E E2 '
F$ ' E3 F34' ? 34' EH4' MH D' @H E' Q3' JH 3E' H4' 1- ' H' F3' 6 43'
FH- ' > N3EN3 ' H&' F3' % E2 ' $ED' $E' N ' 1$CC3D' E' F3' ?3 3E F'
I$4 5$N !' I$4 $J3E ' H&' % E2' ? !1' F3' 6 & F' H&' +', % #&' E - 3D' 73 ') ('
)!' I ,3#' , ' !!) =' $ED' $EH F34' N ' 1$CC3D' E' F3' C$J3' ?3 3E F'
'I$4 '5$N'!' I$4 $J3E ' E - 3D' 6 ')! ') ' ',3# ! ! ')!' #(1' ,#! =
$ED' $E' N ' 1$CC3D' E' F3' , E F' I$4 $J3E ' H&' \ -33E' ' H&'
V I$4 ' P$40' +', % #&' E - 3D' /#!# 1')!' ' #(' #&') 0 #(' , ' ,%&' #&' + %0! '
3)' , ' ?!' L! % =' $ED' $EH F34' N ' 1$CC3D' E' F3' C$J3' , E F'
V I$4 ' P$40' I$4 $J3E ' E - 3D' / 1!# 1')!' !4 #(#(' , 'R %1!' I3 # !' #&'
31 #(' , ')!' 1 #' F) #') 1' L! % ' #&' #!# 1' R, (! 1' #&'
! 1')! !, 'F) #')!' 1 #=' $ED' $E' N ' H&' F3' I$4 $J3E ' H&'
+', % #&' 1$CC3D' E' F3' 6 4C ' I$4 $J3E ' H&' % E2' ? !1' F3' ? F' H&'
' I$4 '5$N'Y' +', % #&' E - 3D' /#!# ' I3# !'=' $ED' $EH F34' N ' H&' F3' I$4 $J3E '
' I$4 '5$N'Y H&' +', % #&' 1$CC3D' E' F3' C$J3' 6 4C ' I$4 $J3E ' E - 3D' /#!# ' %1'
I F# !'=' $ED' $E' N ' H&' F3' I$4 $J3E ' H&' +', % #&' J$D3' E' F3' 6 4C '
' I$4 O ^?_' I$4 $J3E ' H&' % E2' %% ' F3' *F 4D ' E - 3D' / ' ' (#1 ' %1!'
4 CF' N C' I, ##(' #&' '% 55 #(' , ' ,#! =' $ED' F3' &H H E2' N C' $ED' I$4 C'
4313$ 3D H&' N C' 1$CC3D' E' F3' I$4 $J3E ' H&' $!% #&=' F$ ' C' H' C$O ' $E' N '
1$CC3D' E' F3' *F 4D' =3$4' H&' F3' ' 3 2E' H&' % E2' 8&F &' F3' 6H-4 F'
Z< 91H ' E - 3D' /#' / ' ' (#1 ' I% 55!&' ,#! '=' $ED' $E' N ' 1$CC3D' E' F3'
UZ; T' * 3E O 3 2F F' =3$4' H&' F3' ' 3 2E' H&' \ -33E' 8% 4!) ' E - 3D' /#'
/ ' ' (#1 ' , (#(' #&' ',3# ! ! #(' , 'R, ! (#' I , #=' $ED' $E' N '
1$CC3D' E' F3' ; 2F F' =3$4' H&' F3' ' 3 2E' H&' \ -33E' /##! ' E - 3D'
Z' EE'N'Y /#' / ' ' , ')!' 4! ! ' !0!# #(')!' ',3# ! ! #(')!' '3 !#' I , #
, ') 1' #(&, =' $ED' CH' J -NF' H&' $E' N ' 1$CC3D' E' F3' 6H-4 F' =3$4' H&'
M' 'N'V' F3' ' 3 2E' H&' % E2' !, (!' F3' 6 4C ' E - 3D' /#' / ' ' , ' ',# #3 #('
C'! !0 0 #(' #&' !#& #(' 1!0! %' + 3 ! ' &!' #') 1' #(&, ')! ! '
, , !' ! 5, ' $C' 43 $ 3C' H' F3' C$ D' $C J3E HE3D' N ' H&' \ -33E'
/##!=' $ED' $E' N ' 1$CC3D' E' F3' * 3E O F 4D' $ED' * 3E O &H-4 F'
USKU 'M S' =3$4C' H&' F3' ' 3 2E' H&' % E2' !, (!' F3' *F 4D ' E - 3D' /#' / ' ' , '
N'![, !'!U !' 3 %%' '5 !0!# #(')!' ',3# ! ! #(' , ')!' '3 !#' I , #' `) 1'
#(&, ' #&')!' 3 ! #(' , '5 #(' , ' %1!', ' ',3# ! ! ' I , #=' $ED'
$E' N ' 1$CC3D' E' F3' * 3E O C F' =3$4' H&' F3' C$J3' ' 3 2E ' E - 3D'
UYM S 3 SV' /# / ' ' ! ' 5 !0!# ')!' * ' !' 2 +' 3&3%!# % '43 #(' #&' 1!%% #(' 7 +'
% ( ) ' I , #' #') 1' #(&, =' CF$ ' Q3' $ED' NHE E-3' E' &H4N3' -E ' $ED'
F&H-2FH- ' F3' $C 'G$O' H&' / 5 %' E' F3' =3$4' H&' H-4' >H4D' <E3' FH-C$ED'
3 2F 'F-ED43D' $ED' F 4 O H' $ED' CF$ ' &4H J' $ED' $& 34' F$ ' G$O' &33'
4313$ 3D ' 3 N31 ' CH' &$4' $C' $EO' H&' F3' C$ D' N C' J$O' 4313$' F3' 9 FH 3'
H4' $EO' I$4 ' H&' $EO' H F34' N C ' H4' J$O' Q3' E' &H4N3' E' $EO' I$4 ' H&'
8 C' P$JC O C' GHJ E HEC' H- ' H&' F3' #E 3D' % E2DH J ' $ED' 3 N31 '
$C' H' <&&3EN3C' $ED' H F34' P$ 34C' NH J J 3D' H4' DHE3' Q3&H43' H4' -1HE'
F3' C$ D' $C ' G$O' H&' / 5 %' F NF' CF$ ' Q3' D3$ ' F' $ED' 1-E CF3D'
<&&3EN3C $C' &' F C' N ' F$D' EH ' Q33E' 1$CC3D ' I4H D3D' 4& $OC ' & $ ' &'
NH J J 3D' $EO' I 34CHE' CF$ ' $& 34' F3' @H J J3EN3 J3E ' H&' F C' N ' Q3' NHE '
143 HDC' H' N 3D' H&' $EO' <&&3EN3' 2 EC ' $EO' H&' F3' C$ D' N C' NH $J 3D'
F3' '313$ J$O' Q3$J3D Q3&H43' H4' -1HE' F3' C$ D' $C ' G$O' H&' $ED' H F' <&&3EN3' CF$
-ED34' F3' D' F$ 3' Q33E' 1-E CF$Q 3' F' G3$ F' QO' 4 -3' H&' $EO' H&' F3' C$ D'
H#A'&?#(!'#J(' '313$ N C ' E' 3 34O' C-NF' @$C3' F3' I 34CHE' NHE N 3D' H&' C-NF' <&&3EN<

CF$ ' EH ' C-&&34' F3' I -E CF J 3E ' H&' G3$ F ' Q - 'CF$ ' E' 3-' F343H&' Q-' F3
Q3' $Q 3 ' $ ' F3' G CN43 HE' H&' F3' @H-4 ' H' Q3' 4$EC1H4 3D' Q3 '
OHED' F3' ?3$C' &H4' > &3' H4' &H4' $EO' * 34 J ' EH ' 3CC' F$E' ?3 3E' =3$4C ' N$1($('
H4' H' Q3' J 14 CHE3D ' F' H4' FH- ' F$4D' >$QH-4 ' &H4' $EO' * 34 J ' EH '
3 N33D E2' 6H-4' =3$4C

' ED' Q3' ' 3E$N 3D ' * F$ ' F C' N ' CF$ ' NH J J 3EN3' $ED' $+3' @H J J 3EN3 '
3&&3N ' HE' F3' 6 4C ' G$O' H&' ' E' F3' =3$4' H&' H-4' >H4D' < E3' N H& F C'
FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H

' ED' Q3' ' 3E$N 3D ' * F$ ' &' $EO' I 34CHE' CF$ ' &$ C3 O' J $+3' @H-E 34R
H4' NH-E 34&3 ' $EO' @H E' 43C3 J Q E2' H4' $11$43E O' E 3ED3D' H' &3 E2' F3'
43C3 J Q 3' H4' 1$CC' &H4' $EO' H&' F3' % E2 C' N-443E ' MH D' H4' + %0! ' I , # ' MH D' H4? 5 34'
3 340' C-NF' <&&3ED34' CF$ ' E' 8#(% #&' $ED' $!% #&' Q3' 2- O' H&' @H E ' * 4$ECR
63 HEO ' $ED' E' + ' , % #&' H&' $' F 2F' @4 J 3' $ED' <&&3EN3 ' $ED ' Q3 E2' 1H4 $ HE' &H4'
NHE 3D' F343H&' CF$ ' Q3' $Q 3 ' $ ' F3' G CN43 HE' H&' F3' @H-4 ' > &3
H' Q3' 4$EC1H4 3D' Q3OHED' F3' ?3$C' &H4' > &3' H4' &H4' $EO' * 34 J ' H ' 3CC'
F$E' ?3 3E =3$4C ' H4' H' Q3' J 14 CHE3D' &H4' $EO' * 34 J ' EH ' 3 N33D E2'
6H-4' =3$4C ' $ED' 3 340' C-NF' <&&3EN3' CF$ ' Q3' D33 J 3D' H' Q3' NH J R <&&3EN3' F3E
1 3 3' $ FH-2F' F3' @H E' CH' J $D3' H4' NH-E 34&3 3D' CF$ ' EH ' Q3' E' $ D33 J 3D
& ' ? $ 3' H' Q3' - 343D ' H4' F3' NH-E 34&3 E2' F343H&' CF$ ' EH ' Q3' NH J 1 3 3
& E CF3D' H4' 134&3N 3D '

' ED' Q3' ' 3E$N 3D ' * F$ ' &' $EO' I 34CHE' CF$ ' 2 D' H4' C 34 ' H4' @H H-4 E2'
CF$ ' F' $EO' 9 $CF' H4' P $ 34 $ C' N1Q 3' H&' 14HD-N E2' F3' @H H-4' NH-E 34&3 '
H&' MH D' H4' H&' ? 34 ' $CF ' NH H-4 ' H4' N$C3' H 34 ' $EO' @H E' F$ CH3 34'
43C3 J Q E2' H4' $11$43E O' E 3ED3D' H' 43C3 J Q 3' H4' 1$CC' , ' $EO' H&' P3 $' F'
F3' % E2 C' N-443E ' MH D' H4' ? 34' @H E ' H4' &' $EO' I 34CHE' CF$ ' 2 D' E 3E ' H'
H4' C 34 ' H4' CF$ ' F' $EO' 9 $CF' H4' P $ 34 $ C' N1Q 3' H&' 14HD-N E2' J $+3' F3 J'
F3' @H H-4' H&' MH D' H4' H&' ? 34 ' $CF ' NH H-4 ' H&' N$C3' H 34 ' $EO' H4' ? 34' L'
I 3N3' H&' ? 34' H&' @H1134 ' H4' H&' NH$4 C3' MH D' H4' NH$4C3' ? 34 ' H4' H&' @H E '
$EO' P 3 $ ' H4' P -43' H&' P 3 $ C' 43C13N 3 O ' Q3 E2' H&' $' & ' ? T3' $ED
6 2-43' H' Q3' NH E3D ' $ED' F' E 3E ' F$ ' F3' C$ J 3' CF$ ' Q3' NH E3D ' '
E H' &$ C3' $ED' NH-E 34&3 ' @H E' 43C3 J Q E2' H4' $11$43E O' E 3ED3D' H'
43C3 J Q 3' H4' 1$CC Q4' $EO' H&' F3' % E2 C' N-443E ' MH D' H4' ? 34' @H E' '
H&' &' $EO' I 34CHE' CF$ ' 2 D ' H4' CF$ ' F' $EO' 9 $CF' H4' P $ 34 $ C' NH H-4 E2' H4'
N1Q 3' H&' 14HD-N E2' F3' @H H-&' H&' MH D ' $CF ' NH H-4 ' H4' N$C3' $ 34 E2'
H 34 ' $EO' H&' F3' % E2 C' N-443E ' ? 34' @H E ' H4' %!' , ' #' # ' ((3E / '
P$EE34' $ 34' C-NF' @H E ' F' $# !# ' ,' J $+3' F3' C$ J 3' !1! 4%!' , ' (3' '
1$CC' &H4' $EO' H&' F3' % E2 C' N-443E ' MH D' @H E ' H4' ' $EO' * ! 1 ,#' ' &H4' $
CF$ ' 2 D' H4' C 34 ' H4' CF$ ' F' $EO' 9 $CF' H4' ! %1' N$1$Q 3' H&' F2F34' @H E' '
14HD-N E2' F3' @H H-4' H&' MH D' H4' H&' ? 34 ' $CF ' ' , % , 3 ' , ' N$C3' &HEL&H4L>I&3'
H 34 ' $EO' H&' F3' % E2 C' @-443E ' @H1134' @H E ' H4' & 3' H4' E' $EO'
P$EE34' $ 34' C-NF' @H E ' F' E 3E ' H' J $+3' F3' C$ J 3' 43C3 J Q 3' H4'
1$CC' &H4' $EO' H&' F3' % E2 C' N-443E ' MH D' H4' ? 34' @H E' ' 3 340' C-NF'
<&&3ED34' CF$ ' E' 8#(% #&' $ED' $!% #&' Q3' 2- O' H&' 63 HEO ' $ED' E'
+ ' , % #&' H&' $' F 2F' @ J 3' $ED' <&&3EN3 ' $ED ' Q3 E2' NHE N 3D' F343H&'
CF$ ' Q3' $Q 3 ' $ ' F3' G CN43 HE' H&' F3' @H-4 ' H' Q3' 4$EC1H4 3D'
Q3OHED' F3' ?3$C' &H4' > &3' H4' &H4' $EO' * 34 J ' EH ' 3CC' F$E' ?3 3E' =3$4C '
H4' H' Q3' J 14 CHE3D' &H4' $EO' * 34 J ' EH ' 3 N33D E2' 6H-4' =3$4C

' ED' Q3' ' 3E$N 3D ' * F$ ' &' $EO' I 34CHE' CF$ ' J 1$ 4 ' D J E CF ')@ ' &)!) *
H4' 2F 3E' $EO' H&' F3' % E2 C' N-443E ' MH D' H4' ? 34' @H E ' F' E 3E ' F3' MH D' H4
2' ? 34' @H E

L)#Jʻ #(# #1ʻ 4 : pʻ *4$ECR 1H4 $ HEʻ &H4ʻ ʻ=3$4C

Hʻ J$+3ʻ F3ʻ@H Eʻ CHʻ J1$ 43Dʻ D J E CF3Dʻ H4ʻ 2F 3E3Dʻ1$CCʻ &H4ʻ F3ʻ N E2 Cʻ N-44 ʻ MH Dʻ E4ʻ ? 34ʻ @H E ʻ 3 340ʻ C-NFʻ <&&3ED34ʻ CF$ ʻ E ʻ ?8 #(% &,#/ʻ$!% #&ʻ Q3ʻ (3 % ʻH&ʻ 63 HEO ʻ $EDʻ Eʻ+ʻ, % #&ʻ H&ʻ $ʻ F 2Fʻ @4 J3ʻ $EDʻ <&&3EN3 $ED ʻ Q3 E2ʻ NHE N 3Dʻ F343H&ʻ CF$ ʻQ3ʻ $Q 3ʻ $ʻ F3ʻ G CN43 HEʻ H&ʻ F3ʻ @H-4 ʻ Hʻ Q3ʻ 4$EC1H4 3Dʻ Q3OHEDʻ F3ʻ ?3$Cʻ &H4ʻ $EOʻ *3 Jʻ EH ʻ 3 N33D E2ʻ 6H-4 33Eʻ =3$4Cʻ EH4ʻ 3CCʻ F$Eʻ ?3 3Eʻ =3$4Cʻ H4ʻ HʻQ3ʻ J14 CHE3Dʻ&H4ʻ$EOʻ*34 Jʻ EH ʻ3 N33D E2ʻ *F433ʻ =3$4C

B-0 12ʻ H4ʻ C3 E2ʻ KNʻ NH-E 34&3 ʻ MH DʻH4ʻ? 34ʻ @H Eʻ &H4ʻ H 34ʻ $ -3ʻ F$Eʻ Cʻ G3R EH J E$ HEʻ ʻ J1H4 E2ʻ NH-E 34&3 ʻ @H Eʻ &4H Jʻ Q3OHEDʻ ?3$Cʻ *4$EC1H4 $R HEʻ &H4ʻ > &3ʻ KN

ʻ EDʻ Q3ʻ ʻ3E$N 3Dʻ *F$ ʻ &ʻ $EOʻ I34CHEʻ CF$ ʻ Q-0 ʻ C3 ʻ 43N3 3ʻ 1$O ʻ H4ʻ 1- ʻ H&&ʻ H4ʻ H&&34ʻ Hʻ Q-0 ʻ C3 ʻ 43N3 3ʻ 1$O ʻ H4ʻ 1- ʻ H&&ʻ $EOʻ &$ C3ʻ H4ʻ NH-E 34&3 ʻ @H Eʻ 43C3 J Q E2ʻ H4ʻ $11$43E Oʻ E 3ED3Dʻ Hʻ 43C3 J Q 3ʻ H4ʻ 1$CCʻ &H4ʻ $EOʻ H&ʻ F3ʻ % E2 Cʻ N-443E ʻ MH Dʻ H4ʻ ? 34ʻ @H E ʻ $ʻ H4ʻ &H4ʻ $ʻ H 34ʻ ʻ$ 3ʻ H4ʻ $ -3ʻ F$Eʻ F3ʻ C$ J 3ʻ QOʻ Cʻ G3EH J E$ HEʻ J1H4 Cʻ H4ʻ $Cʻ NH E3Dʻ H4ʻ NH-E 34&3 3Dʻ &H4ʻ ʻ H4ʻ &ʻ $EOʻ I34CHE ʻ CF$ ʻ J1H4 ʻ E Hʻ F3ʻ #E 3Dʻ % E2DH Jʻ &4H Jʻ Q3OHEDʻ F3ʻ ?3$Cʻ $EOʻ &$ C3ʻ H4ʻ NH-E 34&3 ʻ@H Eʻ 43C3 J Q E2ʻ H4ʻ $11$43E Oʻ E 3ED3Dʻ Hʻ 43C3 J Q 3ʻ H4ʻ 1$CCʻ &H4ʻ $EOʻ H&ʻ F3ʻ % E2 Cʻ N-443E ʻ MH Dʻ H4ʻ ? 34ʻ @H E ʻ +EH E2ʻ F3ʻ C$ J 3ʻ Hʻ Q3ʻ &$ C3ʻ H4ʻ NH-E 34&3 ʻ 3 340ʻ C-NFʻ <&&3ED34ʻ CF$ ʻ ʻ8 # % #&ʻ 3/ʻ$!% #&ʻ Q3ʻ 2- Oʻ H&ʻ 63 HEO ʻ $EDʻ Eʻ+ʻ, % #&ʻ H&ʻ$ʻ F 2Fʻ @4 J3ʻ $EDʻ <&&3EN3ʻ $EDʻ Q3 E2ʻ NHE N 3Dʻ F343H&ʻ CF$ ʻ F3ʻ $Q 3 ʻ$ʻ F3ʻ G CN43 HEʻ H&ʻ F3ʻ @H-4 ʻ Hʻ Q3ʻ 4$EC1H4 3Dʻ Q3OHEDʻ F3ʻ ?3$Cʻ&H4ʻ > &3ʻ H4ʻ &H4ʻ $EOʻ *34 Jʻ EH ʻ 3CCʻ F$Eʻ ?3 3Eʻ =3$4Cʻ H4ʻ Hʻ Q3ʻ J14 CHE3Dʻ &H4ʻ $EOʻ *34 Jʻ EH ʻ3 N33D E2ʻ 6H-4ʻ =3$4C

34 E2ʻ @H-F 34 3 &ʻ MH DʻH4ʻ? 34ʻ @H Eʻ JR 14 CHE J 3E

ʻ EDʻ Q3ʻ ʻ3E$N 3Dʻ *F$ ʻ &ʻ $EOʻ I34CHEʻ CF$ ʻ 3ED34ʻ - 34ʻ H4ʻ 1- ʻ H&&ʻ $EOʻ &$ C3ʻ H4ʻ NH-E 34&3 ʻ @H Eʻ 43C3 J Q E2ʻ H4ʻ $11$43E Oʻ E 3ED3Dʻ Hʻ 43C3 J Q 3ʻ H4ʻ 1$CCʻ &H4ʻ $EOʻ H&ʻ F3ʻ % E2 Cʻ N-443E ʻ MH Dʻ H4ʻ ? 34ʻ @H E ʻ +EH E2ʻ F3ʻ C$ J 3ʻ Hʻ Q3ʻ &$ C3ʻ H4ʻ NH-E 34&3 ʻ 3 340ʻ C-NFʻ <&&3ED34ʻ CF$ ʻ Eʻ 8#(% #&ʻ $EDʻ $!% #&ʻ Q3ʻ 2- Oʻ H&ʻ $ʻ P CD3 J 3$EH4ʻ $EDʻ Eʻ+ʻ, % #&ʻ H&ʻ $ʻ @4 J3ʻ $EDʻ <&&3EN3ʻ $EDʻ Q3 E2ʻ NHE N 3Dʻ F343H&ʻ CF$ ʻ Q3ʻ J14 CHE3Dʻ &H4ʻ $EOʻ *34 Jʻ EH ʻ 3 N33D E2ʻ <E3ʻ = 3$4$EDʻ &ʻ $EOʻ I34CHEʻ CF$ ʻ 3ED34ʻ - 34(H4ʻ 1- ʻ H&&ʻ $EOʻ &$ C3ʻ H4ʻ NH-E 34&3 ʻ @H Eʻ 43C3 J Q E2ʻ H4ʻ $11$43E Oʻ E 3ED3Dʻ Hʻ 43C3 J Q 3ʻ H4ʻ 1$CCʻ &H4ʻ $EOʻ H&ʻ F3ʻ % E2 Cʻ N-443E ʻ MH Dʻ H4ʻ ? 34ʻ @H E ʻ +EH E2ʻ F3ʻ C$ J 3ʻ Hʻ Q3ʻ &$ C3ʻ <4 NH-E 34&3 ʻ $EDʻ C-NFʻ I34CHEʻ CF$ ʻ $ʻ F3ʻ * J 3ʻ H&ʻ C-NFʻ 3ED34 E2ʻ - 34 E2ʻ H4ʻ 1- E2ʻ H&&ʻ F$ 3ʻ Eʻ F Cʻ IHCC3CC HEʻ Q3C D3Cʻ F3ʻ &$ C3ʻ E4ʻ NH-E 34&3 ʻ@H Eʻ CHʻ 3ED343Dʻ - 343Dʻ H4ʻ 1- ʻ H&&ʻ <E3ʻ H4ʻ #H43ʻ I 3N3ʻ H4ʻ I 3N3Cʻ H&ʻ &$ C3ʻ H4ʻ NH-E 34&3 ʻ@H Eʻ 43C3 J Q E2ʻ H4ʻ $11$43E Oʻ E 3ED3Dʻ Hʻ 43C3 J Q 3ʻ H4ʻ 1$CCʻ &H4ʻ $EOʻ H&ʻ F3ʻ % E2 Cʻ N-443E ʻ MH Dʻ H4ʻ ? 34ʻ @H E ʻ H4ʻ CF$ ʻ 3 F34ʻ HEʻ F3ʻ G$Oʻ H&ʻ C-NFʻ 3ED34 E2ʻ - 34 E2ʻ <4 1- E2ʻ H&&ʻ H4ʻ F Eʻ F3ʻ ?1$N3ʻ H&ʻ *3Eʻ G$OCʻ F3Eʻ E3 ʻ3EC- E2ʻ 3ED34ʻ - 34ʻ H4ʻ 1- ʻ H&&ʻ $EOʻ J H43ʻ H4ʻ H F34ʻ &$ ʻ H4ʻ NH-E 34&3 ʻ@H Eʻ 43C3 J Q E2ʻ H4ʻ $11$43E Oʻ E 3ED3Dʻ Hʻ 43C3 J Q 3ʻ H4ʻ 1$CCʻ &Q4ʻ $EOʻ H&ʻ F3ʻ % E2 Cʻ N-443E ʻ MH Dʻ H4ʻ ? 34ʻ @H E ʻ +EH E2ʻ F3ʻ C$ J 3ʻ Hʻ Q3ʻ &$ C3ʻ H4ʻ NH-E 34&3 ʻ 3 340ʻ C-NFʻ <&&3ED34ʻ CF$ ʻ Eʻ 8#(% #&ʻ $EDʻ $!% #&ʻ Q3ʻ 2- Oʻ H&ʻ $ʻ P CD3 J 3$EH4ʻ $EDʻ Eʻ+ʻ, % #&ʻ H&ʻ$ʻ @4 J3ʻ $EDʻ <&&3EN3ʻ $EDʻ Q3 E2ʻ NHE N 3Dʻ F343H&ʻ CF$ ʻF3ʻ J14 CHE3Dʻ &H4ʻ $EOʻ *34 Jʻ FH ʻ 3 N33D E2ʻ * Hʻ =3$4C($EDʻ &ʻ $EOʻ I34CHEʻ FHʻ CF$ ʻ F$ 3ʻ Q33Eʻ NHE N 3Dʻ H&ʻ $EOʻ H&ʻ F3ʻ P CD3 J 3$EH4Cʻ H4ʻ @4 J3Cʻ $EDʻ <&&3EN3Cʻ F343 E Q3&H43ʻ J 3E HE3Dʻ CF$ ʻ $& 34 $4DCʻ NH J E ʻ $EOʻ H&ʻ F3ʻ C$ Dʻ P CD3 J 3$EH4Cʻ H4ʻ @4 J3Cʻ $EDʻ <&&3EN3Cʻ C-NFʻ I34CHEʻ CF$ ʻ Eʻ 8#(% #&ʻ Z3/ʻ$!%ʻ &ʻ)!ʻ D33 J 3Dʻ 2- Oʻ H&ʻ 63 HEO ʻ $EDʻ Eʻ+ʻ, % #&ʻ H&ʻ $ʻ F 2Fʻ @4 J3ʻ $EDʻ <&&3EN3ʻ $EDʻ Q3 E2 NHE N 3D

; 340ʻ C3NHEDʻ <&&3EN3ʻ H&ʻ - 34 E2ʻ $& 34ʻ $ʻ 143R H-Cʻ @HEʻ 3 1Eʻ CF$ ʻ Q3ʻ 63 HEO

34 E2ʻ $NNH J 1$E 3Dʻ QOʻ I HCC3CR C HEʻ H&ʻ H F34ʻ NH-E 34&3 ʻ @H Eʻ H4ʻ &H R H 3Dʻ QOʻ $?3NHEDʻ - 34 E2ʻ J14 CHER J 3E

U/M#> ;>P ' ' @$1S

NHE N 3D' F343H&' CF$ ' Q3' $Q 3' $' F3' G CN43 HE' H&' F3' @H-4 ' H' Q3' 4$EC1H4 3D' Q3(HED' F3' ?3$C' &H4' > &3' H4' &H4' $EO' *34 J' EH ' 3CC' F$E' ?3 3E' =3$4C' H4' H' Q3' J 14 CHE3D' &H4' $EO' *34 J' EH ' 3 N33D E2' 6H-4' =3$4C *4$EC1H4 $' HE' &H4' > &3'

' ED' Q3' ' 3E$N 3D' *F$A' &' $EO' I 34CHE' CF$ ' F$ 3' E' F C @-C HDO' H4' I HCC3CC HE' *F433' H4' J H43' I 3N3C' H&' &$ C3' H4' NH-E 34&3 ' @H E' 43C3 J Q E2' H4' $11$43E O' E 3ED3D' H' 43C3 J Q 3' H4' 1$CC' &H4' $EO' H&' F3' % E2 C' N-443E 'MH D' H4' ? 34' @H E' +EH E2' F3' C$ J 3' H' Q3' &$ C3' H4' NH-E 34&3 ' $ED' F' E 3E ' H' - 34' H4' 1- ' H&&' F3' C$ J 3' 3 34O' C-NF' <&&3ED34' CF$ ' E' 8#(% #&' $ED' $!% #&' Q3' 2- O' H&' $' P CD3R J 3$EH4' $ED' E' +', % #&' H&' $' @4 J 3' $ED' <&&3EN3' $ED' Q3 E2' NHER N 3D' F343H&' CF$ ' Q3' $Q 3' $' F3' G CN43 HE' H&' F3' @H-4 ' H' Q3' J 14 CHE3D' &H4' $EO' *34 J' EH ' 3 N33D E2' *F433' =3$4C' $ED' &' $EO' I 34CHE' CH' NHE N 3D' CF$ ' $& 34 $4DC' NH J J ' F3' +3' P CD3R J 3$EH4' H4' @4 J 3' $ED' <&&3EN3' C-NF' I 34CHE' CF$ ' E' 8#(% #&' $ED' $!% #&' Q3' D33 J 3D' 2- O' H&' 63 HEO' $ED' E' +', % #&' H&' $' F 2F' @4 J 3' $ED' <&&3EN3' $ED' Q3 E2' NHE N 3D' F343H&' CF$ ' Q3' $Q 3' $' F3' G CN43 HE' H&' F3' @H-4 ' H' Q3' 4$EC1H4 3D' Q3OHED' F3' ?3$C' &H4' > &3' H4' &H4' $EO' *34 J' EH ' 3CC' F$E' ?3 3E' =3$4C' H4' H' Q3' J R 14 CHE3D' &H4' $EO' *34 J' EH ' 3 N33D E2' 6H-4' =3$4C'

8$ E2' *F433' H4' J H43' I 3N3C' H&' NH-E 34&3 ' MH D' H4' ? 34' @H E' E' I HCR C3CC HE' KN ' F' E 3E ' KN ' J R 14 CHE J 3E ?3NHED' <&&3EN3' 63 HEO' $ED' *4$EC1H4 $R HE

W' ED' Q3' ' 3E$N 3D' *F$' F343' $EO' I 34CHE' CF$ ' F$ 3' Q33E' 9 J' CF$' NHE N 3D' H&' $EO' <&&3EN3' 2 EC' F C' N' CF$ ' $& 34 $4DC' Q3' Q3 C-&& N3E' ED N 3D' &H4' $EO' <&&3EN3' 2 EC' F C' N' NH J J 3D' C-QC3X-3E' H' 'NHE &N-HE' C-NF' @HE N HE' $' @H1O' H&' F3' 143 H-C' ED N J 3E' $ED' @HE N HE' &H4 $143 H-C' 1-41H4 E2' H' Q3' C 2E3D' $ED' N34 & 3D' $C' $' 4-3' I ,5 ' QO' F3' @ 34+' H&' <&&3EN3' F3' @H-4 ' H4' H F34' <&& N34' F$ E2' F3' @-C HDO' H&' F3' 2 JC' F C' @H-4 ' F343' F3' <&&3ED34' $C' & 4C' NHE N 3D' H4' QO' F3' G31- O' H& C-NF' @ 34+' H4' <&& N34' CF$ ' -1HE' I 4HH&' H&' F3' D3E O' H&' F3' I 34CHE' H&' F3' <&&3ED34' Q3' C-&& N 3E' ; D3EN3' H&' F3' 143 H-C' ED N J 3E' $ED' @HE N HE' FH-' I 4HH&' H&' F3' ? 2E$ -43' H4' H&& N $' @F$4$N 34' H&' F3' I 34CHE' $113$4 E2' H' F$ 3' C 2E3D' $ED' N34 & 3D' F3' C$ J 3' $ED' &H4' 3 34O' C-NF' @H1O' $' 633' H&' ? '?F E2C' $ED' ; 2F 13EN3' $ED' EH' J H43' CF$ ' Q3' D3 J $ED3D' H4' $+3E' $ED' &' $EO' C-NF' @ 34+' <&& N34' H4' G31- O' CF$ ' N34 &O' H4' - 34' $C' 4-3' $EO' &$ C3' @H1O' H&' $EO' ED N J 3E' H4' @HE N HE' &H4' $EO' <&&3EN3' 2 EC' F C' N' +EH E2' F3' C$ J 3' H' Q3' &$ C3' H4' &' $EO' I 34CHE' H F34' F$E' C-NF' @ 34+' <&& N34' H4' G31- O' CF$ ' C 2E' H4' N34 &O' $EO' @H1O' H&' $EO' C-NF' ED N J 3E' H4' @HE N HE' $C' C-NF' @ 34+' <&& N34' H4' G31- O' H4' CF$ ' - 34' $EO' @H1O' F343H&' F' $' &$ C3' H4' NH-E 34&3 ' ? 2E$ -43' F343 H' +EH & E2' F3' C$ J 3' H' Q3' &$ C3' H4' NH-E 34&3 ' 3 34O' C-NF' <&&3ED34' CF$ ' E' 8#(% #&' $ED' $!% #&' Q3' 2- O' H&' 63 HEO' $ED' E' +', % #&' H&' $' F 2F' @4 J 3' $ED' <&&3EN3' $ED' Q3 J 2' @HE N 3D' F343H&' CF$ ' Q3' $Q 3' $' F3' G CN43 HE' H&' F3' @H-4 ' H' Q3' 4$EC1H4 3D' Q3OHED' F3' ?3$C' &H4' $EO' *34 J' EH ' 3 N33D E2' 6H-4 33E' =3$4C' EH4' 3CC' F$E' ?3 3E' =3$4C' H4' H' Q3' J R 14 CHE3D' &H4' $EO' *34 J' EH ' 3 N33D E2' * H' =3$4C

W' ED' Q3' ' 3E$N 3D' *F$' &' $EO' I 34CHE' CF$ ' +EH E2 O' $4 D' FH-' $ &-' - FH4 O' ^ F3' I 4HH&' H&' F NF' - FH4 O' CF$ ' 3' HE F3' I $4 O' $NN-C3D_' J $+3' H4' J 3ED' H4' Q32 E' H4' 14HN33D' H' J $+3' H4' J 3ED' H4' Q-O' H4' C3 ' H4' CF$ ' +EH E2 O' $ED' FH-' $ &-' ; N-C3' ^ F3' I 4HH&' H&' 9 F NF' ; N-C3' CF$ ' 3' HE' F3' I $4 O' $NN-C3D_'

P$+ E2' ' 1HCC3CC HE' H&' $EO NHE E2

*4$EC114 $ʻ HE &H4 > &3ʻ

F$ 3ʻ Eʻ F Cʻ @-C HDOʻ H4ʻ I HCC3CC HE ʻ $ Oʻ I -ENF3HE ʻ @H-E 34 1-ENF3HE ʻ P$ 4 ʻ ? $J 1ʻ G 3ʻ I$ 34E ʻ H4ʻ P H- Dʻ E ʻH4ʻ -1HEʻ F NFʻ F343ʻ CF$ ʻ Q3ʻ J $D3ʻ H4ʻ J 143CC3D ʻ H4ʻ F NFʻ ʻ J $+3ʻ H4ʻ J 143CC ʻ H4ʻ F NFʻ CF$ ʻ Q3ʻ E 3ED3Dʻ Hʻ J $+3ʻ H4ʻ J 143CC ʻ F3ʻ 6 2-43 ʻ ? $J 1ʻ H4 ʻ $11$43E ʻ ʻ 3C3 J Q $EN3ʻ H&ʻ QH Fʻ H4ʻ 3 F34ʻ H&ʻ F3ʻ ? D3Cʻ H&ʻ $EOʻ H&ʻ F3ʻ % E2 Cʻ N-443E ʻ MH Dʻ H4ʻ ? 34ʻʻ@H E ʻ H4ʻ $EOʻ I $4 ʻ H4ʻ I $4 Cʻ H&ʻ QH Fʻ H4ʻ 3 F34ʻ H&ʻ C-NFʻ ? D3Cʻ ʻ H4ʻ &ʻ $EOʻ I 34CHEʻ CF$ ʻ FH- ʻ $ &- ʻ - FHR 4 Oʻ ^ F3ʻ I 4HH&ʻ F343H&ʻ CF$ ʻ 3ʻ HEʻ F3ʻ I $4 Oʻ $NN-C3D_ ʻ J $+3ʻ H4ʻ J 3ED ʻ H4ʻ Q32 Eʻ H4ʻ 14HN33Dʻ Hʻ J $+3ʻ H4ʻ J 3ED ʻ H4ʻ Q-Oʻ H4ʻ C3 ʻ H4ʻ CF$ ʻ FH- ʻ $ &- ʻ ; N-C3ʻ ^ F3ʻ I 4HH&ʻ F343H&ʻ CF$ ʻ 3ʻ HEʻ F3ʻ I $4 Oʻ $NN-C3D_ ʻ F$ 3ʻ Eʻ F Cʻ @-C HDOʻ H4ʻ I HCC3CC HE ʻ $EOʻ ; D234 ʻ ; D2 E2ʻ * HH ʻ@H $4 ʻ EC 4- J 3E ʻ H4ʻ ; E2 E3ʻ D1 3Dʻ $EDʻ E 3ED3Dʻ &H4ʻ F3ʻ J $4+ E2ʻ H&ʻ @H 1ʻ 4H-EDʻ F3ʻ ; D23Cʻ Fʻ >3 34C ʻ M4$ E E2C ʻ H4ʻ H F34ʻ P$4+Cʻ H4ʻ 6 2-43Cʻ $11$43E Oʻ 43C3 J Q E2ʻ FHC3ʻ HEʻ F3ʻ ; D23Cʻ H&ʻ $EOʻ H&ʻ F3ʻ % E2 Cʻ N-443E ʻ MH Dʻ H4ʻ ? 34ʻ @H E ʻ C-NFʻ I 34CHEʻ ʻ >EH E2 F3ʻ C$J 3ʻ Hʻ Q3ʻ CHʻ D1 3Dʻ $EDʻ E 3ED3Dʻ $Cʻ $&H43C$ D ʻ H4 ʻ &ʻ $EOʻ I 34CHEʻ CF$ ʻ FH- ʻ $ &- ʻ - FH4 O ʻ Hʻ Q3ʻ 14H 3Dʻ $Cʻ $&H43R C$ D ʻ J $+3ʻ H4ʻ J 3ED ʻ H4ʻ Q32 Eʻ H4ʻ 14HN33Dʻ Hʻ J $+3ʻ H4ʻ J 3ED ʻ H4ʻ QOʻ H4ʻ C3 ʻ <4 CF$ ʻ FH- ʻ $ &- ʻ ; N-C3 ʻ Hʻ Q3ʻ 14H 3Dʻ $Cʻ $&H43C$ D ʻ ʻ F$ 3ʻ Eʻ F Cʻ @-C HDOʻ H4ʻ I HCC3CC HE ʻ $EOʻ I 43CCʻ &H4ʻ @H E$23 ʻ H4ʻ $EOʻ ʻ ʻ@- E2 ʻ; E2 E3ʻ &H4ʻ N- E2ʻ QOʻ 6H4N3ʻ H&ʻ $ʻ ?N43 ʻ H4ʻ H&ʻ $EOʻ H F34ʻ @HE 4 $EN3ʻ 4H-EDʻ B $E+Cʻ H- ʻ H&ʻ MH D ʻ ? 34 ʻ H4ʻ H F34ʻ P 3 $ ʻ C-NF ʻ 134CHEʻ +EH E2ʻ C-NFʻ I 43CCʻ Hʻ Q3ʻ $ʻ I 43CCʻ &H4ʻ @H E$23 ʻ H4ʻ +EH E2ʻ ʻ C-NFʻ ; E2 E3ʻ Hʻ F$ 3ʻ Q33Eʻ -C3Dʻ H4ʻ Hʻ Q3ʻ E 3ED3Dʻ Hʻ Q3ʻ -C3Dʻ &H4ʻ H4ʻ Eʻ H4D34ʻ Hʻ F3ʻ NH-E 34&3 E2ʻ H&ʻ $EOʻ H&ʻ F3ʻ % E2 Cʻ N-443E ʻ MH Dʻ H4ʻ ? 34ʻ @H E ʻ 3 34Oʻ C-NFʻ < &3ED34ʻ CF$ ʻ Eʻ 8#(% #&ʻ $EDʻ $!% #& ʻ Q3ʻ 2- O ʻH&ʻ 63 HEO ʻ $EDʻ Eʻ + ʻ , % #&ʻ H&ʻ $ʻ F 2Fʻ @4 J 3ʻ $EDʻ < &3EN3 ʻ $ED ʻ Q3 E2ʻ NHE N 3Dʻ F343H& ʻ CF$ ʻQ3ʻ $Q 3 ʻ$ ʻ F3ʻ G CN43 HEʻ H&ʻ F3ʻ @H-4 ʻ Hʻ Q3ʻ 4$EC1H4 3Dʻ Q3OHEDʻ F3ʻ ?3$Cʻ &H4ʻ > &3ʻ H4ʻ &H4ʻ $EOʻ *34 J ʻ EH ʻ 3CCʻ F$Eʻ ?3 3Eʻ =3$4C ʻ H4ʻ Hʻ Q3ʻ J 14 CHE3Dʻ &H4ʻ $EOʻ *34 J ʻ EH ʻ 3 N33D E2ʻ 6H-4ʻ =3$4C

@HE 30 E2ʻ *HH Cʻ H4ʻ P HE 3Cʻ H- ʻ ʻ H&ʻ F3ʻ P E ʻ FH- ʻ - FH4 O ʻ 63 HEO ʻ *4$EC1H4 $R HEʻ &H4ʻ > &3 ʻ KN

W ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ *F$ ʻ &ʻ $EOʻ I 34CHEʻ CF$ ʻ FH- ʻ $ &- - FH4 O ʻ F3ʻ I 4HH&ʻ F343H&ʻ CF$ ʻ 3ʻ -1HEʻ F3ʻ I $4 Oʻ $NN-C3D ʻ +EH E2 Oʻ NHE 3Oʻ H- ʻ H&ʻ $EOʻ H&ʻ 8 Cʻ P $(3C O Cʻ P E Cʻ $EOʻ I -ENF3HE ʻ @H-E 34 1-ENF3HE ʻ P$ 4 ʻ ? $J 1ʻ G 3 ʻ I$ 34E ʻ P H- D ʻ ; D234 ʻ ; D2 E2ʻ * HH ʻ@H $4 ʻ EC 4- J 3E ʻ I 43CC ʻ H4ʻ ; E2 E3ʻ -C3Dʻ H4ʻ 3 J 1 HO3Dʻ Eʻ H4ʻ $QH- ʻ F3ʻ NH E E2ʻ H&ʻ @H E ʻ H4ʻ $EOʻ -C3&- ʻ I $4 ʻ H&ʻ $EOʻ H&ʻ F3ʻ ʻ C3 34$ ʻ P $ 34Cʻ $&H43C$ D ʻ H4ʻ $EOʻ @H E ʻ B- HE ʻ P 3 $ ʻ H4ʻ P -43ʻ H&ʻ P 3 $ C ʻ 3 34Oʻ C-NFʻ <&&3ED34ʻ CF$ ʻ Eʻ 8#(% #&ʻ $EDʻ $!% #& ʻ Q3ʻ 2- Oʻ H&ʻ 63 HEO ʻ $EDʻ Eʻ + ʻ , % #&ʻ H&ʻ $ʻ F 2Fʻ M4 J 3ʻ $EDʻ <&&3EN3 ʻ $ED ʻQ3 E2ʻ NHE N 3Dʻ F343H&(ʻ CF$ ʻQ3ʻ $Q 3 ʻ $ ʻ F3ʻ G CN43 HEʻ H&ʻ F3ʻ @H-4 ʻ Hʻ Q3ʻ 4$EC1H4 3Dʻ Q3OHEDʻ F3ʻ ?3$Cʻ &H4ʻ &3 ʻ H4ʻ &H4ʻ $EOʻ *34 J ʻ EH ʻ 3CCʻ F$Eʻ ?3 3Eʻ =3$4C ʻ H4ʻ Hʻ Q3ʻ J 14 CHE3Dʻ &H4ʻ $EOʻ *34 J ʻ EH ʻ 3 N33D E2ʻ 6H-4ʻ =3$4C ʻ

$4 H-Cʻ <&&3EN3Cʻ 43 $ E2ʻ Hʻ F3ʻ @H1134ʻ @H E

W ʻ EDʻ Q3ʻ ʻ3E$N 3D ʻ *F$ ʻ &ʻ $EOʻ I 34CHEʻ CF$ ʻ&$ C3 Oʻ J $+3ʻ H4ʻ NH-E 34&3 ʻ$EOʻ @H Eʻ 43C3 J Q E2 ʻ H4ʻ $11$43E Oʻ E 3ED3Dʻ Hʻ 43C3 J Q 3ʻ H4ʻ 1$CCʻ &H4 ʻ $EOʻ H&ʻ F3ʻ % E2 Cʻ N-443E ʻ @H1134ʻ @H E ʻ H4ʻ &ʻ $EO ʻ I 34R CHEʻ CF$ ʻ +EH E2 O ʻ $EDʻ FH- ʻ $ &- ʻ - FH4) ʻ ^ F3ʻ I 4HH&ʻ H&ʻ F NFʻ - FH4 Oʻ CF$ ʻ 3ʻ HEʻ F3ʻ I $4 Oʻ $NN-C3D_ ʻ J $+3ʻ H4ʻ J 3ED ʻ H4ʻ Q32 Eʻ H4ʻ 14HN33Dʻ Hʻ J $+3ʻ H4ʻ J 3ED ʻ H4ʻ Q-Oʻ H4ʻ C3 ʻ H4ʻ CF$ ʻ +EH R E2 O ʻ $EDʻ FH- ʻ $ &- ʻ ; N-C3ʻ ^ F3ʻ I 4HH&ʻ H&ʻ F NFʻ ; N-C3ʻ CF$ 3

3 HE F3 I$4 O $NN-C3D_ F$ 3 E F C @-C HDO H4 IHCC3CC HE $EO EC 4-J3E *HH H4 ;E2 E3 D1 3D $ED E 3ED3D &H4 F3 NH-E 34R &3 E2 $EO H& F3 %E2 C N-443E @H1134 @H E H4 & $EO I34CHE CF$ Q-O C3 43N3 3 1$O H4 1- H&& H4 H&&34 H Q-O C3 43N3 3 1$O H4 1- H&& $EO &$ C H4 NH-E 34&3 @H E 43C3JQ E2 H4 11R 43E O E 3ED3D H 43C3JQ 3 H4 1$CC &H4 $EO H& F3 %E2 C N-443E @H1134 @H E $ H4 &H4 $ H 34 $ 3 H4 $ -3 F$E F3 C$J3 QO C G3EHJ E$ HE J1H4 C H4 $C NH E3D H4 NH-E 34&3 3D &H4 3 34O C-NF <&&3ED34 CF$ E 8#(% #& $ED $!% #& Q3 2- O H& 63 HEO $ED E +', % #& , $ F 2F @4 J3 $ED <&&3EN3 $ED Q3 E2 NHE N 3D F343H& CF$ Q3 $Q 3 $ F3 G CN43 HE H& F3 @H-4 H Q3 4$ECR 1H4 3D Q3OHED F3 ?3$C &H4 $EO *34J EH 3 N33D E2 ?3 3E =3$4C H4 H Q3 J14 CHE3D &H4 $EO *34J EH 3 N33D E2 * H =3$4C $ED & $EO I34CHE CQ$ 3ED34 - 34 H4 1- H&& $EO &$ C3 H4 NH-E 34&3 @H E 43C3JQ E2 H4 $11$43E O E 3ED3D H 43C3JQ 3 H4 1$CC &H4 $EO H& F3 %E2 C N-443E @H1134 @H E +EH E2 F3 C$J3 H Q3 &$ C3 H4 NH-E 34&3 H4 CF$ F$ 3 E F C @-C HDO H4 IHCC3CC HE *F433 H4 JH43 I 3N3C H& &$ C3 H4 NH-E 34&3 @H E 43C3JQ E2 H4 $11$43E O E 3ED3D H 43CJQ 3 H4 1$CC &H4 $EO H& F3 %E2 C N-443E @H1134 @H E +EH E2 F3 C$J3 H Q3 &$ C3 H4 NH-E 34&3 $ED F E 3E H - 3 H4 1- H&& F3 C$J3 3 34O C-NF <&&3ED34 CF$ E 8#(% #& $ED $!% #& Q3 2- O H& $ P CD3J3$EH4 $ED E +', % #& H& $ @4 J3 $ED <&&3EN3 $ED Q3 E2 NHE N 3D F343H& CF$ Q3 $Q 3 H Q3 J14R CHE3D &H4 $EO *34J EH 3 N33D E2 <E3 =3$E

W ED Q3 3E$N 3D *F$ F343 $EO MH D H4 ? 34 @H E CF$ Q3 3ED343D H $EO I34CHE FH CF$ C-C13N $EO I 3N3 H4 I 3@&3C F343H& H Q3 D J E CF3D H F34 C3 F$E QO 43$CHE$Q 3 3$4R E2 H4 H Q3 NH-E 34&3 CF$ Q3 $ &- &H4 C-NF I34CHE H N- Q43$+ H4 D3&$N3 C-NF I 3N3 H4 I 3N3C $ED & $EO I 3N3 CH N- Q H+3E(H4 D3&$N3D CF$ $113$4 H Q3 D J E CF3D H F34 C3 F$E QO 43$CHE$Q 3 3$4 E2 H4 H Q3 NH-E 34&3 F3 I34CHE 3ED34 E2 F3 C$J3 CF$ Q3$4 F3 >HCC F343H& Q- & F3 C$J3 CF$ Q3 H& D-3 9 3 2F $ED $113$4 H Q3 $ &- @H E F3 I34CHE N- E2 Q43$+ E2 H4 D3&$N E2 F3 C$J3 C F343QO 43X- 43D H 43N3 3 F3 C$J3 $ F3 $ 3 $C NH E3D &H4 $ED & $EO G C1- 3 CF$ $4 C3 F3 F3& F3 I 3N3 CH N- Q4H+3E H4 D3&$N3D Q3 D J E CF3D E J$EE34 $&H43C$ D H4 NH-E 34&3 CF$ Q3 F3$4D $ED & E$ O D3 34J E3D E $?-JJ$4O P$EE34 QO $EO 5-C N3 H& F3 I3$N3 FH C F343QO 3J1H 343D X 3 $J E3 -1HE <$ F $C 3 F3 I$4 3C $C $EO H F34 I34CHE E H4D34 H F3 G3N C HE H& C-NF G C1- 3 $ED F3 *3 34C $ F3 3N3 1 H& 8 C P$(3C O C ; NF3X-34 $ED F3 4 G31- 3C $ED @ 34+C $ED F3 3N3 34C M3E34$ H& 3 34O B4$ENF H& 8 C P$(3C O C 3 3E-3 $43 F343QO 43X- 43D H N- Q43$+ H4 D3&$N3 H4 N$-C3 H Q3 N- Q4H+3E H4 D3&$N3D 3 34O I 3N3 H& NH-E 34&3 H4 -E $ &- O D J E CF3D MH D H4 ? 34 @H E F NF CF$ Q3 3ED343D H F3J E I$OJ3E H& $EO I$4 H& 8 C P$(3C O C 3 3E-3

W ED Q3 3E$N 3D *F$ & $EO I34CHE CF$ & ED H4 D CNH 34 E $EO I $N3 F$ 3 34 H4 E F3 IHCC3CC HE H& $EO I34CHE F$ E2 F3 C$J3 FH- $ &- ; N-C3 $EO &$ C3 H4 NH-E 34&3 @H E 43C3JQ E2 H4 $11$43E O E 3ED3D H 43C3JQ 3 H4 1$CC &H4 $EO H& F3 %E2 C N-443E MH D ? 34 H4 @H1134 @H E H4 $EO EC 4-J3E *HH H4 ;E2 E3 F$ CH3 34 D1 3D $ED E 3ED3D &H4 F3 NH-E 34 ? W &3 E2

@H E C-CR 13N 3D H QF D J E CF3D H4 NH-E 34&3 J$O Q3 N- QO $EO I34CHE H FH J C 3ED343D

9 FH CF$ Q3$4 F3 >HCC

I4H C HE &H4 F3 G CNH 34O ?3 T-43 NH $E* NH E E2 *HH C &H4 C3N-4 E2

F3 J ʻ $C &3 E2ʻ &_&ʻ $EOʻ C-NFʻ @H Eʻ &ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ F3ʻ I 34CHEʻ CHʻ & ED E2ʻ
; D3EN3ʻ $EDʻ H4ʻ D CNH 34 E2ʻ $EDʻ F3ʻ Cʻ F343QOʻ 43X- 43Dʻ Hʻ C3 T3ʻ F3ʻ C$ J 3ʻ $EDʻ Hʻ
&H4ʻ - J$ 3 Oʻ N$44Oʻ F3ʻ ?$ J 3ʻ &H4 F Fʻ Q3&H43ʻ CH J 3ʻ 5-C N3ʻ H&ʻ F3ʻ I 3$N3 ʻ $4 Dʻ

ć F343ʻ ʻ CF$ ʻ Q3ʻ 14H 3D ʻ HEʻ F3ʻ < $ Fʻ H&ʻ $ʻ N43D Q 3ʻ 9 E3CCʻ Q3&H43ʻ $EOʻ 5-C N3ʻ H&ʻ F3ʻ 5! ʻ! ʻ F$ ʻ F343ʻ Cʻ 43CHEQ 3ʻ @$-C3ʻ Hʻ C-C13N ʻ F$ ʻ $EOʻ I 34CHEʻ F$Cʻ Q33Eʻ NHEN34E3Dʻ Eʻ NH-E 34&3 E2ʻ F3ʻ % E2 C N-443E ʻ MH D ʻ ? 34 ʻ H4ʻ @H1134ʻ @H E ʻ H4ʻ F$Cʻ Eʻ F Cʻ @-C HDOʻ H4ʻ I HCC3CC HEʻ $EOʻ C-NFʻ NH-E 34&3 ʻ @H E ʻ H4ʻ $EOʻ EC 4- J 3E ʻ * HH ʻ H4ʻ ; E2 E3ʻ F$ CH3 34ʻ D1 3Dʻ $EDʻ E 3ED3Dʻ &H4ʻ F3ʻ NH-E 34&3 E2ʻ H&ʻ $EOʻ C-NFʻ @H E ʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ C-NFʻ 5-C N3 ʻ QOʻ 9 44E ʻ -ED34ʻ F Cʻ 8 $ED ʻ Hʻ N$-C3ʻ $EOʻ I $N3ʻ F$ CH3 34ʻ Q3 HE2 E2ʻ H ʻ H4ʻ 1ʻ F3ʻ < NN-1$ HEʻ H4ʻ -ED34ʻ F3ʻ @HE 4H- ʻ H&ʻ C-NFʻ C-C13N 3Dʻ I 34CHEʻ Hʻ Q3ʻ C3$4NF3D ʻ 3 F34ʻ Eʻ F3 ʻ G $Oʻ H4ʻ Eʻ F3ʻ , 2F ʻ $EDʻ &ʻ $EOʻ C-NFʻ NH-E 34&3 ʻ @H E ʻ H4ʻ $EOʻ C-NFʻ EC 4- J 3E ʻ * HH ʻ H4ʻ ; E2 E3 ʻ CF$ ʻ Q3ʻ &H-EDʻ Eʻ $EOʻ I $N3ʻ CHʻ C3$4NF3D ʻ Hʻ N$-C3ʻ F3ʻ C$ J 3ʻ Hʻ Q3ʻ C3 T3Dʻ $EDʻ N$44 3Dʻ &H4 F Fʻ Q3&H43ʻ F3ʻ C$ Dʻ 5-C N3 ʻ H4ʻ CH J 3ʻ H F34ʻ 5-C N3ʻ H&ʻ F3ʻ I 3$N3 ʻ $EDʻ F343 34ʻ $EOʻ C-NFʻ NH-E 34&3 ʻ @H E ʻ H4ʻ $EOʻ C-NFʻ EC 4- J 3E ʻ * HH ʻ H4ʻ ; E2 E3ʻ $Cʻ $&H43C$ D ʻ CF$ ʻ Eʻ $EOʻ @$C3ʻ F$ 3 34ʻ Q3ʻ C3 T3Dʻ $EDʻ N$44 3Dʻ Q3&H43ʻ $ʻ 5-C N3ʻ H&ʻ F3ʻ I 3$N3 ʻ F3ʻ CF$ ʻ N$-C3ʻ F3ʻ C$ J 3ʻ Hʻ Q3ʻ C3N-43D ʻ &H4ʻ F3ʻ I - 1HC3ʻ H&ʻ Q3 E2ʻ 14HD-N3Dʻ Eʻ ; D3EN3ʻ 2 EC ʻ $EOʻ I 34CHEʻ FHʻ J $Oʻ Q3 14HC3N- 3Dʻ &H4ʻ $EOʻ < &&3EN3ʻ 2 EC ʻ F Cʻ N ʻ ʻ $EDʻ $ ʻ NH-E 34&3 ʻ @H E ʻ $EDʻ $ ʻ EC 4- J 3E C ʻ * HH C ʻ $EDʻ ; E2 E3Cʻ D1 3Dʻ $EDʻ E 3ED3Dʻ &H4ʻ F3ʻ NH-E 34&3 E2ʻ H&ʻ @H E ʻ $& 34ʻ F3Oʻ CF$ ʻ F$ 3ʻ Q33Eʻ 14HD-N3Dʻ Eʻ ; D3EN3 ʻ H4ʻ F343ʻ F3Oʻ CF$ ʻ F$ 3ʻ Q33Eʻ C3 T3D ʻ $EDʻ CF$ ʻ EH ʻ Q3ʻ 43X- 43Dʻ Hʻ Q3ʻ 14HR D-N3Dʻ Eʻ ; D3EN3 ʻ CF$ ʻ &H4 F Fʻ Q3ʻ D3 343Dʻ -1ʻ Hʻ F3ʻ < 8N34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ P E ʻ H4ʻ Hʻ F3 4ʻ ?H N H4 ʻ H4ʻ Hʻ $EOʻ I 34CHEʻ $- FH4 T3Dʻ QOʻ F3 J ʻ H4ʻ F J ʻ Hʻ 43N3 3ʻ F3ʻ C$ J 3ʻ

34 3ʻ W * ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ * F$ ʻ F343ʻ * Hʻ H4ʻ J H43ʻ I 34CHEC ʻ $N E2 ʻ NHEN34 ʻ Eʻ D &&343E ʻ @H-E 3Cʻ H4ʻ 5-4 CD N HEC ʻ CF$ ʻ NH J J ʻ $EOʻ < &&3EN3ʻ 2 EC ʻ F Cʻ N ʻ $ ʻ H4ʻ $EOʻ H&ʻ F3ʻ C$ Dʻ < &&3ED34Cʻ J $Oʻ Q3ʻ D3$ ʻ F ʻ ED N 3D ʻ 4 3D ʻ $EDʻ 1-E CF3D ʻ $EDʻ F3 4ʻ < &&3EN3ʻ $ Dʻ $EDʻ NF$423Dʻ Hʻ F$ 3ʻ Q33Eʻ NH J J 3D ʻ Eʻ $EOʻ < E3ʻ H&ʻ F3ʻ C$ Dʻ @H-E 3Cʻ H4ʻ 5-4 CR D N HEC ʻ Eʻ F3ʻ C$ J 3ʻ P $EE34ʻ $Cʻ &ʻ F3ʻ < &&3EN3ʻ F$Dʻ Q33Eʻ $N -$ Oʻ $4 Dʻ FH Oʻ NH J J 3Dʻ F Eʻ C-NFʻ < E3ʻ @H-E Oʻ H4ʻ 5-4 CD N HEʻ 4 I 4H D3Dʻ $ $OC ʻ F$ ʻ @4 J 3Cʻ $EDʻ < &&3EN3Cʻ 2 EC ʻ F Cʻ N ʻ NH J ʻ J 3Dʻ Eʻ + ʻ, % #&ʻ CF$ ʻ Q3ʻ 14HN33D3Dʻ 2 EC ʻ $EDʻ 4 3Dʻ Eʻ + ʻ, % #& ʻ ʻ C-NFʻ P $EE34ʻ $EDʻ 6H4 J ʻ $Cʻ @4 J 3Cʻ $EDʻ < &&3EN3Cʻ 23E34$ Oʻ F$ 3ʻ Q33Eʻ F343 H&H43ʻ 4 3Dʻ Eʻ F$ ʻ @H-E 40

ED N J 3E C W ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ * F$ ʻ EH ʻ I 34CHEʻ 2 EC ʻ FH J ʻ $EOʻ B ʻ
4$ 34C3Dʻ ED N J 3E ʻ CF$ ʻ Q3ʻ &H-EDʻ $ ʻ $EOʻ CC T3Cʻ H4ʻ ?3CC HECʻ H&ʻ F3ʻ I 3 N3
3 N31 ʻ &H4ʻ P CD3 J 3$EH4ʻ 2 EC ʻ F Cʻ N ʻ CF$ ʻ Q3ʻ 3E 3Dʻ Hʻ 4$ 34C3
@$-C3ʻ CFH Eʻ F3ʻ C$ J 3ʻ Hʻ $EOʻ C-QC3X-3E ʻ CC T3Cʻ H4ʻ ?3CC HEC ʻ Q- ʻ F3ʻ @H-4 ʻ Q3&H43ʻ F NFʻ F3ʻ B ʻ H&ʻ ED N J 3E ʻ CF$ ʻ Q3ʻ 43 -4E3Dʻ $Cʻ &H-EDʻ CF$ ʻ &H4 FR Fʻ 14HN33Dʻ Hʻ 4Oʻ F3ʻ I 34CHEʻ 2 EC ʻ FH J ʻ F3ʻ C$ J 3ʻ Cʻ &H-ED ʻ -E 3CCʻ C-NFʻ I 34CHEʻ H4ʻ F3ʻ I 4HC3N- H4ʻ CF$ ʻ CFH ʻ 2HHDʻ @$-C3 ʻ Hʻ Q3ʻ $ H 3Dʻ QOʻ F3ʻ @H-4 ʻ &H4ʻ F3ʻ I HC 1HE3 J 3E ʻ H&ʻ F3ʻ * 4 $ ⁚ I 4H D3Dʻ $ $OC ʻ F$ ʻ F3ʻ ; 2F Cʻ $EDʻ > $Q 3Cʻ H&ʻ I 34CHECʻ ED N 3Dʻ -ED34ʻ F Cʻ N ʻ Eʻ + ʻ, % #& ʻ CHʻ &$4ʻ $Cʻ 43 $ 3Cʻ Hʻ F3ʻ I HC 1HE3 J 3E ʻ H4ʻ * J < ʻ H&ʻ * 4 $ ʻ CF$ * &3 J $ Eʻ 4 EDʻ Q3ʻ D3$ ʻ Fʻ Eʻ F3ʻ C$ J 3ʻ P $E134ʻ $Cʻ Eʻ ʻ F3ʻ @$C3Cʻ H&ʻ $ ʻ H F3 ʻ 634CHECʻ 1D N 3Dʻ &H4ʻ @4 J 3ʻ Eʻ F$ ʻ @H-E &O

W ʻ ED

W ' ED' Q3' ' D3N $43D' $ED' 3E$N 3D' *F$' F343' -1HE' F3' 9Q$' CF$ '
*4 $' H&' $EO' I34CHE' NF$423D' F' $EO' <&&3EN3' 2 EC' F C' N ' ' 3 C-&& N 3E '
CF$ ' Q3' E3N3CC$4O' H' 14H 3' F$' $EO' @H E' 14HD-N3D' E' ; D3EN3'
2 EC' C-NF' I34CHE' C' &$ C3' H4' NH-E 34&3 ' ' CF$ ' EH ' Q3' E3N3CC$4O'
H' 14H 3' F3' C$J3' H' Q3' &$ C3' $ED' NH-E 34&3 ' QO' F3' ; D3EN3' H&'
$EO' P HE3O34' H4' H F34' <&& N34' H&' 8 C' P $(3C O C' P E ' Q- ' ' CF$ '
Q3' C-&& N 3E ' H' 14H 3' F3' C$J3' H' Q3' &$ C3' H4' NH-E 34&3 ' QO' F3'
; D3EN3' H&' $EO' H F34' N43D Q 3' 9 E3CC

W ' ED' Q3' ' 3E$N 3D' *F$' E' F3' @$C3' H&' 3 34O' 63 HEO' C H NN3C '
1-E CF$Q 3' -ED34' F C' N ' 3 34O' I 4 EN 1$' E' F3' ?3NHED' G32433
$ED' 3 34O' NN3CCH4O' Q3&H43' F3' 6$N ' CF$ ' Q3' 1-E CF$Q 3' E' F3'
C$J3' P $EE34' $C' F3' I 4 EN 1$' E' F3' 6 4C' G32433' C' QO' F C' N '
1-E CF$Q 3' ($ED' 3 34O' NN3CCH4O' $& 34' F3' 6$N ' H' $EO' 63 HEO'
1-E CF$Q 3' -ED34' F C' N ' CF$ ' HE' @HE N HE' Q3' $Q 3' H' Q3'
J 14 CHE3D' &H4' $EO' *34 J' EH ' 3 N33D E2' * H' =3$4C' $ED' E' CH'
&$4' $C' 43 $ 3C' H' + ' , % #&' 3 34O' I34CHE' FH' CF$ ' Q3NH J 3' NN3CCH4O'
$& 34' F3' 6$N ' H' $EO' H&' F3' <&&3EN3C' H' F NF' F3' I -E CF J 3E ' H&'
*4$EC1H4 $ HE' C' QO' F C' N ' $ $NF3D' CF$ ' HE' @HE N HE' Q3' $Q 3'
H' Q3' J 14 CHE3D' &H4' $EO' *34 J' EH ' 3 N33D E2' * H' =3$4C' F3'
23E34$' >$ ' H&' + ' , % #&' $C' H' NN3CC HE ' H4' 4 ' $ED' I $4 ' Q3 E2' E'
$ ' H F34' 43C13N C' H' 432- $ 3' F3' I -E CF J 3E C' H' Q3' $ $4D3D' -ED34'
F C' N

W W ' ED' Q3' ' 3E$N 3D' *F$' F343' $EO' I34CHE' CF$ ' Q3' J(' +G!#'
NHE N 3D' H&' $EO' <&&3EN3' 1-E CF$Q 3' -ED34' F C' N ' &H4' F NF' H4D34
J 14 CHE J 3E ' J $O' Q3' $ $4D3D' ' CF$ ' Q3' $ &- ' &H4' F3' @H-4 ' H'
C3E 3EN3' F3' <&&3ED34' H' Q3' J 1 CHE3D' F' H4' FH- ' F$4D' H+ ?) (@(#'
>$QH-4 ' E' F3' @H J J HE' M$H ' H4' 8 H-C3' H&' @H443N HE ' $ED' $ CH' H
D 43N ' F$ ' F3' <&&3ED34' CF$ ' Q3' +31 ' E' CH $4O' @HE& E3 J 3E ' &H4' F3'
FH 3' H4' $EO' I H4 HE' H4' I H4 HEC' H&' C-NF' J 14 CHE J 3E ' $C' H' F3'
@H-4 ' E' C' G CN43 HE' CF$ ' C33 J' J 33

WW ' ED' Q3' ' 3E$N 3D' *F$' F343' $EO' <&&3EN3' 1-E CF$Q 3' -ED34' C' H' H&'
F C' N ' CF$ ' Q3' NH J J 3D' F E' F3' 5-4 CD N HE' H&' F3' D J 4$ O' &3EN3C' NH J '
F3' C$J3' CF$ ' Q3' D3$ ' F' EX- 43D' H&' 4 3D' $ED' D3 34 J E3D
E' F3' C$J3' P $EE34' $C' $EO' H F34' <&&3EN3' NH J J 3D' F E' F$'
5-4 CD N HE

WW>' ED' Q3' ' D3N $43D' $ED' 3E$N 3D' *F$' F343' `' F3' % E2 C' ' - 3C H&'
N-443E ' MH D' H4' ? 34' @H E c' H4' `' F3' % E2 C' N-443E ' @H1134' @H E c' E 34143 $'
CF$ ' Q3' J 3E HE3D' E' $EO' I $4 ' H&' F C' N ' F3' C$J3' CF$ ' Q3' D33 J 3D'
H' EN -D3' $ED' D3EH 3' $EO' MH D' H4' ? 34' @H E' H4' $EO' @H1134' @H E' NH-E 34&3 /'
43C13N 3 O' NH4E3D' E' $EO' H&' 8 C' P $(3C O C' P E C' $ED' $ &- O' @H E' $ED
N-443E ' E' $EO' I $4 ' H&' 8 C' P $(3C O C' GH J E HEC' F3 F34' F E' F3' N4 J E$' IDC'
#E 3D' % E2DH J' H4' H F34 C3' ' $ED' F$' $EO' H&' F3' % E2 C' N-443E '
@H E' F NF' CF$ ' F$ 3' Q33E' 2 ' C 343D' $CF3D' NH H-43D' H4' N$C3D'
H 34' H4' E' $EO' P $EE34' $ 343D' CH' $C' H' 43C3 J Q 3' H4' Q3' $11$43E O'
E 3ED3D' H' 43C3 J Q 3' H4' 1$CC' &H4' $EO' H&' F3' % E2 C' N-443E ' @H E'
H&' $' F 2F34' G3EH J E$ HE' CF$ ' Q3' D33 J 3D' $ED' $+3E' H' Q3' NH-E 34&3 '
@H E' F E' F3' E 3E ' $ED' P 3$E E2' H&' FHC3' I $4 C' H&' F C' N '
F343 E' P 3E HE' C' J $D3' H&' `' &$ C3' H4' NH-E 34&3 ' @H E' 43C3 J Q E2' H4'
$11$43E O' E 3ED3D' H' 43C3 J Q 3' H4' 1$CC' &H4' $EO' H&' F3' % E2 C' N-443E
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MH D' H4' ? *34' @H E' $ED' F$ ' F343' F3' F$ E2' $EO' P $ 34' E' F3' @-C HDO' H4' I HCC3CC HE' H&' $EO' I 34CHE' C' E' F C' N ' 3 143CC3D' H' Q3' $E' <&&3EN3 ' &' $EO' I 34CHE' CF ' F$ 3' $EO' C-NF' P $ 34' E' F C' 134CHE$ ' @-C HDO' H4' I HCC3CC HE ' H4' CF$ ' +EH E2 O' $ED' &- O' F$ 3' $EO' C-NF' P $ 34' E' $EO' G 3 E2' 8 H-C3' H4' H F34' B- D E2 ' >HD2 E2 ' 1$4 J 3E ' 6 3 D ' H4' H F34' I $N3 ' H13E' H4' EN HC3D ' F3 F34' Q3 HE2 E2' H' H4' HNN-1 3D' QO' F J C3 &' H4' EH ' $ED' F3 F34' C-NF' P $ 34' CF$ ' Q3' CH' F$D' &H4' F C' H E' #C3' H4' B3E3& ' H4' &H4' F$ ' H&' $EH F34 ' 3 34O' C-NF' I 34CHE' CF$ ' Q3' D33 J 3D' $ED' $+3E' H' F$ 3' C-NF' P $ 34' E' F C' @-C HDO' H4' I HCC3CC HE' F E' F3' P 3$E E2' H&' F C' N

3E-3' E' I 4HN33D E2C' 2 EC ' I 34 ' C1EC' $N E2' -ED34' F C' N

WW ' ED ' &H4' F3' I 4H 3N HE' H&' I 34CHEC' $N E2' E' F3' ; 3N-R HE' H&' F C' N ' Q3' ' 3E$N 3D ' *F$ ' $ ' N HEC' $ED' I 4HC3N- HEC' H' Q3' NH J J 3EN3D' 2 EC ' $EO' I 34CHE' &H4' $EO' F E2' DHE3' E' 1E4 ' C-$EN3' H&' F C ' N ' CF$ ' E' 8#(% #&' H4' $!% #& ' Q3' $ D' $ED' 4 3D' E' F3' @H-E O' F343' F3' 6$N ' $C' NH J J 3D ' $ED' CF$ ' E' 8#(% #& ' $!% #& ' H4' +' , % #& ' Q3' NH J J 3EN3D' F E' ? ' @$ 3ED$4' P HE FC' $& 34' F3' 6$N ' NH J J 3D ' $ED' EH ' H F34 C3' ' $ED' , H N3' E' 9 4 E2' H&' C-NF' N HE ' $ED' H&' F3' @$-C3' F343H& ' CF$ ' Q3' 2 3E' H' F3' G3&3ED$E ' H4' G3&3ED34' <E3' @$ 3ED$4' P HE F' $ ' 3$C ' Q3&H43' F3' @H J J 3EN3 J 3E ' H&' F3' N HE ' $ED' E' $EO' C-NF' N HE ' Q41-2F ' E' 8#(% #&' H4' $!% #& ' F3' G3&3ED$E ' J $O' 1 3$D' F3' M3E34$ ' CC-3 ' $ED' 2 3' F C' N ' $ED' F3' C13N $ ' P $ 34' E' ; D3EN3 ' $ ' $EO' *4 $ ' H' Q3' F$D' F343-1HE ' $ED' E' +' , % #&' F3' G3&3ED34' J $O' EC C ' Y#' $ ' 43 3 $E ' G3&3EN3C' ' $ED' EH' I $ E &&' H4' I -4C-34' CF$ ' 43NH 34' E' $EO' C-NF' N HE' &' *3ED34' H&' C-&& N 3E ' J 3EDC' CF$ ' F$ 3' Q33E' J $D3' Q3&H43' C-NF' N HE' Q4H-2F ' H4' &' $' C-&& N 3E ' ?- J ' H&' P HE3O' CF$ ' F$ 3' Q33E' 1$ D' E H' @H-4 ' $& 34' C-NF' N HE' Q4H-2F ' QO' H4' HE' Q3F$ &' H&' F3' G3&3ED$E ' H4' G3&3ED34' ' $ED' &' E' 8#(% #&' H4' $!% #& ' $' 34D N ' CF$ ' 1$CC' &H4' F3' G3&3ED$E ' H4' F3' I $ E &&' CF$ ' Q3NH J 3' , HEC- ' H4' D CNHE E-3' $EO' C-NF' N HE' $& 34' CC-3' (H E3D ' H4' &' -1HE' G3 J -4434' H4' H F34 C3 ' 5-D2 J 3E ' CF$ ' Q3' 2 3E' 2 EC ' F3' I $ E &&(, ' 0 ' +' , % #&' F3' 34D N ' CF$ ' Q3' &H4' F3' G3&3ED34 ' H4' &' F3' I -4C-34' CF$ ' QEDHE ' F3' N HE ' H4' F3' @H-4 ' CF$ ' D C J CC' ' $C' 443 3 $E ' H4' J 14H134 O' $ D ' E' 3 34O' C-NF' @$C3' F3' G3&3ED$E ' H4' G3&3ED34' CF$ ' 43NH 34' F C' &- ' @HC C' $C' Q3 33E' H4E3O' $ED' @ 3E ' $ED' F$ 3' F3' +3' ' 3 J 3DO' &H4' F3' C$ J 3' $C' $EO' G3&3ED$E ' H4' G3R &3ED34' F$ F' QO' >$ ' E' H F34' @$C3C' ($ED' FH-2F' $' 34D N ' CF$ ' Q3' 2 3E' &H4' F3' I $ E &&' H4' I -4C-34' E' $EO' C-NF' N HE ' C-NF' I $ E &&' H4' I -4C-34' CF$ ' EH ' F$ 3' @HC C' 2 EC ' F3' G3&3ED$E ' H4' G3&3ED34 ' -E 3CC' F3' 5-D23' Q3&H43' FH J' F3' *4 $ ' CF$ ' Q3' CF$ ' N34 &O' F C' 114HQ$ HE' H&' F3' N HE' $ED' H&' F3' 34D N ' HQ $ E3D' F343-1HE

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E' N' H NHE E-3' -E ' F3' 6 & F' G$O' H&' ') '
<E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433' $ED'
&4HJ' F3EN3' H F3' ; ED' H&' F3' F3E' E3 ' ?3CC HE'
H&' I $4 $ J3E ' $E' N' H&' F3' 6 & 0 &H-4 F' =3$4' H&'
% E2' ! , (!' F3' * F 4D' &H4' 43ED34 E2' F3' I $OR
J3E ' H&' @43D H4C' JH43' 3X-$' $ED' 3 13D H-C' E'
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/ 8 ; ' ; ?' $E' N ' $C' 1$CC3D' E' F3' 6 & 0 &H-4 F' =3$4' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' M3H423' F3' * F 4D ' E - 3D' / #' / ' ' , ' !#&! #(') !' * !# ' , ' I !& , 1' , !' !V3 % ' 9T ^ ' 9P' #&' ! J5 ! & , 31' #' ?NH $ED ' F NF' N ' $C' H' NHE E-3' &H4' ?3 3E' =3$4C' &4H J' F3' * 3E 0 & & F' G$O' ?3% ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' &H-4 33E ' $ED' &4H J' F3EN3' H' F3' ; ED' H&' F3' F3E' E3 ' ?3CC HE' H&' I $4 ' ' $ 3E ' $ED' F NF' N ' $C' &-4 F34' NHE E-3D' QO' C3 34$ ' N C' 1$CC3D' E' F3' * F 4D ' 6H-4 F ' ? F ' ?3 3E F ' ; 2F F ' $ED' * 3E F' =3$4C' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' ! , (!' F3' 6H-4 F ' $ED' C' $ CH' QO' $E' N ' 1$CC3D' E' F3' 6 4C ' =3$4' H&' 8 C' 143C3E ' P $(3C 0 C' ' 3 2E' NHE E-3D' -E ' F3' 6 & F' G$O' H&' ?3% ' E' F C' 143C3E ' =3$4' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H: ED' F343$C' ' C' 3 13D 3E ' F$ ' F3' C$ D' N ' CFH- D' Q3' NHE E-3D' &H4' $' &-4 F34' * 34 J ' Q3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$ ' $ED' * 3 J 1H4$ ' $ED' @H J J HEC ' E' F C' 143C3E ' I $4 $ J 3E ' $CC3 J Q 3D ' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3' * F$ ' ' 3N 3D' N' F3' C$ D' N ' H&' F3' 6 & 0 &H-4 F' =3$4' H&' F3' ' 3 2E' H&' 8 C' C$ D' P $(3C O % E2' ! , (!' F3' * F 4D ' &H4' 43ED34 E2' F3' I $O J 3E ' H&' @43D H4C'

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J H43ʿ $EDʿ 3 13D H-Cʿ Eʿ +', % #&ʿ CF$ ʿ Q3ʿ $EDʿ F3ʿ C$ J 3ʿ C F343QOʿ J 4 F34ʿ NHE E-3Dʿ -E ʿ F3ʿ 5 & Fʿ G$Oʿ H&ʿ ') 6 # !ʿ FH-C$EDʿ 3 2F ʿ F-ED13 ʿ $EDʿ F 4 O F433 ʿ $1Dʿ &4H J ʿ F3EN3ʿ Hʿ F3ʿ ; EDʿ H&ʿ F3ʿ F3Eʿ E3 ʿ ?3CC HEʿ H&ʿ I $4 $ J 3E

N ʿ J $Oʿ Q3ʿ $ 343Dʿ F Cʿ ?3CC HE

ʿ EDʿ Q3ʿ ʿ&-4 F34ʿ 3E$N 3D ʿ * F$ ʿ F Cʿ N ʿ $EDʿ F3ʿ C$ Dʿ 43N 3Dʿ N ʿ J $Oʿ 3ʿ $ J 3ED3D ʿ $ 343D ʿ H4ʿ 4313$ 3Dʿ QOʿ $EOʿ N ʿ H4ʿ N Cʿ Hʿ Q3ʿ 1$CC3Dʿ Eʿ F Cʿ 143C3E ʿ ?3CC HEʿ H&ʿ I $4 $ J 3E

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" 4 &, !1' + # ' C # ' !# ' $ED' + # ' < 3 ' = ' $ED'
H ED3 JE &O' F3' MH 34EH4C' $ED' H F34C' H&' FHC3
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/ 8 ; ' ; ?' F3' C $EDC' H&' " 4 &, !1' + # ' C #' !# ' $ED' + #' "3' ' E' F3' !1' $#& !1' F$ 3' 43N3E O' Q33E' C 3D' F' $' J HC' H 3E ' $ED' D3C 4-N 3' 8 -44 N$E3' F343QO' F3' EF$Q $E C' H&' FHC3' C $EDC' F$ 3' 3 134 3EN3D' 34O' 243$ ' G C 43CC' E' NHEC3X-3EN3' H&' F NF' ' C' D33 J 3D' 3 13D 3E ' H' 134 J ' &H4' $' J 3D' * J 3 ' F3' J 1H4 $ HE' E H' FHC3' C $EDC' H&' >- J Q34 ' $ED' H&' 6 CF' $ED' I 4H C HEC ' G- O &433 ' Q3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$ ' $ED' * 3 J 1H4$ ' $ED' @H J J HEC ' E' F C' 143C3E ' ' I $4 $ J 3E ' $CC3 J Q 3D ' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3 ' * F$ ' &4H J' -EQ34' K3' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' >- J Q34 ' $ED' 6 CF' $ED' I 4H C HEC ' CF$ ' $ED' J $O' Q3' J 1H4 3 D' E H' F3' C$ D' C $EDC' 43C13N 3 O ' G - O ' &433 ' ' &433 ' -E ' F3' 6 4C ' G$O' H&' ? #3 ' <E3' FH-C$ED' 3 2F ' F - ED43D' $ED' F 4 O F433

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F3' MH 34EH4C' $ED' @H 3N H4C' MH434EH4C' $ED' H F34' <&& N34C' H&' F3' @-C H J C' E' F3' C$ D' 43C13N 3', C $EDC ' $ED' @H 3N H4C' KN' H&

F3ʻ @-C H J Cʻ ED3 J E & 3D

$ ʻ I 34CHECʻ F$ [34ʻ $N E2ʻ H4ʻ F$ E2ʻ $N 3Dʻ -ED34ʻ F3 4ʻ <4D34Cʻ $EDʻ G 43N HEC ʻ CF$ ʻ Q3ʻ $EDʻ $43ʻ F343QOʻ ED3 J E & 3Dʻ &H4ʻ $EOʻ <4D34Cʻ F NFʻ F3Oʻ J $Oʻ F$ 3ʻ 43C13N 3 Oʻ 2 3Eʻ -1HEʻ H4ʻ $& 34ʻ F3ʻ G$OCʻ HEʻ F NFʻ F3ʻ 8 -44 N$E3ʻ Eʻ F3ʻ C$ Dʻ 43C13N 3ʻ C $EDCʻ HH+ʻ 1 $N3 ʻ QOʻ 43$CHEʻ H&ʻ F NFʻ $EOʻ G - Oʻ F$ ʻ $Cʻ F3Eʻ 32$ Oʻ D-3ʻ $EDʻ 1$O$Q 3ʻ HEʻ F3ʻ J R 1H4 $ HEʻ E Hʻ FHC3ʻ C $EDCʻ H&ʻ > - J Q34ʻ $EDʻ / ! ' #ʻ 8 H - 4ʻ N3$C3Dʻ Hʻ Q3ʻ 3 3Dʻ $EDʻ NH 3N 3D ʻ $EDʻ &H4ʻ $EOʻ < J CC HEʻ HEʻ F3 4ʻ I $4 Cʻ Hʻ N$- 3ʻ C-NFʻ G - Oʻ Hʻ Q3ʻ 3 3Dʻ $EDʻ NH 3N 3Dʻ C EN3ʻ C-NFʻ G$OC

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ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ * F$ ʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ 8 Cʻ P $(3C O ʻ QOʻ <4D34ʻ Eʻ @H-EN ʻ Hʻ NHE E-3ʻ Eʻ &H4N3ʻ F3ʻ I 4H C HECʻ H&ʻ N ʻ -E ʻ F3ʻ 6 4C ʻ G$Oʻ H&ʻ ')ʻ 6J Y FH-C$EDʻ 3 2F ʻ F-ED43D $EDʻ 4 O F433

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8 ; ' ; ?' QO' $E' N ' J$D3' E' F3' *3E F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P$(3C O' % E2' !, (!' F3' 6H-4 F' E - 3D' /#' / ' ' ,' ' ,#1,% & !' #&' !#&')!' < F1' !% #(' ,' [M @!Y' R !#&% '+, ' ! !1' ' $C' 3E$N 3D' F$ '14H D3D' ?HN 3 3C' F3E' $ 43$DO' 3E4H 3D' CFH- D' EH ' NHE&H4 J' H' F3' I4H C HEC' H&' F$' N' F E' F3' ?1$N3' H&' *F433' =3$4C' &4H J' F3' 1$CC E2' H&' C-NF' N ' F3' C$ D' ?HN 3 3C' CFH- D' F3E' N3$C3' H' Q3' 3E 3D' H' F3' I4 323C' $ED' I4H C HEC' H&' $EO' H4' 3 F34' H&' N34 $ E' N C' F343QO' 4313$ 3D' ' Q- ' F$' F3' I4H C HEC' H&' F3' C$ D' N C' F343QO' 4313$ 3D' CFH- D' NHE E-3' E' &H4N3' $C' H' $ ' ?HN 3 3C' 3C $Q CF3D' -ED34' $EO' H4' 3 F34' H&' F3 J ' Q3&H43' F3' 1$CC E2' H&' F3' N ' EH ' E' 43N $ '&H4' F3' C$ D' ?1$N3' H&' *F433' =3$4C ' H4' -E ' F3O' CFH- D' CHHE34' NHE&H4 J' H' F3' I4H C HEC' H&' F$' N .' ED' F343$C' F3' C$ D' ?1$N3' H4' *34 J' H&' *F433' =3$4C' &4H J' F3' 1$CC E2' H&' F3' C$ D' 43N 3D' N ' ' 3 1 43' HE' F3' , E3 33E F' G$O' H&' ?3#!' EH ' E3 ' 3EC- E2' $ED' F NF' ' Q3' E' F3' N-443E ' =3$4' H&' H-4' >H4D' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' .' ED' F343$C' J$EO' 64 3ED O' ?HN 3 3C' 3 C E2' $ED' 3E4H 3D' Q3&H43' F3' 1$CC E2' H&' F3' C$ D' 43N 3D' N ' F$ 3' EH ' O3 ' NHE&H4 J 3D' H' F3' I4H C HEC' F343 E' NHE $ E3D ' $ED' ' C' 3 13D 3E ' H' 3 3ED' F3' ?1$N3' H4' *34 J' H&' *F433' =3$4C' 24$E 3D' QO' F3' C$ D' N ' H' C-NF' ?HN 3 3C' CH' H' NHE&H4 J' F343 H ' Q3' ' F343&H43

F343&H43 31$N 3D QO F3 % E2 C JHC ; N3 3E P$(3C O QO $ED F
F3 D N3 $ED @HEC3E H& F3 >H4DC ?1 4 -$ $ED *3 J 1H4$ $ED
@H J JHEC E F C 143C3E I$4 $J3E $CC3 J Q 3D $ED QO F3 - FH4 O
H& F3 C$J3 *F$ F3 *34J H4 ?1$N3 H& *F433 =3$4C 24$E 3D
H4 $ H 3D QO F3 C$D 43N 3D N H 64 3ED O ?HN 3 3C 3E4H 3D
Q3&H43 F3 1$CC E2 H& F3 C$D N &H4 NHE&H4 J E2 H F3 I4H C HEC H&
F3 C$D N CF$ Q3 3 3ED3D -E ') !% 1 G$O F NF Q3 E
F3 =3$4 H& H-4 >H4D <E3 FH-C$ED 3 2F F-ED43D $ED F 4 O &H-4
Q- F$ 14H D3D ?HN 3 3C 3E4H 3D Q3&H43 F3 1$CC E2 H& F3 C$D N
CF$ EH NHE&H4 J H F3 I4H C HEC H& F3 C$D N HE H4 Q3&H43
') !% 1 G$O E F3 C$D =3$4 H& H-4 >H4D <E3 FH-C$ED 3 2F
F-ED43D $ED F 4 O &H-4 F3E F3 C$D ?HN 3 3C CF$ F3E N3$C3 H Q3
3E 3D H F3 I4 323C $ED I4H C HEC H& $EO H4 3 F34 H& F3 N C
4313$ 3D QO F3 C$D 43N 3D N . I4H D3D E3 34 F3 3CC F$ F3 I4HR
C HEC H& F3 C3 34$ N C 4313$ 3D QO F3 C$D 43N 3D N CF$
NHE E-3 E &H4N3 $C H $?HN 3 3C 3C $Q CF3D -ED34 $EO H4 3 F34 H&
F3 J Q3&H43 F3 1$CC E2 H& F3 C$D 43N 3D N -E ') !% 1 G$O
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N $EO F E2 E F3 C$D N H F3 NHE 4$4O NHE $ E3D E $EO C3
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!# #& L!% ! ', '8 ! &% '", ' ! !1 N34 $ E ?HN 3 3C 343 3C $Q CF3D
&H4 F3 I-41HC3 H& 43 3 E2 QO H -E $4O ?-QCN4 1 HEC $ED B3E3R
&$N HEC F3 9 DH C <41F$EC $ED 6$J 3C H& F3 @ 3420 QH F H& F3
;C $Q CF3D @F-4NF $ED G CC3E 34C $ED H F34C E D C 43CC3D @ 4N- JR
C $EN3C . ED F343$C C DH-Q &- F3 F34 F3 C$D 43N 3D N H&
F3 *3E F =3$4 H& 8 C $ 3 P$(3C O 3 3EDC H C-NF ?HN 3 3C &H4
'3 J 3DO F343H& C F343QO &-4 F34 D3N $43D $ED 3E$N 3D *F$ F3
C$D 43N 3D N H& F3 *3E F =3$4 H& F3 ' 3 2E H& 8 C $ 3 P$(3C O
DH F $ED CF$ 3 3ED H $ C-NF ?HN 3 3C 3C $Q CF3D H4 H Q3
3C $Q CF3D &H4 F3 I-41HC3 $&H43C$D -ED34 - FH4 O H& F3 C$D
43N 3D N H& F3 I$4 $J3E H& $!% #& $C CHHE $C C-NF ?HN 3 3C CF$
F E+ & H @HE&H4 J H F3 I4H C HEC H& F3 C$D 43N 3D N H& F3
*3E F =3$4 H& 8 C $ 3 P$(3C O I4H D3D E3 34 F3 3CC F$ C-NF
?HN 3 3C CF$ CH NHE&H4 J F E F3 *34 J H4 ?1$N3 F343 E Q3&H43
J 3D $ED $11H E 3D &H4 ?HN 3 3C H NHE&H4 J H F3 I4H C HEC H& F3
C$D $C 43N 3D N H& F3 *3E F =3$4 H& 8 C $ 3 P$(3C O $ED EH
H F34 C3

I-Q N N 8 ED Q3 &-4 F34 3E$N 3D *F$ F C N CF$ Q3 D33 J 3D $
I-Q N N $ED CF$ 3 3ED H ! '" #+] /$!% #& $ED "! F '?'
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5-C N3C $ED H F34 I34CHEC F$ CH3 34 FH- F3 C$J3 Q3 E2
C13N $ O CFH E H4 1 3$D3D

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J 3E ʻ F3ʻ N Cʻ &H4ʻ F3ʻ ' 3 3&ʻ H&ʻ ECH 3E ʻ G3Q H4Cʻ
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9 8 ; ' ; ?ʻ $Eʻ N ʻ $Cʻ 1$CC3Dʻ Eʻ F3ʻ ?3CC HEʻ H&ʻ I $4 $ J 3E ʻ
FH D3Eʻ Eʻ F3ʻ 6 4C ʻ $EDʻ ?3NHEDʻ = 3$4Cʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ
$ 3ʻ P $(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ 6H - 4 F ʻ E - 3Dʻ / #ʻ / ' ʻ , ʻ ʻ KUM ʻ ʻ
) !ʻ L ! % ! ʻ, ʻ$#1, %0!# ʻ 2 !4 , 1ʻ #ʻ 43 $EDʻ Hʻ NHE E - 3ʻ Eʻ &H4N3ʻ &H4ʻ Nʻ !Vʻ
$ʻ N34 $ Eʻ * J 3ʻ F343 Eʻ J 3D ʻ $EDʻ F3ʻ C$ Dʻ N ʻ $Cʻ $ J 3ED3Dʻ QOʻ
$EH F34ʻ N ʻ 1$CC3Dʻ Eʻ F3ʻ * F 4Dʻ = 3$4ʻ H&ʻ F3ʻ C$ J 3ʻ ' 3 2E ʻ $EDʻ QH Fʻ
F3ʻ C$ Dʻ N Cʻ 343ʻ NHE E - 3Dʻ QOʻ $EH F34ʻ N ʻ J $D3ʻ Eʻ F3ʻ ?3 3E Fʻ
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N Cʻ H&ʻ F3ʻ 6 4C ʻ $EDʻ ?3NHEDʻ $EDʻ * F 4Dʻ = 3$4Cʻ H&ʻ F3ʻ C$ J 3ʻ ' 3 2Eʻ
343ʻ $ J 3ED3Dʻ $EDʻ & - 4 F34ʻ NHE E - 3D ʻ$EDʻ F3ʻ C$ J 3ʻ CHʻ $ J 3ED3Dʻ 343ʻ QOʻ
$Eʻ N ʻ J $D3ʻ Eʻ F3ʻ 6 4C = 3$4ʻ H&ʻ 8 Cʻ 143C3E ʻ P $(3C O Cʻ ' 3 2Eʻ & - 4 F34ʻ ʻ
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Eʻ N34 $ Eʻ @$C3Cʻ F343 Eʻ C13N & 3D ʻ Hʻ Q3ʻ 3E 3Dʻ Hʻ F3ʻ B3E3& ʻ H&ʻ F3ʻ
N Cʻ &H4ʻ F3ʻ ' 3 3&ʻ H&ʻ ECH 3E ʻ G35(H4Cʻ Eʻ $! % #& ʻ EDʻ F343$Cʻ
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ʻ3N 3D N C NHE E-3D E &H4N3 &H4 <E3 =3$4

C 3 13D 3E ʻ F$ ʻ F3 C$ D N C &H4 F3 ' 3 3& H& ECH 3E ʻ G3Q H4C CFH- D Q3 &-4 F34 NHE E-3D. B3 ʻ F343&H43 3E$N 3D QO F3 % E2 C J HC ʻ ; N3 3E ʻ P $(3C O ʻ QO $ED F F3 DO N3 $ED @HEC3E ʻ H& F3 >H4DC ?1 4 -$ ʻ $ED *3 J 1H4$ ʻ $ED @H J J HEC ʻ E F C 143C3E ʻ I $4 $R J 3E ʻ $CC3 J Q 3D ʻ $ED QO F3 - FH4 O H& F3 C$ J 3 ʻ * F$ ʻ F3 C$ D 43N 3D ʻ N ʻ H& F3 6 4C ʻ $ED ?3NHED =3$4C H& F3 ' 3 2E H& 8 C $ 3 P $(3C O ʻ $C F3 C$ J 3 C $ J 3ED3D QO F3 C$ D 43N 3D N C H& F3 * F 4D $ED * 3E F =3$4C H& F3 C$ J 3 ' 3 2E ʻ $ED C$ 3 $ED 3 N31 ʻ $C $EO I 4H R C HEC F343H& J $O Q3 4313$ 3D ʻ H4 H F34 I 4H C HEC C-QC - 3D F343&H4 ʻ QO F3 C$ D 43N 3D N ʻ H& F3 6 4C ʻ $ED ?3NHED =3$4C H& 8 C 143C3E ʻ P $(3C O C ' 3 2E ʻ CF$ ʻ Q3 NHE E-3D ʻ $ED F3 C$ D 43N 3D N C H& F3 6 4C ʻ $ED ?3NHED ʻ * F 4D ʻ $ED * 3E F =3$4C H& F3 ' 3 2E H& 8 C $ 3 P $(3C O ʻ $ED C-NF I $4 C H& F3 C$ D 43N 3D N ʻ H& F3 6 4C ʻ $ED ?3NHED =3$4 H& F3 ' 3 2E H& 8 C 143C3E ʻ P $(3C O $C 43 $ 3C H F3 >$ ʻ &H4 ' 3 3& H& ECH 3E ʻ G3Q H4C ʻ CF$ ʻ Q3 $ED F3 C$ J 3 $43 F343QO NHER E-3D $NNH4D E2 O ʻ &H4 <E3 =3$4 &4H J ʻ F3 1$CC E2 H& F C N ʻ $ED F3EN3&H4 F -E ʻ F3 ; ED H& F3 F3E E3 ʻ ?3CC HE H& I $4 $ J 3E

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C-11HC3Dʽ '3C D3EN3ʽ H&ʽ F3ʽ I$4 Oʽ G3&3ED$E ʽ H4ʽ F343 Eʽ F3ʽ G3&3ER D$E ʽ CF$ ʽ Q3ʽ H4ʽ CF$ ʽ Q3ʽ C-11HC3Dʽ Hʽ Q3ʽ CF$ ʽ Q3ʽ J3E HE3Dʽ($EDʽ C-NQʽ 9 4 ʽ CF$ ʽ Q3ʽ CC-3Dʽ QOʽ F3ʽ <&& N34ʽ H&ʽ F3ʽ C$ Dʽ @H-4 Cʽ 43C13NR 3 Oʽ QOʽ FH Jʽ I4HN3CCʽ C34 N3$Q 3ʽ Eʽ F3ʽ @H-E Oʽ F343 Eʽ J3E HE3Dʽ F$ Fʽ Q33Eʽ F343 H&H43ʽ CC-3Dʽ &4H Jʽ C-NFʽ @H-4 ʽ $EDʽ 3 340ʽ C-NFʽ 9 4 ʽ J$Oʽ Q3ʽ C34 3Dʽ Eʽ F3ʽ P$EE34ʽ F343 H&H43ʽ -C3Dʽ Eʽ F3ʽ @H-E Oʽ F343 Eʽ J3 HE3Dʽ H4ʽ F Eʽ * Hʽ F-ED43Dʽ =$4DCʽ H&ʽ F3ʽ BH4D34ʽ F343H&ʽ $EDʽ EH ʽ 3C3 F343ʽ $EDʽ F3ʽ I34CHEʽ C34 E2ʽ F3ʽ C$J3ʽ CF$ ʽ $EDʽ Cʽ F343QOʽ 43X- 43Dʽ Hʽ EDH4C3ʽ HEʽ F3ʽ 9 4 ʽ F3ʽ G$Oʽ H&ʽ F3ʽ PHE Fʽ $EDʽ 9 33+ʽ H&ʽ F3ʽ ?34 N3ʽ F343H&

PHD3ʽ H&ʽ 113$4$EN3ʽ Hʽ C34 N3$Q 3ʽ I4HN3CC

ʽ EDʽ Q3ʽ ʽ &-4 F34ʽ 3E$N 3Dʽ *F$ ʽ F3ʽ PHD3ʽ H&ʽ 113$4$EN3ʽ Hʽ 3 340ʽ C-NFʽ 9 4 ʽ H4ʽ -ED34ʽ F3ʽ - FH4 Oʽ H&ʽ F Cʽ N ʽ CF$ ʽ Q3ʽ QOʽ D3 34 E2ʽ $ʽ P3J H4$ED- Jʽ Eʽ 9 4 E2ʽ $NNH4D E2ʽ Hʽ F3ʽ 6H4 Jʽ NHE $ E3Dʽ Eʽ F3ʽ C$ Dʽ ?NF3D- 3ʽ $EDʽ J$4+3Dʽ , H ʽU ʽ C-NFʽ P3J H4$ER D- Jʽ Hʽ Q3ʽ D3 343Dʽ Hʽ C-NFʽ <&& N34ʽ H4ʽ I34CHEʽ $Cʽ F3ʽ @H-4 ʽ H- ʽ H&ʽ F NFʽ F3ʽ I4HN3CCʽ CC-3Dʽ CF$ ʽ D 43N ʽ $EDʽ Hʽ Q3ʽ D$ 3Dʽ HEʽ F3ʽ G$Oʽ H&ʽ F3ʽ G3 340ʽ F343H&

113$4$EN3 9$Oʽ Q3ʽ 3E ʽ &H43 3Dʽ QOʽ 9 4 ʽ H&ʽ G CR 4 E2$Cʽ Eʽ 3$C3ʽ $ʽ G3 ʽ &3ED$E ʽ N$ER EH ʽ Q3ʽ C34 3Dʽ Fʽ F3 9 4 ʽ H&ʽ ?- J J HEC

ʽ EDʽ Q3ʽ ʽ &-4 F34ʽ 3E$N 3Dʽ *F$ ʽ Eʽ N$C3ʽ ʽ CF$ ʽ Q3ʽ J$D3ʽ $113$4ʽ QOʽ && D$ ʽ Hʽ F3ʽ ?$ C&$N HEʽ H&ʽ F3ʽ @H-4 ʽ H- ʽ H&ʽ F NFʽ F3ʽ I4HN3CCʽ CC-3D ʽ H4 ʽ Eʽ N HE ʽ H&ʽ $EOʽ 5-D23ʽ H&ʽ 3 F34ʽ H&ʽ F3ʽ C$ Dʽ @H-4 Cʽ F$ ʽ $EOʽ G3&3ED$E ʽ F$Cʽ EH ʽ Q33Eʽ 134CHE$ Oʽ C34 3Dʽ Fʽ $EOʽ C-NFʽ 9 4 ʽ H&ʽ ?- J J HECʽ $Cʽ F343 E Q3&H43ʽ J3E HE3D ʽ $EDʽ F$Cʽ EH ʽ $NNH4D E2ʽ Hʽ F3ʽ ; 23ENOʽ F343H&ʽ $113$43Dʽ Hʽ F3ʽ N HE ʽ $EDʽ N$EEH ʽ Q3ʽ NH J13 3Dʽ CHʽ Hʽ DHʽ FH- ʽ CH J3ʽ J H43ʽ 3&& N$N H-Cʽ I4HN3CC ʽ F3Eʽ $EDʽ Eʽ $EOʽ C-NFʽ @$C3ʽ ʽ CF$ ʽ Q3ʽ $ &- ʽ &H4ʽ C-NFʽ @H-4 ʽ H4ʽ 5-D23ʽ Hʽ H4D34ʽ $ʽ 9 4 ʽ H&ʽ G C 4 E2$Cʽ Hʽ Q3ʽ CC-3D ʽ D 43N 3Dʽ Hʽ F3ʽ ?F34 &&ʽ H&ʽ F3ʽ @H-E Oʽ F343 Eʽ F3ʽ G 3 E2ʽ 8H-C3ʽ H4ʽ I $N3ʽ H&ʽ QHD3ʽ H&ʽ C-NFʽ G3&3ED$E ʽ CF$ ʽ Q3ʽ C -$ 3ʽ H4ʽ Hʽ F3ʽ ?F34 &&ʽ H&ʽ $EOʽ H F34ʽ @H-E O ʽ H4ʽ Hʽ $EOʽ H F34ʽ <&& N34ʽ Hʽ Q3ʽ E$J 3Dʽ QOʽ C-NFʽ @H-4 ʽ H4ʽ 5-D23 ʽ Eʽ H4D34ʽ Hʽ NH J13 ʽ F3ʽ 113$4$EN3ʽ H&ʽ C-NFʽ G3&3ED$E ʽ F NFʽ 9 4 ʽ H&ʽ G C 4 E2$Cʽ CF$ ʽ Q3ʽ Eʽ F3ʽ 6H4 J ʽ $EDʽ Fʽ F3ʽ , H N3ʽ C-QCN4 Q3Dʽ F343 H ʽ J3ER HE3Dʽ Eʽ F3ʽ ?NF3D- 3ʽ Hʽ F Cʽ N ʽ J$4+3Dʽ , H ʽS ʽ F NFʽ 9 4 ʽ H&ʽ G C 4 E2$Cʽ $EDʽ , H N3 ʽ H4ʽ $ʽ @H1Oʽ F343H&(CF$ ʽ Q3ʽ C34 3Dʽ HEʽ C-NFʽ G3&3ED$E ʽ &ʽ Q3ʽ N$Eʽ Q3ʽ J3 ʽ F ʽ H4ʽ &ʽ EH ʽ CF$ ʽ Q3ʽ 3& ʽ $ʽ F3ʽ I $N3ʽ F343ʽ C-NFʽ G C 4 E2$Cʽ CF$ ʽ Q3ʽ 3 3N- 3D ʽ $EDʽ $ʽ 4-3ʽ @H1Oʽ H&ʽ 3 340ʽ C-NFʽ 9 4 ʽ $EDʽ , H N3ʽ CF$ ʽ Q3ʽ D3 343Dʽ H23 F34ʽ F343 Fʽ Hʽ F3ʽ ?F34 &&ʽ ,J H F34ʽ <&& N34ʽ Hʽ FH Jʽ C-NFʽ 9 4 ʽ CF$ ʽ Q3ʽ D 43N 3D ʽ $EDʽ 3 340ʽ C-NFʽ 9 4 ʽ CF$ ʽ Q3ʽ J$D3ʽ 43 -4E$Q 3ʽ HEʽ CH J3ʽ G$Oʽ Eʽ *34 J ʽ EH ʽ Q3 E2ʽ 3CCʽ F$Eʽ 6 & 33Eʽ G$OCʽ $& 34ʽ F3ʽ *3C 3ʽ F343H&ʽ $EDʽ CF$ ʽ Q3$4ʽ *3C 3ʽ HEʽ F3ʽ G$Oʽ H&ʽ F3ʽ CC- E2ʽ F343H&ʽ F3 F34ʽ Eʽ *34 Jʽ H4ʽ Eʽ N HE ʽ $EDʽ &ʽ C-NFʽ 9 4 ʽ H&ʽ G C 4 E2$Cʽ CF$ ʽ Q3ʽ 43 -4E3Dʽ , HEʽ 3C ʽ E 3E -Cʽ $EDʽ , - $ʽ QHE$ ʽ $EDʽ F3ʽ I$4 Oʽ C- E2ʽ H- ʽ C-NFʽ 9 4 ʽ CF$ ʽ EH ʽ E 3EDʽ Hʽ 14HN33Dʽ Hʽ <- $ 40ʽ H4ʽ 9$ 34ʽ $NNH4D E2ʽ Hʽ F3ʽ - FH4 Oʽ F343 E $& 34ʽ 2 3E ʽ $EDʽ $EOʽ G3&3ED$E ʽ 2 ECʽ FH J ʽ C-NFʽ 9 4 ʽ H&ʽ G C 4 E2$Cʽ CC-3Dʽ CF$ ʽ EH ʽ $113$4ʽ ʽ H4ʽ F Eʽ ; 2F ʽ G$OCʽ EN -C 3ʽ $& 34ʽ F3ʽ '3 -4Eʽ F343H&ʽ $EDʽ ʽ CF$ ʽ Q3ʽ J$D3ʽ $113$4ʽ QOʽ && D$ ʽ Hʽ F3ʽ ?$ C&$N HEʽ H&ʽ F3ʽ @H-4 ʽ H- ʽ H&ʽ F NFʽ C-NFʽ 9 4 ʽ H&ʽ G C 4 E2$Cʽ CC-3D ʽ H4ʽ Eʽ N HE ʽ H&ʽ $EOʽ 5-D23ʽ H&ʽ 3 F34ʽ H&ʽ F3ʽ $$ Dʽ @H-4 C ʽ F$ ʽ D-3ʽ $EDʽ 14H134ʽ P3$ECʽ 343ʽ $+3Eʽ $EDʽ -C3Dʽ D C34 3 $EDʽ 3 3N- 3ʽ C-NFʽ 9 4 ʽ H&ʽ G C 4 E2$C ʽ ʽ CF$ ʽ Q3ʽ $ &- ʽ &H4 C-NF @H-4 ʽ H4ʽ 5-D23 Hʽ $- FH4 T3ʽ F3ʽ I$4 Oʽ C- E2ʽ H- ʽ C-NFʽ 9 4 ʽ

H' 3E 34' $ ' 113$4$EN3' &H4' C-NF' G3&3ED$E ' $ED' H' 14HN33D' F343HE'
H' 5-D2 J 3E ' $ED' ; 3N- HE

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' E' $ ' C-NF' N HEC' F343 E' ' B$ $Q 3'
CF$ ' Q3' E 3ED3D' H' $443C ' $ED' FH D' $EO' I 34CHE' H' ?13N $ ' B$ ' FH' I 4HN3CC' &H4'
J $O' EH ' Q3' E' F3' @-C HDO' H&' F3' P $4CF$ ' H&' F3' P $4CF$ C3$' H&
F3' @H-4 ' H&' % E2 C' B3ENF' H4' H&' F3' 9 $4D3E' H&' F3' R%! ! ' I 4 CHE ' F3' H&' I 34CHE$'
I 4HN3CC' CF$ ' Q3' QO' 9 4 ' H&' @$1 $C' $NNH4D E2' H' F3' 6H4 J ' NHE $ E3D' N HEC'
E' F3' C$ D' ?NF3D- 3' $ED' J $4+3D' , H ' & ' $ED' CH' J $EO' @H1 3C' H&' C-NF'
I 4HN3CC' H23 F34' F' 3 340' P 3 J H4$ED- J' H4' , H N3' C-QCN4 Q3D'
F343 H ' $ED' $ ' EDH4C3 J 3E C' F343HE' $C' F343' J $O' Q3' I 34CHEC'
E 3ED3D' H' Q3' $443C 3D' F343HE' H4' C34 3D' F343 F ' CF$ ' Q3' D3 343D'
F343 F' H' F3' ?F34 &&' H4' H F34' <&& N34' H4' I 34CHE' H' FH J ' F3' C$ J 3'
J $O' Q3' D 43N 3D' H4' FH' J $O' F$ 3' F3' ; 3N- HE' $ED' ' 3 -4E' F343H&' '
$ED' FH' CF$ ' -1HE' H4' &H4 F F' $& 34' F3' ; 3N- HE' H&' C-NF' I 4HN3CC'
N$-C3' <E3' C-NF' @H1O' H' Q3' D3 343D' H' 3 340' I 34CHE' -1HE' FH J'
C-NF' I 4HN3CC' CF$ ' Q3' 3 3N- 3D' QO' F J ' F3 F34' QO' ?34 N3' H4' 443C '
$ED' CF$ ' EDH4C3' HE' C-NF' 9 4 ' F3' 4-3' G$O' H&' F3' ; 3N- HE' F343H&'
F3 F34' QO' ?34 N3' H4' 443C ' $ED' &' $EO' G3&3ED$E ' Q3' $+3E' H4'
NF$423D' E' @-C HDO' -1HE' $EO' C-NF' I 4HN3CC' $ED' J 14 CHE3D' &H4' 9 $E '
H&' ?-43 3C' &H4' F C' 113$4$EN3' F343 H ' F3' I $ E &&' E' C-NF' I 4HN3CC'
J $O ' Q3&H43' F3' ; ED' H&' F3' E3 ' * 34 J ' $& 34' F3' G3 $ E34' H4'
443C ' H&' C-NF' G3&3ED$E ' D3N $43' 2 EC ' C-NF' G3&3ED$E ' $ED'
14HN33D' F343HE' E' F3' P $EE34' $ED' $NNH4D E2' H' F3' G 43N HEC'
NHE $ E3D' E' $' N34 $ E' N ' H&' I $4 $ J 3E ' J $D3' E' F3' 6H-4 F' $ED'
6 & F' =3$4C' H&' F3' ' 3 2E' H&' % E2' %% ' $ED' \ -33E' ' E R
- 3D' / #' / ' ' , ' &!% 0! #(' 2 ! '% ,#1' (#1 ' * 1 ,#! 1 ' I 4H D3D' K!' 9 KP'
$ $OC ' F$ ' ' CF$ ' Q3' $ &- ' &H4' F3' I $ E &&' H4' F C' H4E3O' H' N' '
H4D34' F3' ?F34 &&' H4' H F34' <&& N34' H&' I 34CHE' H' FH J ' C-NF' 9 4 '
CF$ ' Q3' D 43N 3D' H' $443C ' <E3' H4' J H43' HE O' H&' F3' G3&3ED$E C'
F343 E' E$ J 3D ' $ED' H' C34 3' $' @H1O' F343H&' HE' <E3' H4' J H43' H&'
F3' H F34C ' F NF' <4D34' CF$ ' Q3' D- O' HQ3O3D' QO' C-NF' ?F34 &&' H4' H F34'
<&& N34' H4' I 34CHE' ' $ED' C-NF' ?34 N3' CF$ ' Q3' H&' F3' C$ J 3' 6H4N3' $ED'
; &&3N ' $C' 43' ?34 N3H&' F3' 9 4 ' H&' ?- J J HEC' F343 E Q3&H43' J 3E HE3D '
$ED' EH' H F34

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' -1HE' F3' ' 3 -4E' H&' , HE' 3C ' I 4HN33D E2C'
E 3E -C' $C' H' $EO' G3&3ED$E ' 2 EC ' FH J ' C-NF' 9 4 ' H&' @$1 $C' CF$ ' <- $ 40'
F$ 3' Q33E' CC-3D' $ED' $ CH' -1HE' F3' ' 3 -4E' H&' , HE' 3C ' E 3E -C
$ED' , - $' QHE$' $C' H' $EO' G3&3ED$E ' 2 EC ' FH J ' C-NF' 9 4 ' H&'
G C 4 E2$C' $C' F343 E Q3&H43' J 3E HE3D' CF$ ' F$ 3' CC-3D' F3 F34'
C-NF' 9 4 ' H&' @$1 $C' H4' G C 4 E2$C' CF$ ' F$ 3' CC-3D' 2 EC ' C-NF'
G3&3ED$E ' HE O ' H4' 2 EC ' C-NF' G3&3ED$E ' $ED' $EO' H F34' I 34CHE' H4'
I 34CHEC' ' CF$ ' Q3' $ &- ' -E ' H F34 C3' 14H D3D' &H4 ' H' 14HN33D'
H' H- $ ' H4' $ 3' C-NF' G3&3ED$E ' QO' 9 4 C' H&' ; 2 ' &$N $C' $ED'
I 4HN $ J $ HE ' $ED' H F34 C3 ' E' C-NF' $ED' F3' C$ J 3' P $EE34' $C' J $O'
EH ' Q3' $ &- O' DHE3' -1HE' F3' ' 3 -4E' H&' , HE' 3C ' E 3E -C' H' $
I -4 3C' 9 4 ' H&' @$1 $C' $D' 43C1HED3ED- J ' CC-3D' $& 34' $E' <4 2 E$'
9 4 ' I 4H D3D' $ $OC ' F$ ' 3 340' C-NF' 9 4 ' H&' ; 23E ' I 4HN $ J $R
HE ' $ED' H F34' 9 4 ' C-QC3X-3E ' H' F3' 9 4 ' H&' @$1 $C' H4' G C 4 E2$C '
CF$ ' Q3' J $D3' 43 -4E$Q 3' HE' $' G$O' N34 $ E' E' * 34 J ' ' $ED' 3 340' C-NF'
& 4C ' 9 4 ' H&' ; 23E ' $ED' I 4HN $ J $ HE' CF$ ' Q3$4' * 3C 3' HE' F3' G$O' H&'
F3' ' 3 -4E' H&' F3' 9 4 ' H&' @$1 $C' H4' G C 4 E2$C ' F3 F34' C-NF' 9 4
Q3

Q3ʼ43 -4E3Dʼ Eʼ *34Jʼ H4ʼ Eʼ N HE ʼ $EDʼ 3 34Oʼ C-QC3X-3E ʼ 9 4 ʼ H&ʼ ; 23E ʼ $EDʼ I4HN J HEʼ CF$ ʼ Q3$4ʼ *3C 3ʼ HEʼ F3ʼ G$Oʼ H&ʼ F3ʼ ʼ3 -4Eʼ H&ʼ F3ʼ E3 ʼ 143N3D E2ʼ 9 4 ʼ $EDʼ EHʼ C-NFʼ 9 4 ʼ H&ʼ @$1 $Cʼ H4ʼ G C 4 E2$Cʼ CF$ ʼ Q3ʼ C-&& N 3E ʼ&H4ʼ F3ʼ I -41HC3ʼ H&ʼ <- $ 4Oʼ H4ʼ 9 $ 34ʼ &ʼ F3ʼ C$J3ʼ Q3ʼ 43 -4E3Dʼ F Eʼ 3CCʼ F$Eʼ 6 & 33Eʼ G$OCʼ $& 34ʼ F3ʼ G3 34Oʼ F343H&ʼ Hʼ F3ʼ ?F34 &&ʼ H4ʼ H F34ʼ <&& N34ʼ Hʼ FHJʼ F3ʼ C$J3ʼ CF$ ʼ Q3ʼ D 43N 3D

14HN33D E2Cʼ Hʼ <- C 4Oʼ J$Oʼ Q3ʼ F$Dʼ $& 34ʼ 5 D2ʼ J3Eʼ 2 3Eʼ -ED34ʼ F3ʼ - FH4 Oʼ H&ʼ FCʼ N

ʼ EDʼ Q3ʼ ʼ &-4 F34ʼ 3E$N 3D ʼ *F$ ʼ $& 34ʼ 5-D2J3E ʼ 2 3Eʼ Eʼ $EOʼ N HEʼ NHJ J3EN3Dʼ QOʼ 9 4 ʼ H&ʼ ?-J JHECʼ H4ʼ @$1 $Cʼ -ED34ʼ F3ʼ FH4 Oʼ H&ʼ FCʼ N ʼ I4HN33D E2Cʼ Hʼ <- $ 4Oʼ H4ʼ 9 $ 34ʼ J$Oʼ Q3ʼ F$Dʼ $EDʼ $+3E ʼ $EDʼ 5-D2J3E ʼ H&ʼ <- $ 4Oʼ H4ʼ 9 $ 34ʼ 2 3E ʼ Eʼ C-NFʼ P$EE34ʼ $EDʼ Eʼ C-NFʼ @$C3Cʼ $Cʼ J$Oʼ EH ʼ Q3ʼ $ &- Oʼ DHE3ʼ $& 34ʼ 5-D2R J3E ʼ Eʼ $Eʼ N HEʼ NHJ J3EN3Dʼ QOʼ <4 2 E$ ʼ 9 & ʼ I4H D3Dʼ $ $OCʼ F$ ʼ 3 34Oʼ <- $ 4Oʼ H4 ʼ 9 $ 34ʼ F$Dʼ -ED34ʼ F3ʼ - FH4 Oʼ H&ʼ FCʼ N ʼ CF$ ʼ $EDʼ J$Oʼ Q3ʼ N 3Dʼ H4ʼ C3 ʼ $C D3ʼ QOʼ 9 4 ʼ H&ʼ ; 44H4ʼ H4ʼ P H HE ʼ Eʼ +3ʼ P$EE34ʼ $Cʼ <- $ 4Oʼ H4ʼ 9 $ 34ʼ &H-ED3Dʼ HEʼ $Eʼ <4 2 E$ ʼ 9 4 ʼ J$Oʼ EH ʼ Q3ʼ N 3Dʼ H4ʼ C3 ʼ $C D3

6 $T34ʼ Hʼ Q3ʼ $11H E 3Dʼ Eʼ F3ʼ @H-4 ʼ H&ʼ ; NF3X-34

ʼ EDʼ Q3ʼ ʼ &-4 F34ʼ 3E$N 3D ʼ *F$ ʼ &H4ʼ F3ʼ I -41HC3 ʼ H&ʼ 14H ʼ N33D E2ʼ Hʼ <- $ 4Oʼ $EDʼ 9 $ 34 -1HEʼ C-NFʼ 9 4 Cʼ H&ʼ @$1 $Cʼ H4ʼ G C 4 E2$Cʼ 43 -4E$Q 3ʼ Eʼ F3ʼ @H-4 ʼ H&ʼ ; NF3X-34 ʼ ʼ CF$ ʼ $EDʼ J$Oʼ Q3ʼ $ &- ʼ &H4ʼ F3ʼ >H4Dʼ @F 3&ʼ B$4HEʼ H&ʼ F3ʼ C$Dʼ @H-4 ʼ $EDʼ F3ʼ Cʼ F343QOʼ 43X- 43D ʼ Hʼ $11H E ʼ &4HJ ʼ * J3ʼ Hʼ * J3ʼ $ʼ & ʼ I34CHE ʼ FH D E2ʼ CHJ3ʼ H F34ʼ <&& N3ʼ Eʼ F3ʼ C$Dʼ @H-4 ʼ Hʼ 3 3N- 3ʼ F3ʼ G- 3Cʼ H&ʼ $ʼ 6 $T34 ʼ ; 23E 34 ʼ $EDʼ @ 34+ʼ H&ʼ F3ʼ <- $ 4 3Cʼ Eʼ F3ʼ C$J3ʼ @H-4

PHD3ʼ H&ʼ D3 $ E E2ʼ $ I4 CHE34ʼ Eʼ F3ʼ @-C HDOʼ H&ʼ F3ʼ P$4R CF$ ʼ H4ʼ H&ʼ F3ʼ 9 $4D3Eʼ H&ʼ F3ʼ 6 33

ʼ EDʼ Q3ʼ ʼ &-4 F34ʼ 3E$N 3D ʼ *F$ ʼ F3Eʼ ʼ CF$ ʼ Q3ʼ E 3ED3Dʼ Hʼ D3 $ Eʼ Eʼ $EOʼ C-NFʼ N HEʼ $EOʼ I34CHEʼ Q3 E2ʼ Eʼ F3ʼ @-C HDOʼ H&ʼ F3ʼ P$4CF$ ʼ H&ʼ F3ʼ P$4CF$ C3$ʼ H&ʼ F3ʼ @H-4 ʼ H&ʼ % E2 Cʼ B3ENFʼ H4ʼ H&ʼ F3ʼ 9 $4D3Eʼ H&ʼ F3ʼ R%!! ʼ I4 CHE ʼ F3ʼ I4HN3CCʼ H&ʼ G3 $ E34ʼ CF$ ʼ Q3ʼ $NNH4DR E2ʼ Hʼ F3ʼ 6H4J ʼ H&ʼ F3ʼ 9 4 ʼ H&ʼ G3 $ E34ʼ NHE $ E3Dʼ Eʼ F3ʼ C$Dʼ ?NF3D- 3ʼ $EDʼ J$4+3Dʼ , H ʼ ! ʼ ʼ $EDʼ $ʼ @H1Oʼ H&ʼ C-NFʼ I4HN3CC ʼ $EDʼ H&ʼ $ ʼ EDH4C3J3E Cʼ F343HE ʼ CF$ ʼ Q3ʼ D3 343Dʼ H23 F34ʼ Fʼ C-NFʼ I4HN3CCʼ Hʼ F3ʼ C$Dʼ P$ CF$ ʼ H4ʼ 9 $4D3Eʼ Hʼ FHJʼ F3ʼ C$J3ʼ CF$ ʼ Q3ʼ D 43N 3D ʼ $EDʼ FHʼ CF$ ʼ &H4 F Fʼ C34 3ʼ C-NFʼ @H1Oʼ -1HEʼ F3ʼ G3&3ED$E ʼ 134CHE$ Oʼ H4ʼ 3$ 3ʼ F3ʼ C$J3ʼ $ ʼ F Cʼ ʼHHJ ʼ >HD2 E2 ʼ H4ʼ H F34ʼ I $N3ʼ H&ʼ QHD3ʼ ($EDʼ C-NFʼ I4HN3CCʼ J$Oʼ CC-3ʼ &4HJ ʼ 3 F34ʼ H&ʼ F3ʼ C$Dʼ @H-4 Cʼ $EDʼ F3ʼ G3N 4 HEʼ F343-1HEʼ CF$ ʼ $EDʼ J$Oʼ $ 323ʼ F3ʼ I4 CHE34ʼ Hʼ Q3ʼ Eʼ F3ʼ @-C HDOʼ H&ʼ F3ʼ C$Dʼ P$4CF$ ʼ H4ʼ 9 $4D3E ʼ $Cʼ F3ʼ 6$N ʼ J$Oʼ Q3 ʼ $EDʼ F3ʼ I4HN33D E2Cʼ CF$ ʼ Q3ʼ $Cʼ 2 ECʼ I4 CHE34Cʼ Eʼ F3ʼ @-C HDOʼ H&ʼ F3ʼ ?F34 &&ʼ -E 3CCʼ H F34 C3ʼ H4D343Dʼ QOʼ CHJ3ʼ ʼ- 3ʼ Hʼ Q3ʼ J$D3ʼ QOʼ F3ʼ 5-D23Cʼ H&ʼ F3ʼ C$Dʼ @H-4 C

PHD3ʼ H&ʼ I4HN33D E2ʼ 2 EC ʼ $ P3JQ34ʼ H&ʼ I$4 $J3E ʼ Hʼ 3E&H4N3ʼ F3ʼ ? $ ʼY M ʼ

W ʼ EDʼ Q3ʼ ʼ &-4 F34ʼ 3E$N 3D ʼ *F$ ʼ Eʼ $ ʼ C-NFʼ N HECʼ F343 Eʼ ʼ CF$ ʼ Q3ʼ E 3ED3Dʼ Hʼ 14HN33Dʼ 2 EC ʼ $ʼ P3JQ34ʼ H&ʼ I$4 $J3E ʼ $NNH4D E2ʼ Hʼ F3ʼ I4H CHECʼ H&ʼ F3ʼ C$Dʼ ? $ - 3ʼ J$D3ʼ Eʼ F3ʼ ? Fʼ =3$4ʼ H&ʼ F3ʼ ʼ3 2Eʼ H&ʼ 8 Cʼ $ 3ʼ P$(3C Oʼ % E2ʼ !, (!ʼ F3ʼ 6H-4 F ʼ F3ʼ I4HN3CCʼ CF$ ʼ Q3ʼ $NNH4D E2ʼ Hʼ F3ʼ 6H4J ʼ NHE $ E3Dʼ Eʼ F3ʼ C$Dʼ ?NF3D- 3ʼ J$4+3Dʼ , H ʼ Y ʼ $EDʼ F NFʼ I4HN3CCʼ $EDʼ $ʼ @H1Oʼ F343H&ʼ CF$ ʼ Q3ʼ Eʼ 3-ʼ H&ʼ F3ʼ ?-J JHEC ʼ H4ʼ <4 2 E$ ʼ B ʼ $EDʼ ?-J JHEC ʼ $EDʼ @H1Oʼ F343H&ʼ J3E HE3Dʼ Eʼ F3ʼ C$Dʼ ? $ - 3

W ʼ ED

W ' ED'Q3' ' &-4 F34'3E$N 3D' *F$' EH' 9 4 ' CC-3D' QO' - FH4 O' G-4$ HE'H&' H&' F C' N ' CF$ ' Q3' E' &H4N3' &H4' J H43' F$E' 6H-4' @$ 3ED$4' P HE FC' 94 C' &4H J' F3' G$O' H&' F3' G$ 3' F343H&' EN -D E2' F3' G$O' H&'C-NF' G$ 3' Q- ' 3 34O' 9 4 ' H&'?- J $HEC' $ED' @$1 $C' J $O' Q3' NHE E-3D' QO' $C' $ED' I -4 3C' $C' F3' @$C3' J $O' 43X- 43' &'$EO' G3&3ED$E ' F343 E' E$ J 3D' J $O' EH ' F$ 3' Q33E' $443C 3D' F343HE' H4' C34 3D' F343 F.' I4H D3D' I4H CH $C H' $ $OC ' $ ' EH' & 4C ' 9 4 ' CF$ ' Q3' $ $ $Q 3' H' 143 3E ' F3' <134$ HE' ?$ - 3' H&' H&' $EO' ? $ - 3' F343QO' F3' * J 3' &H4' F3' @H J J 3EN3 J 3E ' H&' F3' N HE' J $O' Q3' J 3D' '-E 3CC' F3' G3&3ED$E ' CF$ ' Q3' $443C 3D' F343HE' H4' C34 3D' F343 F' H4' I4HN33D E2C' H' H4' H $4D' <- $ 4O' CF$ ' Q3' F$D' F343-1HE' H4' -E 3CC' C-NF' 9 4 ' $ED' 3 34O' 9 4 ' ^ &' $EO_' CC-3D' E' NHE E-$ HE' H&'$' 143N3D E2' 9 4 ' CF$ ' Q3' 43 -4E3D' , HE' 3C ' E 3E -C' $ED' 3E 343D' H&' ' 3NH4D' F E' <E3' @$ 3ED$4' P HE F' E3 ' $& 34' F3' ; 1 4$ HE' F343H&' EN -D E2' F3' G$O' H&'C-NF' ; 1 4$ HE ' $ED' -E 3CC' 3 34O' 9 4 ' CC-3D' E' NHE E-$ HE' H&'$' 143N3D E2' 9 4 ' CF$ ' Q3' CC-3D' F E' <E3' C-NF' @$ 3ED$4' P HE F' $& 34' F3' ; 1 4$ HE' H&' F3' 143R N3D E2' 9 4 ' $ED' CF$ ' @HE $ E' $' P 3 J H4$ED- J' EDH4C3D' F343HE' H4' C-QCN4 Q3D' F343 H' C13N &O E2' F3' G$O' H&' F3' G$ 3' H&' F3' & 4C ' 9 4 ' $ED' ' 3 -4E' H' Q3' J $D3' E' B$ $Q 3' I4HN3CC' QO' F3' ?F34 &&' H4' H F34' <&& N34' H' FH J' F3' 9 4 ' CF$ ' Q3' D 43N 3D' H4' F C' ?-NN3CCH4' E' <&& N3' $ED' E' I4HN3CC' EH ' Q$ $Q 3' QO' F3' I $ E &&' H4' F C' H4E3O' C- E2' H- ' F3' C$ J 3' $C' F3' @$C3' J $O' Q3

W>' ED' F343$C' $NNH4D E2' H' F3' 143C3E ' I4$N N3' E' N34 $ E' I4HN33D E2C' @$C3C' EH' I4HN33D E2C' N$E' Q3' 3?3N -$ O' F$D' HE' $EO' 9 4 ' 43 -4E$Q 3' `` 9 4 C' F E' 6H-4' G$OC' H&' F3' ; ED' H&' $EO' * 34 J ' -E ' F3' B32 EE E2' H&' F3' 3EC- E2' * 34 J ' F343QO' $E' -EE3N3CC$4O' G3 $O' C' CH J 3 J 3C' N34 $> J>' N43$ 3D' &H4' ' 3 J 3DO' F343H&' Q3' ' 3E$N 3D' * F$' &' $EO' 9 4 ' H&' ?- J J HEC' @$1 $C' H4' G3 $ E34' CC-3D' QO' - FH4 O' H&' F C' N ' CF$ ' Q3' C34 3D' H4' 3 3N- 3D' HE' $EO' G$O' F3 F34' E' * 34 J ' H4' N HE' $ ' E3N3CC$4O' I4HN33D E2C' H' 5-D2 J 3E ' $ED' ; 3N- HE' J $O ' 3 N31 ' $C' F343 E $ 34' 14H D3D ' Q3' F$D' F343HE' FH- ' G3 $O ' $ ' F3' ; R 1 4$ HE' H&' ; 2F ' G$OC' &4H J' F3' ?34 N3' H4' ; 3N- HE' F343H&' HE' F$ 3 34' G$O' F3' $C ' H&' C-NF' ; 2F ' G$OC' J $O' F$113E' H' &$ ' F3 F34' E' * 34 J ' H4' N HE' I4H D3D' $ $OC ' F$ ' &' F3' $C ' H&' I4H CH &H4' C-NF' ; 2F ' G$OC' CF$ ' E' $EO' @$C3' F$113E' H' &$ ' HE' $' +3#& ' ?-ED$O' KN' I) 1 1' 2 ' <4 $EO' G$O' $11H E 3D' &H4' $' I -Q N' 6$C ' H4' * F$E+CR 2 E2' E' 3 F34' H&' C-NF' @$C3C' F3' &H H E2' G$O' CF$ ' Q3' @HEC D343D' $C' F3' $C ' H&' C-NF' ; 2F ' G$OC ' $ED' &' F3' $C ' H&' C-NF' ; 2F ' G$OC' CF$ ' F$113E' H' &$ ' HE' $EO' G$O' Q3 33E' F3' 7)3 1& ' Q3&H43' $ED' F3' !&#!1& ' $& 34' 8 1 ! ' 2 ' F3E' E' 3 34O' C-NF' @$C3' F3' !&#!1& ' $& 34' 8 1 ! ' 2 ' CF$ ' Q3' NHEC D343D' $C' F3' $C ' H&' C-NF' ; 2F ' G$OC' .' I4H D3D' $ CH ' F$ ' &' C-NF' 9 4 ' CF$ ' Q3' C34 3D' H4' 3 3N- 3D' HE' $EO' G$O' Q3 33E' F3' * 3E F' G$O' / 3(31 ' $ED' F3' * 3 O &H-4 F' G$O' H&' 6' ,4! ' E' $EO' =3$4' ?13N $ ' B$ ' J $O' Q3' 1- ' E' QO' F3' G3&3ED$E ' E' B$ $Q 3' I4HN3CC ' H4' 113$4$EN3' 3E 343D ' 3 F34' QO' F3' G3&3ED$E ' H4' F3' I $ E & ' HE' I4HN3CC' EH ' Q$ $Q 3 ' $ ' F3' ; 1 4$ HE' H&' C-NF' ; 2F ' G$OC.' I4H D3D' $ CH ' F$ ' EH' G3N 4R HE ' H4' I 3$D E2' $& 34' G3N 4 HE ' CF$ ' Q3' & 3D' H4' D3 343D' Q3 33E' F3' C$ D' * 3E F' G$O' H&' / 3(31 ' $ED' * 3E O &H-4 F' G$O' H&' 6' ,4!

W ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' 3 34O' 9 4 ' CC-3D' QO' - FH4 O' G$ 3' $ED' H&' F C' N ' CF$ ' Q3$4' G$ 3' HE' F3' G$O' HE' F NF' F3' C$ J 3' CF$ ' Q3' ! ' G' CC-3D

CC-3D' $ED' CF$ ' Q3' 3C 3D' E' F3' ,$J3' H&' F3' >H4D' @F 3&'5-C N3' H4' >H4D' @F 3&' B$4HE' H&' F3' @1- ' &4HJ' F NF' F3' C$J3' CF$ ' CC-3' H4' ' E' N$C3' H&'$' NENO' H&'C-NF' <&& N3' F3E' E' F3' ,$J3' H&' $' C3E H4' I- CE3' 5-D23' H&' F3' C$D' @H-4 ' $ED' CF$ ' Q3' EDH4C3D' F' F3' ,$J3' $ED' I $N3' H&' QHD3' H&' F3' H4E3O' $N -$ O' C- E2' H- ' F3' ' C$J3' $ED' E' N$C3' C-NF' H4E3O' CF$ ' EH ' Q3' $E' H4E3O' H&' F3' @H-4 ' E' F NF' F3' C$J3' C' C-3D' H- ' F3E' $ CH' F' F3' ,$J3' $ED' I $N3' H&' QHD3' H&' F3' H4E3O' H&' C-NF' @H-4 ' E' FHC3' ,$J3' C-NF' 9 4 ' CF$ ' Q3' $+3E' H- ' Q- ' E' N$C3' EH' H4E3O' CF$ ' Q3' 3J1 HO3D' &H4' F$ ' I-41HC3' F3E' F' $' P3JH4$ED-J' 3 143CC E2' F$ ' F3' C$J3' F$C' Q33E' C-3D' H- ' QO' F3' I $ E &&' E' I34CHE' J3E HE E2' F3' @ O' *H E' H4' I$4 CF' $ED' $ CH' F3' ,$J3' H&' F3' 8$J 3 ' ? 433 ' $ED' ,-JQ34' H&' F3' 8H-C3' H&' C-NF' I $ E &&C' '3C D3EN3' &' $EO' C-NF' F343' Q3

EDH4C3J3E' H&' F3' ,$J3' H&' F3' H4R E3O' H4' I$4 O' C- E2

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ '3 34O' C-NF' 9 4 ' H&' ?-JR JHEC' CC-3D' 2 EC' $' @H41H4$ HE' 22432$ 3' J$O' Q3' C34 3D' HE' F3' P$OH4' H4' H F34' 8 3$D' <&& N34' H4' HE' F3' *H E' @ 34+' @ 34+' *43$C-434' E4' ?3N43 $4O' H&' C-NF' @H41H4$ HE' $ED' 3 34O' C-NF' 9 4 ' CC-3D' 2 EC' F3' EF$Q $E C' H&' $' 8-ED43D' H4' H F34' +3' G C 4 N' J$O' Q3' C34 3D' HE' F3' 8 2F' @HEC $Q 3' F343H&' H4' $EO' <E3' H&' F3' 8 2F' @HEC $Q 3C' F343H&' $ED' 3 34O' C-NF' 9 4 ' CC-3D' 2 EC' F3' EF$Q $E C' H&' $EO' @H-E O' H&' $EO' @ O' H4' *H E' H4' F3' EF$Q $E C' H&' $EO' 64$ENF C3' > Q34 O' @ O' *H E' H4' I $N3' EH' Q3 E2' I$4 ' H&' $' 8-ED43D' H4' H F34' +3' G C 4 N ' HE' CHJ3' I3$N3' <&& N34' F343H&

?34 N3' H&' 9 4 C' H&' ?-JJHEC' HE' @H41H4$ HEC' $ED' HE' EF$R Q $E C' H&' 8-ED43DC' ' $ED' *H EC

] C ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' 'CF$ ' $ED' J$O' Q3' $ &-' H' $ED' &H4' F3' 5-D23C' H&' F3' C$D' @H-4 C' $ED' F3O' $43' 43X- 43D' &4HJ' * J3' H' * J3' H' J$+3' $ 'C-NF' 23E34$' '- 3C' $ED' <4D34C' &H4' F3' 3&&3N -$' ; 3N- HE' H&' F C' N '$ED' H&' F3' E 3E HE' $ED' <Q(3N' F343H&' $ED' &H4' & E2' F3' @HC C' H' Q3' $ H 3D' &H4' $ED' E' 43C13N' H&' F3' P$ 34C' F343 E' NHE $ E3D' $ED' F3' I34&H4J$EN3' F343H&' $C' E' F3 4' 5-D2J3E' CF$ ' Q3' D33J3D' E3N3CC$4O' H4' 14H134' $ED' &H4' F$ ' I-41HC3' H' J33' $C' CHHE' $C' NHE 3E 3E O' J$O' Q3' $& 34' F3' 1$CC E2' F343H&

:((!& G(A' H'Q3' J$D3' QO' F3' 5-D23C'

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' 'CF$ ' Q3' $ &- ' E' *34J' * J3' &H4' F3' @H-4 ' H- ' <&' F NF' $EO' 9 4 ' CC-3D' QO' - FH4 O' H&' F C' N ' H4' $EO' 9 4 ' H&' @$1 $C' $D' C$ C&$N 3ED-J '6 34' &$N $C' H4' ; 32 'CF$ 'F$ 3' CC-3D' H' J$+3' '- 3C' $ED' $ CH' &H4' $EO' 5-D23' H&' 3 F34' H&' F3' C$D' @H-4 C' E' N HE' H' J$+3' <4D34C' &H4' F3' '3 -4E' H&' $EO' C-NF' 9 4 ' $ED' 3 34O' C-NF' <4D34' CF$ ' Q3' H&' F3' C$J3' 6H4N3' $ED' ;&&3N' $C' $' '- 3' H&' @H-4 ' J$D3' &H4' F3' +3' I-41HC3' 14H D3D' $ $OC' F$ ' EH' $NF J3E' CF$ ' CC-3' &H4' G CHQ3D 3EN3' F343H&' -E ' F3' C$J3' CF$ 'F$ 3' Q33E' J$D3' $' '- 3' H&' @H-4

'- 3C' $ED' <4D34C' J$O' Q3' J$D3' &H4' F3' '3 -4E' H&' 9 4 C

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ '$ 'C-NF' I4HN33D E2C' $C' $43' J3E HE3D' E' $EO' 9 4 ' ,H N3' H4' 9$4E E2' CC-3D' -ED34' F C' N ' CF$ ' $ED' J$O' Q3' F$D' $ED' $+3E' E' D3&$- ' H&' $' G3&3ED$E C' 113$4$EN3' H4' 1- E2' E' ?13N $' B$ ' $C' F3' @$C3' J$O' Q3

I4HN33D E2C' E' D3&$- ' H&' 113$4$EN3' H4' ?13N $' B$

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ '3 34O' H4E3O' FHC3' ,$J3' CF$ ' Q3' EDH4C3D' HE' $EO' 9 4 ' CC-3D' QO' - FH4 O' H&' F C N

H4E3O' H' D3N $43' FO' F34' 9 4 ' C

N 'CF$ 'HE' G3J$ED' E' 9 4 E2' J$D3' QO' H4' HE' Q3F$ &' H&' $EO' G3&3ED$E 'D3N $43' &H4 F F' F3 F34' C-NF' 9 4 'F$C' Q33E' CC-3D' QO' F J 'H4' F' F C' - FH4 O' H4' I4 O' ' $ED' &' F3' CF$ '$EC 34' E' F3' && 4J$ 3' F3E' F3' CF$ ' $CH' E' N$C3' F3' @H-4 ' H4' $EO' 5-D23' H&' F3' C$J3' H4' H&' $EO' H F34' @H-4 'CF$ 'CH' H4D34' $ED' D 43N ' D3N $43' E' 9 4 E2' F E' $' * J3' H' Q3' $ H 3D' QO' C-NF' @H-4 'H4' 5-D23' F3' I4H&3CC HE' <NN-1$ HE' H4' \-$ O' $ED' I $N3' H&' QHD3' H&' F3' I $ E &&' HE' 1$E' H&' Q3 E2' 2- O' H&' $' @HE 3J1 ' H&' F3' @H-4 '&4HJ'

C-3D' QO' F C' - FH4 O' ' $ED' H' D3N $43' , $J3' $ED' I $N3' H&' QHD3' H&' F C' @ 3E ' &' H4D343D

F NF' C-NF' 9 4 'CF$ 'F$ 3' $113$4' H' F$ 3' Q33E' CC-3D' ' $ED' &' C-NF' H E3O' CF$ 'D3N $43' F$ ' F3' 9 4 ' $C' EH ' CC-3D' QO' F J 'H4' F' F C' - FH4 O' H4' I4 O' F3' C$D' @H-4 ' H4' $EO' 5-D23' H&' 3 F34' H&' F3' C$D' @H-4 C 'CF$ ' $ED' E $O' &' ' CF$ '$113$4' 43CHEQ 3' CH' H' DH' J$+3' $E' <4D34' &H4' F3' J J3D $ 3' G CNF$423' H&' $EO' G3&3ED$E ' H4' G3&3ED$E C' FH' J$O' F$ 3' Q33E' $443C 3D' HE' $EO' C-NF' 9 4 ' HE' 3E 34 E2' $' @HJ JHE' 113$4$EN3

&' 9 4 ' EH ' CC-3D' QO' - FH4 O' H&' F3' H4E3O' F3' G3&3ER D$E ' J$O' Q3' D CNF$423D

W ' ED' Q3' '&-4 F34' 3E$N 3D ' *F$ ' 'CF$ '$ED' J$O' Q3' $ &-' H' '-3C' H' Q3' $ED' &H4' F3' 5-D23C' H&' 3$NF' H&' F3' C$D' @H-4 C' &4HJ' * J3' H' * J3' H J$+3' C-NF' ' - 3C' $ED' <4D34C' &H4' F3' MH 34E J3E ' $ED' @HED-N ' H&' 3 E J3E ' F3' P E C 34C' $ED' <&& N34C' H&' F3 4' 43C13N 3' @H-4 C ' E' $ED' 43 $ E2' H' F3' G C 4 Q- HE' $ED' I34&H4 J$EN3' H&' F3' G- 3C' $ED' B-C E3CC' H' Q3' DHE3' $ED' 134&H4 J3D' E' F3' ; 3N- HE' H&' F C' N ' $C' C-NF' 5-D23C' J$O' F E+' & ' $ED' 43$CHE$Q 3 ' 14H D3D' $ $OC ' F$ ' EH' $DD HE$ ' @F$423' Q3' F343QO' J1HC3D' HE' F3' ?- H4C

H&' F3 4' P ' E C 34C' $ED' <&& N34C'

W W ' I4H D3D' $ $OC '$ED' Q3' '&-4 F34' 3E$N 3D ' *F$ ' EH F E2' E' I4H CH' &H4' F C' N 'NHE $ E3D' CF$ ' C-Q(3N ' $EO' I3 CHE' H' 443C ' <- $ 40 'H4' I34CHEC' 9 $ 34 ' FH ' QO' 43$CHE' H&' $EO' I4 323 ' #C$23 ' H4' H F34 C3 ' J$O EH ' QO' >$ ' Q3' 3 3J1 ' F343&4HJ ' H4' CF$ ' 3 3ED' H' $EO' @$-C3' KN' ' 43JH 3D' E H' 3 F34' H&' F3' C$D' @H-4 C' QO' 9 4 'H&' IHE3 ' @34 H4$4 '3NH4D$4 '6$N $C' HX-3 $J ' 8$Q3$C' NH41-C ' H4' H F34 C3

WW ' ED' F343$C' F343' $43' E' D 34C' I$4 C' H&' 8#(% #&' N34 $ E' I $N3C I$4N3 ' G C 4 N C' $ED' I $N3C ' I$4N3 ' H&' CHJ3' HE3' @H-E O 'Q- ' FH O' C -$ 3' F E' $ED' C-44H-ED3D' QO' CHJ3' H F34' @H-E O ' F NF' C' 14HD-N 3' H&' ENHE 3E 3EN3' $ED' G3 $O' E' F3' ?34 N3' $ED' ; 3N- HE' H&' F3' I4HN3CC' H&' F3' C$D' @H-4 C ' &H4' '3J3DO' F343H&' Q3' '3E$N 3D ' *F$ ' 3 34O' C-NF' G C 4 N '$ED' I $N3' CF$ '$ED' J$O '&H4' F3' I-41HC3' H&' F3' ?34 N3 $ED' ; 3N- HE' H&' 3 34O' 9 4 '$ED' I4HN3CC ' F3 F34' J3CE3' H4' (-D N $ ' CC-3D' H- 'H&' 3 F34' H&' F3' C$D' @H-4 C ' Q3' D33J3D' $ED' $+3E' H' Q3' I$4 ' $C' 3 'H&' F3' @H-E O' F343 E' C-NF' G C 4 N ' H4' I $N3' C' CH' C -$ 3' $C' $&H43C$D' $C' H&' F3' @H-E O' F343H&' F3' C$J3' C' I$4N3 ' $ED' 3 34O' C-NF' 9 4 '$ED' I4HN3CC' J$O' Q3' D 43N 3D' $NNH4D E2 O ' $ED' 3 3N- 3D' E' 3 F34' H&' C-NF' @H-E 3C

I $N3C I$4N3 ' H&HE3@H-E O' ((3' D33J3D' I$4 'H&' 3$NF'

WW> ' ED' Q3' '&-4 F34' 3E$N 3D ' *F$ ' &4HJ' F3' * J3' F3E' F C' 4 C' J(!() %' N 'CF$ 'NHJ J3EN3' $ED' $+3' 3&&3N ' F3' 9 4 C' F343 E Q3&H 3' $- FH ' I(?+!('&G#J+D 4 T3D' CF$ ' Q3' F3' HE O' 9 4 C' &H4' F3' @HJ J3EN3J3E ' H&' I34CHE$ ' N HEC' E' $EO' H&' F3' @H-4 C' $&H43C$D ' E' F3' @$C3C' H' F 3F' C-NF' ?+!' +@%' 9 4 C' $43' $11 N$Q 3' ' $ED' F3' @HC C' H' F3' $ H 3D' $ED' NF$423D' &H4' @(H(@(#' C-NF' 9 4 C' CF$ 'Q3' F3' C$J3' $C' &H4' 9 4 C' H&' >$ $ ' I4H D3D' $ $OC ' F$ 'EH F E2' E' F C' N 'NHE $ E3D' CF$ '$Q4 D23 '$ 34 ' H4' $&&3N ' F3' 64$ENF C3C

UVU

U ` M # > ; > P ʽ ʽ @$1 SV

564$ENK C3Cʽ $EDʽ 5-4 CD N HECʽ H&ʽ 3 F34ʽ H&ʽ F3ʽ @H-E 3Cʽ I$ $ E3ʽ H&ʽ
< #' 1 ! ʽ H4ʽ 23) # 67ʽ , ʽ $EOʽ <&& N34ʽ H4ʽ P E C 34ʽ F343H&

@HE $3EN3ʽ J3Eʽ H&ʽ N

WW ʽ EDʽ Q3ʽ ʽ &-4 F34ʽ 3E$N 3Dʽ *F$ʽ F Cʽ N ʽ CF$ ʽ NH J J3EN3ʽ $ Dʽ $+3ʽ 3&&3N ʽ HEʽ F3ʽ 6 4C ʽ G$Oʽ H&ʽ ') !% 1ʽ *34 J ʽ E3 ʽ $& 34ʽ F3ʽ 1$CC E2ʽ F343H&

N ʽ J$Oʽ Q3ʽ $ 343Dʽ F Cʽ ?3CC HE

WW ʽ EDʽ Q3ʽ ʽ &-4 F34ʽ 3E$N 3Dʽ *F$ʽ F Cʽ N ʽ J$Oʽ Q3ʽ $ J3ED3Dʽ $ 343Dʽ H4ʽ 4313$ 3Dʽ D-4 E2ʽ F3ʽ 143C3E ʽ ?3CC HEʽ H&ʽ I$4 $ J3E

UcM#> ;>P ' ' @$1 SV -

?@8 ;G#>;' H' F NF' F C' N ' 43&34C

, H '

'V '+3 ,#1

5 ' F3' * H-4 F' f

*H' I 2 'H&' f ' E' F3' @H-E O' H&' M433 E2.

9 3' NH J J $ED' OH- ' IH4' $C' Q3&H43' H4' H& 3E' 3' F$ 3' NH J J $ED3D' OH- m' F$ ' F E' ; 2F 'G$OC' $& 34' F3' ?34 N3' H&' F C' 9 4 ' HE' OH- ' EN -C 3' H&' F3' G$O' H&' C-NF' ?34 N3 ' OH-' DH' N$-C3' $E' 113$4$EN3' H' Q3' 3E 343D' &H4' OH-' E' <-4 @H-4 ' H&' ' E' $E' N HE' HE' I4HJ C3C' IH4' 1')!' I 1!' 'Y3m ' $ ' F3' ?- ' H&' / " ' ED' $+3' EH N3 ' F$ ' E' D3&$- 'H&' OH-4' CH' DH E2 ' F3' C$ D' / " ' J $O' N$-C3' $E' 113$4$EN3' H' Q3' 3E 343D' &H4' OH- ' $ED' 14HN33D' F343 E' H' 5-D2 J 3E ' $ED' ; 3N- HE

9 E3CC' $ ' 9 3C J EC 34' F3' G$O' H&

! , #&3 ' ,'4!' 1341' 4!&' ,#')!'

E " ' *F C' 9 4 ' C' H' Q3' C34 3D' F E' 6H-4' @$ 3ED$4' PHE FC' &4H J' F3' G$ 3' F343H&' EN -D E2' F3' G$O' H&' C-NF' G$ 3 ' $ED' EH ' $& 34 $4DC

$#&, 1! !#' ,'4!' &!' ,#')!' '4! , !' +! 0 '!')! !,

*F C' 9 4 ' $C' CC-3D' QO' " R ' H&' H4E3O' &H4' F3' C$ D' / "

6

*F C' 9 4 ' $C' CC-3D' E' I34CHE' QO' / ' " ' FH' 43C D3C' $ '
b !# ,#')!' I ' 7,F#' , '* 1) ' #&' %1, ')!' E !' , ')!' %! ' + !! ' #&'
E3 4! ' , ')!' ,31!' , ')!' *% # 1' L!1 &!#'!' ' #'13') a

$#&, 1! !#' ,'4!' &!' ,#')!' ' ! '+! 0 '!')! !,

*F C' 9 4 ' $C' C34 3D' QO' J 3'] ' H ' HE' HE F3
G$O' H&' Z
] ' H

, H 'U

R, #1' , '!# ! #(' #' /55! #'!'

/ ' I $E &' 2 EC ' I 2

*F3' G3&3ED$E ' I 2 ' $113$4C' E' I34CHE'

2 EC ' I 2 ' $ED' $EH F34

8 R ' H4E3O' &H4' I 2 ' $113$4C' &H4' F J

H4

' ' H4E3O' &H4' F3' I $ E && ' $113$4C' &H4' F3'

2 EC '@ e_' $ED' H F34C

G3&3ED$E ' I '2 ' $NNH4D E2' H' F3' ? $ - 3

; E 343D' F3 G$O' H&' Z'

' ;

, H ' S

'@J '2 1 #(1

5 ' F3' 6H-4 F ' ! '

* H' F3' ?F34 &&' H&' M433 E2.

9 3' NH J J $ED' OH- ' F$ ' OH- ' H J ' EH ' QO' 43$CHE' H&' $EO' > Q34 O' E' OH-4' B$ R N+ ' Q- ' F$ ' OH- ' 3E 34' F3' C$ J 3 ' $ED' D C 4$ E' -1HE' F3' MHHDC' $ED' @F$ 3 C' H&' I ' 2 ' &H4' F3' ?- J ' H&' 6H4 O' ?F E2C ' E' H4D34' H' NH J 13 ' F C' 113$4$EN3' E' < -4' @H-4 ' H& ' H' $EC 34' / " ' E' $' I 3$' H&' * 43C1$CC' HE' F3' @$C3' b, ' G3Q ' , ' 1') !' I 1!' ') ! ' ' $ED' FH ' OH- ' CF$ ' 3 3N- 3' F C' < -4' 9 4 ' OH- ' J $+3' +EH E' H' # C' E' < -4' C$ D' @H-4 ' HE' F3' G$O' H& EH ' E3 ' 3EC- E2 9 E3CC' $ ' 9 3C J EC 34' F3 G$O' H& E' F3' =3$4' H&' < -4' ' 3 2E

E, ' !' ,' 4!' 1341' 4!&' ,') !' , !(, #('

E' F3' @H-4 ' H&

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P 4 ' I 2

* $+3' EH N3 ' F$ ' ' F$ 3' F C' G$O' D C 4$ E3D' -1HE' OH-4' MHHDC' $ED' @F$ 3 C' E' F3' ?-4$' H&' 6H4 O' ?F E2C ' E' NHEC3X-3EN3' H&' OH-4' EH ' F$ E2' $113$43D' E' F3' C$ D' @H-4 ' H' $EC 34' H' F3' C$ D' / " ' $NNH4D E2' H' F3' ; 23ENO' H&' $' 9 4 ' H&' ?- J J HEC' Q3$4 E2' * 3C 3' HE' F3' G$O' H&' ' $ED' F$ ' E D3&$- ' H&' OH-4' 113$4$EN3' H ' F3' 143C3E ' 9 4 ' F E' ; 2F ' G$OC' EN -C 3' $& 34' F3' ' 3 -4E' F343H& ' F3' C$ D' / " ' ' N$-C3' $E' 113$4$EN3' H' Q3' 3E 343D' &H4' OH- ' $ED' 14HN33D' F343HE' H' 5-D2 J 3E ' $ED' ; 3N- HE ' , ' G ') !' 2 ! !#& # ' 4!' 134U! ' ' ,' 6 3 % F ' ' N$-C3' I 4HN33D E2C' H' Q3' $+3E' H' H- $ ' OH-

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5 ' F3' 6H-4 F ' f N

* H' F3' ?F34 &&' H&'

* H' F3' @HEC $Q 3' H&' GH 34' @$C 3 '

* H' F3' P $OH4' $ED' B$ & &3' H&' B34 N+' -1HE' * 33D '

I$C') !' I 1!' ' 4! ' M433 E2' .

9 3' NH J J $ED' OH- ' IH4' $C' Q3&H43' , ' H& 3E ' 3' F$ 3' NH J J $ED3D' OH- ' F$ ' OH- ' H J ' EH ' QO' 43$CHE' H&' $EO' > Q34 O' E' OH-4' B$ N+ ' Q- ' F$ ' OH- ' 3E 34' F3' C$ J 3 ' $ED' $+3' I ' 2 ' H&' &' F3' CF$ ' Q3' &H-ED E' OH-4' B$ N+ ' $ED' F J ' C$&3 O' +331' -E ' F3' CF$ ' F$ 3' 2 3E' OH- ' B$ ' H4' J $D3' G31HC ' F' OH- ' $NNH4D E2' H' > $ ' E' $E' N HE' HE' I 4H J C3C' IH4' H&' G3Q ' ! ' ' $ ' F3' ?- ' H&' / " ' H4' -E ' F3' C$ D' I 2 ' CF$ ' QO' H F34' $ &- ' P 3$EC' Q3' D CNF$423D' &4H J ' OH-4' @-C HDO ' ED' 9 3' DH' &-4 F34' NH J J $ED' OH- ' F$ ' HE' ; 3N- HE' F343H&' OH- ' DH' D3 34' $' @H1O' F343H&' H' F3' C$ D' I ' 2 ' ED' 9 3' F343QO' 43X- 43' F3' C$ D' I ' 2 ' H' $+3' EH N3 ' F$ ' F E' ; 2F ' G$OC' $& 34' ; 3N- HE' F343H&' HE' F J ' EN -C 3' H&' F3' G$O' H&' C-NF' ; 3N- HE ' F3' CFH- D [' N$-C3

@ 9 ? 6 ' : 6*& ' '& ' #) !

N$-C3' ?13N $ ' B$ ' H' Q3' 1 - ' E' &H4' F J ' E' < -4' @H-4 ' H&' H' F3' C$ D N HE ' $ED' F$ ' E' D3&$- ' H&' F C' CH' DH E2' C-NF' I 4HN33D E2C' J $0' Q 3 ' F$D' $ED' $+3E' $C' $43' J 3E HE3D' E' F3' 9 $4E E2' F343-ED34' 4 3E' H4' EDH4C3D' F343HE ' ED' 9 3' DH' &-4 F34' NH J J $ED' OH-' F3' C$ D' ?F34 &&' F$ ' J J 3D $ 3 0' $& 34' F3' ; 3N- HE' F343H&' OH-' DH' 43 -4E' F C' 9 4 ' H' < -4' C$ D' @H-4 ' H23 F34' F' F3' P $EE34' E' F NF' OH-' CF$ ' F$ 3' 3 3N- 3D' F3' C$ J 3 ' $ED' F3' G$0' H&' F3' ; 3N- HE' F343H& ' H4' F$ ' &' F3' C$ J 3' CF$ ' 43 J $ E' -E3 3N- 3D ' F3E' F$ ' OH-' DH' CH' 43 -4E' F3' C$ J 3' $ ' F3' ; 1 4$ HE' H&' 6H-4' @$ 3ED$4' P HE FC' &4H J ' F3' G$ 3' F343H& ' H4' CHHE34' &' OH-' CF$ ' Q3' F343 H' 43X- 43D' QO' < 4D34' H&' F3' C$ D' @H-4 ' H4' QO' $EO' 5-D23' F343H&

9 E3CC' $ ' 9 3C J EC 34' F3' G$0' H&

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E " ' *F C' 9 4 ' C' H' Q3' 3 3N- 3D' F E' 6H-4' @$ 3ED$4' P HE FC' &4H J ' F3' G$ 3' F343H& ' EN -D E2' F3' G$0' H&' C-NF' G$ 3 ' $ED' EH ' $& 34 $4DC

' 9 $4E E2' H' F3' G3&3ED$E

' &' $' G3&3ED$E ' Q3 E2' E' @-C HDO ' CF$ ' Q3' D3 $ E3D' HE' F C' 9 4 ' H4' &' $' G3&3ED$E ' Q3 E2' $443C 3D' F343HE ' CF$ ' 2H' H' I 4 CHE' &H4 9 $E ' H&' B$ ' F3' I $ E && J $0' D3N $43' 2 EC ' $EO' C-NF' G3&3ED$E ' Q3&H43' F3' ; ED' H&' F3' * 34 J ' E3 ' $& 34' C-NF' G3 $ E34' H4' 443C ' $ED' 14HN33D' F343HE' H' 5-D2 J 3E ' $ED' ; 3N- HE

B' &' $' G3&3ED$E ' Q3 E2' $443C 3D' HE' F C' 9 4 ' CF$ ' F$ 3' J $D3' $' G31HC ' H&' P HE30' $NNH4D E2' H' F3' ? $ - 3' P' K' Z' M3H ' ' N ' PX ' $ED' CF$ ' H J ' H' 3E 34' $' @H J J HE' 113$4$EN3' H' F3' N HE ' 3' I $ E && ' Q3' $ ' Q34 0' H' 3E 34' $' @H J J HE' 113$4$EN3' &H4' F3' G3&3ED$E ' $ED' 14HN33D' F343HE' H' 5-D2 J 3E ' $ED' ; 3N- HE

S ' &' $' G3&3ED$E ' F$ E2' 2 3E' B$ ' HE' F3' 443C ' CF$ ' H J ' H' 1 - ' E' ?13N $ ' B$ ' $C' 43X- 43D ' F3' I $ E && J $0' 14HN33D' 2 EC ' F3' ?F34 &&' H4' HE' F3' B$ ' BHED

' &' $' G3&3ED$E ' F$ E2' Q33E' C34 3D' HE 0' F' F C' 9 4 ' $ED' EH ' $443C 3D' F343HE ' CF$ ' EH ' 3E 34' $' @H J J HE' 113$4$EN3' F E' ; 2F ' G$0C' $& 34' C-NF' ?34 N3 ' F3' I $ E &&' J $0' 3E 34' $' @H J J HE' 113$4$EN3' &H4' C-NF' G3&3ED$E ' $ED' 14HN33D' F343HE' H' 5-D2 J 3E ' $ED' ; 3N- HE

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B$ ' &H4' W QO' && D$

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B$ ' &H4' W QO' < 4D34' H&' b# #(')!' ?3&(!' #(')!'

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*F C' 9 4 ' $C' CC-3D' QO' 8 R ' H&' H4E30' &H4' F3' I $ E && IH4' I $ E & Cm' F E' E$ J 3D

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*F C' 9 4 ' $C' CC-3D' E' I 34CHE' QO' F3' I $ E &&' F E' E$ J 3D ' FH' 43C D3C' $ ' b !# ,#')!' I ' 7, F#' , ' * 1) ' #&' %1,')!' E !' , ')! %! ' + !! ' #&' E3 4! ' , ')!' ,31!' , ')!' *% # 1' L!1 &!#'!' ' # ' 13')')! !' 4! a

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9 >P P' F3' 6H-6 Q! &J

*H' F3' P$4CF$ ' H&' F3' P$4CF$ C3$' H&' <-4' @H-4 'Q3&H43' # C' IH4' *H' F3' 9 $4D3E' H& <-4' I4 CHE' H&' F3' 6 33 m

9 3' NH J J $ED' OH-' F$ ' OH-' D3 $ E' I 2 ' &' F3' CF$ ' Q3' &H-ED' E' OH-4' @-C HDO' $' F3' G3 34O' F343H&' H' OH-' $ED' F J' C$&3 O' +331' E' $E' N HE' HE' I4H J C3C' IH4' H&' G3Q '3&N ' Z)!' I 1!' '4!a' $' F3' ?- ' H&' / " ' -E ' F3' CF$ 'Q3' $ &- O' D CNF$423D' &4H J' OH-4' @-C HDO' ED' 9 3' DH' &-4 F34' NH J J $ED' OH-' F$ ' HE' '3N3 1 ' F343H&' OH-' DH' $4E' F3' ?$ D' I 2 ' QO' C34 E2' $' @H1O' F343H&' HE' F J ' F$' F E' ; 2F ' G$OC' $& 34' ?34 N3' H&' C-NF' @H1O' EN -C 3' H&' F3' G$O' H&' C-NF' ?34 N3' F3' DH' N$-C3' ?13N $' B$ ' H' Q3' 1- ' E' &H4' F J' E' <-4' @H-4 ' H&' H' F3' C$ D' N HE' $ED' F$' E' D3&$- ' H&' F C' CH' DH E2' F3' C$ D' / " ' J $O' D3N $43' 2 EC ' F J' Q3&H43' F3' ; ED' H&' F3' * 34 J' E3 ' $& 34' EC' G3 $ E34' $ED' 14HN33D' F343HE' H' 5-D2 J 3E ' $ED' ; 3N- HE' ED' 9 3' DH' &-4 F34' NH J J $ED' OH-' F3' C$ D' I P $4CF$ ' H4' 9 $4D3E' 1')!' I 1!' '4!a' F$' J J 3D $ 3 O' $& 34' F3' ?34 N3' F343H&' OH-' DH' 43 -4E' F C' <-4' 9 4 ' H4' $' @H1O' F343H&' H' <-4' C$ D' @H-4 ' H23 F34' F' F3' G$O' H&' F3' ?34 N3' F343H

9 E3CC' $' 9 3C J EC 34' F3' G$O' H&

, B h 7) 1' ' 1' ')!' #&, 1!&' #')!' 1 !' ##! ' 1' ' , ' I 5 1 43 ' #, ' , ' ' ,# #')!' # #(' ,#) '

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' , '+3 ,#1' , ' 4!' 1! 0!&' ,# ' ! 4! ' , '* % !# ' #' , &! ' , ' !# , '!')!' * ,0 1 ,#1' , ')!' + 3 !' [' !, ' ' ' ' Y' 1' [

5 ' F3' 6H-4 F ' ! '

*H' I ' 2 ' H& ' ! ' ' ; CX- 43 ' F$ E2' I4 323' H&' I $4 $ J 3E ' M433 E2.

9 3' NH J J $ED' OH-' F$ ' F E' <E3' @$ 3ED$4' P HE F' E3 ' $& 34' 134CHE$ ' ?34 N3' F343H&' HE' O<-' OH-' DH' N$-C3' $E' 113$4$EN3' H' Q3' 3E 343D' &H4' OH-' E' <-4' @H-4 ' H&' E' $E' N HE' IHE' I4H J C3C' G3Q ' ! ' ' 1')!' I 1!' ')!a $' F3' ?- ' H&' / ' " =' $ED' OH-' $43' F343QO' E&H4 J 3D' F$' $E' && D$ ' H&' G3Q ' &H4' F3' ?- J' H&' F$ F' Q33E' & 3D' E' F3' 14H134' <&& N3' $NNH4D E2' H' F3 I4H C HEC' H&' $' N34 $ E' N ' H&' I $4 $ J 3E ' J $D3' $ED' 1$CC3D' E' F3' ? F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' %$E2' !, (!' F3' 6H J F' E - 3D' E' N' H' S' $ J 3ED' F3' >$ C' 43 $ E2' H' B$E+4-1 C c' $ED' F$' -E 3CC' OH-' 1$O' C3N-43' H4' NH J 1H-ED' &H4' F3' G3Q ' CH-2F ' H' Q3' 43NH 343D' E' F C' N HE' H4' 3E 34' E H' C-NF' BHED' $C' QO' F3' C$ D' N' C' 14H D3D' $ED' N$-C3' $E' 113$4$EN3' H' Q3' 3E 343D' &H4' OH-' F E' <E3' @$ 3ED$4' P HE F' E3 ' $& 34' C-NF' ?34 N3' F343H&' OH-' E' Q3' D33 J 3D' H' F$ 3' NH J J 3D' $E' N ' H&' B$E+4-1 NO' &4H J' F3' * J 3' H&' F3' ?34 N3' F343H&

9 E3CC' $' 9 3C J EC 34' F3' G$O' H&

E " ' h ' *F C' 9 4 ' C' H' Q3' C34 3D' F E' 6H-4' @$ 3ED$4' P HE FC' & /H J' F3' G$ 3' F343H&' EN -D E2' F3' G$O' H&' C-NF' G$ 3 ' $ED' EH ' $& 34 $4DC

G 43N HE' h ' 7) 1' +3 ,#1' 1' , ')!' #&, 1!&' F)')!' E !' , ')!' * % # ' , ')1' / , #! ' #' % !' ##! ' 1')!' ' , ' I 5 1

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/ 8 ; ' ; ? 8 C P $(3C O Q0 8 C ' HO$ > 3 34C I $ 3E
- ED34 F3 M43$?3$ Q3$4 E2 G$ 3 F3 ?3NHED G$O H&
E , 0 ! 4 ! < E3 FH - C$ED 3 2F F - ED43D $ED F 4 O HE3
$C 1 3$C3D H NHEC - 3 $ED $11H E N34 $ E I 34CHEC F343 E E$ J 3D
H Q3 14 EN 1$ < && N34C $ED @H J J CC HE34C H& 8 C P $(3C O C , $ O
$ED QO H F34 > 3 34C I $ 3E - ED34 F3 M43$?3$ Q3$4 E2 G$ 3 F3
* 3E O & & F G$O H& R ! 4 3 < E3 FH - C$ED 3 2F F - ED43D $ED
F O HE3 $C 1 3$C3D H NHEC - 3 $ED $11H E N34 $ E H F34 I 34R
CHEC F343 E E$ J 3D @H J J CC HE34C &H4 N - $ E2 8 C P $(3C O C
, $ O $ED &H4 F3 @$43 H& C N+ $ED H - ED3D ?3$ J 3E . ED F343$C
F$C Q33E D33 J 3D 3 13D 3E F$ F3 , - J Q34 H& < && N3C E F3 @
G31$4 J 3E C H& F3 , $ O CFH - D Q3 43D - N3D $ED H F$; ED F$
F3 < && N3C H4 G31$4 J 3E C H& F3 14 EN 1$ < && N34C $ED @H J J CR
C HE34C H& 8 C P $(3C O C , $ O $ED H& F3 @H J J CC HE34C &H4
N - $ E2 8 C P $(3C O C , $ O $ED &H4 F3 @$43 H& C N+ $ED H - ED3D
?3$ J 3E CFH - D Q3 $QH CF3D ED F343$C $4 H - C G - 3C H& F3 C$ D
@H J J CC HE34C Q3 E2 3C $Q CF3D $ED 432 - $ 3D QO D 34C N C H&
I $4 $ J 3E C 43X - C 3 F$ C - NF N C CFH - D E CH J 3 @$C3C Q3
; $ 343D

$ 343D' $ED' E3 ' I4H C HEC' J$D3' &H4' F3' D-3' ; 3N- HE' H&' F3' C$D'
G- 3C' ' B3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' JHC' ; N3 3E'
P J3C O' QO' $ED' F' F3' D N3' $ED' @HEC3E 'H&' F3' >H4DC' ?1 4 -$'
$ED' *3 J 1H4$ ' $ED' @H J J HEC' E' F 43C3E ' I$4 $ J 3E ' $CC3 J Q 3D'
$ED' QO' F3' - FH4 O' H&' F3' C$J3' *J$' E' N$C3' 8 C' P$(3C O' CF$ '
Q3' 1 3$C3D' H' N$EN3' $ED' 43 H+3' F3' C$D' >3 34C' I$ 3E' QO' F NF'
F3' C$D' C3 34$' I34CHEC' 343' 43C13N 3 O' NHEC - 3D' $ED' $11H E 3D'
14 EN 1$' <&& N34C' $ED' @H J J CC HE34C' H&' F3' , $ O' $ED' @H J J CC HE34C'
&H4' N -$ E2' 8 C' P$(3C O C' , $ O' $ED' &H4' F3' @$4<' H&' C N+' $ED'
H-ED3D' ?3$ J 3E' $C' $&H43C$D' $' F3' E 343C C' * 3C' - FH4 3C'
IH 34C' $ED' G- HC' 3C 3D' E' F3' C$D' 43C13N 3' @H J J CC HE34C' QO'
$EO' N ' H4' N C' H&' 1$4 $ J 3E ' $ED' 3 34O' P$ 34' 43 $ E2' H' F3 J'
$ED' F3 4' 43C13N 3' <&& N3C' CF$ '&4H J' $ED' $& 34' C-NF' '3 HN$ HE' Q3'
$ED' F3' C$J3' $43' F343QO' D3N $43D' H' Q3' 4$EC&3443D' H' F3' @H J J CR
C HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F' DJ 4$' H&' F3' #E 3D'
% E2DH J' , ' ' + #' $ED' $! #&' , ' &Q3' * J 3' Q3 E2' $ED' CF$ '
Q3' 3C 3D' E' $ED' 3 34N C3D' QO' F3 J' E' $C' &- ' $ED' $ J 1 3' $' P$EE34' H'
$ ' E 3E C' $ED' I -41HC3C' $C' &' F3O' F$D' Q33E' E$ J 3D' E' F3' C$D' N C'
EC 3$D' H&' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' , $ O' $ED' F3' @H J R
J CC HE34C' &H4' N -$ E2' 8 C' P$(3C O C' , $ O' $ED' &H4' F3' @$43' H&'
C N+' $ED' H-ED3D' ?3$ J 3E' 43C13N 3 O' C-Q(3N' FH 3 34' H' F3'
I4H C HEC' F343 E $& 34' 3C $Q CF3D: I4H D3D' $ $OC' F$' C-NF'
*4$EC&34' CF$ ' EH ' Q3' D33 J 3D' H' NHE&34' HE' F3' C$D' @H J J CC HE34C' &H4'
3 3N- E2' &F3' <& ?N3' H&' >H4D' 8 2F' DJ 4$' $&H43C$D' $EO' E3 ' <&& N3'
F E' F3' P 3$E E2' H&' $E' N ' 1$CC3D' E' F3' ? F' =3$4' H&' F3'
L! (#' , '8 34' P$(3C O' \ -33E' ! ' E - 3D' ?#' / ' ' , ')!' +!'3 '
, ' ! ' J !1 1' *! ' #&' , #)' #&' , ')!' + '!1& ' ,')!'
I ,F#' , 'M43$' B4 $E' #')!' * , !1 #' # != EH4' CF$ ' $EO' C-NF'
@H J J CC HE34' $C J 3E HE3D' QO' $+ E2' -1HE' F J C3 &' -ED34' $EO' E3 '
>3 34C' I$ 3E' F NF' 8 C' P$(3C O' J $O' F E+' & ' H' N$-$3' H' Q3' CC-3D'
F3' G- 3C' H&' F3' <&& N3C' CH' $QH CF3D' Q3' D CX-$ & 3D' &4H J' C E2' $ED'
H E2' E' I$4 $ J 3E ' H4' F343QO' N 3' F3' ?3$' E' I$4 $ J 3E' NF'
$EO' C-NF' @H J J CC HE34' J $O' F3E' FH D' $EO' F E2' NHE $ E3D' E' F3'
C$D' N ' H&' \ -33E' / ##! ' H4' E' $EO' H F34' N ' H4' $EO' #C$23' H&'
I$4 $ J 3E ' H' F3' NHE 4$4O' EH FC $ED E2' Q-' ' C' E3 34 F3 3CC'
F343QO' D3N $43D' F$' &4H J' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' EH'
243$ 34' , - J Q34' F$E' 6 3' @H J J CC HE34C' H&' F3' DJ 4$ O' CF$ ' Q3'
NH J 13 3E '$' $EO' <E3' * J 3' H' C ' $ED' H 3' E' F3' @H J J HEC' 8H-C3'
H&' I$4 $ J 3E

E' N$C3' 8 C' P$(3C O' CF$ ' 43 H+3' F3' 11H E R J 3E C' H&' F3' @H J J C' C HE34C' H&' F3' , $ O' $ED' &H4' N -$ E2' F3' IH 34C' $ED' - FHR 4 3C' 3C 3D' E' F3 J' QO' $EO' ? $ - 3C' CF$ ' Q3' 4$EC&3443D' H' F3' DJ R 4$ O'

@H J J CR C HE34C' H&' F3' DJ 4$ O' EH ' F343QO' D CX-$ & 3D' &4H J' C E2' E' I$4 3E

' ED' Q3' '&-4 F34' 3E$N 3D' ' *F$ '&4H J' $ED' $& 34' F3' '3 HN$ HE'
H&' F3' C$D' >3 34C' I$ 3E ' $ ' P$EH4C' P 3CC-$23C' >$EDC' *3E3R
J 3E C' 8 343D $ J 3E C' ; 43N HEC' B- D E2C' $ED' I4H134 O' F$ 3 34'
F343 H&H43' 1-4NF$C3D' $+3E' F3 D' H4' E' $EO' P$EE34' HNN-1 3D' QO' H4'
E' F3' , $ J 3' H&' 8 C' P$(3C O' H4' 8 C' 'HO$' I4H23E H4C' &H4' F3' #C3'
H&' F3' , $ $' H4' N -$ E2' G31$4 J 3E C' H4' F NF' QO''$E' N ' H&'
F3' 6 C' $ED' ?3NHED' =3$4C' H&' F3' '3 2E' H&' 8 C' $ 3' P$(3C O' % E2'
!, (!' F3' 6H-4 F' E - 3D' / #' / ' ' , ' 0!1 #(' %' 81 !1' #&'
* ,5! ' ,''35 !&' 4 ' , ' , ')!' E 0 %' +! 0 '!' , ') 1' #(&, ' #'
)!' 5 #' 5 %' 6 '! 1' #&' I , # 11 , 1' , ' 1' U!1 1' E 0 '
#&' , ' (# #(' '! #' *,F! 1' ,')!' 1 &' 5 #' 5 %' 6 '! 1' #&'
I , 11 ,#! 1=' H4' QO' $E' N ' 1$CC3D' E' F3' C$J3' ?3CC HE' H&' I$4 $R
J 3E '&H4' 3C E2' N34 $ E' >$EDC' $ED' 8 343D $ J 3E C' $ ' E
' 8' F3

'>$EDC' KN' 3C 3D' E' , $ O' $ED' N -$ E2' @H J J CR C HE34C' 4$E?' &3443D' H' F3' DJ 4$ O

' K' U' M' ' N' VS

' K' U' M ' N' [

+'% 9 ? 6 ' : 6 ' ' '& ' #) '

F3' @H-E O' H&' !# ' E' *4-C 33C ' H' Q3' $114H14 $ 3D' H' F3' I-Q N
?34 N3' E' FN' G31$4 J 3E ' H&' F3' , $ O ' H4' QO' $E' N ' 1$CC3D' E' F3' !' M ' N V
%& F' =3$4' H&' F3' ' 3 2E' H&' 8 C' C$ D' P$(3C O ' &H4' 3E$Q E2' F3
@H J J CC HE34C' &H4' N -$ E2' 8 C' P$(3C O C' , $ O' H' 1-4NF$C3' N34 $ E
I 43 J C3C' &H4' NH J 1 3 E2' $' N -$ E2' ; C $Q CF J 3E ' $
E3$4' *% , 3) ' E' F3' @H-E O' H&' 2 ! J ' $ED' &H4' C-11 O E2' F3' C$ D
; C $Q CF J 3E ' F' 9 $ 34' ' H4' QO' $E' N ' 1$CC3D' E' F3' ? F' =3$4' Y M' ' 3' SY
H&' F3' C$ J 3' ' 3 2E ' &H4' 3E$Q E2' F3' @H41H4$ HE' H&' *! #) , !' H
NHE 3O' H' F3' @H J J CC HE34C' H&' F3' , $ O' F3' ' 2F ' H&' 3 E2' F3
? $ C' ? E2C ' $ED' H F34' @HE 3E 3EN3C' E' F3' P $4+3 ' 3C $Q CF3D' E
F3' *H E' H&' *! 4 , !' 2 , ' ' $ED' F3' ' 2F ' H' F3' ' 3E C' *H C' $ED
633C' F343H& ' H4' QO' $1' N ' 1$CC3D' E' F3' C$ J 3' =3$4' &H4' 3E$Q E2' F3' Y M ' N' [S
@H J J CC HE34C' H&' F3' , $ O' H' $NX- 43' N34 $ E' I H4 HEC' H&' F3' GHN+C
$ED' ?FH43' M4H-ED' $ ' < !) ' &H4' $' , $ $' =$4D' ' H4' F NF' QO' $EO' H F34
N ' H&' I $4 $ J 3E ' H4' QO' $EO' G33D' H4' G33DC ' F$ 3' Q33E' NHE 3O3D' H
H4' 3C 3D' E' F3' 14 EN 1$ ' <&& N34C' $ED' @H J J CC HE34C' H&' F3' , $ O
H4' F3' @H J J CC HE34C' &H4' N -$ E2' 8 C' P$(3C O C' , $ O ' $NNH4D E2'
H' F3 4' 43C13N 3' ; C $ 3C' $ED' E 343C C' F343 E' $ED' * 3C' F343 H
F' F3 4' 11-4 3E$EN3C ' $ED' $ ' ' 2F C' @1N 3C ' I H 34C
- FH4 3C ' $ED' G- 3C' 3C 3D' E' F3' C$ D' @H J J CC HE34 C' H&' F3
, $ O' $ED' N -$ E2' 43C13N 3 O' QO' $EO' H&' F3' C$ D' N C ' CF$ ' Q3
$ED' F3' C$ J 3' $43' F343QO' D 3N $43' H' Q3' $EC&3443D' H' $ED' 3C 3D' E
F3' @H J J CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' H4D ' 8 2F' D J 4$
$&H43C$ D' &H4' F3' * J 3' Q3 E2 ' H' Q3' F3 D ' 3E(HO3D ' $ED' 3 3N- 3D' QO
F3 J ' $ED' F3 4' ?-NN3CCH4C' E' <&& N3 ' E' *4-C ' &H4' 8 C' P$(3C O ' 8 C
8 3 4C' $ED' ?-NN3CCH4C ' &H4' F3' I -Q N' ?34 N3 ' $ED' 3 34O' @ $-C3
@H 3E$E ' P$ 34 ' $ED' * F E2' NHE $ E3D' E' F3' C$ D' N C' H&' I $4 $'
E3E ' $ED' G33DC' 43C13N 3 O' CF$ ' 3 3ED' $ED' Q3' $11 3D' H' F3'
C$ D ' $C J 3E HE3D' @H J J CC HE34C ' E' $C' &- ' $ED' $ J 1 3' $' P$EE34'
H' $ ' E 3E C' $ED' I -41HC3C ' $C' &' F3O' F$D' Q33E' E$ J 3D' F343 E'
EC 3$D' H&' F3' @H J J CC HE34C' H&' F3' , $ O' $ED' N -$ E2'
43C13N 3 O'

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' &4H J ' $ED' $& 34' F3' ' 3 HN$ HE' @HE 4$N C'
H&' F3' C$ D' >3 34C' I $ 3E ' $ ' @HE 4$N C ' @H 3E$E C ' $ED' 2433 ' 4$EC&3443D'
J 3E C' J $D3' Q3 33E' F3' C$ D' @H J J CC HE34C' H&' F3 ' , $ O' $ED'
N -$ E2' 43C13N 3 O ' H4' $EO' I 34CHE' HE' F3 4' ' 3F$ ' $1D' $EO
H F34' I 3 ?H1' H4' I 34CHEC' FH J CH3 34 ' &H4' F3' ? - 11 O' H&' $EO' ? H43C
MHHDC ' H4' H F34' * E2C' &H4' 8 C' P$(3C O C' ?34 N3 ' H ' &H4' 3' I 34R
&H4 J $EN3' H&' $EO' 9 H4+ ' H4' HE' $EO' H F34' NNH-E ' E' $EO C3' 43 $ E2'
H' F3' , $ $' $ED' N -$ E2' G31$4 J 3E C' 43C13N 3 O ' H4' E' F NF'
F3' C$ D' @H J J CC HE34C' $43' E' $EO' P $EE34' E 343C 3D' H4' NHEN34E3D '
CF$ ' E' +3' P $EE34' Q3' 4$EC&3443D' H' $ED' 3C 3D' E' F3' @H J J CC HE34C'
&H4' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F' D J 4$ ' $&H43C$ D' &H4' F3'
* J 3' Q3 E2' $ED' CF$ ' F3' 3 3N- 3D' $ED' 3E&H4N3D' QO' F3 J ' E' F3' C$ J 3'
P $EE34' $C' &' F3O' F$D' Q33E' E$ J 3D' F343 E

' ED' F343$C' QO' $E' N ' 1$CC3D' E' F1' ; 3 3E F' =3$4' H&' F3' G- 3C' H&' F3
' 3 2E' H&' 8 C' $ 3' P$(3C O' % E2' M, (!' F3' 6H-4 F ' &H4' $ J 3ED E2
$ED' NHECH D$ E2' F3' >$ C' 43 $ E2' H' F3' I $O' H&' F3' ' HO$ ' , $ O ' 4$EC&3 3D'
D 34C' I 4H C HEC' $ED' ' 32- $ HEC' $43' 3C $Q CF3D' E' 43 $ HE' H' 3 N31 ' ' 3 '
O$4 H-C' G- 3C' H&' F3' *43$C-434' H&' F3' , $ O' $ED' F C' <&& N34C ' $ED'
' C' D33 J 3D' 3 13D 3E ' F$ ' C-NF' G- 3C' CFH- D' Q3' 4$EC&3443D' &4H J ' #&
F3

#J(' & &*(D @(#' +? : !((L)HJ' G#%"(D A)+ A

F3' C$ D' *43$C-434' $ED' F$ ' H F34' I 43 C HEC' $ED' ' 32- $ HEC' CFH- D' Q3' 3C $Q CF3D' E' 3-' F343H&O' Q3' ' F343&H43' 3E$N 3D' *F$ ' &4H J' $ED' $& 34' F3' MH J J 3EN3 J 3E ' H&' F C' N ' $C' F343 E $& 34' J 3E HE3D' $ ' - FH4 3C' I H 34C' G- 3C' P$ 34C' $ED' *F E2C' F NF' QO' F3' C$ D' 43N 3D' N ' H4' QO' $EO' H F3 ' N ' H4' N C' H&' I $4 $ J 3E ' $43' NHER &3443D' -1HE' H4' 3C 3D' E' F3' C$ D' *43$C-434' C$ 3' $ED' 3 N31 '$C' H' F3' ' 3N3 1 ' $ED' I $0 J 3E ' H&' P HE3O ' $ED' $ CH' 3 N31 ' $C' H' F3' P E23 J 3E ' H&' !!# ')' <- t I3EC <EC' CF$ ' Q3' 3 34N C3D' $ED' 134&H4 J 3D' QO' H4' -ED34' F3' J J 3D $ 3' G 43N HEC' H&' F3' @H J J CR C HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' GH4D' 8 2F' D J 4$ ' E' &- ' $ED' $ J 1 3' $' P $EE34' $C' F3' C$ D' *43$C-434' C' QO' $EO' H&'' F3' C$ D' N C' 3 J 1H 343D' H' 3 34N C3' $ED' 134&H4 J' F3' C$ J 3' ' $ED' F$ ' $ ' 9 C I H 34C' H&' H4E3O ' H-3F34? P D' H F34' GHN- J 3E C' $ED' $ NNH-E C' I 4 T3' $ED' H F34' > C C' ' 3 -4EC' , H & N$ HEC' ' 31H4 C' I 3 HEC' @34 & N$ 3C' GHN- J 3E C' $ED' I $134C' F NF' QO' F3' C$ D' $C 43N 3D' N ' H4' QO' $EO' < 34' N ' H&' I $4 $ J 3E ' $43' 43X- 43D' H' 'Q3' $DD43CC3D' 4$EC J 3D' H4' J $D3' <' F3' C$ D' *43$C-434' 3 N31 '$C' $&H43C$ D' CF$ 'Q3' $DD43CC3D' $EC J 3D ' $ED' J $D3' H' F3' ?3N43 $4O' H&' F3' D J 4$ O' E' H4D34' F$ ' F3' @H J J CC HE34C' &H4' 3 3N- E2' m&3' <&& N3' H&' >H4D' 8 2F' D J 4$' $&H43C$ D' J $O' N$-C3' F3' E3N3CC$4O' ? 31C' H' Q3' $+3E' F343HE ' E' NHE&H4 J O' F' F3' E 3E HEC' H&' F3' C$ D' C3 34$' N C' H4' H F34 C3' $? QO' F C' X ' C' 14H D3D' ' '

G#J+!)#B' #+' +#))A%' A)+ (!A' +?' #J(' <@)!& #B' #+' &<@))A#(!' % &#JA' & <' (N(HG#(' #J(' $G#)(A' +?' 3GA#)H(A

' ED' Q3' ' &-4 F34' 3E$< 3D' *F$ ' &4H J' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' ' CF$ ' Q3' $ &-' &X4' F3' @H J J CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F' D J 4$&' $ &H43C$ D' &H4' F3' * J 3' Q3 E2 ' H4' $EO' <E3' H4' J H43' H&' F3 J ' $ED' F3O' $ED' 3$NF' H&' F3 J ' $43' $ED' C' F343QO' 3 J 1H 343D ' H' $D J E C 34' $E' <$ F' D4' <$ FC' E' $EO' @$C3C' H-NF E2' H4' NHEN34E E2' 8 C' P $(3C O C' , $ $ ' P HE 3C ' ? H43C' N -$ C ' H4' I 4H C HEC ' H4' F3' NNH-E C' F343H&' H4' E' $EO' H F34' P $ 34' 43 $ E2' H' 8 C' P $(3C O C' , $ $ ' ?34 N3 ' $ED' $ CH' &4H J' * J 3' H' * J 3 ' E' $ ' I $N3C' F$ 3 34' H' 3 3N- 3' F3' <&& N3' $ED' - FH4 O' H&' $' 5-C N3' H&' F3' I 3$N3' E' $C' &-8' $ED' $ J 1 3' $' P $EE34' $C' $EO' @H J J CC HE34C' H&' F3' , $ O' H4' D -$ E2' $43' QO' $EO' N ' H&' I $4 $R J 3E ' EH ' E' &H4N3 ' H4' $EO' 5-C N3' -ED34' $EO' @H J J CC HE' C' $- FHR 4 T3D' H' 3 3N- 3' F3' C$ J 3 ' $ED' $ ' %33134C' H&' M DC' $ED' ' @HE ' C && 3C' $ED' H F34' I 3$N3' <&& N34C' $43 F343QO' 43C13N 3 O' 43X- 43D' 7 &4H J' * J 3' H' * J 3' D 23E O' H' 3 3N- 3' $ED' HQ3O' $ 'C-NF' 9 44E C' $C' CF$ 'Q3' $ &- O' J $D3' D 43N 3D ' H4' 2 3E' H' F3 J' H4' $EO' H&' F3 J' ' QO' $EO' <E3' H4' J H43' H&' F3' C$ D' @H J J CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F' D J 4$' $&H43C$ D' ' $ED' $ ' F3' >$ C' J $D3' H4' H' Q3' J $D3' &H4' F3' ; $C3 ' ?$&3 O ' $ED' I 4H 3N HE' H&' 5-C N3C' H&' F3' I 3$N3' E' F3' ; 3N- HE' H&' F3 4' <&& N3' CF$ ' 3 3ED' H' F3' C$ D' $C ' J 3E HE3D' @H J J CC HE34C ' $ED' H' $ ' @HEC $Q 3C' $ED' H F34' I 3$N3' <&& N34C' $ED' I 34CHEC' $N E2' -ED34' F3' 9 44E ' H4' - FH4 O' H&' $EO' C-NF' @H J J CC HE34C ' $C' &- O' $ED' 3&&3N -$ O' H' $ ' E 3E C' $ED' I -4R 1HC3C' $C' &' F3O' 343' F343 E' 3E$N 3D

L+' +@%'))AA)+ (!A' +?')J(<@)!& #B' 3 3N- 3*$&' "+L(!A'

' ED' F343$C' $E' N ' $C' 1$CC3D' E' F3' *F 4D' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' !, (!' F3' 6H-4 F ' &H4' 3E$Q E2' W H' H4' J H43' @H J J CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F' D J 4$ ' F3E' F3' , - J Q34' H&' C-NF' @H J J CC HE34C' C' 3CC' F$E' ? H' DH' N34 $ E' N C' F343 H&H43' DHE3' QO' *F433' H4' J H 3' H&' F3' C$ J 3 @H J

@HJ J CC HE34C: ED' F343$C' NHEC D34 E2' F3' $DD HE$'G- O' H'Q3' 134&H4 J 3D' QO' F3' C$D' @HJ J CC HE34C' E' NHEC3X-3EN3' H&' F3' QH R HE' H&' F3' C$D' <&& N3C' $C' $&H43C$D' ' C' 3 13D 3E' H' $- FH4 T3' F3' ; 3N- HE' H&' $EO' H&' F3 4' G- 3C' QO' * H' @HJ J CC HE34C' HE O'3 3E' F3E' C-NF' @HJ J CC HE34C' CF$ ' Q3' ? ' H4' J H43' E' , - J Q34' Q3' ' &-4 F34' 3E$N 3D' *F$' &4HJ' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' F3' C$D' $C 43N 3D' N ' CF$ ' Q3' $ED' F3' C$J 3' C' F343QO' 4313$ 3D' $ED' F$' &4HJ' F3EN3&H4 F' 'CF$ 'Q3' $ &-' &H4' $EO' * H' H4' J H43' @HJ R J CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F' D J 4$' $&H43C$D' $ED' F3O' $43' F343QO' 3 J 1H 343D' H' 3 34N C3' $ED' 3 3N- 3' $ ' I H 34C' - FH4 3C' $ED' G- 3C' $ED' H' 134&H4 J' $ED' DH' $ ' N C' P$ 34C' $ED' *F E ' $1134 $ E E2' H' F3 4' <&& N3' F NF' QO' $EO' N ' H4' N C' H&' I $4 $ J 3E' $43' $- FH4 T3D' H4' 43X- 43D' H' Q3' 3 3N- 3D' H4' DHE3' QO' *F433' H4' J H43' H&' F3 J' H4' QO' F3' @HJ J CC HE34C' H&' F3' , $ O' $ED' N -$ E2' 43C13N 3 O' $ED' $ 'C-NF' - FH4 3C' G- 3C' P$ 34C' $ED' *F E2C' 3 3N- 3D' $ED' 134&H4 J 3D' QO' * H' H4' J H43' H&' F3' C$D' @HJ J CC HE34C' H&' F3' D J 4$ O' CF$ ' Q3' $ D' $ED' 3&&3N -$' H' $ ' ' E 3E C' $ED' I -41HC3C

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' E' $ 'G33DC' @HE 3O$EN3C' *F3 4? O 3' >3$C3C' @HE 4$N C' $ED' H F34' EC 4- J 3E C' H-NF E2' $EO' ; C $ 3' * 3' I 4H134 O' P$ 34' H4' *F E2' 43 $ E2' H' F3' , $ $'?34 N3' H4' H' $EO' G31$4 J 3E' -ED34' F3' @HE 4H-' H&' F3' @HJ J CC HE34C' &H4' 3 3N- E2 F3' <&& N3' H&' >H4D' 8 2F' D J 4$' $&H43C$ D' H4' F343 H' F3O' H4' $EO' H&' F3 J' CF$ ' Q3' I $4 3C' ' CF$ ' Q3' C-&& N 3E' H' D3CN4 Q3' F3 J' 23E34$ O' QO' F3' ? O 3' $ED' * 3' H&' `' *F3' @HJ J CC HE34C' &H4' `' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F' D J 4$' H&' F3' #E 3D' % E2DHJ' `' H&' ! ' " #' $ED' $!% #&c' FH-' 3 143CC E2' F3 4' , $ J 3C' $ED' F$'$ 'C-NF' G33DC' @HE 3O$EN3C' >3$C3C' @HE 4$N C' $ED' H F34' EC 4- J 3E C' F343 E' F3' C$D' @HJ J CC HE34C' CF$ ' Q3' CH' D3CN4 Q3D' $ED' F3' ; 3N- HE' F343H&' QO' $EO' * H' H&' F3 J' CF$ 'Q3' $C' $ D' $ED' 3&&3N -$' H' $ ' E 3E C' $ED' I -41HC3C' $C' &' F3O' H4' $EO' H&' F3 J' F$D' Q33E' 3 143CC O' E$J 3D' F343 E

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' $ 'B C' &H4' I $O J 3E' H&' C' H F3 P HE3O' $ ' H J 3E' B C' $ED' $ ' ' 3 J $EN3' B C' F343 H&H43' &L) *'& <' J $D3' H-' H4' C 2E3D' QO' F3' @HJ J CC HE34C' H&' F3' , $ O' H4' N -$ E2' & H4' $EO' H&' F3 J' H4' QO' F3' *43$C-434' H&' F3' , $ O' 3 N31 'B C' &H4' &2&]' "&B%' ! ! ')' <- I 3EC HEC' H4' QO' F3' I $O J $C 34' H&' P$4 E3C' H4' $EO' H&' J 3$ C' F3 4' @ 34+C' 43C13N 3 O' CF$ '&4H J' $ED' $& 34' F3' @HJ J 3EN3 J 3E' H&' F C' N ' $C' F343 E $& 34' J 3E HE3D' Q3' J $D3' H-' $ED' C 2E3D' QO' $E' <&& N34' H' Q3' N$ 3D' F3' NNH-E $E'M3E34$' H&' F3' , $ O' H4' QO' $E' <&& N34' H' Q3' &H4' F$' I -41HC3' $11H E 3D' QO' F3' @HJ J CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F' D J 4$' $&H43C$D' $ED' CF$ ' Q3' E' C-NF' 6H4 J ' $ED' NH-E 34C 2E3D' $ED' $114H 3D' E' C-NF' P$EE34' C' F3' C$D' $ J 3E HE3D' @HJ J CC HE34C' CF$ ' &4H J' * J 3' H' * J 3' H4D34' H4' 3C $Q CF' ' $ED' F$'$ 'B C' H' Q3' D4$ E' QO' <&& N34C' H&' F3' , $ O' H4' QO' $EO' H F34' I 34CHEC' -ED34' F3' - FH4 O' H&' $E' N ' J $D3' E' F3' ; 3 3E F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P$(3C O' % E2' ! , (!' F3' 6H-4 F' &H4' NHECH D$ E2' F3' >$ C' 43 $ E2' H' F3' I $O' H&' F3' , $ O' F NF' B C' CF$ ' E' &- -43' Q3' J $D3' 1$O$Q 3' $ ' *F433' G$OC' EC 3$D' H&' ^$C' 14H D3D' QO' F3' C$D' N _' $' *3E' G$OC' ? 2F ' $ED' $ ' H F34' B C F NF' F$ 3' F343 H&H43' Q33E' -C-$ O' D4$ E' -1HE' F3'

@HJJ CC HE34C' N ' F3' ,$ O' J D' + E$58E2' 43C13N 3 O' CF$ ' Q3' ' D4$ E' 1HE' F3' C$D' N3H-E $H ' M3E34$ ' $ED' CF$ ' Q3' $NN31 3D' QO' F J' H4' QO' C-NF' H &334' @&& N34' $C' $&H43C$ D ' $ED' C-NF' NN31 $EN3' C $ ' Q3' HH-$ 34C 2E3D.' $ED' $(H 3D' E' J $EE34' $&H43C$ D' ! $ED' $ ' F3' C3 34$' B o' C]' NH-E 34 E3D' $ED' $114H 3D' $C' $&H43C$ D' CF$ ' F3E' 1$D' QO' F3' *43$C-434' H&' F3' ,$ O ' Q3' D33J3D' 2HHD' $ED' C-&& N 3E' H-NF34C' &H4' C-NF' I$OJ3E' HE' F3' 1$CC E2' H&' F C' NNH-E C'

+#)H(A' & < W' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' &4H J' $ED' $& 34' F3' ' 3 HN$ '
@HJJ-EN$' HE' H&' F3' ?$D' >3 34C' I$ 3E' 11 N$ HEC' @HJJ-E N$ HEC'
)))& (' #+' =)(' ,H N3C' $ED' $ ' I4 T3' $ED' H F34' > C C' $ED' NNH-E ?' $ED' $ '
<@)!& #B' B C' * N&33 C' BHH+C' HN- E3E C ' $ED' I$134C' F NF' QO' $E(' N ' H&' I$4 $J3E' $43' 43X- 43D' H' Q3' J$D3' 2 3E' H4' 4$EC J 3D' H' F3' @HJJ CC HE34C' H&' F3' ,$ O' H4' N -$ E2' CF$ ' Q3' J$D3' 2 3E' $ED' 4$EC J 3D' H' F3' ?3N43 $4O' H&' F3' DJ 4$ O' E' H4D34' F$ ' F3' @HJJ CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' H4D' 8 2F' DJ 4$ ' $&H43R C$ D' J$O' FJ 3-1HE' N$-C3' F3' E3N3CC$4O' P3$C-43C' H' F3' $+3E' &H4'
(!#)?)H&#(A1' N$44O E2' E H' 3&&3N' F3' E 3E& HEC' H&' F3' C$D' N C' ! $ED' F$ ' $ ' @34 & N$ 3C' * N+3 C' H-NF34C' $ED' H F34' GHN- J3E C' F343 H&H43' QO' $EO' N ' H4' N C' $- FH4 T3D' H' Q3' 2 3E' H4' J$D3' H- ' QO' F3' @HJJ CR C HE34C' H&' F3' ,$ O' H4' N -$ E2' CF$ ' Q3' J$D3' $ED' 2 3E' QO' 43' ?3N43 $4O' H&' F3' DJ 4 D O' H4' QO' C-NF' H F34' I34CHE' $C' CF$ ' &H4' F$ ' I -41HC3' Q3' D 43N 3D' QO' F3' C$D' @HJJ CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' W H4D' 8 2F' DJ 4$ ' $&H43C$ D

G'(! #H 15' W' ED' F343$C' ' C' D33J3D' 3 13D 3E' & $' F3' G- 3C' F F34 H'
<(#A' #+' <+' 134&H4 J3D' QO' @HJJ CC HE34C' $ ' F3' C3 34$' GHN+' =$4DC' $ED' H F34'
#J(' $G#)(A' ,$ $' $ED' N -$ E2' ;C $Q CF J3E C' $ ' 8HJ3' $ED' Q4H$D' CF$ '
))#J(!#+' E' &- -43' Q3' 3 3N- 3D' QO' <&& N34C' H' F3' N$ 3D' ?-134 E 3ED3E C' Q3' '
(N(HG#(< IB' F343&H43' &-4 F34' 3E$N 3D' *F$ ' &4H J' $ED' $& 34' F3' ' 3 HN$ HE' H&' F3'
+@@)A%1' C$D' >3 34C' I$ 3E' C-NF' ?-134 \ 3ED3E C' & HJ' * J3' H' * J3' H' F3'
? HEN4C' $' $11H E 3D' CF$ ' F$ 3' & ' IH 34' $ED' - FH4 O' H' DH' 3 3N- 3' $ED'
#J(' &!<A 134&H4 J' $ ' $ED' 3 34O' F3' G- 3C' P$ 34C' $ED' *F E2C' F NF' QO' $EO' N ' H4' N C' H&' I$4 $J3E' EH ' E' &H4N3' $EO' @HJJ CC HE34' H&' F3' ,$ O' H4' N -$ E2' 43C D3E' $' $EO' ,$ $' H4' N -$ E2' =$4D' H4' ;C $Q CF J3E ' H4' $ ' $EO' ,$ $' 8HC1 $ ' $' 8HJ3' H4' Q4H$D' C' $- FH4 T3D' H4' 43X- 43D' H' DH.' I4H D3D' $ $OC' F$ ' E' F3' QC3EN3' H&' C-NF' ?-134 E 3ED3E ' F C' G- O' $C' H' F3' C 2E E2' H&' B C' @34 R & N$ 3C' $ED' H-NF34C' $ED' E' H F34' 43C13N C' E' F NF' F3' N C' H&' $' @HJJ CC HE34' F$ 3' Q33E' 43X- 43D' J$O' Q3' 3 3N- 3D' QO' F3' <&& N34' E3 ' E' ?3E H4 O' H' F J' C-NF' <&& N34' EH N E2' $& 34' F C' ? 2E$ -43' F3' 6$N ' H&' F3' ?-134 E 3ED3E C' QC3EN3

G'(#) #(%' W ' ED' F3' ' &-4 F34' 3E$N 3D' *F$ ' F3' ?-134 E 3ED3E C' CH' H' Q3'
<(#A' (!&%' $11H E 3D' CF$ ' F$ 3' $ED' F3O' $43' F343QO' E 3C 3D' F' &- ' IH 34'
%Q&C 34 ' - FH4 O' H' $DJ E C 34' <$ FC' $ED' H' 3 34N C3' F3' G- 3C'
&#JA'& <'&H#' IH 34C' $ED' - FH4 3C' H&' 5-C N3C' H&' F3' I3$N3' E' $ ' I $N3C' F '
&A' 3GA#)H(A1' 3 34' $ED' E' $ ' P$ 34C' 43 $ E2' H' 8 C' P 3C O C' ,$ $' ?34 N3' $ED' H' F3' ? H43C' I4H C HEC' J J-E HE' $ED' F3' NNH-E C' F343H&' $ED' E' $ ' H F34' @$C3C' F$ 3 34' E' F NF' $EO' @HJJ CC HE34' H&' F3' ,$ O' H4' N -$ E2' C' 3J1H 343D' H' $N ' $C' $' 5-C N3' QO' $EO' N ' H4' N C' EH ' E' &H4N3' E' $C' &- ' $' P$EE34' H' $ ' E 3E C' $ED' I-4
1HC3C

U`M#> ;>P ' ' @$1 [' S[S

1HC3C' $C' &' C-NF' ?-134 E 3ED3E C' F$D' Q33E' E$J3D' E' $EO' C-NF' N '
H4' N C ' H4' E' $EO' @H J J CC HE' H&' F3' I 3$N3' &H4' $EO' C-NF' I $N3C' (
$ED' F$ ' $ ' F3' >$ C' J$D3' $ED' H' Q3' J$D3' &H4' F3' ; $C3 ' ?$&3 O'
$ED' I 4H 3N HE' H&' 5-C N3C' H&' F3' I 3$N3' E' F3' ; 3N- HE' H&' F3 4'
<&& N3' CF$ ' 3 3ED' H' C-NF' ?-134 E 3ED3E C ' $ED' H' $ ' @HEC $Q 3C'
$ED' H F ' I 3$N3' <&& N34C' $ED' I 34CHEC' $N E2' -ED3 ' F3' 9 44E ' H4'
- FH4 O' H&' $EO' C-NF' ?-134 E 3ED3E ' $C' &- O' $ED' 3&&3N -$ O' $C'
$EO' C-NF' >$ C' N$E' Q3' D33 J3D' H' 3 3ED' H' $EO' 5-C N3' H4' 5-C N3C'
H&' F3' I 3$N3 ' $ED' H' D 3' I 34CHEC' $N E2' -ED34' F3 J

W ' ED' F343$C' QO' F3' C$D' N ' H&' F3' ; 3 3E F' =3$4' H&' % E2' A' (H#+!A'
!, (!' F3' 6H-4 F ' &H4' NHECH D$ E2' F3' >$ C' 43 $ E2' H' F3' I $O' H&' $G#B' L)#J'
F3' , $ O ' I 4H C HE' C' J$D3' &H4' F3' I $O J3E ' FH- ' I 4HQ$ 3' H4'
D J E C 4$ HE ' E' @$C3C' H&' ?- J C' EH ' 3 N33D E2' * F 4 O H' I H-EDC' H(!#&) ' G@A!'
1OQ 3' HE' $NNH-E ' H&' I $O ' 8 $ &' I $O ' H4' I 3EC HE' H&' D3N3$C3D' <&& N34C'
H&' F3' , $ O' $ED' P $4 E3C ' $ED' H&' I 3EC HEC' H&' D3N3$C3D' 9 DH C' H&'
<&& N34C ' $ED' HE' $NNH-E ' H&' H $EN3C' &4H J' F3' @H J 1$CC HE$ 3'
6-ED.' ED' F343$C' QO' 43$CHE' H&' F3' QH HE' H&' F3' <&& N3' H&'
I $O J $C 34' H&' P $4 E3C ' $ED' H&' F3' * 4$EC&34' H&' I $4 ' H&' F3' G- 3C' H&'
F3' * 43$C-434' H&' F3' , $ O ' ' C' Q3NH J3' E3N3CC$4O' H' J$+3' &-4 F34
I 4H C HE' E' C-NF' @$C3C ' $ED' $ CH' E' F3' @$C3C' H&' ?- J C' EH ' 3 N33D E2'
* 3E O' I H-EDC' D-3' H' $EO' D3N3$C3D' I 34CHEC' HE' $NNH-E ' H&' $EO' I 4 T3'
P HE3O ' $ED' &H4' F3' ?34 N3C' H&' D3N3$C3D' , HE NH J J CC HE3D' <&& N34C'
$ED' P $4 E3C ' Q3' ' F343&H43' &-4 F34' 3E$N 3D ' * F$ ' &4H J' $ED' $& 34 '
F3' 1$CC E2' H&' F C' N ' F3' E 3C 2$ HE' H&' $ ' @ $ J C' H' F3' ; &&3N C'
H&' $EO' C-NF' D3N3$C3D' I 34CHEC' CF$ ' Q3' J$D3' QO' F3' EC13N H4' H&'
?3$J3E C' 9 C' E' F3' P $EE34' 43X- 43D' QO' F3' C$D' 43N 3D' N ' E'
@$C3C' H&' C J $4' @ $ J C' H' I $O' &H4' ?34 N3C' E' F3' ' HO$ ' , $ O ' $ED'
F3' C$D' EC13N H4 ' $& 34' D- O' E 3C 2$ E2' F3' @ $ J ' $ED' F3'
J H-E ' H&' F3' G3N3$C3D C' CC3 C ' C' F343QO' $- FH4 T3D' E' $EO' C-NF'
@$C3C' H' CC-3' $' @F3N+' H4' @34 & N$ 3 ' $C' C' 43X- 43D' QO' F3' C$D' N '
F' 43C13N ' H' , $ $ ' I $O ' $ED' F$ ' $ ' I $O J3E C' EH ' 3 N33D E2' E'
F3' FH 3' * F 4 O H' I H-EDC' H&' I $O ' 8 $ &' I $O ' I 3EC HE ' H4' H R
$EN3C' H&' D3N3$C3D' <&& N34C' H&' F3' , $ O' $ED' P $4 E3C ' $ED' H&' 9 DH C'
I 3EC HEC ' $ED' H&' H $EN3C' &4H J' F3' @H J 1$CC HE$ 3' 6-ED ' $ED' $ '
I $O J3E C' EH ' 3 N33D E2' E' F3' FH 3' * 3E O' I H-EDC' H&' P HE 3C' D-3'
H' $EO' D3N3$C3D' I 34CHEC' HE' $NNH-E ' H&' I 4 T3' P HE3O ' $ED' &H4' F3'
?34 N3C' H&' D3N3$C3D' , HE NH J J CC HE3D' <&& N34C ' G4- J J 34C ' $ED'
I 4 $ 3C' H&' P $4 E3C ' H' Q3' J$D3' -ED34' $EO' C-NF' @34 & N$ 3 ' CF$ ' Q3'
$C' 3&&3N -$ ' $ED' 32$ ' $C' &' F3' C$J3' F$D' Q33E' J$D3' -ED34' $EO' I 4HQ$ 3'
H&' $ 9 ' H4' >3 34C' H&' D J E C 4$ HE.' I 4H D3D' $ $OC ' F$ ' E'
H4D34' H' $ H ' * J 3' &H4' F3' I 4HD-N HE' H&' $EO' 9 ' F NF' J$O'
F$ 3' Q33E' J$D3' QO' $EO' C-NF' D3N3$C3D' I 34CHE ' $ED' H' 2-$4D' 2 EC '
64$-D ' EH' @F3N+' H4' @34 & N$ 3' F$ 3 34' CF$ ' Q3' 24$E 3D' E' 3-' H&'
>3 34C' H&' D J E C 4$ HE ' -ED34' F C' H4' F3' C$D' 43N 3D' N ' -E '
* F433' @$ 3ED$4' P HE FC' CF$ ' F$ 3' 3 $1C3D' &4H J' F3' * J 3' H&' , H N3'
Q3 E2' 2 3E' H' F3' EC13N H4' H&' F3' G3$ F' H&' F3' I 34CHE' FD
; &&3N C' $43' N $ J3D

W ' ED' &H4' F3' Q3 34' E 3C 2$ HE' H&' @ $ J C' H' F3' ; &&3N C' H&' EC13N H4
D3N3$C3D' I 34CHEC' -ED34' F C' H4' F3' C$D' 43N 3D' N ' Q3' ' &-4 F34' JOD J '
3E$N 3D ' * F$ ' &4H J' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' F3' C$D' E C 34' <$ FC
EC13N H4

EC13N H4' CF$ ' 8$ 3'&- ' IH 34'$ D' - FH4 O' H'$DJ - C 34'$E' <$ F' H4' && 4J$ HE' H' $EO' @$ J$E C' H-NF E2' F3 4'@$ JC' 3 F34'$C' F3' '3143C3E $ 3C' H4' F3' @43D H4C' H&' F3' G3N3$C3D' $ED' H' F3' 9 E3CC3C' H' Q3' $DD-N3D' E' C-11H4' H&' $EO' C-NF' @$ JC' $ED' F$' F3' @34 &N$ 3' H&' F3' H $EN3' H&' F3' @$ J' CF$ 'Q3' E' C-NF' IH4J' $C' F3' @HJ J CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F' DJ 4$' CF$ '$- FH4 T3'

((A' ?# ' "!+D I&#(A1' 4H' H+ #&) (<) ' #J(' HJ(<G (' #+' #J)A' H# #+' I(' #&; (') ')(G' +?' #J+A(' A' (H)?)(<) ' : 9

W ' ED' F343$C' QO' F3' C$D' N' H&' F3' ; 3 3E F' =3$4' H&' % E2' !, (!' F3' 6H-4 F' I4H CHE' C' J$D3' &H4' J E2' F3' ; 13EX3' H&' HQ $E E2' I4HQ$ 3C' H&' 9 C' $ED' >3 34C' H&' DJ E C 4$ HE' H' F3' ; &&3N C' H&' D 3N3$C3D' <&& N34C' ?3$J 3E' $ED' P$4 E3C' $ED' ' C' 3 13R D 3E' F$' F3' ?NF3D- 3' H&' 633C' H' Q3' $ H 3D' E' C-NF' @$C3C' CFH- D' HE' $NNH-E' H&' E$NN-4$N 3C' F343 E' Q3' $ 343D' Q3' ' F343&H43' &-4 F34' 3E$N 3D' *F$' &4HJ' $ED' $& 34' F3' 1$CC E2' H&' F C' N' F3' C3 34$' ?-JC' C3' &H4 F' E' F3' *$Q 3' H&' 63DC' NHE $ E3D' E' F3' ?NF3D- 3' $EE3 3D' H' F C' N' $ED' F NF' CF$ 'Q3' D33J 3D' $C' I$4' F343H&' ?F$' Q3' $ H 3D' $ED' $+3E' E' F3' @$C3C' 43C13N 3 O' F343 E' J3E HE3D' E' 3E' H&' FHC3' C13N & 3D' E' F3' ?NF3D- 3' H&' F3' C$D' 43N 3D' N' ($ED' &' $EO' '32 C 4$4' I4HN H4' H4' H F34' 134CHE' CF$ ' D3J$ED' H4' 43N3 3' JH43' F$E' F3' C3 34$' ?-JC' 43C13N 3 O' $ H 3D' QO' F3' ?NF3D- 3' $EE3 3D' H' F C' N' 3 34O' I34CHE' CH' H&&3ED E2' CF$ ' &H4&3 ' F3' ?-J' H&' 6 & O' 6H-EDC' F NF' CF$ 'F3' 433H 3JQ 3' F' @HC C' H&' ?- ' $ED' $11 N$Q 3' E' F3' C$J 3' P$EE34' $C' C' 14H D3D' QO' F3' ?$D' 43N 3D' N' F' 43C13N' H' 13N-E $4O' I3E$ 3C' 3 N33D E2' * 3E O' IH-EDC. I4H D3D' E3 34 F3 3CC' F$' &' $EO' EN43$C3' H4' G J E- HE' CF$ ' $+3' 1 $N3' E' F3' ?$J 1' G- 3C' 1OQ 3' E' 43C13N 'H&' $EO' C-NF' I4HQ$ 3C' H4' >3 34C' <&' DJ E C 4$ HE' H4' H&' $EO' EC 4-J3E' NHEE3N 3D' F343R F' F3' ?-JC' H' Q3' $ H 3D' CF$ 'Q3' EN43$C3D' H4' D J E CF3D' H' F3' ; 3E' H&' F3' 34$ HE' E' C-NF' ?$J 1' G- 3C' + $ED' 14H D3D' $ CH' F$' E' @$C3C' H&' 3 4$H4D E$4O' *4H-Q 3' H4' ; W13EN3' C-NF' $DD HE$' H $EN3' ?F$' Q3' J$D3' $C' CF$ ' $113$4' 43CHEQ 3' H' F3' @HJ J CR C HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F' DJ 4$' $&H43C$ D

"!+H#+!A' & <' +#J(!A') D <(@)?)(<' ?+!' !(H()2) *' *!(&#(!' ((A' #J& '& +L(<' IB' H# : 9 '

W ' ED' E$C J-NF' $C' $' C 4N' DF343EN3' H' F3' >3 34' H&' C-NF' E$NN-4$ 3' ?NF3D- 3' H- D' 'F$ 3' 14HD-N3D' $' B-4D3E' -1HE' F3' '3 $ HEC' H&' D3N3$C3D' ?3$J 3E' EH ' E 3ED3D' QO' F3' C$D' 43N 3D' N' Q3' '&-4 3&' 3E$N 3D' *F$' D' '32 C 4$4C' I4HN H4C' $ED' H F34C' FH' J$O' -ED34' F3' - FH4 O' H&' F3' *43$C-434' H&' F3' ,$ O' H4' F C' <&& N34C' F$ 3' Q33E' $ H 3D' H4' F$ 3' 43N3 3D' JH43' H4' H F34' F$E' F3' ?-JC' C3' &H4 F' E' F3' C$D' E$NN-4$ 3' ?NF3D- 3' CF$ 'Q3' $ED' $43' F343QO' ED3J E & 3D' $ED' 43 3$C3D' &4HJ' $ ' I3E$ 3C' $E&&' 6H4&3 -43C' F NF' -ED34' F3' C$D' 43N 3D' N' F3O' J$O' F$ 3' EN-443D' HE' $EO' C-NF' NNH-E

+<(' +?' "&BD @(#' +?' &' ?' "&B1' 4H' '!+D 2)<(<' IB' ' : 9 ' (N#(<(<' #+' &!) (' &' ?' "&B' & <' "(D A)+ A1' & <' #+

W ' ED' F343$C' QO' F3' C$D' 43N 3D' N' H&' F3' ; 3 3E F' =3$4' H&' 8 C' $ 3' P$(3C O' I4H CHE' C' J$D3' &H4' F3' I$OJ 3E' H&' ,$ $' 8$ &' I$O' $ED' I3EC HEC' QO' $' PHD3' N$ 3D' $E' ; 4$N ' -1HE' ,H N3' H' Q3' 2 3E' H' F3' @34+' H&' F3' *43$C-434' H&' F3' ,$ O' QO' F3' I34CHE' D3C 4 E2' H' Q3' CH' 1$D' $ED' I4H CHE' C' $ CH' J$D3' &H4' F3' I$OJ 3E' H&' F3' I3EC HEC' H&' <&& N34C' $ED' H F34C' Q3NHJ E2' EC$E3' H' F3' I34CHEC' F$ E2' F3' @$43' $ED' P$E 3E$EN3' H&' F3J' $ED' ' C' 3 R 13D 3E

13D 3E ' H' 3 3ED' F3' C$ D' I 4H C HEC ' Q3' ' F343&H43' &-4 F34' 3E$N 3D
* F$ ' &4HE4' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' C-NF' P HD3' H&' I $0 J 3E ' Q3 EC*EC$E3
QO' ; 4$N ' CF$ ' &'43X- 43D' QO' F3' I $4 3C ' Q3' $DH1 3D' F' 43C13N ' H'
P $4 E3' 8 $ &' I $O' $ED' I 3EC HEC ' $ED' F$ ' F3' , H N3' CF$ ' Q3' 2 3E'
H' F3' ?-134 E 3 ED3E ' H&' F3' GHN+' =$4D' $ ' F NF' F3' I $4 O' CF$ '
Q3' D3C 4H-C' H' Q3' CH' 1$ D ' $ED' F$ ' E' $ ' @$C3C' H&' 9 DH C' H&' , $ $'
$ED' P $4 E3' <&& N34C' 3E 3D' H' $EO' I 3EC HE' Q3NH J E2' H4' Q3 E2'
EC$E3 ' H4' H F34 C3' &4H J ' F3 4' ? $ 3' H&' P ED' ENH J 13 3E ' H' F3'
P E23 J 3E ' H&' F3 4' &&$ 4C ' ' CF$ ' Q3' $ &- ' &H4' F3' * 43$C-434' H&'
F3' , $ O ' -ED34' F3' - FH4 O' H&' F3' @H J J CC HE34C' &H4' 3 3N- E2'
F3' <&& N3' H&' >H4D' 8 2F' D J 4$ ' H' 1$O' H 34' H' F3' ' 3 $ 3' H4'
H F34' I 34CHE' F$ E2' F3' @$43' $ED' P $ E 3E$EN3' H&' $EO' C-NF' 9 DH '
C-NF' I 3EC HE ' H4' C-NF' I H4 HE' F343H&'$C' F3' C$ D' @H J J CC HE34C' CF$ '
F E+'& ' H' Q3' $11 3D' H' F3' P $ E 3E$EN3' $ED' ?-11H4 ' H&' C-NF' EC$E3'
H4' ENH J 13 3E ' I 3 CHE(' $ED' 3 34O' C-NF' I $0 J 3E ' CF$ ' Q3' D33 J 3D'
$ D ' $ED' $#' 3&&3N -$ ' G CNF$423' H' F3' C$ D' * 43$C-434' &H4' CH' J -NF' $C' '
CF$ ' Q3' CH' 1$ D

W ' E ' F343$C' QO' F3' C$ D' 43N 3D' N ' 23E C' 3 J 1 HO3D' E' *(#A'
F3' ' 3N3 1 ' H&' 9 $23C' E' 43C13N ' H&' ?34 N3C' E' F3' ' HO$ ' , $ O' $43' +@@)AA)+ 1'
14HF Q 3D' &4H J ' $+ E2' J H43' F$E' ? 13EN3' E' F3' I H-ED' &H4' 43R
N3 E2' $ED' 1$O E2' H 34' F3' C$ J 3 ' $ED' &H4' $ ' F3 4' * 4H-Q 3' E'
43 $ HE' F343 H.' ED' F343$C' N34 $ E' <&& N34C' $43' 134 J 3D' H'
43N3 3' I $4 ' $ED' H F34C' F3' 9 FH 3' H&' F3 4' I $O' QO' D4$ E2' B C' &H4'
F3' C$ J 3 ' $ FH-2F' ' C' 43X- 43D' H&' F3 J ' H' 1$CC' GHN- J 3E C' $ED'
NNH-E C' $EE-$ O' H4' HE' X- E2' F3 4' ?F 1C ' CH' F$ ' EH' I $O' J $(' Q3'
43N3 3D' QO' F3' 23E ' H- ' H&' F NF' F3' N$E' D3D-N ' F3' H $EN3'
H&' ? 13EN3' E' F3' I H-ED ' H4' Q3' E' $EO' P $EE34' NH J 13EC$ 3D' &H4' F C'
* 4H-Q 3' E' 4ECN E2' F3' B-C E3CC' H&' F3' <&& N34' E' F C' QC3EN3 '
H4' &H4' 1$CC E2' F C' NNH-E C ' $ED' ' C' F343&H43' E3N3CC$4O' H' 3 1 $ E'
$ED' $ J 3ED' F3' C$ D' N ' E' F C' 43C13N ' Q3' ' F343&H43' &-4 F34'
3E$N 3D' $ED' D3N $43D ' * F$ ' C-NF' I 4HF Q HE' CF$ ' FH ' Q3' D33 J 3D'
H' 3 3ED' H' 143 3E ' $EO' 23E ' &4H J ' NF$42 E2' H4' 43N3 E2' &4H J ' $EO'
@H J J CC HE' H4' 9 44E ' <&& N34' ^C$ 3' $ED' 3 N31 ' E' F3' @$C3C' H&'
1$CC E2' NNH-E C ' &H4' 9 F NF' 3C13N $ ' I 4H C HE' C' J $D3' E' F3' C$ D'
N _' C-NF' 43CHEQ 3' @H J 13EC$ HE' $?' C-NF' 23E ' J $O' Q3' &$ 4 O'
3E 3D' H' NF$423 ' H&' $C' J $O' Q3' $2433D' -1HE' Q3 33E' F3 J ' &H4' $EO'
* 4H-Q 3' H4' I $ EC' H&' C-NF' 23E ' E' 4ECN E2' &H4' $EO' C-NF' @H J R
J CC HE' H4' 9 44E ' <&& N34' $EO' B-C E3CC ' H4' &&$ 4C' EH ' 43 $ E2' H' H'
' 3N3 1 ' H&' I $O ' I 4 T3' P HE3O ' H4' H F34' H $EN3C '

W ' ED' F343$C' QO' F3' C$ D' 43N 3D' N ' ' C' 3E$N 3D ' E' @$C3C+ #J B'
H&' J HE F O' I $0 J 3E C' H&' I $O' H' F3' ?3$ J 3E' H&' F3' , $ O ' E' F3' I $0 J 3E C' E'
QC3EN3' H&' F3' I -4C34 ' H4' E' ?F 1C' EH ' F$ E2' $' I -4C34 ' F3' @H J R J)'A' ' +#'
J $ED E2' <&& N34' CF$ ' $N ' $ED' Q3' D33 J 3D' H' Q3' F3' I -4C34' &H4' $ ' F3' J&2) *' "G!D
I -41HC3C' H&' C-NF' I $0 J 3E C'.' ED' F343$C' ' C' &H-ED' 3 13D 3E ' F$ ' C34C' #+' I ('
E' N34 $ E' ?F 1C' EH ' F$ E2' I -4C34C' F3' G- O' H&' I -4C34' CF$ ' Q3' @&<(' IB'#J('
134&H4 J 3D' QO' F3' @ 34+' H&' F3' ?F 1' EC 3$D' H&' F3' @H J J $ED E2' (! ;') A#(&<'
<&& N34 ' Q3' ' F343&H43' 3E$N 3D ' * F$ ' &4H J ' $ED' $& 34' F3' 1$CC E2' H&' +?'#J(' +@D
F C' N ' E' $ ' C-NF' @$C3C' $C' $&H43C$ D ' F3' I $0 J 3E ' CF$ ' $ED' E$O' @& <) *'
Q3' J $D3' QO' F3' @ 34+' CH' $11H E 3D' H' DH' F3' G- O' H&' I -4C34 ' E' ??)H(! 1
F3' I 43C3EN3' H&' F3' @H J J $ED E2' <&& N34' $ED' H&' $EH F34' @H J J CR
C HE3D' <&& 134 ' &' F343' &33' <E3' Q3 HE2 E2' H' F3' ?F 1 ' $ED' &' EH '

F3E E F3 I43C3EN3 H& F3 @HJ $ED E2 <&& N34 $ED F3 I34CHE $N E2 $C P$C 34 H4 <E3 H& F3 P$ 3C H& F3 ?F 1 3E 3D H D4$ B C F NF <&& N34C CF$ $ 3C F3 > C C $C 43X- 43D FO F3 C$ D N

E)H(A) * +? ,$ (4 23E C

W W ED F343$C QO *F433 C3 34$ N C H& I$4 $J 3E 43 $ E2 H F3 3N3 1 H& , $ $ I4 T3 P HE3O 1$CC3D E F3 I & O C3 3E F $ED 6 & O E E F =3$4C H& 8 C $ 3 P $(3C O % E2 !, (! F3 *F 4D $ED E F3 6 4C =3$4 H& 8 C $ 3 P $(3C O % E2 M3H423 F3 6H-4 F N34 $>E I4H C HEC $43 3C $Q CF3D F 432$4D H F3 N3EC E2 QO F3 C-434 H& F3 , $ O H& 23E C H 43N3 3 F3 I$O $ED I4 T3 P HE3O H& I3 O <&& N34C ?3$J 3E $ED P$4 E3C (Q3 &-4 F34 3E$N 3D *F$ $ C-NF > N3EN3C H 23E C $ED H F3 3143C3E $ 3C H& D3N3$C3D 23E C $C QO F3 C$ D C3 34$ N C H4 QO $EO H F34 N $43 $- FHR 4 T3D H Q3 24$E 3D QO F3 *43$C-434 H& F3 , $ O CF$& &4HJ $ED $& 34 F3 @HJ J3EN3J3E H& F C N $C F343 E $& 34 J3E HE3D Q3 24$E 3D QO $E <&& N34 H Q3 &H4 F$ I-41HC3 $11H E 3D QO F3 @HJ J CC HE34C &H4 3 3N- E2 F3 <&& N3 H& >H4D 8 2F DJ 4$ F NF @HJ J CC HE34C CF$ F$ 3 &- IH 34 $ED - FH4 O &4HJ * J3 H * J3 $C F3O CF$ C33 43X- C 3 H 43 H+3 C-NF > N3EN3C E N$C3 H& , 32 3N E $EO C-NF N3EC3D 23E D- O H $NNH-E &H4 $ED 1$O H 34 $ P HE 3C 43N3 3D QO F J H4 H& $EO D3N3 &- &4$-D D3E 4 D CFHE3C @HED-N 14$N C3D QO $EO C-NF 23E H $4DC $EO I34CHE H4 I34CHEC HE FHC3 B3F$ & F3 CF$ F$ 3 Q33E 3J1 HO3D H4 H $4DC $EO I34CHE N $ J E2 F4H-2F H4 -ED34 F3J $ED F$ $ C-NF N3EC3D 23E C CF$ &4HJ * J3 H * J3 2 3 C-NF , H N3 E 9 4 E2 H F3 ?3N43 $4O H& F3 DJ 4$ O H& F3 4 @F$E23 H& QHD3 $C QO F3 C$ D N H& F3 6 & O E E F =3$4 H& % E2 !! (! F3 *F 4D C 43X- 43D H Q3 2 3E H F3 *43$C-434 -& F3 , $ O . I4H D3D $ $OC F$ 3 34O C-NF 23E CH H Q3 N3EC3D CF$ 3E 34 E H BHED F ?-43 3C H 8 C P $(3C O $C 43X- 43D QO F3 C$ D N H& F3 6 4C =3$4 H& 8 C P $(3C O % E2 !, (! F3 6H-4 F E C-NF 6H4J $C H F3 C$ D @HJ J CC HE34C CF$ $113$4 43X- C 3

$G#)(A) &##(!A +? "!)c(#!& AD ?(!!(< #+ <@)!& #B1 (NH(# &A #+ "&B@(#A $ED 3N3 1 C

WW ED F343$C $E N $C 1$CC3D E F3 *3E F =3$4 H& F3 3 2E H& 8 C $ 3 P $(3C O % E2 !, (! F3 6H-4 F &H4 4$EC&344 E2 F3 P E23J3E H& !!#F) <- I3EC HEC $ED N34 $ E G- 3C E P$ 34C H& I4 T3 H F3 *43$C-434 H& F3 , $ O $ED C 3 13D 3E F$ C-NF P E23J3E $ED G- 3C CH &$4 $C 432$4DC P$ 34C H& I4 T3 HE O CFH- D Q3 1 $N3D -ED34 F3 @$43 H& F3 @HE-E CC HE34C &H4 3 3N- E2 F3 <&& N3 H& >H4D 8 2F DJ 4$ $&H43C$ D (Q3 F343R &H43 &-4 F34 3E$N 3D *F$ &4HJ $ED $& 34 F3 @HJ J3EN3J3E H& F C N $C F343 E $& 34 J3E HE3D F3 C3 34$ G- 3C E P$ 34C H& I4 T3 $ED $ F3 IH 34C $ED - FH4 3C 43 $ E2 F343 H 43C13NR 3 O F NF QO F3 C$ D $C 43N 3D N 343 3C 3D E F3 *43$C-434 H& F3 , $ O CF$ Q3 $ED F3 C$J3 $43 F343QO 4$EC&3443D H $ED 3C 3D E F3 @HJ J CC HE34C &H4 3 3N- E2 F3 <&& NF H& >H4D 8 2F DJ 4$ $&H43C$ D 43C34 E2 $ $OC H F3 C$ D *43$C-434 F3 G- O H& J$+ E2 $ I$O J3E C $ED 43N3 E2 $ P HE 3C $C QO F3 C$J3 N C D 43N 3D $ED 14H D3D E F$ B3F$ &

3J $EN3 B C

WW ED Q3 &-4 F34 3E$N 3D *F$ CH J -D H& F3 C$ D $CQ J3E HE3D N $C 43 $ 3C H F3 6H4J H& 3J $EN3 B C CF$ QD

$ED

$EDʻ 3ʻ C$J3ʻ Cʻ F343QOʻ 4313$ 3D ʻ $EDʻ F$ ʻ &4HJ ʻ F3EN3&H4 Fʻ ' 3J R
$EN3/ʻ B Cʻ &H4ʻ !!)ʻ <- I3EC HEC ʻ $EDʻ F3ʻ @34 & N$ 3ʻ $EDʻ
' 3N3 1 ʻ Hʻ Q3ʻ 43X- 43Dʻ HEʻ 6H J 3E ʻ F343H&ʻ CF$ ʻ Q3ʻ Eʻ C-NFʻ 6H4 J ʻ $Cʻ
F3ʻ *43$C-434ʻ H&ʻ F3ʻ , $ Oʻ& 4 F3ʻ * J3ʻ Q3 E2ʻ CF$ ʻ &4HJ ʻ * J3ʻ Hʻ
* J3ʻ $- FH4 T3ʻ $EDʻ D 43N ʻ $ Dʻ F$ ʻ ' 3J $EN3ʻ B Cʻ &H4ʻ I4 T3ʻ
PHE3O ʻ H&ʻ F NFʻ F3ʻ PE23 J3E ʻ Cʻ QOʻ F Cʻ N ʻ E 3ED3Dʻ Hʻ Q3ʻ
4$EC&3443Dʻ Hʻ F3ʻ C$ Dʻ @HJ J CC HE34Cʻ &H4ʻ 3 3N- E2ʻ Q3ʻ <& N3ʻ H&ʻ
>H4Dʻ 8 2Fʻ DJ 4$ ʻ CF$ ʻ &4HJ ʻ $EDʻ $& 34ʻ C-NFʻ *4$EC&34 ʻ Q3ʻ J$D3ʻ Eʻ
F3ʻ C$J3ʻ P$EE34ʻ $EDʻ C-Q(3N ʻ Hʻ F3ʻ C$J3ʻ ' 32- $ HECʻ Eʻ $ ʻ 43C13N Cʻ
$Cʻ $43ʻ 14H D3Dʻ Fʻ 432$4Dʻ Hʻ I$OJ3E Cʻ 43 $ E2ʻ Hʻ , $ $ ʻ $EDʻ
P$4 E3ʻ I$Oʻ $EDʻ I3EC HEC ʻ H4ʻ Eʻ C-NFʻ H F34ʻ P$EE34ʻ $EDʻ 6H4 J ʻ $Cʻ F3ʻ
C$ Dʻ @HJ J CC HE34Cʻ CF$ ʻ &4HJ ʻ * J3ʻ Hʻ * J3ʻ $- FH4 T3ʻ $EDʻ D 43N ʻ
$EDʻ Eʻ N$C3ʻ H&ʻ C-NFʻ I$OJ3E Cʻ Q3 E2ʻ J$D3ʻ -1HEʻ ' 3J $EN3ʻ BD Cʻ QOʻ
$EOʻ <&& N34ʻ H&ʻ F3ʻ ' 3 3E-3ʻ ' 31$OJ3E ʻ F343H&ʻ CF$ ʻ Q3ʻ J$D3ʻ Hʻ F3ʻ
43C13N 3ʻ G31$4 J3E Cʻ H&ʻ F3ʻ ' 3 3E-3ʻ Eʻ F3ʻ P$EE34ʻ 14H D3Dʻ QOʻ
F3ʻ C$ Dʻ 43N 3Dʻ H ʻ H&ʻ F3ʻ ; 3 3E Fʻ =3$4ʻ H&ʻ % E2ʻ !, (!ʻ F3ʻ 6H-4 Fʻ
Fʻ 43C13N ʻ Hʻ H F34ʻ ' 3J $EN3ʻ B C ʻ $Eʻ NNH-E ʻ H&ʻ F NFʻ B Cʻ
CF$ ʻ Q3ʻ &H4 $4D3D ʻ &ʻ &H4ʻ <- ʻ I3EC #EC ʻ Hʻ F3ʻ *43$C-434ʻ H&ʻ F3ʻ , $ O ʻ
$EDʻ &ʻ &H4ʻ I4+3 ʻ Hʻ F3ʻ DJ 4$ Oʻ <&& N3 ʻ Eʻ H4D34ʻ F$ ʻ C-NFʻ NNH-E ʻ
J$Oʻ Q3ʻ 3 $J E3Dʻ QOʻ F3ʻ 14H134ʻ <&& N34ʻ H&ʻ F3ʻ 43C13N 3ʻ G31$4 R
J3E C ʻ $ED ʻ &ʻ &Q-EDʻ NH443N ʻ F$ ʻ P3$C-43Cʻ J$Oʻ Q3ʻ $+3Eʻ &H4ʻ N$-C E2ʻ
' 31$OJ3E ʻ Hʻ Q3ʻ J$D3ʻ QOʻ F3ʻ C$ Dʻ *43$C-434ʻ Hʻ F3ʻ 43C13N 3ʻ G3R
1$4 J3E Cʻ H&ʻ F3ʻ ' 3 3E-3ʻ $NNH4D E2 O ʻ $EDʻ Eʻ $ ʻ @$C3Cʻ H&ʻ ' 3J R
$EN3ʻ B Cʻ &H4ʻ I4 T3Cʻ J$D3ʻ H- ʻ $EDʻ EH ʻ 1$ D ʻ H E2ʻ Hʻ F3ʻ G3$ Fʻ H&ʻ
F3ʻ I$4 O ʻ H4ʻ H F34ʻ @$-C3 ʻ C-NFʻ B Cʻ CF$ ʻ Q3ʻ 43 -4E3Dʻ Hʻ F3ʻ DJ 4$ Oʻ
<&& N3ʻ Hʻ Q3ʻ N$EN3 3D

WW ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3Dʻ $EDʻ D3N $43D ʻ *F$ ʻ $ ʻ PHE 3Cʻ G#A#& <) *ʻ
F NFʻ 143 H-C Oʻ Hʻ F3ʻ *4$EC&34ʻ H&ʻ F3ʻ P$E$23 J3E ʻ H&ʻ <- I3EC HECʻ (33J3 I- ʻ
$EDʻ G- 3Cʻ Eʻ P$ 34Cʻ H&ʻ I4 T3ʻ Hʻ F3ʻ *43$C-434ʻ H&ʻ F3ʻ , $ O ʻ QOʻ F3ʻ - + (B1ʻ
C$ Dʻ 43N 3Dʻ N ʻ H&ʻ F3ʻ *3E Fʻ =3$4ʻ H&ʻ % J2ʻ !, (!ʻ F3ʻ 6H-4 F ʻ 343
-ED34ʻ $EOʻ H F34ʻ N ʻ H4ʻ N Cʻ H&ʻ I$4 $J3E ʻ J$D3ʻ 1OQ 3ʻ Hʻ F3ʻ
*43$C-434ʻ H&ʻ !!#F ')ʻ 8HC1 $ ʻ H4ʻ &H4ʻ F3ʻ B3E3& ʻ H&ʻ F$ ʻ ; C $Q CFR
J3E ʻ HEʻ $NNH-E ʻ H&ʻ -ED C 4 Q- 3Dʻ I4 T3ʻ <4 BH-E Oʻ PHE3O ʻ H4ʻ H&ʻ
-EN $ J3Dʻ H4ʻ &H4&3 3Dʻ ?F$43Cʻ H&ʻ C-NFʻ PHE 3C ʻ H4ʻ HEʻ $EOʻ H F34ʻ
NNH-E ʻ F NFʻ $43ʻ EH ʻ H- C $ED E2ʻ Eʻ F3ʻ 8$EDCʻ H&ʻ $EOʻ 23E ʻ H4ʻ
23E C ʻ H4ʻ F NFʻ F$ 3ʻ EH ʻ Q33Eʻ 1$ Dʻ H 34ʻ QOʻ C-NFʻ 23E ʻ H4ʻ 23E C ʻ
H4ʻ ENFʻ J$Oʻ F343$& 34ʻ $4 C3ʻ H4ʻ Q3ʻ 1$O$Q 3 ʻ CF$ ʻ Q3ʻ D33J3Dʻ Hʻ Q3ʻ
I-Q Nʻ PHE&HCʻ H E2ʻ Hʻ 8 Cʻ P$(3C O ʻ $EDʻ CF$ ʻ $EDʻ J$Oʻ Q3ʻ C-3Dʻ &H4ʻ
$EDʻ 43NH 343Dʻ Eʻ F3ʻ C$J3ʻ P$EE34ʻ $Cʻ $EOʻ H F34ʻ G3Q Cʻ D-3ʻ Hʻ 8 C
P$(3C Oʻ J$Oʻ QOʻ >$ ʻ Q3ʻ 43NH 343D

WW ʻ EDʻ F343$Cʻ QOʻ F3ʻ C$ Dʻ N ʻ H&ʻ F3ʻ *3E Fʻ =3$4ʻ H&ʻ 8 Cʻ $ 3ʻ (<#(< H#+?ʻ
P$(3C Oʻ % E2ʻ M43H423ʻ F3ʻ 6H-4 Fʻ ʻ Cʻ 3E$N 3D ʻ F$ ʻ F3ʻ H $EN3ʻ : 9 ʻ
H&ʻ ? 13EN3ʻ 5! ʻ PHE F ʻ NHJ JHE Oʻ N$ 3Dʻ , $ $ ʻ ? 13EN3C ʻ 1OQ 3ʻ ʻ ˋ ʻ
H- ʻ H&ʻ F3ʻ 9 $23Cʻ H&ʻ $ ʻ ?3$J3Eʻ $EDʻ H F34Cʻ FHʻ CF$ ʻ C34 3ʻ H4ʻ Q3ʻ , N3C
3J1 HO3Dʻ Eʻ $EOʻ H&ʻ 8 Cʻ P$(3C O Cʻ ?F 1Cʻ H4ʻ 3CC3 C ʻ CF$ ʻ N3$C3ʻ Hʻ
Q3ʻ 1OQ 3ʻ Hʻ !!#F ')ʻ 8HC1 $ ʻ EDʻ F343$Cʻ F3ʻ C$ Dʻ ; E$N J3E ʻ
$Cʻ E 3ED3Dʻ Hʻ 3 3EDʻ $EDʻ $+3ʻ ; &&3N ʻ Fʻ 43C13N ʻ Hʻ F3ʻ 9 $23Cʻ
H&ʻ F3ʻ @43 Cʻ H&ʻ 8 Cʻ P$(3C O Cʻ ?F 1Cʻ $EDʻ 3CC3 Cʻ H&ʻ 9 $4ʻ Eʻ @HJ R
J CC HEʻ HE O ʻ $EDʻ ʻ Cʻ 3 13D 3E ʻ F$ ʻ F3ʻ @43 Cʻ H&ʻ 8 Cʻ P$(3C O Cʻ
?F 1Cʻ $EDʻ 3CC3 Cʻ 3J1 HO3Dʻ Eʻ F3ʻ $4 H-Cʻ H F34ʻ G31$4 J3E Cʻ H&ʻ
F3ʻ I-Q Nʻ ?34 N3ʻ CFH- Dʻ NHE 4 Q- 3ʻ H $4DCʻ F3ʻ ?-11H4 ʻ H&ʻ F3
C$ D

U`M##;>P ʻ ʻ @$1 [

C$D 8HC1 $ʻ $C F30ʻF$DʻDH13ʻ Q3&H43ʻ F3ʻ1$CC E2ʻH&ʻ F3ʻ C$Dʻ Nʻ(Q3ʻ ʻ FH43&H43ʻ 3E$N 3Dʻ $EDʻD3N $43Dʻ *F$ ʻ&4HJʻ$EDʻ $& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ FC N ʻ F3ʻ C$Dʻ H $EN3ʻ H&ʻ? 13EN3ʻ PHE Fʻ CF$ ʻQ3ʻ Q 3Dʻ H-ʻ H&ʻ F3ʻ 9$23Cʻ F3EN3&H4 Fʻ Hʻ 24H ʻD-3ʻ Hʻ3 34Oʻ I34CQEʻ C34 E2ʻ EʻH4ʻQ3 HE2 E2ʻ Hʻ$EOʻ?F 1ʻH4ʻ 3CC3ʻEH ʻQ3 E2ʻ Eʻ@HJ J CC HEʻ $EDʻ Eʻ F3ʻ I$OʻH&ʻ F3ʻ ' $ʻ,$ Oʻ F NFʻCF$ ʻ Q3 HE2ʻ HʻH4ʻQ3ʻ 3JR 1 HO3Dʻ Eʻ F3ʻ ?34 N3ʻH&ʻ 8 Cʻ P$(3C Oʻ Eʻ F3ʻ C3 34$ʻG31$4 J3E CʻH&ʻ F3ʻ I-Q Nʻ?34 N3ʻ Eʻ +3ʻP$EE34ʻ $Cʻ F3ʻC$J3ʻ Q$ 3J3E ʻ $Cʻ J$D3ʻ Q3&H43ʻ F3ʻ 1$CC E2ʻH&ʻ F3ʻ C$Dʻ N ʻ $EDʻCF$ ʻQ3ʻD3D-N 3Dʻ $EDʻNHR 3N 3DʻQOʻ F3ʻ 83$DCʻH4ʻ I4 EN 1$ʻ<&& N34CʻH&ʻ F3ʻC3 34$ʻG31$4 J3E Cʻ $EDʻ CF$ ʻQ3ʻ 1$Dʻ H 34ʻ Hʻ F3ʻ@HJ E C HE34CʻH&ʻ F3ʻ C$Dʻ 8HC1 $ʻ &H4ʻ F3ʻ Q3 34ʻ?-11H4ʻ F343H&ʻ -ED34ʻ C-NFʻ '32- $ HECʻ $Cʻ QOʻ F3ʻ @HJ J CC HE34Cʻ &H4ʻ3 3N- E2ʻ F3ʻ<&& N3ʻH&ʻ>H4Dʻ 8 2 ʻ DJ 4$ʻ$&H43R C$DʻCF$ ʻ&4HJʻ* J3ʻ Hʻ* J3ʻQ3ʻ J$D3ʻ&H4ʻ F$ʻ I-41HC3

" #ʻ $! %ʻ " ʻ$ ʻ &'('ʻ) * (ʻ ʻ+ʻ ʻ+

WW ʻ EDʻ F343$CʻQOʻ $Eʻ Nʻ1$CC3Dʻ Eʻ F3ʻ I 4Cʻ=3$4ʻ H&ʻ8 Cʻ 143C3E ʻ P$(3C O Cʻ '3 2E ʻ E - 3Dʻ/#ʻ/ ' ʻ ,ʻ ',#1,% & !ʻ #&ʻ #&ʻ)!ʻ1!0! %ʻ/'1ʻ !% #(ʻ ,ʻ)!ʻ6 '!ʻ, ʻ7 ! 13 !ʻ@ ʻ 1ʻ U!1 >1ʻ E 0 ʻ $4H-Cʻ '32- $ HECʻ $43ʻ 3C $Q CF3Dʻ &H4ʻ F3ʻ <H 34EJ3E ʻH&ʻ F3ʻ@HJ - CC HE34CʻH&ʻ F3ʻ ,$ Oʻ$EDʻ N -$ E2ʻ43C13N 3 Oʻ $EDʻH&ʻ F3ʻ *43$C-434ʻ H&ʻ F3ʻ ,$ Oʻ Eʻ 432$4Dʻ Hʻ F3ʻ CH N E2ʻ H&ʻ PHE 3Cʻ $E 3Dʻ&H4ʻ F3ʻ?34 N3ʻ H&ʻ F3ʻ,$ Oʻ $EDʻ Hʻ F3ʻ NNH-E Cʻ@-C HDOʻ $EDʻ G C1HC$ʻ H&ʻC-NFʻ PHE 3Cʻ! $EDʻ ʻ Cʻ E3N3CC$4Oʻ Hʻ$ 34ʻ F3ʻC$J3ʻ '32- $ HECʻ $EDʻ Hʻ J$+3ʻ &-4 F34ʻ I4H CHEʻ Eʻ 432$4Dʻ Hʻ F3ʻC$J3ʻ(Q3ʻ ʻ &-4 F34ʻ3E$N 3Dʻ *F$ʻ &4HJʻ $EDʻ $& 34ʻ F3ʻ '3 HN$ HEʻ H&ʻ F3ʻ C$Dʻ >3 34Cʻ I$ 3Eʻ $ʻ PHF 3Cʻ $E 3Dʻ &H4ʻ F3ʻ?34 N3ʻ H&ʻ F3ʻ ,$ Oʻ CF$ ʻ Q3ʻ CH N 3Dʻ QOʻ F3ʻ @HJ J CC HE34Cʻ &H4ʻ 3 3N- E2ʻ F3ʻ <&& N3ʻ H&ʻ >H4Dʻ 8 2Fʻ DJ 4$ʻ $&H43C$Dʻ $EDʻ CF$ ʻ Q3ʻDQ4ʻ ,$ $ʻ?34 N3Cʻ 23E34$ Oʻ $EDʻ F$ʻ Eʻ F3ʻ>3 34ʻCH N E2ʻ F3ʻC$ -3ʻ F3ʻ C$Dʻ@HJR J CC HE34Cʻ CF$ ʻ C13N &Oʻ F3ʻ 23E34$ʻ B$ $EN3ʻ H&ʻ I-Q Nʻ PHE 3Cʻ 43R J$ E E2ʻ Eʻ F3ʻ *43$C-434 Cʻ 8$EDCʻ $EDʻ F$ʻ <E3ʻ NNH-E ʻ HE Oʻ H&ʻ F3ʻ PHE 3Cʻ CC-3Dʻ &H4Jʻ F3ʻ ; NF3X-34ʻ Hʻ F3ʻ MH 34EH4ʻ $EDʻ @HJ 1$EOʻ H&ʻ F3ʻ B$E+ʻ H&ʻ 8#(% #&ʻ CF$ ʻ Q3ʻ 4$ C3Dʻ Eʻ F3ʻ BHH+Cʻ H&ʻ F3ʻC$Dʻ MH 34EH4ʻ $EDʻ@HJ 1$EOʻ $EDʻ CF$ ʻ Q3ʻ3E 3Dʻ 23E34$ Oʻ &H4ʻ ,$ $ʻ ?34 N3Cʻ $ʻ NH443C1HED E2ʻ NNH-E ʻ Fʻ F NFʻ CF$ ʻ Q3ʻ +31ʻQOʻ F3ʻC$Dʻ *43$C-434ʻ $EDʻ -1HEʻ '3N3 1ʻH&ʻ $ʻ C-NFʻ PHE 3Cʻ &4HJʻ F3ʻ ; NF3X-34ʻ F3ʻC$Dʻ *43$C-434ʻCF$ ʻ N34 &Oʻ F3ʻ JH-E ʻ Hʻ F3ʻ C$Dʻ@HJ J CC HE34Cʻ I4H D3Dʻ $ $OCʻ F$ʻEHʻ PHE 3Cʻ1$Dʻ E Hʻ F3ʻB$E+ʻ H&ʻ8#(% #&ʻ HEʻ $NNH-E ʻ H&ʻ F3ʻ *43$C-434ʻH&ʻ F3ʻ ,$ OʻH4ʻ &H4ʻ ,$ $ʻ?34 N3Cʻ CF$ ʻ Q3ʻ 1$Dʻ F343H- ʻ3 #31ʻ -1HEʻG4$& Cʻ&H4ʻ ,$ $ʻ ?34 N3Cʻ Hʻ Q3ʻ D4$ Eʻ QOʻ F3ʻ *43$C-434ʻ <& <E3ʻ H&ʻ FCʻ @$CF 34Cʻ -1HEʻ C3 34$ʻ NNH-E Cʻ Hʻ Q3ʻ 4$ C3Dʻ Eʻ F3ʻ B$E+ʻ BHH+Cʻ QOʻ F3ʻ *43$C-434ʻH4ʻ F3ʻ I34CHEʻ D- Oʻ$- FH4 T3DʻQOʻF J ʻ Eʻ F3ʻ(H E ʻ ,$J3Cʻ H&ʻ F3ʻ C$Dʻ *43$C-434ʻ $EDʻ H&ʻF Cʻ 43C13N 3ʻ@$CF 34Cʻ $EDʻ 14H D3Dʻ $ CHʻ F$ʻEH F E2ʻ Eʻ F3ʻ C$Dʻ 43N 3Dʻ Nʻ H4ʻ Eʻ F Cʻ Nʻ NHE $E3Dʻ CF$ ʻ Q3ʻD33J3Dʻ Hʻ3 3EDʻ Hʻ 14HF Q ʻ F3ʻC$Dʻ *43$C-434ʻ ^QOʻF J C3 &ʻ H4ʻQOʻ F3ʻ I34CHEʻ $- FH4 T3DʻQOʻF J_ʻ &4HJʻ 4$ C E2ʻ?-Qʻ NNH-E Cʻ Eʻ F3ʻ ,$J3Cʻ H&ʻ F3ʻ *43$C-434ʻ$EDʻ J OʻH&ʻF Cʻ@$CF 34Cʻ Eʻ F3ʻBHH+Cʻ H&ʻ F3ʻ C$Dʻ MH 34EH4ʻ $EDʻ@HJ 1$EOʻ $C F$Cʻ&H4ʻ F3ʻ?$&3 Oʻ $EDʻ@HE 3E 3EN3ʻ H&ʻ F3ʻ I-Q Nʻ?34 N3ʻQ33Eʻ F343 H&H43ʻ F3ʻ I4$N N3ʻ CHʻ F$ʻ EHʻ PHE 3Cʻ $43ʻ 1$Dʻ H-ʻH&ʻ F3ʻB$E+ʻ3 N31ʻ -1HEʻG4$& Cʻ $Cʻ F343 Eʻ Cʻ D 43N 3D

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WW ' 3 ED' Q3' '&-4 F34' 3E$N 3D' *F$ '&4H J' $ED' $& 34' F3' 1$CC E2' " ' . % -1
H&' F C' N ' F3' #E-$' NNH-E C' 43X- 43D' QO' F3' C$ D' $C 43N 3D' ' # !$2 %'
N ' H' Q3' J $D3' -1' QO' F3' *43$C-434' H&' F3' , $ O' CF$ ' Q3' $E' NNH-E ' ' '
H&' , $ $' ?34 N3C' 23E34$ O' $ED' CF$ ' NH J J 3EN3' HE' F3' 6 4C ' G$O' H&' c
/ 5 %' $ED' 3ED' HE' F3' *F 4 0 & 4C ' G$O' H&' ')' E' 3 34O' = 3$4 ' $ED') ('
$& 34' F3' C$ J 3' CF$ ' F$ 3' Q33E' D- O' 3 $ J E3D' E' F3' <&& N3' H&' $ED'
N34 & 3D' $ED' $114H 3D' QO' * H' H&' F3' @H J J CC HE34C' &H4' 3 3N- E2'
F3' <&& N3' H&' >H4D' 8 2F' D J 4$' CF$ ' Q3' 4$EC J 3D' QO' F3' C$ D'
@H J J CC HE34C' H' F3' @H J J CC HE34C' &H4' $-D E2' F3' I -Q N'
NNH-E C ' $C' C' 14H D3D' QO' F3' C$ D' 43N 3D' N

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' F3' *43$C-434 C' NNH-E C' !' &H4
&H4' F3' & 4C ' *F433' P HE FC' H&' F3' 143C3E ' =3$4' CF$ ' Q3' J $D3' -1' H' . $!4 '
F3' *F 4 0 & 4C ' G$O' H&' ') ' $ED' CF$ ' Q3' 3 $ J E3D' $ED' 1$CC3D' E'
F3' P $EE34' D 43N 3D' QO' F3' C$ D' 43N 3D' N ' H&' F3' 6 4C ' =3$4' H&' 8 C' =3$4'
143C3E ' P $(3C O

WW 8 ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' F3' J HE F O' NNH-E C' " ! 2'
43X- 43D' QO' F3' C$ D' N ' H' Q3' J $D3' -1' $' 3' G HN+' =$4DC' CF$ ' !'
&4H J' $ED' $& 34' F3' ' 3 HN$ HE' H&' F3' C$ D' >3 34C' I $ 3E ' Q3' C 2E3D' $ 5'6' #
QO' F3' I $O' @ 34+' $ED' CF$ ' Q3' N34 & 3D' QO' F3' ?-134 E 3ED3E ' H&' F3'
=$4&&' H4' E' F C' QC3EN3' QO' F3' <&& N34' E3 ' E' ?3E H4 O' H' F J ' $ED'
CF$ ' F3E' Q3' 4$EC J 3D' E' G-1 N$ 3' H' F3' C$ D' *43$C-434' $ED' H'
F3' ?3N43 $4O' H&' F3' D J 4$ O' 43C13N 3 O

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' F3' $EE-$' EC13N HE' H&' EE-$'
I -Q N' P HE 3C' 43X- 43D' QO' F3' C$ J 3' N ' H' Q3' J $D3' CF$ ' E' &- -43' 7 $ " !
Q3' J $D3' HE' F3' 6 4C ' G$O' H&' / 5 %' E' 3$NF' =3$4' H4' F$ ' G$O' Q3 E2'
+3#& ' HE' F3' &H H E2' G$O ' E' F3' P $EE34' F343QO' D 43N 3D' QO'
F3' ?-134 E 3ED3E ' $' F3' G HN+' =$4D' $ED' QO' <E3' H&' F3' @H J J CR
C HE34C' H&' F3' D J 4$ O' $' F3' , $ O' I $O' <&& N3' ' $ED' F3' J H-E C'
F343H&' 43C13N 3 O' CF$ ' Q3' N34 & 3D' H' F3' @H J J CC HE34C' &H4'
3 3N- E2' F3' C$ D' <&& N3' H&' >H4D' 6 2F' D J 4$ ' FH' CF$ ' F E'
*F433' P HE FC' E3 ' $& 34' F3' 6 4C ' G$O' H&' / 5 %' E' 3$NF' =3$4' N$-C3
H' Q3' J $D3' H- ' $ED' 4$EC J ' H' F3' @H J J CC HE34C' &H4' $-D E2' F3'
I -Q N' NNH-E C ' @34 & N$ 3C' H&' F3' J H-E C' H&' F3' B$ $EN3C' F343R
-1HE' &H-ED' ' $ED' -1HE' F3' G3$ F ' ' 3C 2E$ HE ' H4' ' 3 J H $' H&' $EO'
*43$C-434' H&' F3' , $ O ' $' C J $4' EC13N HE' H&' F3' I -Q N' P HE 3C'
43 J $ E E2 F' @F$423' H&' F C' C3 34$' @$CF 34C' $ED' @ 34+C' CF$ ' Q3' J $D3'
CH' CHHE' $& 34' $C' NHE 3E 3E O' J $O' Q3' $ED' $' &$4 F3C ' F E' ?3 3E'
G$OC' $& 34 $4DC' ' $ED' F3' J H-E C' H&' F3' 43C13N 3' B$ $EN3C' &H-ED'
CF$ ' Q3' E' +3' P $EE34' F343-1HE' N34 & 3D' H' F3' C$ D' @H J J CC HE34C'
&H4' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F' D J 4$ ' $ED' @34 & N$ 3C'
F343H&' CF$ ' Q3' QO' 3 J ' F E' F3' +3' I 34 HD' H&' ?3 3E' G$OC '
4$EC J 3D' H' F3' @H J J CC HE34C' &H4' $-D E2' F3' I -Q N' NNH-E C '
&H4' F3' I -41HC3' J 3E HE3D' E' F3' C$ D' 43N 3D' N

WW W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ '&4H J' $ED' $& 34' F3' 1$CC E2' B C' KN'
H&' F C' N ' $ ' H J 3E ' $ED' ' 3 J $EN3' B C' $ED' $ ' H F34' B C' 8 5 !$ 5'
&H4' I $O J 3E ' H&' P HE3O' J 3E HE3D' E' H4' $- FH4 T3D' QO' F C' N ' H4
F3' C$ D' 43N 3D' N ' H&' F3' ; 3 3E F' =3$4' H&' % E2' ! , (!' F3'
6H-4 F' H' Q3' J $D3' Q- ' H4' D4$ E' $ED' $ ' G CNF$423C' &H4' F3' C$ J 3'
$ED' $ ' ' 3N3 1 C' H4' G CNF$423C' H' Q3' 2 3E' H' F3' *43$C-434' H&' F3'
' ' , $ O

Ɽ : =E 3E ' ' &' 9

, $ O ' H4' $EO' H&' C' <&& N34C' E' 43C13N ' H&' $EO' , $ $ ' E4' P $4 E3' I $O ' I 3EC HE' H4' I 4 T3' P HE3O ' H4' E' 43C13N ' H&' I $O J 3E C' -ED34' *34' I H-EDC' HE' $NNH-E ' H&' $EO' @ ' I 3EC HE' H4' H $EN3' NF$423D' HE' F3' H4D E$4O' ; C J $ 3' H&' F3' , $ O ' H4' H&' $EO' P HE 3C' F343 H&H43' 1$ D' QO' F3' I $O J $C 34' H&' ' HO$ ' P $4 E3C ' $ED' F NF' $43' EH ' 1$O$Q 3' QO' F3' C$ D' *43$C-434 ' CF$ ' Q3' FH O' &433D' $ED' 3 3 J 1 ' &4H J' ? $ J 1' G- 3C

#5 ' !2' WWW ' ED' Q3' ' &$4 F34' 3E$N 3D' *F$ ' F3' @H J J CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' >H4D' 2F' D J 4$ ' CF$ ' $& 34' F3' ; 1 4$ HE' H&' F3' 143C3E ' =3$4 ' N$-C3' H' Q3' J $D3' -1 ' HE' H4' Q3&H43' F3' *F 4 3 F' G$O' H&' E , 0! 4! ' E' 3$NF' C-NN33D E2' =3$4 ' $E' NNH-E ' H' Q3' C 2E3D' $ED' $ 3C 3D' QO' F3' NNH-E $E ' M3E34$ ' H&' F3' , $ O ' H&' F3' , $ $ ' ' 3N3 1 ' $ED' ; 13ED -43' H&' F3' =3$4' 3ED E2' HE' F3' *F 4 O & 4C ' G$O' H&' ') ' 143N3D E2 ' D C E2- CF E2' F3' ; 13ED -43' -ED34' F3' C3 34$ ' 8 3$DC' H&' , $ $ ' ?34 N3 ' $C' 3 143CC3D' E' F3' 114H14 $ HE' N ' H4' N C' &H4' F$ ' = 3$4 ' $ED' F3' NNH-E ' F3E' CH' J $D3' -1' $ED' $ 3C 3D ' CF$ ' Q3' NH J 1$43D' F' F3' * H-NF34C' QO' F3' @H J J CC HE34C' &H4' $-D E2' F3' I -Q N' NNH-E C ' FH' $43' F343QO' 43X- 43D ' HE' H4' Q3&H43' F3' *F 4 O & 4C ' G$O' H&' 5$ $4O' &H H E2 ' &' I $4 $ J 3E ' Q3' F3E' C E2 ' $ED' &' EH ' F3E' F E' <E3' 9 33+' $& 34' I $4 $ J 3E ' CF$ ' Q3' $CC3 J Q 3D ' H' $O' Q3&H43' F3' 8 H-C3' H&' @H J J HEC' $' @H1O' H&' F3' C$ D' NNH-E ' N34 &O E2' F343HE' $C' H' F3' @H443N E3CC' H&' F3' C$ D' NNH-E ' $C' NH J 1$43D' F' F3' H-NF34C ' $ED' EH E2' -ED34' 3$NF' 8 3$D' F3 F34' F3' ; 13ED -43' F$C' 3 N33D3D' H4' &$ 3E' CFH4 ' H&' F3' ?- J C' H 3D' QO' I $4 $ J 3E ' &H4' F3' , $ $ ' ?34 N3' H&' F$ ' =3$4' &H4' F NF' F3' NNH-E ' C' CH' J $D3' -1' . I 4H D3D' $ $OC ' F$ ' E' N$C3' $EO' <Q(3N HEC' CF$ ' F$ 3' $4 C3E' E' F3' -D ' <&& N3' H' C-NF' O3$4 O' NNH-E ' $ED' F3' C$ J 3' 43 J $ E' -E$EC 343D' H4' EH ' C$ C& N H4 O' $EC 343D ' F3' C$ D' NNH-E ' J $D3' -1' E' $C' 134&3N ' $' P $EE34' $C' J $O' Q3 ' CF$ ' E3 34 F3 3CC' Q3 $ D' Q3&H43' F3' 8 H-C3' H&' @H J J HEC' $C' Q3&H43' D 43N 3D ' $ED' CF$ ' Q3' $NNH J 1$E 3D' QO' $' ? $ 3 J 3E ' H&' F3' C$ D' <Q(3N HEC' ' $ED' F$ ' F3' NNH-E ' H&' F3' &H H E2' =3$4' CF$ ' $ CH' Q3' $NNH J 1$E 3D' QO' $' ? $ 3 J 3E ' 43&344 E2' H' C-NF' <Q(3N HEC ' $ED' CFH E2' F3 F34' F3O' C ' 43 J $ E ' H4' F$ 3' Q33E ' $ED' FH ' 3 1 $ E3D' H4' 43 J H 3D.' I 4H D3D' $ CH ' F$ ' EH F E2' F343 E' NHE $ E3D' CF$ ' Q3' NHEC 4-3D' H' 3C ' E' F3' BH$4D' H&' -D ' $EO' G CN43 HE' $C' H' F3' H $EN3' H4' G C$ H $EN3' H&' $EO' 3 J ' H&' ; 13ED -43' E' C-11H4 ' H&' F NF' F3' -C-$' $ED' 432- $4' H-NF34C' CF$ ' F$ 3' Q33E' 14HD-N3D' H' E-D' $ H 3D' QO' F3' @H J J CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F' D J 4$

!$ ' ! ' ' WWW ' ED' F343$C' QO' F3' -E &H4 J ' I 4$N N3' H&' F3' , $ O' F3' C3 34$! $ ' I $O J 3E C' F343 E $& 34' C13N & 3D' F$ 3' Q33E' H-NF3D' QO' F3' 3C $ HE' 9 ' ! ' 9 E3CC3C' H' C-NF' I $O J 3E C' HE O ' FH- ' 43X- 4 E2' &4H J ' F3 - ' ' (# I $4 O' 43N3 E2' F3' C$ J 3' $EO' NX- $EN3' &H4' F3' J H-E ' CH' 1$ D ' ' ! ' ' #' $ED' @34 & N$ 3C' H&' F3' J H-E C' H&' C-NF' I $O J 3E C' CH' $ 3C 3D' F$ 3' , $$ ' Q33E' 43N3 3D' $C' H-NF34C' E' I 4HH&' F343H& ' Q3' ' F343&H43' 3E$N 3D ' *F$ ' @34 & N$ 3C' &H-ED3D' -1HE' F3' BHH+C' H&' 8 C' P $(3C O C' ?F 1C ' $ED' ; 4$N C' F343&4H J ' $ED' H&' F3' <4D E$4O' $ ' 3$NF' I H4 ' F3' BHH+C' H&' 3$NF' GHN+' $ED' N -$ E2' =$4D ' F3' 8 $ &' I $O' > C C ' F3' > C C' H&' ?$ E2C' H&' I 4H C HEC ' F3' > C ' H&' M433E 3&3' <- I 3EC HECO' F3' I $O' > C C' H&' , $ $ ' 8 HC1 $ C ' $ED' F3' NNH-E ' NHE $ E E2' F3' I $O J 3E C

' ' ' H&

4 9 ? 6 ' : 6 '' '&' #) '

H&'@F$1 $JC'BH-E O'CF$ ' F3E' D- O'$ 3C 3D' QO' F3' C3 34$' <&& N34C'
H4' H F34' I34CHEC' FHCH' G- O' ' CF$ ' Q3' " H' $ 3ED' $ED' $ 3C ' C-NF'
I$O J 3E C' Q3' 43N3 3D' QO' F3' C$D' @H J J CC HE34C' H&' -D ' $C'
C-&& N 3E ' H-NF34C' E' I4HH&' H&' F3' C3 34$' I$O J 3E C' E' C-NF' @34 R
& N$ 3C' 43C13N 3 O' NF$423D' NHE&H4 J $Q O' F' F3' I4$N N3' F NF' F$C'
F F34 H' 143 $ 3D

WWW ' ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' &' $EO' I34CHE' CF$ ' &H423' < 5 !'
H4' &$ C3 O' J$+3' $EO' @34 & N$ 3' H' Q3' 2 3E' -ED34' F3' - FH4 O' H&' $ '$ % %
F C' N ' QO' F3' @H J J CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F'
D J 4$ ' H4' $EO' H&' F3 J ' H4' QO' $EO' ? -134 E 3ED3E ' H&' F3' I -4NF$C3' H$FC / ' '
H4' ?$ 3' H&' $EO' , $ $ ' H4' N -$ E2' ? H43C ' H4' CF$ ' - 34' H4' 1-Q CF'
$EO' &$ Ca' H4' $ 343D' @34 & N$ 3' H&' $EO' C-NF' I -4NF$C3' H4' ?$ 3' +EH E2'
F3' C$ J 3' H' Q3' &$ C3 ' H4' &' $EO' I34CHE' CF$ ' $+3' $' &$ C3' <$ F ' H4'
J$+3' $' &$ C3' && 4 J $ HE ' H4' 2 3' &$ C3' ; D3EN3' Q3&H43' $EO' @H J J CR
C HE34' H4' @H J J CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F'
D J 4$ ' $&H43C$ D ' H4' Q3&H43' $EO' ? -134 E 3ED3E ' H4' EC13N H4' H&'
?3$ J 3E C 9 C ' H-NF E2' $EO' P $ 34' F NF' F3' C$ D' @H J J CC HE34C'
H4' $EO' H&' F3 J ' , ' $EO' ? -134 E 3ED3E ' H4' EC13N H4 ' $43' H4' C' $- FHR
4 T3D' H' E 43' E H ' 3 34O' C-NF' I34CHE ' Q3 E2' D- O' NHE N 3D' H&'
$EO' C-NF' <&&3EN3' H4' <&&3EN3C ' CF$ ' Q3' $Q 3' H' C-&&34' C-NF' I -E CFR
J 3E ' I$ EC ' $ED' I3E$ 3C' $C' I34CHEC' 2- O' H&' &- ' $ED' NH44-1 '
I3 (-4O' $43' QO' >$ ' C-Q(3N ' H

WWW >' ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' F3' I3 HE' &H4' I4HQ$ 3' < 5 !'
H&' 9 ' H4' >3 34C' H&' D J E C 4$ HE' H&' F3' ; &&3N C' H&' $EO D3N3$C3D' $ ' # %
I3 O' <&& N34' H4' ?3$ J $E ' H4' , HE NH J J CC HE3D' <&& N34' H&' P $4 E3C' $' < ! ; ! '
H4' P $4 E3 ' H4' &H4' HQ $ E E2' $' @F3N+' H4' @34 & N$ 3' E' 3-' H&' I4H ' 3N H4 C '
Q$ 3' H4' >3 34C' H&' D J E C 4$ HE ' E' @$C3C' H&' @ $ J C' F343' F3' !$ '! '
G3N3$C3D C' CC3 C' CF$ ' EH ' 3 N33D' * F 4 O H' I H-EDC' $ED' * 3E O'
I H-EDC' 43C13N 3 O ' CF$ ' Q3' $DD43CC3D' H' F3' EC13N H4' H&' ?3$ J 3E C
9 C ' $ED' CF$ ' Q3' &H4 $4D3D' H' F3' ?3N43 $4O' H&' F3' D J 4$ O ' $ED'
&' $EO' I34CHE' CF$ ' C-QCN4 Q3 ' 4$EC J ' - 34 ' H4' 1-Q CF' $EO' &$ C3'
I3 HE' H4' 11 N$ HE' H' F3' C$ D' EC13N H4 ' +EH E2' F3' C$ J 3' H'
Q3' &$ C3 ' E' H4D34' H' HQ $ E' H4' H' 3E$Q 3' $EO' H F34' I34CHE' H' HQ $ E'
$EO' @F3N+' -4' @34 & N$ 3' E' 3-' H&' I4HQ$ 3' H4' >3 34C' H&' D J E R
C 4$ HE' $C' $&H43C$ D ' 3 34O' I34CHE' CH' H&&3ED E2' CF$ ' Q3' D33 J 3D'
2- O' H&' 63 HEO ' $ED' Q3 E2' NHE N 3D' F343H&' CF$ ' Q3' $Q 3 ' $ ' F3'
G CN43 HE' H&' F3' @H-4 ' H' Q3' 4$EC1H4 3D' Q3OHED' F3' ?3$C' &H4' $EO'
* 34 J ' EH ' 3 N33D E2' 6H-4 33E' =3$4C' EH4' 3CC' F$E' ?3 3E' =3$4C ' H4'
H' Q3' J 14 CHE3D' &H4' $EO' * 34 J ' EH ' 3 N33D E2' * F433' =3$4C' EH4' 3CC'
F$E' < E3' =3$4

WWW ' ED' F343$C' QO' $E' N ' H&' F3' * F 4 O E E F' $ED' 6H4 3 F' = ' #' '2I
=3$4C' H&' 8 C' $ 3' P $(3C O' % E2' ! , (!' F3' * F 4D ' &H4' F3' Q3 34' 143 ' '- ' ' ! '
3E E2' F3' ; J Q3TT 3 J 3E ' H&' 8 C' P $(3C O C' , $ $ ' <4DE$EN3 ' $ED'
N -$ E2' ? H43C ' N34 $ E' ' 3 $4DC' H&' * 3E O' I H-EDC' $ED' 6 3' ' ! % ! '
I H-EDC' $43' D 43N 3D' H' Q3' 1$ D' E' F3' 43C13N 3' @$C3C' F343 E' J 3E ' & ' ('') ! '
HE3D ' &H4' F3' G CNH 34O' H&' <&&3EN3C' 43 $ E2' H' C-NF' ? H43C ' $ED' ' # #'
C' 3 13D 3E ' F$ ' F3' J H-E ' H&' F3' C$ D' ' 3 $4DC' CFH- D' Q3' 43D -N3D '
Q3' ' F343&H43' &-4 F34' 3E$N 3D ' * F$ ' -1HE' @HE N HEC' H&' I34CHEC' &H4'
$EO' <&&3EN3' H-NF E2' 8 C' P $(3C O C' , $ $ ' <4DE$EN3 ' H4' N -$ E2'
? H43C ' H' Q3' D CNH 343D' $& 34' F3' 1$CC E2' H&' F C' N ' F3' I$O J 3E ' H&
' 3 $4DC

S U U M # > ; > P @$1 [

'3 $4DC CQ$8 Q3 E F3 G CN43 HE H& F3@H J E CC HE34? &H4 3 3N- E2 F3 <&& N3 H& >H4D 8 2F DJ 4$ $&H43C$ D H4 H& F3 P $C 34 M3E34$ $ED 14 EN 1$ <&& N34C H& F3 <4DE$EN3 $C F3 @$C3 Q3 $ED F$ EC 3$D H& F3 '3 $4DC H& * 3E O I H-EDC $ED 6 3 4H-EDC 43C(13N 3 O 1OQ 3 -ED34 F3 C$ D N F3 '3 $4DC &H 1 E2 CF$ F3 1$ D ^ F$ C H C$O _ $EO ?- J EH '3 N33D E2 * 3E I H-EDC -1HE @HER N HEC E I4HC3N- HEC QO ED N J 3E $ED EH '3 N33D E2 6 & O ?F E2C -1HE C- J J $4O @HE N HEC E F3 43C13N 3 @$C3C J 3ER HE3D E F3 C$ D N $ED F$ EH '3 $4D CF$ Q3 1OQ 3 E @$C3C F343 F3 6 E3 E& N 3D HE F3 <&&3ED34 CF$ $ J H-E H * 3E O I H-EDC -E 3CC C-NF 6 E3 CF$ &$ H Q3 1$ D $C 14H D3D E F3 C$ D N $ED F$ CF$ Q3 $ &- H J 2$ 3 F3 13N-E $4O I 3E$ O H& * 3E I H-EDC E @$C3C H& C- J J $4O @HE N HEC H $EO ?- J EH 3CC F$E 6H4 O ?F E2C

'313$ H& N C M Y O & M - K ZM @ Z [M . $ED I $4 H& M @ U[

WWW ED Q3 &-4 F34 3E$N 3D * F$ &4H J $ED $& 34 F3 @H J J 3EN3 J 3E H& F C N $C F343 E $& 34 J 3E HE3D $E N J $D3 E F3 6 4C =3$4 H& F3 '3 2E H& 8 C P $(3C O % E2 !, (! F3 6 4C H 143 3E G C -4Q$EN3C QO ?3$ J 3E $ED H F34C $ED H 143C34 3 F3 ? H43C Q3 HE2 E2 H 8 C P $(3C O C , $ O 'HO$ $ED &H4 H F34 I -4R 1HC3C F343 E J 3E HE3D ^C$ 3 $ED 3 N31) J -NF F343H& $C NHE E-3C * H C3 34$ N C J $D3 E F3 ; 3 3E F =3$4 H& % E2 %% F3 * F 4D $ED F3 6 & F =3$4 H& \ E33E / ##!A ($4 D $E N J $D3 E F3 6 4C =3$4 H& F3 '3 2E H& 8 C $ 3 P $(3C O % E2 !, (! F3 6H-4 F H $- FH4 T3 F3 I $O J $C 34C H& 'HO$ P $4 E3C H CC-3 I $O EH '3 N33D E2 $ N34 $ E ?- J H F3 '3143C3E $ 3C H& D3N3$C3D <&& N34C $ED I 4 $ 3 P 3E FH- I 4HQ$ 3 H4 DJ E C 4$ HE ($ED $ CH $E N J $D3 E F3 ; 2F F =3$4 H& F3 '3 2E H& 8 C C$ D $ 3 P $(3C O % E2 M3H423 F3 6H-4 F &H4 J H43 NHE 3E 3E O 1$O E2 F3 9 DH C H& <&& N34C H& F3 'HO$ P $4 E3C $ED $ CH $E N 8 $D3 E F3 * 3E F =3$4 H& F3 '3 2E H& 8 C C$ D P $(3C O H &$N $ 3 &$3 1-Q N B-C E3CC E N34 $ E @$C3C E F3 , $ O $ED N -$ E2 G31$4 R J 3E C $ED $ CH CH J -NF H& $E N J $D3 E F3 ; 3 3E F =3$4 H& 8 C C$ D $ 3 P $(3C O H $ J 3ED $ED NHECH D$ 3 F3 >$ C 43 $ E2 H F3 I $O H& F3 'HO$, $ O $C 43 $ 3C H F3 I $O J $C 34 H& 'HO$ P $4 E3C $ED CH J -NF H& F3 C$ J 3 N $C 3 J 1H 34C I 3 O <&& N34C ?3$ J 3E , HE NH J J CC HE3D <&& N34C $ED P $4 E3C H J $+3 <4D34C E 9 4 E2 -1HE F3 * 43$C-434 H& F3 , $ O &H4 I $O J 3E H& 9 $23C EH 3 N33D E2 * 3E I H-EDC $ED $C $- FH4 T3C F3 EC13N H4 H& ?3$ J 3E C 9 F C H C3ED $ED 43N3 3 >3 34C $ED I $N+3 C &433 &4H J F3 G- O H& I HC $23 CF$ Q3 $ED 7 F3 C$ J 3 $43 F343QO 4313$ 3D. I 4H D3D $ $OC F$ EH F E2 E F C N NHE $ E3D CF$ 3 3ED H4 Q3 NHEC 4-3D H D314 3 F3 * 43$C-434 H& F3 , $ O H& F3 I 4 323 H& C3ED E2 $ED 43N3 E2 >3 34C $ED I $N+3 C &433 H& F3 G- O H& I HC $23

< ($ 4 $! &'(2

5 > O 5 ! $! ! '2 - '! #

WWW ED Q3 &-4 F34 3E$N 3D * F$ F C N CF$ E F3 C3 34$ @$C3C EH F343QO H F34 C3 14H D3D NH J J 3EN3 $ED $+3 3&&3N HE $ED &4H J F3 ?3 3E F G$O $& 34 F3 1$CC E2 H& F C N ? $ED ^n(F3 C$ J 3 J $O Q3 $ 343D $4 3D H4 $ J 3ED3D QO $EO H F34 N H4 N C H Q3 1$CC3D D-4 E2 F C ?3CC HE 1& I $4 $ J 3E

M # > ; > P @$1 \

?@ 8 ; G # > ; H F NF F C N 43&34C

* B > ; < 6 6 ; ; ?

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6H4 I ' < B * ; ? H& 9 > > ? > ; * * ; ' ? H& G P , ? * ' * < , $ED > ; * * ; ' ? H& * 4 3) 3% 2 (2 3 .) F 9 > > , , ; W ; G H& 9 44E $1D I 3 O < && N34C $ED , HE NH J J CC HE3D < && N34C H& P $4 E3C $ED $ CH H& @H J J HE ?3$ J 3E $ED F E 3 C E 1 J CE$EN3 F C N

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	0 &	5 &	W 1 &	+ &
& F3 ; 3N - H4 C H4E E > HEDHE			@	
& F3 ; 3N - H4 C H4E E F3 @H - E 4O QO @H J J CC HE	?<			

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E' N ' H' &$N $ 3' F3' ' 3NH 340' H&' * F3C' E'
N34 $ E' @$C3C' E' *' $ED' &H4' ' 3 3&' H&' F3'
@ 3420' H&' F3' ; C $Q CF3D' @F-4NF

I C ' 2 ' ZSU m

/ 8 ; ' ; ?' $' @H J Q E$ HE' 2 EC ' F3' I $0 J 3E ' H&' * F3C' F$C' &H4' CH J 3' * J 3' 3 C 3D' E' N34 $ E' I $4 C' H&' $!% #& ' $ED' F3' H4D E$40' ' 3 J 3D 3C' 14H D3D' QO' >$ ' &H4' F3' ' 3NH 340' F343H&' F$ 3' Q33E' 3 $D3D' $ED' D3&3$ 3D ' $ED' 243$ ' , - J Q34C' H&' F3' @ 3420' F$ 3' Q33E' E' NHEC3X - 3EN3' D314 3D' H&' F3 4' 32$ ' P $ E 3E$EN3 ' $ED' J $EO' H&' F3 J ' 43D - N3D' H' $' ? $ 3' H&' 243$ ' G C 43CC' : ED' F343$C' ' C' E3N3CC$40' H' J $+3' C13N $ ' ; E$N J 3E C' E' H4D34' H' ED N$ 3' F3' - FH4 O' M&' F3' >$ ' $ED' H' 14H D3' J J 3D $ 3' ' 3 3&' &H4' C - NF' H&' F3' @ 3420' $C' $43' EH ' C - &&34 E2' &4H J' F3' G314 $ HE' H&' F3 4' ENH J 3C' F4H - 2F' F3' - E $ &- ' @H J Q E$ HE' $&H43C$ D' ' B3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$' $ED' * 3 J 1H4$ ' $ED' @H J J HEC ' E' F C' 143C3E ' I $4 $ J 3E ' $CC3 J Q 3D ' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3' * F$ ' ' CF$ ' $ED' J $OQ3' $ &- ' &H4' F3' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&' $!% #& ' $ ' $EO' * J 3' H4' * F3C' F E' <E3' =3$4' &4H J' F3' 1$CC E2' H&' F C' N ' F' F3' D N3 'H&' F3' I 4 O' @H - EN 'H&' $!% #& ' - 1HE' 11 N$ HE' J $D3' $C' F343 E $& 34' 14HR D3D ' H' CC - 3' $ED' $D $EN3 ' H4' N$ - C3' H' Q3' CC - 3D' $ED' $D $EN3D ' H - ' H&' F3' @HECH D$ 3D' 6 - ED' H&' ! ' " #' $ED' $!% #& ' C - NF' ? - J C' H&' P HE3O ' EH '3 N33D E2' E' F3' FH 3' F3' ? - J ' H&' ? O' H - C$FD' I Q - EDC' ' >' ' ' ' $C

- FH4 T E2' F3' >H4D' > 3- 3E$E ' H $D $EN3' Y[[[[' &H4' F3' I - 41HC3C' H&' F C' N

$C' J $O'Q3' &4H J' * J 3' H' * J 3' E3N3CC$40 ' H' Q3' $11 3D' H' F3' I -41HC3C'
$ED' 431 $N3D' E' F3' P $EE34' F343 E $& 34' J 3E HE3D

; NN 3C $C N$ '
134CHEC' FH'
43N3 3D' H4'
43NH 343D'
* F3' &H4' F3'
=3$4' $C '
1$C ' J $O'
$11 O' QO'
P 3 J H4 &$ '
H' F3' <4N'
W 3- 31$E '
&H4' ' 3 3&'
-ED34' F C'
N

' ED ' Q3' ' 3E$N 3D ' WF$ ' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' $EO'
; NN 3C $C N$ ' * 34CDE 3E 3D' E' F$&' @F$4$N 34' H' F3' * F3C' H4' $$O '
I H4 HE' H&' F3' * F3C' H&' $EO' I $4 CF' H4' # E HE ' H4' I $4 ' H&' $' I $4 CF' H&'
E HE ' 1' $!% #& ' H4' H' $EO' @H J 1HC HE' H&' I H4 HE' H&' $' @H J 1HC HE'
&H4' C-NF' * FNC ' 1OQ 3' FO' 4 -3' H&' $EO' > $ ' E' &H4N3' E' $!% #&' 43R
C13N E2' C-NF' @H J 1HC HEC ' $ED' FH' J $O' F$ 3' Q33E' 143 3E 3D' QO' F3'
@H J Q E$ HE' F343 E Q3&H43' J 3E HE3D' &4H J ' 43N3 E2' H4' 43NH 34 E2' F3'
* F3C' H4' @H J 1HC HE ' H4' I H4 HE' F343H&' 43C13N 3 O ' H' F NF' F3' J $O'
) O!' Q33E' CH' 3E 3D' &H4' F3' = 3$4' $C ' 1$C ' F$ ' C' H' C$O ' &<4' F3' = 3$&'
< E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O HE3 ' H' J $+3' 11 N$ HE' H'
F3' C$ D' > H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&'
$!% #& ' 14$O E2' ' 3 3&' -ED34' F C' N ' $ED' C-NF' 11 N$ HE' CF$ ' Q3'
J $D3' QO' $' P 3 J H4 $ ' C $ E2' F3' ' 2F ' E' F NF' C-NF' ; NN 3C $C N$ '
I 34CHE' C' 3E 3D' H' C-NF' * F3C' H4' @H J 1HC HE ' $ED' F3 F34' H' F3'
9 FH 3' H4' $EO' $ED' F$ ' I 4H1H4 HE' F343H& ' $ED' F3' J H-E ' H4' $ -3'
F343H& ' $NNH4D E2' H' F C' $ 34$23' $EE-$ ' ' 3N3 1 C' &H4' F3' * F433' = 3$4C'
E3 ' 143N3D E2' F3' C$ D' = 3$4' $C ' 1$C ' H4' $C' F3' C$ J 3' J $O' F$ 3' Q33E'
& 3D' QO' @H J 1HC HE' H&' 2433 J 3E ' $C' F3' @$C3' J $O' Q3 ' $ED' F3'
J H-E ' E' $443$4' &H4' F3' = 3$4' $C ' 1$C ' $ED' F3' I 4HN33D E2C' F NF'
F3' J $O' F$ 3' $+3E' &H4' F3' 43N3 E2' H4' 43NH 34 E2' CENF' 443$4C ' $ED'
QO' F$ ' P 3$EC' F3' C$ J 3' F$ 3' Q33E' 43ED343D' E3&&3N -$ ' $ED' H' 3$NF'
C-NF' P 3 J H4 $ ' $' ?NF3D- 3' CF$ ' Q3' $EE3 3D ' C3 E2' H- ' F3' , $ J 3C '
G3CN4 1 HEC ' $ED' I $N3C' H&' QHD3' H&' F3' C3 34$ ' I 34CHEC ' <NN-1 34C'
H&' > $ED' E' 3$NF' I $4 CF' H4' # E HE ' H4' H&' F3' ' 3143C3E $ 3C' H&' C-NF'
I 34CHEC ' &' $EO' H&' F3 J ' Q3' D3$D ' QO' FH J ' C-NF' 443$4C' H&' * F3C' H4'
@H J 1HC HE' J $O' Q3' D-3 ' $ED' F3' J H-E ' H&' @H J 1HC HE' H4' F3'
3C J $ 3D' $ -3' H&' F3' * F3C' CH' D-3' $ED' E' $443$4' &4H J ' 3$NF' I 34CHE' '
$ED' F3' > $EDC' E' 3C13N ' F343H&' 3$NF' 3 J ' H&' C-NF' * F3C' H4' @H J R
1HC HE' J $O' Q3' 1$O$Q 3' CF$ ' Q3' D3CN4 Q3D' E' C-NF' ?NF3D- 3' QO' F3 4'
NH J J HE O' 43N3 3D' G3EH J E$ HE ' $ED' F3' B$ HEO ' * H E $ED ' H4'
8 $ &' * H E $ED ' $ED' I $4 CF' E' F NF' F3' C$ J 3' J $O' 3 ' $ED' F3'
* 4- F' H&' F3' C3 34$ ' P $ 34C' C3 ' &H4 F' $ED' $ 323D' E' C-NF' P 3 J H4 $ '
$ED' ?NF3D- 3' CF$ ' Q3' 34 & 3D' -1HE' <$ F ' H' Q3' $D J E C 343D ' QO' $EO'
5-C N3' H&' F3' I 3$N3' E' $ED' &H4' F3' @H-E O' E' F NF' F3' P 3 J H4 $ C '
C-$ O' 43C D3C ' H' F3' Q3C ' H&' F3' %EH 3D23' $ED' B 3 3&' H&' C-NF' P 3R
J H4 $ C ' ' $ED' E' N$C3' F3' * F3C' H4' $EO' I H4 HE' F343H&' CH' E' $(* 3 $4
CF$ ' EH ' Q3' N $ J 3D' -ED34' $EO' @H J 1HC HE ' C-N ' P $EH4 $ ' CH H' Q3'
34 & 3D' $C' $&H43C$ D' CF$ ' &-4 F34' C3 ' &H4 F ' F$ ' F3 ?- J C' N $ J 3D' $C' F3'
$ -3' H&' C-NF' * F3C' $43' J $D3' -1' $C' $NN-4$ 3 O' $C' E' J ' P 3 J H4 $ C3C'
I H 34' H4' Q O' H' DH ' $ ' F3' D &&343E ' ' $ 3C' 5! ' N43' H4' H F34R
C3' F NF' F$ 3' &H4' F3' * F433' = 3$4C' E3 ' 143N3D E2' F3' C$ D' $C ' 1$C '
= 3$4' Q33E ' $& 34' $ ' (-C ' H $EN3' $ED' Q$ 3 J 3E C ' 43$ O' $ED' 4 , #&'
& !' 1$ D' H4' C3N-43D' &H4' * F3C' H&' F3' + 3' % ED' $EDC' \ -$ O' F E'
F3' C$ D' I $4 CF' H4' # E HE ' $ED' F$ ' F343' C' EH' @F$423' E' F3' C$ D'
?NF3D- 3' &H4' $EO' * F3C' H4' G -3C' F NF' F$ 3' HH ' Q33E' 43GOED' 4 , #&'
& !' 1$ D' H4' C3N-43D' QO' F3' <NN-1 34C' H&' > $ED' F E' F3' C$ D' I $4 CF'
H4' # E HE' F E' F3' $&H43C$ D' * F433' = 3$4C ' H4' H' F3' ; &&3N ' $&H43C$ D' (
$ED' -1HE' C-NF' 11 N$ HE ' $ED' D-3' @HEC D34$ HE' H&' F3' C3 34$ '
P $ 34C' C $ 3D' E' C-D ' P 3 J H4 $ ' $ED' ?NF3D- 3' CH' 34 & 3D' $C' $&H43C$ D '
' CF$ ' $ED' J $O' Q3' $ &- ' &H4' F3' C$ D' > H4D' > 3- 3E$E ' H4' H F34' @F 3&'
MH 34EH4

? NF3D- 3
HQ3$ $NF3D'
H' F3' , P3 '
J H4 $ '
C $ E2' I $4R
N- $4C

MH 34EH4' H4' MH 34EH4C' H&' $!% #&' $ED' I 4 O' @H-EN ' $ ' F3 4' G C '
N4 HE ' H' D3N $43' F3' I $4 O' J $+ E2' C-NF' 11 N$ HE' $C' $&H43C$ D'
3E 3D' H' ' 3 3&' -ED34' F C' N ' $ED' F343-1HE' H' H4D34' F$ ' C-NF'
?- J ' H&' P HE3O' $C' F3O' J $O' D33 J ' 14H134 ' EH ' 3 N33D E2' * H' * F 4DC'
H&' F3' J H-E ' H&' F3' 443$4' H&' * F3C' H4' @H J 1HC HE' F NF' $NN4-3D'
H4' Q3NE J 3' D-3' E' $ED' &H4' F3' =3$4' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED'
F 4 O HE3 ' $C' E' C-NF' P 3 J H4 $ ' H4' ?NF3D- 3' C $ 3D:' CF$ ' Q3' 1$ D' $ED'
$D $EN3D' H' F3' I 34CHE' J $+ E2' C-NF' 11 N$ HE' $C' $&H43C$ D ' H- ' H&'
F3' C$ D' ?- J ' H&' ? O' FH-C$ED' I H-EDC' F343 E Q3&H43' $- FH4 T3D' H'
Q3' CC-3D' $ED' $D $EN3D' &H4' F3' I -41HC3C' H&' F C' N :' I 4H D3D'
$ $OC ' F$ ' C-NF' D $EN3' CH' H' Q3' J $D3' $C' $&H43C$ D' CF$ ' EH '
E' $EO' @$C3' 3 N33D' F3' ?- J ' H&' 6 3' F-ED43D' I H-EDC' H' $EO'
ED D-$

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' CH' CHHE' $C' $EO' ; NN 3C $C N$9
I 34CHE' J $+ E2' C-NF' 11 N$ HE' $C' $&H43C$ D' CF$ ' F$ 3' Q33E' D3R
N $43D' 3E 3D' H' ' 3 3&' -ED3 ' F C' N ' E' J $EE34' F343 E Q3&H43'
1 H D3D ' F3' ' 2F ' * 3 ' $ED' E 343C ' H&' C-NF' I 34CHE' E' $ED' H' $ '
* F3C' H4' @H J 1HC HE' &H4' * F3C' D-3' $ED' -E1$ D' &H4' F3' =3$4' $C '
1$C ' E' H4' H- ' H&' F3' I $4 CF' H4' # E HE' E' 43C13N ' H&' F3' * F3C' H4'
@H J 1HC HE' &H4' * F3C' $NN4- E2' F343H- ' C-NF' 11 N$ HE' J $O'
F$ 3' Q33E' J $D3' CF$ ' FH O' N3$C3' $ED' D3 34 J E3 ' $ED' F3' C$ J 3'
CF$ ' 3C ' E' 8 C' P $(3C O ' 8 C' 8 3 4C' $ED' ?-NN3CCH4C ' $ED' Q3' 43NH 343D'
$ED' 3E&H4N3D' QO' F3' I 4HN33D E2C' $ED' E' F3' P $EE34' F343 E $& 34' 14HR
D3D ' $ED' EH ' H F34 C3:' I 4H D3D' $ $OC ' F$ ' EH F E2' E' F C' N '
NHE $ E3D' CF$ ' E' $EO' 43C13N ' $&&3N ' F3' ' 2F C' H&' $EO' I 34CHE' 43R
N3 E2' ' 3 3&' -ED34' F C' N ' H' F3' * F3C' H4' @H J 1HC HE' &H4' * F3'
&H4' $EO' =3$4' H F34' F$E' F3' =3$4' $C ' 1$C ' $ED' F$ ' C-NF' I 34CHE' J $O'
43NH 34' F3' * F3C' H4' @H J 1HC HE' &H4' * F3 ' H4' $EO' 443$4C' F343H&'
&H4' $EO' 143N3D E2' =3$4 ' E' +3' P $EE34' $C' &' F3' F$D' EH ' Q33E' D3N $43D'
3E 3D' H' ' 3 3&' -ED34' F C' N ' $ED' 14H D3D' &-4 F34 ' F$ ' ' CF$ '
Q3' $ &- ' &H4' C-NF' ; NN 3C $C N$ ' I 34CHE' H' F$ 3' $ED' 43N3 3' $EO' ?-4R
1 -C' H&' F3' * F3C' H4' @H J 1HC HE' &H4' * F3C' &H4' F3' =3$4' $C ' 1$C '
F NF' J $OQ3' 43NH 343D' -ED34' F C' N ' $& 34' 431 $N E2' F3' D $EN3C'
J $D3' H' F J ' Q- ' C-Q(3N ' $ED' 1-4C-$E ' H' F3' I 4H C HEC' F343 E $& 34'
NHE $ E3D' E' F$ ' B3F$ &

F3E' $E
; NN 3C $C N$ '
I 34CHE' CF$ '
Q3' 3N $43D'
3E 3D' H'
' 3 3&' -ED34'
F C' N ' F C'
' 2F ' H'
* F3C' &H4'
F3' =3$4' $C '
1$C ' H' N3$C3 '
$ED' Q3' 3C 3D'
E' F3' @4H E '
Q- ' EH F E2'
F343 E' H'
$&&3N ' F C'
' 2F ' H'
* F3C' H&'
&H4 J 34' =3$4C

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F3E3 34' $EO' ; NN 3C $C N$ '
I 34CHE' J $+ E2' 11 N$ HE' -ED34' F C' N ' CF$ ' Q3' D3N $43D' H' Q3'
3E 3D' H' ' 3 3&' F343-ED34 ' F3' C$ D' >H4D' > 3- 3E$E ' H4' H F34' @F 3&'
MH 34EH4' H4' MH 34EH4C' H&' $!% #&' $ED' I 4 O' @H-EN ' CF$ ' CC-3' F3 4'
I 4HN $ J $ HE' H' Q3' 1HC 3D' HE' NHEC1 N-H-C' I $N3C' F E' F3' 14H134'
I $4 CF' ^ F343H&' F3' I -Q N$ HE' E' F3' 2 34% #' ! !' CF$ ' Q3' C-&& R
N 3E ' ; D3EN3 ' $C' $ CH' H&' C-NF' G3N 4 HE' QO' F3' >H4D' > 3- 3E$E '
$ED' @H-EN ' H&' F3' C$ D' * F3C' H4' @H J 1HC HE' ' 3E C' Q3 E2' D DO'
3C 3D' E' F3' @4H E _' 3E(H E E2' $ED' 43X- 4 E2' $ ' I 34CHEC' E$ J 3D' E'
F3' ?NF3D- 3' $EE3 3D' H' C-NF' P 3 J H4 $ ' 43C13N 3 O' H' 1$O' H' F3'
@H 3N H4' H&' ; N C3' H&' F3' G C 4 N ' F343 E' C-NF' I 34CHEC' J $O' 43C13NR
3 O' 43C D3' F3' C3 34$ ' ?- J C' E' C-NF' ?NF3D- 3' C $ 3D' H' Q3' D-3' $ED'
H E2' QO' F3 J ' C3 34$ O ' H4' CH' J -NF' F343H&' $C' F3O' CF$ ' 43C13N 3 O'
$D J ' H' Q3' D-3' $ED' Q3' E2' H' 1$O ' $ED' $4E E2' $ ' C-NF' I 34CHEC'
F$ ' E' D3&$- ' H&' F3 4' 43ED34 E2' D-3' <Q3D 3EN3' H' F3' E(-EN HEC'
H&' C-NF' I 4HN $ J $ HE' F E' <E3' @$ 3ED$4' P HE F ' &4H J ' F Q' G$ 3
F343H&

#' 1HE' 11 '
N$ HE&H4'
' 3 3&' -ED34'
F C' N '
I 4HN $ J $ HE'
H' Q3' CC-3D'
34 H E E2'
I $O J 3E

I 4HN33D E2C'
E' N$C3' H&'
G3&$-

F343H&ʻ C-NFʻ I4HN33D E2Cʻ $Cʻ $43ʻ QOʻ F Cʻ N ʻ 44E 3Dʻ ʻ Q3ʻ &H4 FR Fʻ $+3Eʻ &H4ʻ F3ʻ 3 Oʻ $EDʻ ' 3NH 34Oʻ]&ʻ $ ʻ C-NFʻ ?-J Cʻ 43E $ E E2ʻ D-3ʻ $EDʻ -E1$ D

@H 3N H4Cʻ H&ʻ ; N C3ʻ CF$ ʻ 2 43ʻ $ ' 3N3 1 ʻ Hʻ I$4 3Cʻ J$+ E2ʻ I$OR J3E ʻ F NFʻ CF$ ʻ Q3ʻ $ C-&& N 3E ʻ NX- $EN3

ʻ EDʻ Q3ʻ ʻ &-4 Q3 ʻ 3E$N 3D ʻ * F$ ʻ F3ʻ 43C13N 3ʻ @H 3N H4Cʻ H&ʻ ; N C3ʻ F 4 H - 2 F H - C F $ ʻ 2 3ʻ Hʻ 3 34Oʻ I$4 Oʻ J$+ E2ʻ $EOʻ I$OR J3E ʻ 1-4C-$E ʻ Hʻ F3ʻ I43 C HECʻ H&ʻ F Cʻ N ʻ $ʻ ' 3N3 1 ʻ $N+EH 3D2 E2ʻ C-NFʻ I$O J3E ʻ $EDʻ F$ ʻ C-NFʻ ' 3N3 1 ʻ CF$ ʻ Q3ʻ Hʻ F3ʻ I$4 3Cʻ FH D E2ʻ F3ʻ C$J3ʻ $ʻ &- ʻ $EDʻ C-&& N 3E ʻ NX- $EN3ʻ 2 EC ʻ 8 Cʻ P$O3C Oʻ $EDʻ $ ʻ I34CHECʻ F$ CH3 34ʻ &H4ʻ F3ʻ P HE 3Cʻ F343 Eʻ 3 143CC3Dʻ Hʻ F$ 3ʻ Q33Eʻ 43N3 3Dʻ &ʻ $EDʻ &ʻ &H4ʻ F3ʻ &- ʻ J H-E ʻ Eʻ C-NFʻ ?NF3D- 3ʻ C $ 3D ʻ H4ʻ &H4ʻ C-NFʻ J H-E ʻ Eʻ 3-ʻ F343H&ʻ $Cʻ F3ʻ C$ Dʻ H4E3Oʻ M3E34$ ʻ CF$ ʻ D 43N ʻ C-NFʻ @H 3N H4ʻ Hʻ 43N3 3ʻ Eʻ 3-ʻ F343H&ʻ C-NFʻ ' 3N3 1 ʻ CF$ ʻ Q3ʻ $Eʻ NX- $EN3ʻ $EDʻ G CNF$423ʻ &4H J ʻ $ ʻ * F3ʻ H4ʻ @H J 1HC HEʻ &H4ʻ * 3ʻ &H4ʻ F3ʻ C$ Dʻ =3$4ʻ <E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ F 4 O HE3 ʻ F NFʻ J 2F ʻ Q3ʻ N $ J 3Dʻ QOʻ F3ʻ ; NN 3C $C N$ ʻ I34CHEʻ -1HEʻ FHC3ʻ 11 R N$ HEʻ F3ʻ I4HN $ $ HEʻ $&H43C$ Dʻ J $Oʻ F$ 3ʻ Q33Eʻ CC-3D ʻ H4ʻ QOʻ F3ʻ @4H Eʻ Eʻ 4 2F ʻ @&ʻ C-NFʻ I34CHE ʻ -ED34ʻ F3ʻ I4H C HECʻ H&ʻ F Cʻ N ʻ ʻ $EDʻ C-NFʻ @H 3N H4Cʻ CF$ ʻ $NNH-E ʻ &H4ʻ $EDʻ 1$Oʻ H 34ʻ $ ʻ P HE 3Cʻ CHʻ 43N3 3Dʻ Eʻ C-NFʻ P $EE34ʻ $Cʻ F3ʻ >H4Dʻ 8 2Fʻ * 43$C-434ʻ H4ʻ $EOʻ * F433ʻ H4ʻ J H43ʻ H&ʻ F3ʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ * 43$C-4Oʻ CF$ ʻ D 43N

Eʻ D3&$- ʻ H&ʻ 7<Q3D 3EN3ʻ Hʻ I4HN J HEʻ $Eʻ 11 N$R HE ʻ QOʻ I3 R HEʻ H&ʻ R H4E3Oʻ M3E3R 4$ HQ3ʻ J$D3ʻ Hʻ @H-4 ʻ H&ʻ @F$EN34Oʻ H4ʻ ; NF3X-34ʻ &H4ʻ $Eʻ <4D34ʻ 2 EC ʻ G3&$- 34C

ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ * F$ ʻ -1HEʻ F3ʻ ; 1 4$ HEʻ H&ʻ F3ʻ * J3ʻ Eʻ F3ʻ C$ Dʻ I4HN J HEʻ J 3D ʻ $EDʻ Eʻ D3&$- ʻ H&ʻ I$O J3E ʻ H&ʻ F3ʻ 443$4Cʻ $EDʻ ?-J Cʻ CHʻ 3C 3Dʻ Eʻ F3ʻ @4H Eʻ Eʻ J $EE34ʻ $&H43C$ D ʻ H4ʻ $EOʻ H&ʻ F3 J ʻ ʻ CF$ ʻ $EDʻ J $Oʻ Q3ʻ $ &- ʻ &H4ʻ 8 Cʻ P $(3C O Cʻ H4E3Oʻ M3E34$ ʻ &H4ʻ $!% #&ʻ Hʻ $11 O ʻ QOʻ I3 HEʻ H4ʻ I3 HEC ʻ 3 F34ʻ Hʻ F3ʻ @H-4 ʻ H&ʻ @F$EN34Oʻ H4ʻ Hʻ F3ʻ ; X- Oʻ ? D3ʻ H&ʻ F3ʻ @H-4 ʻ H&ʻ ; NF3X-34ʻ Eʻ $!% #& ʻ CFH E2ʻ F3ʻ ' 2F ʻ H&ʻ F3ʻ ; NN 3C $C N$ ʻ I34CHEʻ -1HEʻ FHC3ʻ 11 N$ HEʻ C-NFʻ I4HN J HEʻ J $Oʻ F$ 3ʻ Q33Eʻ CC-3Dʻ Hʻ F3ʻ * F3Cʻ H4ʻ @H J 1HC HE ʻ H4ʻ $EOʻ I$4 ʻ F343H&ʻ D-3 ʻ $EDʻ Eʻ $443$4 ʻ $EDʻ F$ ʻ F3ʻ C$J3ʻ F$Cʻ Q3NH J3ʻ 3C 3Dʻ Eʻ F3ʻ @4H Eʻ -ED34ʻ F3ʻ I4H C HECʻ H&ʻ F C N ʻ $EDʻ 14$O E2ʻ F3ʻ <4D34ʻ H&ʻ C-NFʻ @H-4 ʻ 2 EC ʻ $ ʻ H4ʻ $EOʻ H&ʻ F3ʻ I34CHECʻ Eʻ D3&$- ʻ &H4ʻ I$O J3E ʻ H&ʻ C-NFʻ ?-J Cʻ $Cʻ J $Oʻ Q3ʻ &H-EDʻ D-3ʻ QOʻ F3 J ʻ H4ʻ $EOʻ H&ʻ F3 J ʻ $EDʻ Hʻ 3 34Oʻ C-NFʻ I3 HEʻ $ʻ @H1Oʻ H&ʻ F3ʻ ?NF3D- 3ʻ $NNH J 1$EO E2ʻ F3ʻ 11 N$ HEʻ F343-1HEʻ F3ʻ I4HN33D E2Cʻ $&H43C$ Dʻ J $Oʻ F$ 3ʻ Q33Eʻ $+3E ʻ H4ʻ H&ʻ CHʻ J -NFʻ F343H&ʻ $Cʻ J $Oʻ 43 $ 3ʻ Hʻ F3ʻ I34CHECʻ 2 EC ʻ FH J ʻ C-NFʻ <4D34ʻ J $Oʻ Q3ʻ 14$O3Dʻ QOʻ C-NFʻ I3 HE ʻ CF$ ʻ Q3ʻ $EE3 3D

@H-4 ʻ H&ʻ @F$EN34Oʻ H4ʻ ; NF3X-34ʻ Hʻ ? ʻ P$ 34ʻ H&ʻ F3ʻ I3 HE ʻ

ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ * F$ ʻ ʻ CF$ ʻ $EDʻ J $Oʻ Q3ʻ $ &- ʻ &H4ʻ F3ʻ C$ Dʻ @H-4 Cʻ H&ʻ @F$EN34Oʻ $EDʻ ; NF3X-34ʻ 43C13N 3 O ʻ -1HEʻ $EOʻ C-NFʻ I3 HE ʻ C-J J$4 Oʻ Hʻ 3 $J E3ʻ E Hʻ F3ʻ P$ 34ʻ F343H& ʻ EX- 43ʻ F3 F34ʻ $EOʻ $EDʻ F$ ʻ * F3 ʻ $EDʻ F3ʻ $ -3ʻ F343H&(H4ʻ $EOʻ $EDʻ F$ ʻ @H J 1HC HEʻ &H4ʻ * F3 ʻ H4ʻ 443$4Cʻ H&ʻ * F3ʻ H4ʻ @H J 1HC HEʻ &H4ʻ * F3 ʻ J $Oʻ Q3ʻ D-3ʻ &H4ʻ F3ʻ =3$4ʻ $C ʻ 1$C ʻ FX ʻ Cʻ Hʻ C$O ʻ &H4ʻ F3ʻ =3$4ʻ <E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ F 4 O HE3 ʻ QOʻ F3ʻ I34CHEʻ H4ʻ I34CHEC ʻ H4ʻ $EOʻ $EDʻ 3 34Oʻ H&ʻ Fa J ʻ 2 EC ʻ FH J ʻ $Eʻ <4D34ʻ &H4ʻ I$O J3E ʻ F343H&ʻ J $Oʻ Q3ʻ 14$O3D ʻ $EDʻ &H4ʻ F$ ʻ I-41HC3ʻ Hʻ N$ ʻ Q3&H43ʻ F3 J ʻ $EDʻ 3 $J E3ʻ 0 0&ʻ 0, ' !ʻ $EOʻ I34CHEʻ H4ʻ I34CHEC ʻ #1HEʻ <$ F ʻ H4ʻ Hʻ $CN34 $ Eʻ F3ʻ * 4- Fʻ QOʻ E 344H2$ H4 3Cʻ H4ʻ QOʻ && D$ ʻ $EDʻ F343-1HEʻ Hʻ J $+3ʻ C-NFʻ <4D34ʻ H4ʻ <4D34Cʻ $Cʻ Hʻ C-NFʻ @H-4 ʻ CF$

C33 J

V 9 ? 6 ' : 6 ' '& #)

C33 J (-C $ED E N$C3 $EO I34CHE 2 EC FH J $EO C-NF <4D34 CF$ Q3 14$O3D QO I3 HE $C $&H43C$ D CF$ EH QO F J C3 & H4 F34C3 M < CH J 3 H4E3O H4 @H-EC3 $ 3ED $ F3 * J 3 $11H E 3D &H4 14HN33D E2 -1HE C-NF I3 HE F3 C$ J 3 CF$ $C 2 EC C-NF I34CHE Q3 $+3E 5 , !11, $ED $E <4D34 CF$ Q3 &H4 F F J $D3 $C 2 EC 3 34O C-NF I34CHE &H4 F3 ?-4$ E F3 ?NF3D- 3 $EE3 3D H F3 C$ D I3 HE NF$423D 2 EC C-NF I34CHE H4 &H4 C-NF 3CC34 ?- J $C F3 @H-4 CF$ $ $4D

O > ED Q3 3E$N 3D *F$ 3 34O I34CHE FH CF$ Q3 $D J 3D E344H2$ H $+3 $EO G3&3EN3 H $EO C-NF I3 HE CF$ F E C-NF * J 3 $C F3 C$ D @H-4 C 43C13N 3 O CF$ F E+ 14H134 $EC 34 C-NF 134CHE$ E 344H2$ H4 3C $C CF$ QO F3 <4D34 H& C-NF @H-4 Q3 3 F Q 3D H F J H4 F34 HE Q3F$ & H& $EO C-NF I3 HE34 H-NF E2 F3 \-$E 3C H4 $ -3C H& F3 * F3C &H4 F3 C$ D =3$4 $C 1$C H& F3 >$EDC F NF C-NF I3&CHE H4 F3 I34CHE H4 I34CHEC H& FH J F3 H4 CF3 C H4 $43 F3 '3143C3E $ 3 H4 '3143C3E $ 3C F3 D E F3 C$ D =3$4

W ED Q3 3E$N 3D *F$ F3 C$ D @H-4 C 43C13N 3 O J $0 H4D34 F$ $ BHH+C 9 4 E2C $ED ; D3EN3C E F3 @-C HDO IH 34 H4 IHCC3CC HE H& F3 C$ D I$4 3C H4 H& $EO H F34 I34CHE H4 I34CHEC F NF J $O Q3 E3N3CC$4O H 3E$Q 3 F3 C$ D @H-4 C H $CN34R $ E F3 * 4- F H& $EO H& F3 P$ 34C 14H134 H Q3 EX- 43D E H QO F3 J -ED34 F3 I4HN33D E2C QO F C N D 43N 3D CF$ Q3 Q4H-2F E H $ED 14HD-N3D Q3&H43 F3 C$ D @H-4 C 43C13N 3 O. I4H D3D $ $OC F$ $ C-NF I4HN33D E2C CF$ Q3 C- J J $4O $ED F$ EH <Q(3N HE H $EO C-NF I3 HE HE $NNH-E H& F3 G3 J $EDC F343QO CH-2F H Q3 43NH 343D Q3 E2 D C EN H4 J - &$4 H-C EH4 &H4 9 $E H& I$4 3C H4 9 $E H& 6H4 J CF$ Q3 43N3 3D $ED EH C-NF I3 HE CF$ Q 3 HE $NNH-E H& F3 G3$ F H& $EO H& F3 I$4 3C F343 H $ED E N$C3 H& $EO C-NF G3$ F F3 I3 HE34 J $O 14HN33D 2 EC F3 '3143C3E $ 3C H& $EO I34CHE CH DO E2 F$ E2 & 4C C34 3D F3 J F $, H N3 F343H& $ED -1HE C $113$4 E2 H F3 @H-4 F$ C-NF , H N3 F$D Q33E 2 3E C-NF @H-4 CF$ 14HN33D H EX- 43 E H F3 P$ 34 H& C-NF I3 HE $C 2 EC F3 '3143C3E $ 3C H& $EO I34CHE CH DO E2 E F3 C$ J 3 P$EE34 $C 2 EC F3 C$ D I34CHE 343 F3 H4 CF3 E2 $ED F3 C$ D @H-4 C 43C13N 3 O CF$ 14HN33D F343HE $NNH4D E2 O

W I4H D3D $ $OC $ED Q3 3E$N 3D *F$ $ 3$C 6H-4 33E G$OC Q3&H43 $EO I4HN&33D E2 CF$ Q3 $+3E -ED34 $EO C-NF I3 HE $C $&H43C$ D $, H N3 F343H& 3 143CC E2 F3 , $ J 3 H4 , $ J 3C H& F3 I34CHE H4 I34CHEC 2 EC FH J $EO <4D34 J $O Q3 F343QO 14$O3D $ED F3 J H-E CH-2F H Q3 43NH 343D 2 EC C-NF I34CHE H4 & F343 Q3 J H43 I34CHEC F$E <E3 2 EC 3$NF H& F3 J C3 34$ O CF$ Q3 1HC 3D HE F3 14 EN 1$ GHH4 H& F3 @F-4NF H& F3 I$4 CF H4 #E HE F3 * F3C H4 @H J 1HC HE &H4 * F3C F343H& J $O Q3 CH-2F H Q3 43NH 343D QO C-NF I4HN33D E2 & $EO @F-4NF F343 Q3 E F NF G E3 ?34 N3 C -C-$ ON3 3Q4$ 3D F E F3 C$ J 3 $ED & EH HE F3 P$4+3 8H-C3 H4 E CH J 3 NHEC1 N-H-C I $N3 E $EO P$4+3 *H E E H4 E3 $D(H E E2 H C-NF I$4 CF H4 #E HE $ED C-NF , H N3 CF$ $ CH Q3 1HC 3D HE $EO H F34 -C-$ $ED NHE 3E 3E I $N3 H4 I $N3C &H4 1HC E2 , H N3C F E C-NF I$4 CF H4 #E HE P $ED

$HH+C KN J$O Q3 H4D343D E H @H-4

I4HN33D E2C H Q3 C- J R J$4O

I3 HE EH H Q 3 QO G3$ F H& I$4 3C

, H N3 H& $EO I4HN33D E2 H Q3 $+3E HE C-NF I3 HE CF$ Q3 1HC 3D -1 6H-4 33E G$OC 143R H-C O

$ED E $ I4HN33D E2C -ED34 F C N F3 1HC E2 C-NF ,H N3C H4 $EO <4D34 H4 P$ 34 HE C-NF I $N3C 343 E Q3&H43 J3E HE3D CF$ Q3 D33 J3D &- $ED C-&& N 3E ?34 N3 $ED ,H N3 F343H& H $ E 3E C $ED I-41HC3C $ED -1HE $ I34CHEC F$ CH3 34 -E 3CC F3 @H-4 CF$ F E+ & H D 43N $EO H F34 H4 D &&343E ,H N3 H Q3 2 3E E $DD HE H H4 E C-QC - HE &H4 F3 C$ J3

<4 3& H& @H-4 H FH- E 4H J3E

W ED Q3 &$4 F34 3E$N 3D *F$ 3 34O <4D34 H& 3 F34 H& F3 C$ D @H-4 C H& @F$EN34O H4 ; NF3X-34 43C13N 3 O J$D3 -1HE $EO I3 HE -ED34 F3 I4H C HEC H& F C N CF$ F$ 3 FH- E4H J3E F3 6H4N3 $ED ; &&3N H& $ G3N433 $ED F$ $E $ 3C 3D @H1O H& 3 34O C-NF <4D34 CF$ Q3 $C 3&&3N -$ H $ E 3E C $ED I-41HC3C $C $E ; 3J1 & N$ HE H& $ G3N433 H4 $C & C-NF <4D34 F$D Q33E E4H 3D $ED $E ; 3J1 & N$ HE F343H& $& 34 E4H J3E F$D Q33E J$D3 H- $ED C3$ 3D $ED 3 34O C-NF <4D34 CF$ Q3 3E&H4N3D QO C-NF 9 4 H& ; 3N- HE H4 H F34 I4HN3CC $C J 2F Q3 C-3D H4 CC-3D H 3E&H4N3 $EO & E$ G3N433 H4 <4D34 H& 3 F34 H& F3 C$ D @H-4 C

H4E3O M3E34$ J$O $11 O H CC C $E B$44 C 34 H& @H-E O &H4 * F3C EH 3 N33D E2 [

W ED Q3 &-4 F34 3E$N 3D *F$ CF$ $ED J$O Q3 $ &- &H4 8 C P$(3C O C C$ D H4E3O M3E34$ & F3 CF$ F E+ CH & EC 3$D H& $11 O E2 $C $&H43 14H D3D H F3 @H-4 H& @F$EN34O H4 ; NF3X-34 H $11 O QO I3 HE H F3 CC C $# B$44 C 34 H& F3 @H-E O H4 ' D E2 E F NF F3 I34CHE H4 I34CHEC J$O 43C D3 2 EC FH J C CH-2F H 43NH 34 F3 $ -3 H& $EO * F3C H4 @H J1HC HE &H4 * F3C H4 E N$C3 C-NF I34CHE H4 I34CHEC CF$ 43C D3 F E F3 @H-E O H& 234% # F3E H F3 @F$ 4J$E H& F3 ?3CC HEC H& F3 I3$N3 &H4 C-NF @H-E O ($ED C-NF I3 HE CF$ Q3 &4$J3D E +3 P$EE34 $C F343 E Q3&H43 D 43N 3D E 43C13N H& I3 HEC H F3 @H-4 H& @F$EN34O $ED ; NF3X-34 $ED -1HE C-NF I3 HE CF$ $ED J$O Q3 $ &- &H4 F3 CC C $E B$44 C 34 H4 @F$ 4J$E H FH J F3 C$J3 J$O Q3 $DD43CC3D $ F3 M3E34$ H4 \-$4 34 ?3CC HEC &H4 C-NF @H-E O C-J J$4 O H 3 $J E3 E H F3 P$ 34 H& C-NF I3 HE FH- $EO 143 H-C I4HN33D E2C E $EO ; NN 3C $C N$ @H-4 $EO >$ H4 #C$23 H F3 NHE 4$4O EH FC $ED E2 $ED C-NF CC C $E B$4R 4 C 34 H4 @F$ 4J$E CF$ F$ 3 IH 34 $ED - FH4 O E +3 P$EE34 $ED QO H4$; $J E$ HE HE <$ F H4 && D$ <4 H F3 E C3 $C F3 C$ D @H-4 C H& @F$EN34O $ED ; NF3X-34 43C13N 3 O F$ 3 Q33E F343 E Q3&H43 3J1H 343D H DH H EX- 43 $ED $CN34 $ E F3 P -3H& F3 * F3C H4 F3 JH-E H& F3 443$4 H& * F3 H4 @H J1HC HE &H4 * F3 D-3 $ED 1$O$Q 3 QO 3$NF H& F3 I34CHEC 2 EC FH J F3 I3 HE $&H43C$ D J$O 14$O $ G3N433 $ED -1HE $ED $& 34 C-NF ; $R J E$ HE $ED EX- 4O F3 C$ D CC C $E B$44 C 34 H4 @F$ 4J$E CF$ J$+3 C-NF G3N433 H4 G3N433C 3 F34 2 EC $ H4 $EO H& F3 I$4 3C 2 EC FH J F3 C$J3 J$OQ3 14$O3D $C H F J CF$ C33 J (-C $ED $ C-NF G3N433C CF$ $ED J$O Q3 3E&H4N3D QO $ C-NF I4HN3CC $C J$O Q3 3J1 HO3D H 3E&H4N3 H4 N$44O E H 3 3N- HE $EO H F34 G3N433 14HEH-EN3D H4 J$D3 -1HE $EO I4HN33D E2 QO @ BD QO $EO C-NF CC C $E B$44 C 34 H4 @F$ 4J$E -ED34 H4 QO 4 -3 H& $EO >$ H4 ? $ - 3 F343 H&H43 J$D3

,H N3 H& E 3 &HE F ?N>D-3C$

W I4H D3D $ $OC $ED F3 3E$N 3D *F$ $ 3$C * 3 3 G$OC @H J J3EN3J3E H& F3 M3E34$ H4 \-$4 34 ?3CC HEC $ F NF $EO I3 HE -ED34 F C N C E 3ED3D H F3 143&3443D $

, H N3' H&' C- NF' E 3E HE' H23 F34' F' $?NF3D- 3' C3 E2' H- ' F3' , $E(3C' H&' F3' C3 34$' I 34CHEC' 2 EC' FH J' C- NF' I 4HN33D E2' C' H' F3' $+3E' $ED' F3' $ -3' H&' F3' * F3C' H4' J H- E' H&' F3' @H J 1HC HE' &H4' * F3C' CH- 2F' H' Q3' 43NH 343D' &4H J' 3$NF' H&' F3 J' 43C13N 3 O' C $ ' Q3' 1HC 3D' HE' F3' 14 EN 1$' GHH4' H&' F3' @F- 4NF' H&' F3' I $4 CF' H4' # E HE' F3' * F3C' H4' @H J 1HC HE' &H4' * F3C' F343H&' J $O' Q3' CH- 2F' H' Q3' 43NH 343D' QO' C- NF' I 4HN33D E2' &' $EO' @F- 4NF' F343' Q3' E' F NF' G E3' ?34 N3' C' - C- $ O' N3 3Q4$ 3D' F E' F3' C$ J 3' $ED' &' EHE3' F3E' HE' F3' P $4+3' 8 H- C3' H4' E' CH J 3' NHEC1 N- H- C' I $N3' E' $EO' P $4+3' * H E' E' H4' E3 ' $D(H E E2' H' C- NF' I $4 CF' H4' # E HE' $ED' C- NF' , H N3' CF$ ' $ CH' Q3' 1HC 3D' HE' $EO' H F34' - C- $' $ED' NHE 3E 3E' ' I $N3' 7 I $N3C' &H4' 1HC E2' , H N3C' F E' C- NF' I $4 CF' H4' # E HE' $ED' C- NF' , H N3' CH' 1HC 3D' CF$ ' Q3' H' $ ' E 3E C' $ED' I - 1HC3C' &- ' $ED' C- && N 3E' , H N3' $ED' ?34 N3' H' $ED' - 1HE' $ ' I 34CHEC' $EO C3' NHEN34E3D' H&' C- NF' I 4HN33D E2' QO' I 3 HE' $C' $&H43C$ D' H' C- NF' CC C $E' B$44 C 34' H4' @F$ 4 J $E

W ' ED' Q3' ' &- 4 F34' 3E$N 3D' * F$' E' N$C3' $EO' I 34CHE' 2 EC' FH J' $EO' C- NF' I 4HN33D E2' QO' I 3 HE' Q3&H43' $EO' CC C $E' B$44 C 34' H4' @F$ 4 J $E' J $O' Q3' $DH1 3D' CF$ ' EH ' QO' F J C3 &' H4' F34C3 &' H4' CH J 3' H4E3O' H4' @H- EC3 ' $ 3ED' $' F3' 8 3$4 E2' H&' C- NF' I 3 HE' F3' C$ J 3' CF$ ' $ED' J $O' Q3' $+3E' 4H' ' ,# !11,' $C' 2 EC' C- NF' I 34CHE' $ED' $ G3N433' Q3' &H4 F F' J $D3' QO' C- NF' CC C $E' B$44 C 34' H4' @F$ 4 J $E' 2 EC' C- NF' I 34CHE' &H4' F3' &- ' J H- E' 14$O3D' H4' &H4' C- NF' 3CC34' ?- J' $C' CF$ ' Q3' $ $ D3D' E' +3' P $EE34' $C' F$C' F343 ER Q3&H43' Q33E' 14H D3D' E' F3' @$C3' H&' $EO' I 3 HE' 143C3E 3D' H' F&3 @H- 4' H&' @F$EN34O' H4' ; NF3X- 34

W ' ED' Q3' ' &- 4 F34' 3E$N 3D' * F$' $ ' P HE 3C' 1$ D 43N3 3D' H4' 43N J 4343D' - ED34' - FH4 O' H&' F C' N 7CF$ ' Q3' 1$ D' E' C- NF' P $EE34' $C' F3' >H4D' 8 2F' * 43$C- 434' H4' F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' * 43$C- 40' H4' $EO' * F433' H4' J H43' H&' F3 J ' CF$ ' DF3N ' H' F3' @43D ' $ED' NNH- E H&' F3' * 3 34' H&' 8 C' P $(3C O C' ; NF3X- 34' D C EN O' $ED' $1$4' &4H J' $ ' H F34' P HE 3C' ' $ED' F$' F3' C$ D' >H4D' 8 2F' * 43$C- 434' H4' @H J J CC HE34C' H&' F3' * 43$C- 40' H4' $EO' * F433' H4' J H43' H&' F3 J ' CF$ ' N$- C3' H' Q3' +31 ' $E' NNH- E' H&' $ ' P HE 3C' &4H J' * J Y' H' * J 3' $D $EN3D' 1- 4C- $E' H' F3' I 4H C HEC' F343 E Q3&H43' J $D3' HE' 3$NF' C3 34$' 11 N$ HE' &H4' ' 3 3&' J $D3' - ED34' F C' N ' $ED' $' +3' NNH- E' H&' $ ' P HE 3C' 1$ D' 43N3 3D' H4' 3 3D' QO' 4 - 3' H&' F3' I 4H C HEC' F343 E Q3&H43' NHE $ E3D' E' C$ C&$N HE' H&' F3' * F3C' H4' @H J 1HC HE' &H4' * F3C' H4' 443$4C' F343H&' 3C 3D' QO' 43$CHE' H&' C- NF' 11 N$ HE' F$ E2' Q33E' $NN3D3D' H' E' F3' @4H E' $ED' $ ' C 3F' P HE 3C' CF$ ' Q3' E' 3$NF' @$C3' $11 N$Q 3' H' 431 $N3' F3' P HE 3C' $D $EN3D' QO' <4D34' H&' F3' C$ D' >H4D' > 3- 3E$E' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' , ' $!% #&' ,J' F3' ' 3 3&' H&' F3' I 34CHE' J $+ E2' C- NF' 11 N$ HE' H- ' H&' F3' @HECH D$ 3D' 6 - ED ' $ED' F3' ?- 41 - C' &' $EO' $& 34' I $O J 3E' $ED' ?$ C&$N HE' H&' C- NF' D $EN3C' $ED' H&' $ ' @HC C' $ED' @F$423C' $ 3ED$E' HE' F3' @H 3N HE' ' 3N3 1 ' $ED' >3 O' H&' ' 3NH 34O' H&' C- NF' * F3C' H4' @H J 1HC HE' &H4' * F3C' CF$ ' F3E' $ED' $C' F3' C$ D' >H4D' 8 2F' * 43$C- 434' H4' @H J J CC HE34C' H&' 8 C' P $(3C O C' * 43$C- 40' H4' $EO' * F433' H4' J H43' H&' F3 J ' CF$ ' D 43N ' Q3' 1$ D' H 34' H' F3' I 34CHE' E' FHC3' ' 2F ' CH' 4$EC&3443D' H F3

E2' I $4 N- ' $4C' H' Q3' ` I' Q3&H43' M3E3' 4$' H4' \ - $4 34' ?3CC HEC'

` 9 F343' I $4' ' 3C' DH' EH' $113$4 QO' @H- EC3 ' $' 8 3$4 E2' H&' I 3 HE' G3R N433' J $O' Q3' &H& QOO F J $D3

P HE 3C' 1$ D' - ED34' N' H' Q3' 1 $N3D' H' F3' @43D ' H&' F3' * 3 34' H&' F3' ; NF3R X- 34' $ED' +31 ' C31$4$ 3' &4H J' $ ' H F34' P HR E 3C' NNH- E' H' Q3' +31

F3ʻ @4H Eʻ -ED34ʻ F Cʻ N ʻ C-NFʻ * F3Cʻ H4ʻ @H J 1HC HEʻ &H4ʻ * F3Cʻ J $0ʻ F$ 3ʻ Q33Eʻ 43N3 3Dʻ H4ʻ 43NH 343D

@HC Cʻ H ʻ3ʻ C1HED3E Cʻ -E(-C 0ʻC-3Dʻ

W ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ * F$ ʻ Eʻ N$C3ʻ ʻ CF$ ʻ $113$4ʻ -1HEʻ $EOʻ C-NFʻ * 4 $ʻ $Cʻ $&H43C$ Dʻ Hʻ $EOʻ H&ʻ F3ʻ C$ Dʻ @H-4 Cʻ H&ʻ @F$EN34Oʻ ; NF3X-34ʻ H4ʻ H&ʻ F3ʻ CC C $E ʻ B$44 C 34ʻ F$ ʻ $EOʻ G3 J $EDʻ H4ʻ G3 J $EDCʻ NHE $ E3Dʻ Eʻ $EOʻ ?NF3D- 3ʻ Hʻ $EOʻ C-NFʻ P 3 J H4 $ʻ $Cʻ $&H43C$ Dʻ F$Dʻ Q33Eʻ 143 H-C Oʻ 1$ Dʻ H4ʻ C$ C& 3Dʻ H4ʻ $Cʻ -E&H-ED3Dʻ <4 -E43$CHE$Q 3ʻ F$ʻ F3Eʻ ʻ CF$ ʻ Q3ʻ $ &-ʻ &H4ʻ C-NFʻ @H-4 ʻ &ʻ ʻ CF$ ʻ F E+ʻ & ʻ CHʻ Hʻ DHʻ $ʻ Cʻ G CN43 HEʻ Hʻ H4D34ʻ C-NFʻ ?- Jʻ H4ʻ ?- J Cʻ $Cʻ CF$ ʻ $113$4ʻ Hʻ C-NFʻ @H-4 ʻ Hʻ Q3ʻ 43CHEQ 3ʻ Hʻ Q3ʻ 1$ Dʻ QOʻ F3ʻ C$ Dʻ H4E3Oʻ M3E34$ʻ Hʻ F3ʻ I $4 Oʻ H4ʻ I $4 3Cʻ CHʻ 4HE2&- Oʻ C-3Dʻ $Cʻ $EDʻ &H4ʻ $EDʻ Eʻ F3ʻ , $ J 3ʻ H&ʻ @HC Cʻ H&ʻ ?- ʻ ʻ C-NFʻ ?- Jʻ H4ʻ ?- J Cʻ Hʻ Q3ʻ D3D-N 3Dʻ &4H Jʻ F3ʻ C-41 -Cʻ 6-EDʻ Hʻ F NFʻ 3ʻ P 3 J HR 4 $ Cʻ J $+ E2ʻ C-NFʻ -E43$CHE$Q 3ʻ G3 J $EDʻ H- Dʻ Q3NH J 3ʻ 3E 3Dʻ $Cʻ $&H43C$ D

ʻ I 4HN33DR E2Cʻ -ED34ʻ Nʻ3 3J1ʻ &4H Jʻ ? $ J 1ʻ G- 3Cʻ $EDʻ <&& N3ʻ 633C

W ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ * F$ ʻ C$ 3ʻ $Cʻ $&H43C$ Dʻ EH.ʻ @HC Cʻ CF$ ʻ Q3ʻ 43NH 34$Q 3ʻ -ED34ʻ F Cʻ N ʻ $EDʻ F$ʻ -1ʻ Hʻ $EDʻ 143 H-Cʻ Hʻ I 4HN3CCʻ H&ʻ ; 3N- HEʻ -ED34ʻ F Cʻ N ʻ EHʻ ? $ J 1ʻ G- Oʻ EH4ʻ <&& N3ʻ 633Cʻ CF$ ʻ Q3ʻ 1$ Dʻ H4ʻ NF423Q 3ʻ -1HEʻ $EOʻ I 4HN33D E2ʻ < D34 ʻ @H1Oʻ ER C 4- J 3E ʻ GHN- J 3E ʻ ʻ 3N3 1 ʻ H4ʻ H F34ʻ P $ 34ʻ H4ʻ * F E2ʻ HNN-44 E2ʻ -C3Dʻ Eʻ H4ʻ HNN$C HE3Dʻ QOʻ $EOʻ I 4HN33D E2ʻ -ED34ʻ F Cʻ N ʻ $EOʻ H F34ʻ N ʻ H4ʻ N Cʻ H4ʻ $EOʻ >$ ʻ H4ʻ # C$23ʻ Hʻ F3ʻ NHE 4$4Oʻ F343H&ʻ EH R FC $ED E2

I 34CHECʻ FHʻ C 3$4ʻ &$ C3 Oʻ CF$ ʻ C-&&34ʻ &H4ʻ I 34(-40

W ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ * F$ ʻ &ʻ $EOʻ I 34CHEʻ H4ʻ I 34CHECʻ FHʻ CF$ ʻ J $+3ʻ H4ʻ $+3ʻ $EOʻ <$ Fʻ H4ʻ && D$ ʻ H4ʻ C 3$4ʻ Hʻ $EOʻ E 34R 4H2$ H4 3Cʻ Hʻ Q3ʻ $+3Eʻ Q3&H43ʻ $EOʻ I 34CHEʻ H4ʻ I 34CHECʻ Eʻ 1-4C-$EN3ʻ H&ʻ F Cʻ N ʻ $EDʻ F343 Eʻ &- Oʻ $EDʻ +EH E2 Oʻ C 3$4ʻ H4ʻ $EC 34ʻ &$ C3 Oʻ Hʻ $EOʻ P $ 34ʻ H4ʻ * F E2ʻ 3 34Oʻ C-NFʻ I 34CHEʻ Q3 E2ʻ D- Oʻ NHE N 3Dʻ F343H&ʻ CF$ ʻ EN-4ʻ $EDʻ C-&&34ʻ C-NFʻ I 3E$ 3Cʻ I $ ECʻ $EDʻ G C$Q 3Cʻ $Cʻ I 34CHECʻ NHE N 3Dʻ H&ʻ &- ʻ $EDʻ NH44-1 ʻ I 32-4Oʻ $43ʻ $Q 3ʻ H ʻ H4ʻ &ʻ $EOʻ I 34CHEʻ H4ʻ I 34CHECʻ CF$ ʻ NH44-1 Oʻ 14HN-43ʻ H4ʻ C-QH4Eʻ $EOʻ H F34ʻ I 34CHEʻ Hʻ C 3$4ʻ H4ʻ $EC 34ʻ &$ C3 Oʻ Eʻ $EOʻ <$ Fʻ && D$ ʻ E 344H2$R H4 3Cʻ H4ʻ H F34ʻ I 4HN33D E2ʻ F3ʻ I 34CHEʻ H4ʻ I 34CHECʻ D- Oʻ NHE N 3Dʻ H&ʻ C-NFʻ 14HN-4 E2ʻ H4ʻ C-QH4E E2ʻ CF$ ʻ EN-4ʻ $EDʻ C-&&34ʻ C-NFʻ I 3E$ 3Cʻ 6H4&3 -43Cʻ I $ ECʻ $EDʻ G C$Q 3Cʻ $Cʻ I 34CHECʻ NHE N 3Dʻ H&ʻ ?-QH4E$R HEʻ H&ʻ I 32-4Oʻ $43ʻ $Q 3ʻ H

, , <ʻ ? ; @# , G<

M#> ; >P ʻ * ʻ ' ;M ?

@ I ʻ W>

Eʻ Nʻ Hʻ $- FH4 T3ʻ ^Eʻ I$4 CF3Cʻ EN HC3Dʻ -ED34ʻ
$EOʻ Nʻ H&ʻ I$4 $J3E_ʻ F3ʻ 3 E2ʻ H&ʻ F3ʻ IHH4ʻ
H J3E Cʻ Eʻ CJ$ʻ IH4 HECʻ Hʻ ED-C 4H-Cʻ
@H $234Cʻ I Cʻ" J 3ʻ ZSU m

9 8 ; ' ; ?ʻ Eʻ I$4 CF3Cʻ EN HC3Dʻ -ED34ʻ N Cʻ H&ʻ I$4 $J3Eʻ F343ʻ $43ʻ Eʻ J$EOʻ @$C3Cʻ H J3E Cʻ J$D3ʻ &H4ʻ F3ʻ B3E3&ʻ H&ʻ F3ʻ IHH4ʻ NF 3& Oʻ Fʻ $ʻ 3ʻ Hʻ 6-3ʻ FNFʻ $43ʻ EHʻ NH J1$4$ 3 Oʻ -C3 3CCʻ $EDʻ -E14HD-N 3: EDʻ F343$Cʻ ʻ H-Dʻ 3EDʻ J-NFʻ Hʻ F3ʻ 9 3 &$43ʻ $EDʻ 8$11 E3CCʻ H&ʻ F3ʻ IHH4ʻ &ʻ FHC3ʻ H J3E Cʻ NH-Dʻ Q3ʻ 3ʻ$ʻ$ʻ &$ 4ʻ '3E ʻ$EDʻ Eʻ CJ$ʻ IH4 HECʻ Hʻ ED-C 4H-Cʻ @H R $234Cʻ H&ʻ 2HHDʻ @F$4$N 34ʻ F 3ʻ F3ʻ G C 4Q- HEʻ H&ʻ 6-3ʻ J 2Fʻ Q3ʻ $-2J3E 3Dʻ QOʻ $114H14$ E2ʻ F3ʻ C$Dʻ '3E Cʻ Hʻ F3ʻ I-4NF$C3ʻ H&ʻ $Eʻ $DD HE$ʻ \-$E Oʻ Q3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ JHCʻ ; N3 3Eʻ P$(3C Oʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3Eʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ʻ $EDʻ *3J1H4$ʻ $EDʻ @HJJHECʻ Eʻ F Cʻ 143C3Eʻ I$4 $J3Eʻ $CC3JQ 3Dʻ $EDʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$J3ʻ *F$ʻ ʻCF$ʻ$EDʻ J$Oʻ Q3ʻ $ &-ʻ&H4ʻ F3ʻ *4-C 33Cʻ H&ʻ F3ʻ C$Dʻ H J3E Cʻ H23 F34ʻ Fʻ F3ʻ @F-4NF $4D3ECʻ $XDʻ < 34C334Cʻ H&ʻ F3ʻ IHH4ʻ Eʻ I$4 CFʻ 3C 4Oʻ $CC3JR Q 3Dʻ $EDʻ F3Oʻ $43ʻ F343QOʻ 43X- 43Dʻ Hʻ 3ʻ IH4 HECʻ H&ʻ $EOʻ C-NFʻ H J3E ʻ EHʻ 3CCʻ F$Eʻ <E3ʻ 6H-4 Fʻ H&ʻ $ʻ ? $ - 3ʻ N43ʻ $EDʻ EHʻ 3 N33D E2ʻ <E3ʻ C-NFʻ N43ʻ Hʻ $EOʻ <E3ʻ ED D-$ʻ $NNH4D E2ʻ Hʻ F3 4ʻ
ʻ G CN43 HEʻ $Cʻ $ʻ O3$4 Oʻ <NN-1$ HEʻ &4HJʻ ') !% 1ʻ Hʻ ') !% 1ʻ
ʻ ^$EDʻ $ʻC-NFʻ '3Eʻ$Cʻ >$EDʻ H&ʻ F3ʻ C$J3ʻ \-$ Oʻ Cʻ -C-$ Oʻ 3ʻ&H4ʻ Eʻ F3ʻ C$D

ʻ , ʻ

*4-C 33Cʻ $EDʻ I$4 CFʻ <&& R N34Cʻ Eʻ 3C 4Oʻ $CC3JQ 3Dʻ J$Oʻ 3ʻ IH4R HECʻ H&ʻ IHH4ʻ H J3E Cʻ Hʻ ED-C 4H-Cʻ @H $234C

C$D' I$4 CF(W H' C-NF' ED-C 4 H-C' @H $234C' H&' 2HHD' @F$4$N 34' Q3 E2' G$0' >$QH-434C' H4 5H-4E30 J3E' 32$ 0' C3 3D' E' F3' C$D' I$4 CF' $ED' D 3 E2' F E 'H4' E3$4' C' BH-EDC' $C' CF$ ' $11 0' &H4' F3' C$J3' E' F3' P$EE34' F343 E $& 34' J3E HE3D

>$ED' H' Q3' D-0' N- R $ 3D

' I4H D3D' $ CH' $ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' F3' I34CHE' F 4 E2' F3' C$J3' CF$ ' Q3' F3 D' QH-ED' H' N- $ 3' ' E' C-NF' $' P$EE34' $C' CF$ ' 143C34 3' F3' >$ED' E' $' D-3' ? $ 3' H&' 634 0

3C 40' HQ3 F3 D' $EE-$ 0' EE N$ EC'

' ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' &H4' F3' I-41HC3' H&' @$440 E2' ' E H' 3&&3N' $' 3C 40' CF$ ' Q3' F3 D' E' F3' 6 4C' 9 33+' E' +!5' 4! ' #' 3 340' =3$4' H&' F NF' * 3E' G$0C' , H N3' CF$ Q3' 2 3E' E')!' -C-$' P$EE34' $' F NF' 3C 40' F3' * 4-C 33C' H&' F3' C$D' H ' J3E C' J$0' $ 3ED' $ED' H 3' &' F30' CF$ ' CH' F E+' & ' $ED' $' F NF' 3C 40' H4' CH J3' D(H-4E J3E ' F343H&' $E0' ED-C 4 H-C' @H $234' H&' 2HHD' @F$4$N 34' FH' J$0' D3C 43' H' 43E ' C-NF' I H4 HE' H&' >$ED' $C' $&H43C$D' J$0' $11 0' &H4' F3' C$J3' $ED' F3' C$D' 3C 40' $43' F343Q0' 43X- 43D' $+ E2' E H' NHEC D34$ HE' F3' @F4N 34' $ED' @ 4N- J C $EN3C' H&' F3' 11 N$E ' H' D3 34 J E3' F3' @$C3' 3 F34' Q0' 43(3N E2' F C' 11 N$ HE' H4' Q0' J$+ E2' $E' <4D34' F$ ' F3' CF$ ' Q3' 134 J 3D' H' HNN-10' C-NF' I H4 HE' H&' F3' I HH4' H J3E ' Q3 E2' EH ' 3CC' F$E' <E3' 6H-4 F' H&' $? $ - 3' N43' EH4' 3 N33D E2' <E3' C-NF' N43' $C' F3' C$D' 3C 40' E' F3 4' G CN43 HE' CF$ 'D3 34 J E3' $ED' -1HE' F3' * 34 J C' Q343 E'

<4D34' H&'

Q3&H43' 3E$N 3D' ' $ED' F3' C$D' <4D34' H&' 3C 40' CF$ ' Q3' F3 D' H' $ '

44 3<NN-' FH4 T3 <NN-' 1$ HE

I- 1HC3C' H' Q3' $' C-&& N 3E' * 3' $ED' - FH4 0' H' C-NF 11 N$E ' H' 3E 34' E H' F3' <NN-1$ HE' H&' C-NF' >$ED' $' F3' * J3' F343 E' $11H E 3D

I$0 J3E 'H&' '3E

' I4H D3D' $ $0C ' $ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' F3' ' 3E ' CF$ ' Q3' 43C34 3D' $ED' 1$0$Q 3' H' F3' @F-4NF $4D3EC' $ED' < 34C334C' H&' F3' I HH4' HE' Q3F$ &' H&' F3' 3C 40' E' HE3' 24HCC' ?- J' &H4' F3' FH 3' =3$4' $ED' CF$ ' Q3' 1$ D' H' HE3' H4' 3 F34' H&' F3 J' $' F3' ; ED' H&' F3' =3$4 C' <NN-1$ HE

&' ' 3E ' C E' $443$4' H4' W N-# ' $ 3D * 3E$E ' J$0Q3' 3 N 3D'

' ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' &' F3' ' 3E ' H&' C-NF' I H4 HE \&' >$ED' CF$ ' $ ' $E0' * J 3' Q3' 6H-4' 9 33+C' E' $443$4' H4' &' $ ' F3' ; ED =3$4' H&' <NN-1$ HE' ' CF$ ' F3' F3' <1 E HE' H&' F3' 3C 40 F$ ' F3' >$ED' F$C' EH ' Q33E' D- 0' N- $ 3D' CH' $C' H' &- & ' F3' -C3&- ' $ED' Q3E3 H 3E ' I-41HC3C' H&' F C' N ' F3E' $ED' E' C-NF' @$C3' F3 @F-4NF $4D3EC' $ED' < 34C334C' H&' F3' I HH4' H4' $E0' H4' 3 F34' H&' F3 J F' F3' @HEC3E 'H&' F3' 3C 40' J$0' C34 3' $, H N3' H' X- ' -1HE' F3' <NN-1 34' H&' C-NF' I H4 HE' H&' >$ED ' F343-1HE' F3' C$D' <NN-1 34' CF$ ' D3 34' -1' I HCC3CC HE' H&' F3' C$J3' H' F3' @F-4NF $4D3EC' $ED' < 34C334C' $&H43C$D' H4' $E0' H4' 3 F34' H&' F3 J ' F E' <E3' 9 33+' $& 34' F3' C$D' , H N3' F$C' Q33E' D- 0' C34 3D' -1HE' F J

IH 34' H' 43 NH 34' I HC' ' C3CC HE' H&' >$ED' 3 2$ 0' F3 D' H 34' Q0' C- J J$40' I4H N3CC

' ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' / &' $E0' I34CHE' H' FH J' C-NF' I H4 HE' H&' >$ED' $C' $&H43C$D' CF$ ' F$ 3' Q33E' 3 ' &H4' F C' H4' F34' H E' <NN-1$ HE' CF$ ' 43&-C3' H' X- ' $ED' H' D3 34' -1' I HCC3CC HE' F343H&' F3E' F343 H' 43X- 43D' $NNH4D E2' H' F3' * 34 J C' H&' F C' N ' H4' &' $E0' H F34' I34CHE' H4' I34CHEC' CF$ ' -E $ &- 0' 3E 34' -1HE' H4' $+3' H4' FH D' I HCC3CC HE' H&' $E0' C-NF' >$ED' ' CF$ ' Q3' $ &-' &H4' F3' @F-4NF $4D3EC' $ED' < 34C334C' H&' F3' I HH4' H4' $E0' H4' 3 F34' H&' F3 J ' H' 3 F Q $' @H J

$ʻ @HJ 1 $ E ʻ 2 EC ʻ F3ʻ I34CHEʻ CHʻ Eʻ IHCC3CC HEʻ H&ʻ C-NFʻ >$EDʻ Q3&H43ʻ
* Hʻ H&ʻ 8 Cʻ P$(3C O Cʻ 5-C N3Cʻ H&ʻ F3ʻ I3$N3 ʻ FHʻ $43ʻ F343QOʻ $- FH4 T3Dʻ
$EDʻ 43X- 43Dʻ Hʻ CC-3ʻ $ʻ ?- J JHEC ʻ -ED34ʻ F3 4ʻ 8 $EDCʻ $EDʻ ?3$ C ʻ Hʻ F3ʻ
I34CHEʻ 2 EC ʻ FHJ ʻ C-NFʻ @HJ 1 $ E ʻ CF$ ʻ Q3ʻ J $D3 ʻ Hʻ $113$4ʻ Q3&H43ʻ
F3 J ʻ $ ʻ $ʻ * J 3ʻ $EDʻ I $N3ʻ $11H E 3Dʻ F343 Eʻ ʻ $EDʻ C-NFʻ 5-C N3Cʻ $43ʻ
F343QOʻ 43X- 43Dʻ $EDʻ 3 J 1H 343D ʻ -1HEʻ F3ʻ 113$4$EN3ʻ H&ʻ F3ʻ G3R
&3ED$E ʻ Q3&H43ʻ F3 J ʻ H4ʻ -1HEʻ I4HH&ʻ HEʻ <$ Fʻ F$ ʻ C-NFʻ ?- J JHECʻ F$Cʻ
Q33Eʻ D- Oʻ C34 3Dʻ -1HEʻ F J ʻ H4ʻ 3& ʻ $ ʻ F Cʻ -C-$ ʻ I $N3ʻ H& ʻ ʻ 3C D3EN3 ʻ H4ʻ
&ʻ F343ʻ CFH- Dʻ F$ 3ʻ Q33Eʻ $EOʻ G && N- Oʻ Eʻ & ED E2ʻ C-NFʻ -C-$ ʻ I $N3ʻ H&ʻ
ʻ 3C D3EN3 ʻ F3Eʻ -1HEʻ I4HH&ʻ HEʻ <$ Fʻ H&ʻ C-NFʻ G && N- O ʻ $EDʻ F$ ʻ C-NFʻ
?- EJHECʻ F$Cʻ Q33Eʻ $&& 3Dʻ HEʻ F3ʻ GHH4ʻ H&ʻ F3ʻ I$4 CFʻ @F-4NFʻ H&ʻ F3ʻ
C$ Dʻ I$4 CFʻ Eʻ F NFʻ C-NFʻ >$EDʻ Cʻ C -$ 3D ʻ $EDʻ Eʻ $EOʻ ; 4$ 1$4HNF $ʻ
I $N3ʻ HEʻ CHJ 3ʻ 1-Q Nʻ B- D E2ʻ H4ʻ H F34ʻ NHEC1 N-H-Cʻ I $N3ʻ F343 E ʻ Hʻ
14HN33Dʻ Hʻ F3$4ʻ $EDʻ D3 34 J E3ʻ F3ʻ P$ 34ʻ H&ʻ C-NFʻ @HJ 1 $ E ʻ $EDʻ &ʻ
F3Oʻ CF$ ʻ FEDʻ $EDʻ $D(-D23ʻ F3ʻ C$ J 3ʻ Hʻ Q3ʻ 4-3 ʻ F3Eʻ QOʻ 9 44E ʻ -ED34ʻ
F3 4ʻ 8 $EDCʻ $EDʻ ?3$ Cʻ Hʻ N$-C3ʻ IHCC3CC HEʻ H&ʻ F3ʻ >$EDʻ Eʻ X-3C HEʻ Hʻ
Q3ʻ D3 343Dʻ Hʻ F3ʻ @F-4NF $4D3ECʻ $EDʻ < 34C334Cʻ H&ʻ F3ʻ IHH4 ʻ H4ʻ Hʻ
CHJ 3ʻ H&ʻ F3 J

>ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ $ ʻ 443$4Cʻ H&ʻ ʻ 3E ʻ &H4ʻ F3ʻ 443$4C H&ʻ
C$ Dʻ IH4 HECʻ H&ʻ >$EDʻ CF$ ʻ Q3ʻ 43NH 34$Q 3ʻ QOʻ F3ʻ @F-4NF $4D3ECʻ $EDʻ ʻ 3E ʻ FH ʻ Hʻ
< 34C334Cʻ H&ʻ F3ʻ IHH4 ʻ H4ʻ $EOʻ H&ʻ F3 J ʻ HEʻ Q3F$ &ʻ H&ʻ F3ʻ 3C 4O ʻ QOʻ 43NH 343D ʻ
11 N$ HEʻ Hʻ * Hʻ H&ʻ 8 Cʻ P$(3C O Cʻ 5-C N3Cʻ H&ʻ F3ʻ I3$N3ʻ Eʻ I3 Oʻ >
?3CC HECʻ $CC3 J Q 3D ʻ FHʻ CF$ ʻ F343-1HEʻ C- J JHEʻ F3ʻ I$4 Oʻ DQ J ʻ
1 $ E3Dʻ 2 EC ʻ $EDʻ $& 34ʻ F3$4 E2ʻ F$ ʻ F3ʻ F$Cʻ Hʻ $ 323 ʻ CFH- Dʻ F3Oʻ
& EDʻ $EOʻ ʻ 3E ʻ Hʻ Q3ʻ D-3 ʻ F3Oʻ $43ʻ 43X- 43Dʻ Hʻ CC-3ʻ $ 9 44E ʻ -ED34ʻ
F3 4ʻ 8 $EDCʻ $EDʻ ?3$ Cʻ Hʻ 3 Oʻ F3ʻ C$ J 3ʻ -1HEʻ F3ʻ MHHDCʻ $EDʻ @F$ 3 Cʻ
H&ʻ F3ʻ I34CHEʻ &4H J ʻ FH J ʻ F3ʻ C$ Dʻ ʻ 3E ʻ CF$ ʻ Q3ʻ D-3ʻ $EDʻ H E2

ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ F3ʻ ʻ 3E ʻ H&ʻ F3ʻ C$ Dʻ IH4 HECʻ 11 N$ HEʻ
H&ʻ >$EDʻ CF$ ʻ Q3ʻ $11 3Dʻ QOʻ F3ʻ 3C 4Oʻ Eʻ F3ʻ I-4NF$C3ʻ H&ʻ 6-3 ʻ Hʻ Q3ʻ H& ʻ 3E ʻ
D C 4 Q- 3Dʻ Eʻ F3ʻ 9 E 34ʻ ?3$CHEʻ $ J HE2ʻ F3ʻ 1HH4ʻ I$4 CF HE34Cʻ 32$ O
C3 3Dʻ $EDʻ 43C D3E ʻ Eʻ H4ʻ E3$4ʻ F3ʻ C$ Dʻ I$4 CF

Wʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ &ʻ $EOʻ H&ʻ F3ʻ C$ Dʻ H ʻ IH 34ʻ H3 ʻ
J 3E Cʻ CF$ ʻ Q3ʻ &H-EDʻ Hʻ 3ʻ $ ʻ $Eʻ ENHE 3E 3E ʻ G C $EN3ʻ &4H J ʻ F3ʻ NF$E23ʻ &H4ʻ
ʻ 3C D3EN3Cʻ H&ʻ F3ʻ @H $234C ʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ F3ʻ 3C 4O ʻ QO
$Eʻ <4D34ʻ J $D3ʻ Hʻ F$ ʻ ; &&3N ʻ Hʻ 3 ʻ C-NFʻ H J 3E ʻ H4ʻ $EOʻ I$4 ʻ N* $23430
F343H& ʻ &H4ʻ F3ʻ Q3C ʻ ʻ 3E ʻ F$ ʻ N$Eʻ Q3ʻ 14HN-43Dʻ &H4ʻ F3ʻ C$ J 3 ʻ $EDʻ Hʻ
F 43ʻ Eʻ 3-ʻ F343H& ʻ &H4ʻ F3ʻ I-41HC3Cʻ H&ʻ F Cʻ N ʻ >$EDʻ H&ʻ 3X-$ ʻ $ -3ʻ
J H43ʻ &$ H-4$Q Oʻ C -$ 3D

Wʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ EHʻ 8 $Q $ HECʻ CF$ ʻ Q3ʻ , Hʻ 8 $Q $ʻ
343N 3Dʻ HEʻ F3ʻ IH4 HECʻ H&ʻ >$EDʻ D3 J C3Dʻ -ED34ʻ F Cʻ N ʻ 3 F34ʻ $ ʻ Q3
F3ʻ ; 13EN3ʻ H&ʻ F3ʻ I$4 CFʻ H4ʻ QOʻ F3ʻ ED D-$ Cʻ 43E E2ʻ F3ʻ C$ J 3 343N 3D

Wʻ EDʻ F343$Cʻ QOʻ * Hʻ N Cʻ H&ʻ F3ʻ 6 4C ʻ $EDʻ ?3NHEDʻ =3$4Cʻ ; 3ED E2ʻ
H&ʻ F3ʻ ʻ 3 2Eʻ H&ʻ 8 Cʻ 143C3E ʻ P$(3C O ʻ E - 3Dʻ / #ʻ / ʻ ʻ ,ʻ !#&ʻ #ʻ IH 34Cʻ $ED
/ ʻ ʻ , ʻ)!ʻ R # #)ʻ H! ʻ , ʻ 1ʻ U!1 ʻ #(ʻ M3H423ʻ)!ʻ 7) &ʻ
, ʻ)!ʻ !% ! ʻ #&ʻ 8 5%, !#ʻ , ʻ)!ʻ *, , ʻ $EDʻ F3ʻ H F34ʻ E - 3Dʻ ʻ K ʻ ʻ 1ʻ
/ #ʻ / ʻ ʻ ,ʻ !# 4%!ʻ)!ʻ I)3 ʻ)F &!#1ʻ #&ʻ 60! 1!! 1ʻ ,ʻ #ʻ%,1!ʻ < #&1ʻ Nʻ TBʻ $ED
?4!%,#(#(,ʻ)!ʻ I ,F#ʻ , ʻ)!ʻ "!#! ʻ , ʻ 5, , ʻ *! 1,#1ʻ !1 & #(ʻ
#ʻ)!ʻ * 1)ʻ #ʻ F) ʻ)ʻ 13ʻ)ʻ I ,F#ʻ < &ʻ 1ʻ 1 3 !&ʻ IH 34ʻ Cʻ 2 3E
-ED34

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-ED34 N34 $E '3C 4 N HEC H EN HC3 $EO \ -$E O EH 3 N33D E2 6 & O N43C H& 9 $C 3 >$ED $ED @4H E >$ED 43C13N 3 O &H4 F3 #C3 $ED B3E3& H& F3 I HH4 Q3 &-4 F34 3E$N 3D *F$ E $EO I $4 CF F343 C-NF EN HC-43 CF$ 3 C H4 CF$ F343$& 3 $+3 1 $N3 H4 F343 >$ED CF$ E $EO H 434 P $EE34 Q3 &H-ED $114H14 $ 3D &H4 F3 23E34$ B3E3& H& F3 I HH4 H& $EO I $4 CF F3E $ED F C-NF @$C3C F3 IH 34C $ED I4H C HEC H& F C N CF$ Q3 F3 D H $11 O ECH&$4 $C F3 C$ J3 J $O Q3 &H-ED $11 N$Q 3

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<E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ F 4 0 C ʻ $Eʻ
N ʻ H&ʻ F3ʻ , E Fʻ =3$4ʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C 0 ʻ &H4ʻ
F3ʻ ' 3 3&ʻ H&ʻ ECH 3E ʻ G3Q H4Cʻ Eʻ

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9 8 ; ' ; ?ʻ $Eʻ Nʻ $Cʻ 1$CC3Dʻ Eʻ F3ʻ , E Fʻ =3$4ʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C 0ʻ % E2ʻ ! , (!ʻ F3ʻ 6H-4 F ʻ E R - 3Dʻ / #ʻ / ' ʻ ,ʻ5 ,0 &!ʻ , ʻ)!ʻ W% ! ʻ, ʻ$#1,%0!# ʻ 2 !4 , 1ʻ VM ʻNʻ Sʻ #ʻ)!ʻ ; $C ʻ ED 3Cʻ 3# %ʻ)!ʻ R 1 ʻ 2 ʻ , ʻ P $4NFʻ 6#!ʻ) ,31 #&ʻ ! ( ) ʻ)3#& !&ʻ #&ʻ)) ! !ʻ EDʻ F343$Cʻ ʻ Cʻ 3 13D 3E ʻ F$ ʻ F3ʻ C$ Dʻ N ʻ CFH- Dʻ Q3ʻ NHE E-3D ʻ Q3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 C JHC ʻ ; N3 3E ʻ P $(3C 0 ʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3E ʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ ʻ $EDʻ *3 J 1H4$ ʻ $EDʻ @H J JHEC ʻ Eʻ F Cʻ 143C3E ʻ I $4 $ J 3E ʻ $CC3 J Q 3D ʻ $EDʻ QOʻ F3ʻ - FH4 0ʻ H&ʻ F3ʻ C$ J 3 ʻ *F$ ʻ F3ʻ '3N 3Dʻ Nʻ C$ Dʻ N ʻ CF$ ʻ Q3ʻ $EDʻ F3ʻ C$ J 3ʻ Cʻ F343QOʻ NHE E-3Dʻ Eʻ &H4N3ʻ &4H Jʻ NHE E-3Dʻ F3ʻ C$ Dʻ ' 4C ʻ G$0ʻ , ʻ ')ʻ <E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ ʻ A#ʻ &!HJʻ F 4 0 F433ʻ -E ʻ F3ʻ 6 4C ʻ G$0ʻ H&ʻ ')ʻ <E3ʻ FH-C$EDʻ 3 2F ʻ F-E ʻ D43Dʻ $EDʻ F 4 0 C

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Eʿ Nʿ Hʿ NHE E-3ʿ &H4ʿ *F433ʿ =3$4Cʿ $EDʿ Hʿ $J3EDʿ
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9 8 ; ' ; ?ʿ $Eʿ Nʿ $Cʿ 1$CC3Dʿ Eʿ F3ʿ ?3 3E Fʿ =3$4ʿ H&ʿ 8 C $ 3ʿ P$(3C Oʿ % E2ʿ !, (!ʿ F3ʿ 6H-4 Fʿ E - 3Dʿ /#ʿ / ' ʿ ,ʿ !#&ʿ #&ʿ ',#1,%& !ʿ)!ʿ< ʿ, ʿ)!ʿ L!% !ʿ, ʿ$#1,%0!#ʿ 2!4 , 1ʿ #ʿ ; E2 $ED.ʿ EDʿ F343$Cʿ $ʿ N34 $ Eʿ H F34ʿ Nʿ $Cʿ 1$CC3Dʿ Eʿ F3ʿ 6 4Cʿ =3$4ʿ H&ʿ 8 Cʿ 143C3Eʿ P$(3C Oʿ E - 3Dʿ /#ʿ / ' ʿ ,ʿ ',# #3!ʿ ʿ 9ʿ NSZʿ #&ʿ !#&ʿ)!ʿ< F1ʿ , ʿ)!ʿ L!% !ʿ, ʿ$#1,%0!#ʿ 2!4 , 1ʿ #ʿ ; E2 $EDʿ F343QOʿ $JHE2Cʿ H F34ʿ *F E2Cʿ F343QOʿ 3E$N 3Dʿ F3ʿ C$ Dʿ &4C J3ER HE3Dʿ Nʿ $Cʿ NHE E-3Dʿ &H4ʿ $ʿ N34 $ Eʿ * J3ʿ F343 Eʿ J3E HE3D. EDʿ F343$Cʿ ʿ Cʿ 3 13D 3Eʿ Hʿ NHE E-3ʿ F3ʿ C$ Dʿ N C(ʿ Q3ʿ ʿ F343&H43ʿ 3E$N Pʿ QOʿ F3ʿ % E2 Cʿ JHCʿ ; N3 3Eʿ P 3C Oʿ QOʿ $EDʿ Fʿ F3ʿ D N3ʿ $EDʿ @HEC3Eʿ H&ʿ F3ʿ >H4DCʿ ?1 4 -$ʿ $EDʿ *3J1H4$ʿ $EDʿ @HJ JHECʿ Eʿ F Cʿ 143C3Eʿ I$4 $J3Eʿ $CC3JQ 3Dʿ $EDʿ QOʿ F3ʿ - FH4 Oʿ H&ʿ F3ʿ C$J3ʿ *F$ʿ F3ʿ C$ Dʿ N Cʿ CF$ʿ Q3ʿ $EDʿ F3ʿ C$J3ʿ $43ʿ F343QOʿ NHE E-3Dʿ

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ʿ EDʿ F343$Cʿ ʿ Cʿ QOʿ F3ʿ C$ Dʿ &4C 43N 3Dʿ Nʿ 3E$N 3Dʿ F$ʿ $ʿ @H-E 341$4ʿ H&ʿ 3 34Oʿ @HE 3O$EN3ʿ $EDʿ CC 2EJ3Eʿ QOʿ F3ʿ I4H C HE$ʿ CC 2E33ʿ H&ʿ F3ʿ @H-4ʿ &H4ʿ '3 3&ʿ H&ʿ ECH 3Eʿ G3Q H4Cʿ Hʿ F3ʿ H F34ʿ CC 2E33Cʿ F343 Eʿ J3E HE3Dʿ CF$ʿ Q3ʿ & 3Dʿ H&ʿ '3NH4Dʿ Eʿ F3ʿ C$ Dʿ @H-4 .ʿ EDʿ F343$Cʿ F3ʿ 43X- 4 E2ʿ C-NFʿ @H-E 341$4ʿ F$Cʿ Q33Eʿ 14Hʿ D-N[3ʿ H&ʿ G3 $Oʿ $EDʿ ENHE 3E 3EN3ʿ Q3ʿ ʿ F343&H43ʿ 3E$N 3Dʿ *F$ʿ &4N81ʿ $ Dʿ $& 34ʿ F3ʿ 1$CC E2ʿ H&ʿ F Cʿ Nʿ F3ʿ C$ Dʿ CC 2E33Cʿ CF$ʿ EHʿ Q3ʿ ʿ Iʿ ʿ 43X- 43D

$CC 2E33Cʿ EHʿ 43X- 43Dʿ Hʿ 3 3N- 3ʿ @H-E 341$4ʿ H&ʿ @HE 3OR $EN3Cʿ Q-ʿ I4H C HE$ʿ CC 2E33ʿ Hʿ 3 3N- 3ʿ F3Jʿ Eʿ G-1 N$ 3

4CX- 43D' H' 3 3N- 3' C-NF' @H-E 341$4 ' $C' $&H43C$ D ' Q- ' F$ ' E' 3-' F343H&' F3' C$ D' I 4H C HE$ ' CC 2E33' CF$ ' 3 3N- 3' 3 340' C-NF' @HER 3O$EN3' $ED' CC 2E J 3E ' $C' $&H43C$ D' E' G - 1 N$ 3 ' $ED' F$ ' HE3' I $4 ' H&' C-NF' @HE 3O$EN3' $ED' CC 2E J 3E ' CH' 3 3N- 3D' QO' C-NF' I 4H C HE$ ' CC 2E33' CF$ ' Q3' & 3D' H&' ' 3NH4D' E' F3' C$ D' @H-4 ' $ED' F$ ' $' @H1O' H&' $EO' C-NF' ' 3NH4D' CH' J $D3' $ED' CH' 1-41H4 E2' H' Q3' N34 & 3D' $ED' C3$ 3D' $C' QO' F3' C$ D' & 4C 43N 3D' N ' C' D 43N 3D' &H4' ; D3EN3' H&' F3' ' 3NH4DC' F343 E' J 3E HE3D' E' F$ ' B3F$ & ' CF$ ' Q3' 43NH2E T3D' $ED' 43N3 3D' $C' C-& N 3E ' ; D3EN3' H&' C-NF' @HE 3O$EN3' $ED' CC 2ER J 3E ' CH' H' Q3' 3 3N- 3D' $C' $&H43C$ D ' $ED' H&' * 3' -ED34' F3' C$ J 3 ' $C' &- O' $ED' 3&&3N -$ O' E' 3 340' 43C13N ' $C' F3' C$ D' ' 3NH4DC' $43' 43X- 43D' H' Q3' 43NH2E T3D' $ED' 43N3 3D' QO' F3' I 4H C HEC' H&' F3' C$ D' & 4C ' 43N 3D' N ' H' $ ' E 3E C' $ED' I -41HC3C

; $J E34C' J $O' Q3' $1 ' 1H E 3D' E 9HEDHE' $C 3 ' $C' E' F3' @H-E 40

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F3' C$ D' @H-4 ' CF$ ' $ED' J $C &4H J' * J 3' H' * J 3' $C' <NN$C HE' CF$ ' 43X- 43 ' $11H E ' ; $J E34C' &H4' F3' I -41HC3C' H&' F3' C$ D' 43N 3D' N C' $ED' H&' F C' N ' F E' F3' MH- 3C' H&' &&%!1!J' $ED' +3 ! ' $ED' F3' @ O' H&' <,#&,#' $ED' BH&H-2F' H& +,3)J ' $C' 3 ' $C' F E' F3' H F34' I $4 C' H&' 8#(% #& ' $C' D 43N 3D' QO' F3' C$ D' & 4C 43N 3D' N ' $ED' F$ ' F3' C$ D' @H-4 ' J $O' H4D34' ' 3&343EN3C' E' 1-4C-$EN3' H&' F3' C$ D' 43N 3D ' N C' H' Q3' J $D3' H' $EO' C-NF' ; $J E34 ' H4' H' $E' <&& N34' H&' F3' C$ D' @H-4 ' $C' CF$ ' $113$4' J HC ' 3 13D 3E ' $ED' F$ ' $ ' * F E2C' CF$ ' $ED' J $O' Q3' DHE3' E' 1-4R C-$EN3' H&' $' ' 3&343EN3' J $D3' H' C-NF' ; $J E34' $C' J $O' Q3' DHE3' E' 1-4C-$EN3' H&' $' ' 3&343EN3' H' $E' <&& N34' H&' F3' C$ D' @H-4 ' $NNH4D E2' H' F3' I 4H C HEC' H&' F3' C$ D' & 4C ' 43N 3D' N

N' J $O' Q3' $ 343D' Q C' ?3CC HE

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F C' N ' H4' $EO' I $4 ' F343H&' J $O' Q3' $ 343D ' $4 3D ' H4' 4313$ 3D' QO' $EO' N ' H4' N C' H' Q3' 1$CC3D' E' F C' 143C3E ' ?3CC HE' H&' I $4 $J 3E

G-4$ HE' H&' N C

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F3' C$ D' 43N 3D' N C' $ED' F C' N ' CF$ ' NHE E-3' E' &H4N3' -E ' F3' 6 4C ' G$O' H&' ?3#!' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O & 3' $ED' &4H J' F3EN3' -E ' F3' ; ED' H&' F3' F3E' E3 ' ?3CC HE' H&' I $4 $J 3E

> < , G < , : I 4 E 3D' QO' # + . (/ +' & (+' $ED') @ (+ , ' O1 . 223% , . . * + L' I 4 E 34C' H' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O' ZSU

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Eʿ) ʿ$EDʿ #*ʿ I Fʿ 2 ʿ ZSU m

9 8 ; ' ; ?ʿ ʿ Cʿ 3 13D 3Eʿ Hʿ $+3ʿ 3&&3N -$ʿ P3$C-43Cʿ &H4ʿ NH443N E2ʿ D 34Cʿ Q-C3Cʿ F$ʿ F$ 3ʿ HE2ʿ 143 $ 3Dʿ Eʿ F3ʿ @FH N3ʿ H&ʿ P3JQ34Cʿ Hʿ C34 3ʿ Eʿ F3ʿ @HJ JHECʿ 8H-C3ʿ H&ʿ I$4 $E34>ʿ Hʿ D314 3ʿ J$EOʿ ENHEC D34$Q 3ʿ I $N3Cʿ H&ʿ F3ʿ ' 2Fʿ H&ʿ 43 -4E E2ʿ P3JQ34Cʿ Hʿ 24$Eʿ C-NFʿ I4 323ʿ Hʿ $423ʿ 1H1- H-Cʿ $EDʿ 3$ FOʿ *H ECʿ Hʿ EN43$C3ʿ F3ʿ , -JQ34ʿ H&ʿ %E 2F Cʿ H&ʿ F3ʿ ?F 43ʿ Hʿ 3 3EDʿ F3ʿ ; 3N 3ʿ 64$ENF C3ʿ Hʿ J$EOʿ H&ʿ 8 Cʿ P$(3C OCʿ ?-Q(3N Cʿ FHʿ F$ 3ʿ EHʿ F343 H&H43ʿ 3E(HO3Dʿ F3ʿ C$J3ʿ $EDʿ Hʿ D J E CFʿ F3ʿ ; 13EN3ʿ H&ʿ ; 3N HECʿ ʿ Q3ʿ ʿ F343&H43ʿ 3E$N 3Dʿ QOʿ F3ʿ % E2 Cʿ JHCʿ ; N3 3Eʿ P$(3C Oʿ QOʿ $EDʿ Fʿ F3ʿ D N3ʿ $EDʿ @HEC3Eʿ H&ʿ F3ʿ >H4DCʿ ?1 4 -$ʿ $EDʿ *3J1H4$ʿ $EDʿ @HJ JHECʿ Eʿ F Cʿ 143C3Eʿ I$4 $J3Eʿ $CC3JQ 3Dʿ $EDʿ QOʿ F3ʿ - FH4 Oʿ H&ʿ F3ʿ C$J3ʿ *F$ʿ 3$NFʿ H&ʿ F3ʿ BH4H-2FCʿ 3E-J3ʿ N34 $ Eʿ BHʿ 4$ 3Dʿ Eʿ F3ʿ ?NF3D- 3ʿ J$4+3Dʿ ^ ʿ Hʿ F Cʿ Nʿ $EE3 3Dʿ ^ F$ʿ Cʿ Hʿ 4H-2FCʿ Hʿ C$O ʿ 6%&+ 3 ʿE!F , ʿ+ʿ ') !%1ʿH4ʿ &1) %%ʿ ,#ʿ " 4! ʿ N3$C3ʿ Hʿ C3EDʿ ",11 #! ʿ 23#F ' ʿ<3&(! 1) %%ʿ +ʿ F! 1ʿ "!! %1 ,#ʿ !1ʿ<,,!ʿ 4#$J3E Cʿ + ʿ ! #1ʿ E!F5, ʿ"%!') #(%! ʿ/%&4, ,3()ʿ I !% , &ʿ #&,# 8 1ʿ <,,!ʿ I, !ʿ I 1%!ʿ ! ʿ "!&F #ʿ H ,3)ʿ Y3!!#4, ,3()ʿ I 1%!ʿ L 1 #(ʿ 8 1ʿ #1 ! &ʿ () ʿR! ! 1ʿ !#&,0! ʿ !,4% #')!%1! ʿ 7 !(,# ʿ 1%! ! !ʿ+ % 1)ʿ 6 , &ʿ I %% #(,#ʿ E!F ,# $%')!1 ! ʿ ", ,3()4 &(!ʿ+ ,' 4 &(!ʿ E!Fʿ L, #! ʿ !&,#ʿ *% 5ʿ ,#ʿ +!V , &ʿ ! !143 ʿ +! ##(ʿ) ')3 ')ʿ ,, ,#ʿ " 11! 2,F# ,#ʿ R,F! ʿ %4, !ʿ *, ʿ /%&!43 ()ʿ #!)! &ʿ " 1),5 1ʿ I 1%!ʿ 6 !) 5 ,#ʿ /55%!4 ʿ<,1 F) !%ʿ " ' %! ʿ $EDʿ / ! 1) ʿ CF$ ʿ&4HJʿ $EDʿ $& 34ʿ F3ʿ ; EDʿ H&ʿ F Cʿ 143C3Eʿ I$4 $J3Eʿ N3$C3ʿ Hʿ 43 -4Eʿ $EOʿ P3JQ34ʿ H4ʿ P3JQ3 Cʿ Hʿ C34 3ʿ Eʿ I$ $J3E

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ʻ EDʻ Q3ʻ ʻ3E$N 3Dʻ *F$ʻ3$NFʻ H&ʻ +3ʻ BH4H-2FCʻ 3EE J 3 $ 3Dʻ Eʻ F3ʻ ?NF3D- 3ʻ J$4(+3Dʻ ^B _ʻ Hʻ F Cʻ N ʻ $EE3 3Dʻ n F$ʻ Cʻ Hʻ C$O _ʻ R! ! 1 !%&ʻ /1)43 ,#ʻ R !ʻ !1 43 ʻ !) #ʻ & 3 1 ʻ , ,&ʻ 1 , ' ʻ % ,#ʻ % !143 ʻ ?/1 ! &ʻ L! (!ʻ)!ʻ 2 , F) ʻ < !ʻL!(1ʻ< ʻ! ʻ+)V\!143 ʻ7) 1)ʻ I) 1 C !)ʻ , 1) ʻ ! ʻ 14 ʻ I #!ʻ / 3#&!%ʻ + ʻ$0!1ʻ L !ʻ I%)! ,!ʻ , 5!)ʻ !%1 ,#ʻ E,)ʻ /%%! ,#ʻ %% #(, &ʻ] /ʻ2 ,3) ʻCF$ ʻ&4H Jʻ $EDʻ $& 34ʻ F3ʻ ; EDʻ H&ʻ F Cʻ 143C3E ʻ I$4 $ J 3E ʻ 43 -4Eʻ <E3ʻ P3 J Q34ʻ $EDʻ EHʻ J H43ʻ Hʻ C34 3ʻ Eʻ I$4 $ J 3E

,3 ʻBH ʻ 4H-2FCʻ F343R $& 34ʻ Hʻ 43R -4Eʻ * Hʻ P3 J Q34C

ʻ EDʻ Q3ʻ ʻ3E$N 3Dʻ *F$ʻ 3$NFʻ H&ʻ F3ʻ I $N3Cʻ E$ J 3Dʻ Eʻ F3ʻ ?NF3D- 3ʻ J $4+3Dʻ^@ _ʻ Hʻ F Cʻ N ʻ$EE3 3Dʻ ^ F$ʻ Cʻ Hʻ C$O _ʻ #')!1[! ʻ" #() ʻ<!!&1ʻ !!#F ')ʻ+)! !%&ʻ +3#&! % #&ʻ 2!0,#5, ʻ ,%0!) 5 ,#ʻ 7,F!ʻ %! 1ʻ R #143 ʻ %! 4,#!ʻ < 4!)ʻ ",% ,#ʻ " & , &ʻ "% ' 43 #ʻ " () ,#ʻ % Jʻ ''%! !%&ʻ 6%&[ ) ʻ+ ,' 5, ʻ+ , ! 35,# 7 !# ʻ$EDʻ+ ,3&ʻCF$ ʻ&H4ʻ F3ʻ I -41HC3Cʻ H&ʻ F Cʻ N ʻQ3ʻ $ʻ BH4H-2F ʻ$EDʻ CF$ ʻ $Cʻ C-NFʻ BH4H-2Fʻ EN -D3ʻ F3ʻ I $N3ʻ H4ʻ I $N3Cʻ 43C13N 3 Oʻ F NFʻ CF$ ʻ Q3ʻ NH J 143F3ED3Dʻ F Eʻ F3ʻ BH-ED$4 3Cʻ H&ʻ C-NFʻ BH4H-2F ʻ $Cʻ C-NFʻ BH-ED$4 3Cʻ CF$ ʻ Q3ʻ C3 3Dʻ $EDʻ D3CN4 Q3Dʻ QOʻ $Eʻ N ʻ Hʻ Q3ʻ 1$CC3Dʻ &H4ʻ F$ʻ I -41HC3ʻ Eʻ F Cʻ 143C3E ʻ I$4R $ J 3E ʻ F NFʻ N ʻ F3Eʻ 1$CC3Dʻ CF$ ʻ Q3ʻ D33 J 3Dʻ $EDʻ $+3Eʻ Hʻ Q3ʻ I$4ʻ H&ʻ F Cʻ N ʻ$Cʻ &- Oʻ $EDʻ 3&&3N -$ Oʻ $Cʻ &ʻ F3ʻ C$ J 3ʻ 343ʻ ENH41HR 4$ 3Dʻ F343 Fʻ $EDʻ F$ʻ 3$NFʻ H&ʻ F3ʻ C$ Dʻ BH4H-2FCʻ E$ J 3Dʻ Eʻ F3ʻ C$ Dʻ ?NF3D- 3ʻ ^@ _ʻ CF$ ʻ&4H Jʻ $EDʻ $& 34ʻ F3ʻ ; EDʻ H&ʻ F Cʻ 143C3E ʻ I$4R $ J 3E ʻ 43 -4Eʻ * Hʻ P3 J Q34Cʻ Hʻ C34 3ʻ Eʻ I$4 $ J 3E

,3 ʻBHR 4H-2FCʻ F343R $& 34ʻ Hʻ 43R -4Eʻ <E3ʻ P3 J Q34

ʻ EDʻ Q3ʻ ʻ3E$N 3Dʻ *F$ʻ 3$NFʻ H&ʻ F3ʻ I $N3Cʻ E$ J 3Dʻ Eʻ F3ʻ ?NF3D- 3ʻ J $4+3Dʻ ^G _ʻ Hʻ F Cʻ N ʻ$EE3 3Dʻ ^ F$ʻ Cʻ Hʻ C$O _ʻ /1) ,#ʻ 3#&! < #!ʻ "3 ʻ I)) ʻ I)!% !#) ʻ23&%! ʻR , !ʻ !1)! &ʻ 3&&! !%&ʻ &&! #1 ! ʻ !#& %ʻ L,')& %!ʻ + , &ʻ +,3)ʻ +) !%&1ʻ 7 #! ,3)ʻ ! !%&ʻ %1 %%ʻ #(,#ʻ) 4 ʻ) !) 0!#ʻ $EDʻ !) ʻ7 &0 %ʻ CF$ ʻ ;Q4 F3ʻ I -41HC3Cʻ H&ʻ F Cʻ N ʻ Q3ʻ $ʻ BH4H-2F ʻ $EDʻ CF$ ʻ $Cʻ C-NFʻ BH4H-2Fʻ EN -D3ʻ F3ʻ I $N3ʻ H4ʻ I $N3Cʻ 43C13N 3 Oʻ F NFʻ CF$ ʻQ3ʻ NH J 143F3ED3Dʻ F Eʻ F3ʻ BH-ER D$4 3Cʻ H&ʻ C-NFʻ BH4H-2F ʻ $Cʻ C-NFʻ BH-ED$4 3Cʻ CF$ ʻ Q3ʻ C3 3Dʻ $EDʻ D3CN4 Q3Dʻ QOʻ $Eʻ N ʻ Hʻ Q3ʻ 1$CC3Dʻ &H4ʻ F$ʻ I -41HC3ʻ Eʻ F Cʻ 143C3E ʻ I$4 $ J 3E ʻ F NFʻ N ʻ F3Eʻ 1$CC3D ʻCF$ ʻQ3ʻ D33 J 3Dʻ $EDʻ $+3Eʻ Hʻ Q3ʻ I$4ʻ H&ʻ F Cʻ N ʻ$Cʻ &- Oʻ $EDʻ 3& 3N -$ Oʻ $Cʻ &ʻ F3ʻ C$ J 3ʻ 343ʻ ENH4R 1H4$ 3Dʻ F343 Fʻ ʻ $EDʻ F$ ʻ3$NFʻ H&ʻ F3ʻ C$ Dʻ BH4HE2FCʻ E$ J 3Dʻ Eʻ F3ʻ C$ Dʻ ?NF3D- 3ʻ ^G _ʻ CF$ ʻ &4H Jʻ $EDʻ $& 34ʻ F3ʻ ; EDʻ H&ʻ F Cʻ 143C3E ʻ I$4 $ J 3E ʻ43 -4Eʻ <E3ʻ P3E Q34ʻ Hʻ C34 3ʻ Eʻ I$4 $ J 3E

*F3BH4H-2FCʻ H&ʻ?FH43F$ Jʻ <4 N 9 $D3ʻ O 3CQ-40ʻ $EDʻ ; $Cʻ ʻ3 &H4Dʻ CF$ ʻ EN -D3ʻ N34R $ Eʻ $D($N3E ʻ G C 4 N C

ʻ EDʻ Q3ʻ ʻ 3E$N 3Dʻ *F$ʻ F3ʻ BH4H-2Fʻ H&ʻ E!Fʻ+), !) ʻCF$ ʻ &H4ʻ D 3ʻ I -41HC3Cʻ H&ʻ F Cʻ N ʻ EN -D3ʻ F3ʻ FH 3ʻ H&ʻ F3ʻ '$13ʻ 1&ʻ " 4! ʻ Eʻ F3ʻ @H-E Oʻ H&ʻ+311! Jʻ C$ 3ʻ $EDʻ 3 N31 ʻ C-NFʻ I 4 Cʻ H&ʻ F3ʻ C$ Dʻ '$13ʻ $Cʻ CF$ ʻ Q3ʻ EN -D3Dʻ Eʻ F3ʻ BH4H-2Fʻ H&ʻ , 1) ʻ QOʻ $Eʻ N ʻ Hʻ Q3ʻ 1$CC3Dʻ &H4ʻ F$ʻ I -41HC3ʻ Eʻ F Cʻ 143C3E ʻ I$4 $ J 3E ʻ $EDʻ F$ʻ F3ʻ BH4H-2Fʻ H&ʻ I ' % &!ʻ CF$ ʻ &H4ʻ F3ʻ I -41HC3Cʻ H&ʻ F Cʻ N ʻ ED -D3ʻ F3ʻ 8 -ED43DCʻ $EDʻ G C HECʻ H&ʻ ()F,) ʻ I ' % &!ʻ+ 5%!ʻ #(14 &(!ʻF /ʻ 143 ʻ Eʻ F3ʻ @H-E Oʻ H&ʻ 1ʻ C$ 3ʻ $EDʻ 3 N31 ʻ C-NFʻ I$4 Cʻ H&ʻ F3ʻ C$ Dʻ 8 -ED43Dʻ , ʻ % 143 ʻ $Cʻ CF$ ʻQ3ʻ EN -D3Dʻ Eʻ F3ʻ BH4H-2Fʻ H&ʻ % 143 ʻQOʻ $Eʻ N ʻ < Q3ʻ 1$CC3Dʻ F$ʻ I -41HC3ʻ Eʻ F Cʻ 143C3E ʻ I$4 $ J 3E ʻ($EDʻ F$ʻ F3ʻ5 4H-2Fʻ H&ʻ / %!143 ʻ CF$ &H4

&H4ʿ F3ʿ I-41HC3Cʿ H&ʿ F Cʿ Nʿ EN-D3ʿ F3ʿ *F433ʿ 8-ED43DC H&ʿ &O&3Cʿ
43 ʿ Eʿ F3ʿ @H-E Oʿ H&ʿ "3' #() ʿ-ʿ $EDʿ F$ʿ F3ʿ BH4H-2Fʿ H&ʿ 8 1ʿ
"3 , &ʿ CF&Dʿ &H4ʿ F3ʿ I-41HC3Cʿ H&ʿ F Cʿ Nʿ EN-D3ʿ F3ʿ 8-ED43Dʿ H&ʿ
" 11! % Fʿ Eʿ F3ʿ @H-E Oʿ H&ʿ E, #() ʿ $EDʿ $ʿ I $N3Cʿ HN$ Oʿ C -$ 3ʿ
F Eʿ F3ʿ H- C D3ʿ BH-ED$ Oʿ H4ʿ > J ʿ H&ʿ F3ʿ 8-ED43Dʿ H&ʿ " 11! % Fʿ
D4ʿ C-44H-ED3Dʿ QOʿ C-NFʿ BH-ED$4Oʿ $EDʿ QOʿ $EOʿ I $4ʿ H&ʿ F3ʿ @H-E Oʿ H&ʿ
< F, %#, Jʿ @H-E Oʿ H&ʿ H,

ʿ EDʿ Q3ʿ ʿ 3E$N 3Dʿ *F$ʿ F3ʿ BH4H-2Fʿ H&ʿ ! ,3)ʿ #&ʿ !%ʿ 93OJH-F
', 4!ʿ L!(1ʿ CF$ ʿ &4H Jʿ $EDʿ $& 34ʿ F3ʿ ;EDʿ H&ʿ F Cʿ 143C3Eʿ I $4 $J3Eʿ
43 -4Eʿ * Hʿ P3JQ34Cʿ $EDʿ EHʿ JH43ʿ Hʿ C34 3ʿ Eʿ I $4 $J3Eʿ ($EDʿ F$ʿ ʿ 43 -4Eʿ * Hʿ
F3ʿ BH4H-2 Fʿ H&ʿ *!# #ʿ CF$ ʿ &H4ʿ F3ʿ I-41HC3Cʿ H&ʿ F Cʿ Nʿ EN-D3ʿ F3ʿ P3JQ34Cʿ
*H Eʿ H&ʿ R)#,3)ʿ-ʿ $EDʿ F$ʿ F3ʿ BH4H-2Fʿ H&ʿ + #&F ')ʿ CF$ ʿ &H4ʿ F3ʿ HE Oʿ KNʿ
I-41HC3Cʿ H&ʿ F Cʿ Nʿ EN-D3ʿ F3ʿ I $4 CF3Cʿ H&ʿ 2! %ʿ $EDʿ % !

ʿ EDʿ Q3ʿ ʿ 3E$N 3Dʿ *F$ʿ 3 34Oʿ @ Oʿ $EDʿ BH4H-2Fʿ Eʿ 8#(% #&ʿ BH-ED$4 3Cʿ
F NFʿ EH ʿ 43 -4ECʿ $ʿ P-JQ34ʿ H4ʿ P3JQ34Cʿ Hʿ C34 3ʿ Eʿ I $4 $J3E
$EDʿ 3 34Oʿ I $N3ʿ CF$4 E2ʿ Eʿ F3ʿ ; 3N HEʿ F343 Fʿ ^3(NN31ʿ F3ʿ C3 34$ʿ ;E2+>ʿ H
BH4H-2FCʿ 3E-J34$ 3Dʿ Eʿ F3ʿ C$ Dʿ ?NF3D- 3ʿ ^ _ʿ $EDʿ 3 N31ʿ F3ʿ Q3C3 3Dʿ
C3 34$ʿ BH4H-2FCʿ H&ʿ E!Fʿ +), !) ʿ I ' % &!ʿ / %!143 ʿ $EDʿ 8 1ʿ
L! , & Aʿ CF$ ʿ $EDʿ 3$NFʿ H&ʿ F3ʿ C$ Dʿ BH4H-2FCʿ H&ʿ *!# #ʿ $EDʿ
+ #&F ')ʿ $ CHʿ CF$ ʿ &H4ʿ F3ʿ I-41HC3Cʿ H&ʿ F Cʿ Nʿ EN-D3ʿ F3ʿ I $N3ʿ H4ʿ
I $N3Cʿ 43C13N 3 Oʿ F NFʿ CF$ ʿ Q3ʿ NHJ 143F3ED3Dʿ F Eʿ F3ʿ BH-ER
D$4 3Cʿ H&ʿ 3 34Oʿ C-NFʿ @ Oʿ BH4H-2Fʿ H4ʿ I $N3ʿ $Cʿ C-NFʿ BH-ED$4 3Cʿ CF$ ʿ
Q3ʿ C3 3Dʿ $EDʿ D3CN4 Q3Dʿ QOʿ $Eʿ Nʿ H Q3ʿ 1$CC3Dʿ &H4ʿ F$ʿ I-41HC3ʿ Eʿ
F Cʿ 143C3Eʿ I $4 $J3E ʿ F NFʿ Nʿ F3Eʿ 1$CC3Dʿ CF$ ʿ Q3ʿ D33J3Dʿ
$EDʿ $+3Eʿ Hʿ Q3ʿ I $4ʿ H&ʿ F Cʿ Nʿ $Cʿ &- Oʿ $EDʿ 3&&3N -$ Oʿ $Cʿ &ʿ F3ʿ
C$J3ʿ 343ʿ ENH41H4$ 3Dʿ F343 F

ʿ EDʿ Q3ʿ ʿ 3E$N 3Dʿ *F$ʿ 3$NFʿ H&ʿ F3ʿ I $N3Cʿ E$J3Dʿ Eʿ F3ʿ I $N3Cʿ Eʿ
6 4Cʿ @H -JEʿ H&ʿ F3ʿ ?NF3D- 3ʿ ^; _ Hʿ F Cʿ Nʿ $EE3 3Dʿ CF$ ʿ F$ 3ʿ $ʿ 9$3Cʿ Hʿ
?F$43ʿ Eʿ F3ʿ ; 3N HEʿ H&ʿ $ʿ P3JQ34ʿ Hʿ C34 3ʿ Eʿ $ʿ &- -43ʿ I $4ʿ (E; >+Eʿ
$J3E Cʿ &H4ʿ F3ʿ ?F 43 *H Eʿ H4ʿ BH4H-2Fʿ F NFʿ Cʿ J3E HE3Dʿ Eʿ &H4ʿ F3ʿ ?F 43ʿ
NHE(-EN HEʿ F343 Fʿ $EDʿ E$J3Dʿ Eʿ F3ʿ ?3NHEDʿ @H -JEʿ H&ʿ F3ʿ C$ Dʿ *H ECʿ
?NF3D- 3ʿ ^; _

Wʿ EDʿ Q3ʿ ʿ 3E$N 3Dʿ *F$ʿ 3$NFʿ H&ʿ F3ʿ I $N3Cʿ E$J3Dʿ Eʿ F3ʿ BH-ED$4 3Cʿ
6 4Cʿ @H -JEʿ H&ʿ F3ʿ C$ Dʿ ?NF3D- 3ʿ ^; _ʿ $EDʿ 3$NFʿ H&ʿ F3ʿ ?F 43 *H ECʿ ?F 43ʿ
H4ʿ BH4H-2FCʿ E$J3Dʿ Eʿ F3ʿ ?3NHEDʿ @H -JEʿ H&ʿ F3ʿ C$ Dʿ ?NF3D- 3ʿ ^; _
$EDʿ F3ʿ BH4H-2Fʿ , ʿ " !',#ʿ CF$ ʿ &H4ʿ F3ʿ I-41HC3Cʿ H&ʿ F Cʿ Nʿ Eʿ 9$3Cʿ HQ3
3 -D3ʿ F3ʿ I $N3ʿ H4ʿ I $N3Cʿ 43C13N 3 Oʿ F NFʿ CF$ ʿ Q3ʿ NHJ 143F3ED3Dʿ C3 3Dʿ
F Eʿ F3ʿ BH-ED$4 3Cʿ H&ʿ 3$NFʿ H&ʿ F3ʿ C$ Dʿ I $N3Cʿ ?FF3 *H ECʿ $EDʿ
BH4H-2FCʿ 43C13N 3 Oʿ $Cʿ C-NFʿ BH-ED$4 3Cʿ CF$ ʿ Q3ʿ C3 3Dʿ $EDʿ D3R
CN4 Q3Dʿ QOʿ $Eʿ Nʿ Hʿ Q3ʿ 1$CC3Dʿ &H4ʿ F$ʿ I-41HC3ʿ Eʿ F Cʿ 143C3Eʿ
I $4 $J3E ʿ F NFʿ Nʿ F3Eʿ 1$CC3Dʿ CF$ ʿ Q3ʿ D33J3Dʿ $EDʿ $+3Eʿ Hʿ Q3ʿ
I $4ʿ H&ʿ F Cʿ Nʿ $Cʿ &- Oʿ $EDʿ 3&&3N -$ Oʿ $Cʿ &ʿ F3ʿ C$J3ʿ 343ʿ ENH41H4$ 3Dʿ
F343 F

Wʿ EDʿ Q3ʿ ʿ 3E$N 3Dʿ *F$ʿ 3$NFʿ H&ʿ F3ʿ *H ECʿ H&ʿ +F #1! ʿ ? $EC3$ʿ
<,3(), ʿ E!)ʿ /4! F0,#ʿ #&ʿ !# (ʿ1) %%ʿ , ʿ)!ʿ *3 5,1!1ʿ , ʿ) 1ʿ $,3(), ʿ
2ʿ EN-D3ʿ F3ʿ I $N3ʿ H4ʿ *% '!1ʿ !15!' 0!%ʿ F) ')ʿ 1) %%ʿ 4!ʿ ', ʿ
143F3ED3Dʿ F Eʿ F3ʿ ",3#& !1ʿ , ʿ ! ')ʿ , ʿ)!ʿ 1 &ʿ 7,F#1ʿ 1ʿ 13')ʿ #& !# ʿ
BH-ED$4 3Cʿ CF$ ʿ Q3ʿ C3 3Dʿ $EDʿ D3CN4 Q3Dʿ QOʿ $Eʿ Nʿ Hʿ Q3ʿ 1$CC3Dʿ ʿ H&H4 Jʿ <E3
F$ʿ . + -ʿ

; 3N H4Cʻ F343H&ʻ EH ʻ Hʻ H 3ʻ &H4ʻ $ P3 J Q34ʻ &H4ʻ @$4D *

F$ ʻ I -41HC3ʻ Eʻ F Cʻ 143C3E ʻ I $4 $ J 3E ʻ F N ʻ N ʻ F3Eʻ 1$?C3D CF$ ʻ Q3ʻ D33 J 3Dʻ $EDʻ $+3Eʻ Hʻ Q3ʻ I $4 ʻ 2&ʻ F Cʻ N ʻ $Cʻ &- Oʻ $EDʻ 3&&3N -$ Oʻ $Cʻ &ʻ F3ʻ C$ J 3ʻ 343ʻ ENH41H4$ 3Dʻ F343 Fʻ 5 $EDʻ F$ ʻ F3ʻ C$ Dʻ 6 3ʻ *H ECʻ CHʻ EN -D E2ʻ $Cʻ $&H43C$ Dʻ CF$ ʻ &H4ʻ F3ʻ I -41HC3Cʻ H&ʻ F Cʻ N ʻ Q3ʻ <E3ʻ BH4H-2F ʻ $EDʻ CF$ ʻ $Cʻ C-NFʻ BH4H Fʻ &4H J ʻ $EDʻ $& 34ʻ F3ʻ ; EDʻ H&ʻ F Cʻ 143C3E ʻ I $4 $ J 3E ʻ 43 -4Eʻ <E3ʻ P3 J Q34ʻ Hʻ C34 3ʻ Eʻ I $4 $ J 3E ʻ $EDʻ F$ ʻ F3ʻ I H4 433 3ʻ H&ʻ +F #1! ʻ CF$ ʻ Q3ʻ F3ʻ ' 3 -4E E2ʻ <&& N34ʻ &H4ʻ F3ʻ C$ Dʻ BH4H-2Fʻ ʻ $EDʻ F$ ʻ EHʻ I 34CHE ʻ QOʻ 43$CHEʻ H&ʻ $EOʻ ' 2F ʻ $NN4- E2ʻ Eʻ $EOʻ H&ʻ F3ʻ C$ Dʻ 6 3ʻ *H ECʻ CF$ ʻ F$ 3ʻ $EOʻ H 3ʻ Eʻ F3ʻ ; 3N HEʻ H&ʻ $ʻ P3 J Q34ʻ Hʻ C34 3ʻ Eʻ $EOʻ &- -43ʻ I $4 $ J 3E ʻ &H4ʻ F3ʻ BH4H-2Fʻ H&ʻ I &

G3CN4 1 HEʻ H&ʻ F3ʻ ' 3R -4E E2ʻ <&& N34Cʻ &H4ʻ F3ʻ E3 ʻ BH4H-2 C

W>ʻ EDʻ Q3ʻ ʻ 3E$N 3Dʻ * F$ ʻ F3ʻ I 34CHECʻ 43C13N 3 Oʻ D3CN4 Q3Dʻ Eʻ F3ʻ C$ Dʻ ?NF3D- 3Cʻ ^@ _ʻ $EDʻ ^G _ʻ CF$ ʻ Q3ʻ F3ʻ ' 3 -4E E2ʻ <&& N34Cʻ $ ʻ $ ʻ ; 3N HECʻ H&ʻ $ʻ P3 J Q34ʻ H4ʻ P3 J Q34Cʻ Hʻ C34 3ʻ Eʻ I $ $ J 3E ʻ &H4ʻ F3ʻ BH4H-2FCʻ Eʻ NHE(-EN HEʻ Fʻ F NFʻ C-NFʻ I 34CHECʻ $43ʻ 43C13N 3 Oʻ J 3E HE3Dʻ Eʻ F3ʻ C$ Dʻ ?NF3D- 3Cʻ ^@ _ʻ $EDʻ ^G _ʻ $EDʻ F$ ʻ &H4ʻ FHC3ʻ BH4H-2FCʻ Eʻ F3ʻ C$ Dʻ ?NF3D- 3Cʻ &H4ʻ F NFʻ EHʻ I 34CHECʻ $43ʻ J 3E HE3Dʻ Eʻ C-NFʻ ?NF3D- 3Cʻ $Cʻ ' 3 -4E E2ʻ <&& N34Cʻ F3ʻ ?F34 &&ʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2ʻ &&ʻ F3ʻ @H-E Oʻ Eʻ F NFʻ C-NFʻ BH4H-2FCʻ $43ʻ 43C13N 3 Oʻ C -$ 3ʻ CF$ ʻ F Eʻ * Hʻ PHE FCʻ $& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ $EDʻ Eʻ 3 34Oʻ C-NN33D E2ʻ 43R C13N 3ʻ =3$4ʻ Eʻ F3ʻ PHE Fʻ H&ʻ ') ʻ QOʻ 9 4 E2ʻ -ED34ʻ F Cʻ 8 $ED ʻ Hʻ Q3ʻ D3 343Dʻ Hʻ F3ʻ @ 34+ʻ H&ʻ F3ʻ I 3$N3ʻ H&ʻ F3ʻ @H-E Oʻ F Eʻ <E3ʻ 9 33+ ʻ $EDʻ Hʻ Q3ʻ QOʻ C-NFʻ @ 34+ʻ H&ʻ F3ʻ I 3$N3ʻ & 3Dʻ $EDʻ 143C34 3Dʻ Fʻ F3ʻ ' 3NH4DCʻ H&ʻ F Cʻ <&& N3ʻ EH J E$ 3ʻ $EDʻ $11H E ʻ &H4ʻ 3$NFʻ H&ʻ C-NFʻ BH4H-2FCʻ $ʻ & ʻ I 34CHE ʻ Q3 E2ʻ 43C D3E ʻ F343 E ʻ Hʻ Q3 ʻ $EDʻ C-NFʻ I 34CHEʻ CHʻ EH J E$ 3Dʻ $EDʻ $11H E 3Dʻ CF$ ʻ $NNH4D E2 Oʻ Q3 ʻ F3ʻ ' 3 -4E E2ʻ <&& N34ʻ &H4ʻ 3$NFʻ H&ʻ C-NFʻ BH4H-2FCʻ 43C13N 3 Oʻ -E ʻ F3ʻ , H J E$ HEʻ Hʻ Q3ʻ J $D3ʻ Eʻ F3ʻ C-NN33D E2ʻ ') ʻ ʻ $EDʻ Eʻ F3ʻ 3 3E ʻ H&ʻ F3ʻ G3$ Fʻ H&ʻ $EOʻ C-NFʻ I 34CHE ʻ H4ʻ H&ʻ F Cʻ Q3NH J E2ʻ EN1Q 3ʻ Hʻ $N ʻ QOʻ 43$CHEʻ H&ʻ ? N+E3CCʻ H4ʻ H F34ʻ C-&& N 3E ʻ J 13D J 3E ʻ F3ʻ ?F34 &&ʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2ʻ CF$ ʻ HEʻ , H N3ʻ F343H&ʻ &H4 F Fʻ EH J E$ 3ʻ $EDʻ $11H E ʻ Eʻ Q Cʻ ? 3$Dʻ $ʻ & ʻ I 34CHE ʻ Q3 E2ʻ CHʻ 43C D3E ʻ $Cʻ $&H43C$ D ʻ Hʻ Q3 ʻ $EDʻ C-NFʻ I 34CHEʻ CHʻ EH J E$ 3Dʻ $EDʻ $11H E 3Dʻ CF$ ʻ $NNH4D E2 Oʻ Q3 ʻ F3ʻ ' 3 -4E E2ʻ <&& N34ʻ &H4ʻ C-NFʻ BH4H-2Fʻ &H4ʻ F3ʻ ' 3 J $ ED34ʻ H&ʻ F3ʻ F3Eʻ N-443E ʻ =3$4 ʻ $EDʻ EHʻ I 34CHE ʻ F$ E2ʻ Q33Eʻ CHʻ EH J E$ 3Dʻ $EDʻ $11H E 3Dʻ $Cʻ ' 3 -4E E2ʻ <&& N34ʻ &H4ʻ $EOʻ BH4H-2F ʻ CF$ ʻ $& 34ʻ F3ʻ ; 1 4$ HEʻ H&ʻ F Cʻ <&& N3ʻ Q3ʻ NH J 13 $Q 3ʻ $ ʻ $EOʻ * J 3ʻ F343$& 34ʻ Hʻ C34 3ʻ 2 Eʻ Eʻ F3ʻ C$ Dʻ <&& N3ʻ

9 FHʻ D CX-$ & 3D

&H4ʻ F3ʻ C$ J 3ʻ BH4H-2F ʻ. I 4H D3Dʻ $ $OC ʻ F$ ʻ EHʻ I 34CHEʻ Q3 E2ʻ Eʻ 8 H Oʻ <4D34C ʻ EH4ʻ $EOʻ @F- NF $4D3Eʻ H4ʻ < 34C334ʻ H&ʻ F3ʻ I HH4ʻ F Eʻ $EOʻ C-NFʻ BH4H-2F ʻ CF$ ʻ Q3ʻ EH J E$ 3Dʻ H4ʻ $11H E 3Dʻ $Cʻ C-NFʻ ' 3 -4E E2ʻ <&& N34ʻ &H4ʻ F3ʻ C$ J 3 ʻ $EDʻ F$ ʻ EHʻ I 34CHEʻ EH J E$ 3Dʻ $EDʻ $11H E 3Dʻ $Cʻ ' 3 -4E E2ʻ <&& N34ʻ &H4ʻ $EOʻ BH4H-2Fʻ EH ʻ C3ED E2ʻ H4ʻ F343$& 34ʻ Hʻ C3EDʻ P3 J Q34Cʻ Hʻ I $4 $ J 3E ʻ CF$ ʻ Q3ʻ $11H E 3Dʻ $ʻ @F-4NF $4D3Eʻ H4ʻ < 34C334ʻ H&ʻ F3ʻ I HH4ʻ F343 Eʻ D-4 E2ʻ F3ʻ * J 3ʻ S&Q4 F NFʻ F3ʻ CF$ ʻ

9 FHʻ 3 3 J 1 ʻ

Q3ʻ C-NFʻ ' 3 -4E E2ʻ <&& N34.ʻ I 4H D3Dʻ $ CH ʻ F$ ʻ EHʻ I 34CHEʻ X-$ & 3Dʻ Hʻ Q3ʻ 3 3N 3Dʻ Hʻ C34 3ʻ $Cʻ $ʻ P3 J Q34ʻ Eʻ I $4 $ J 3E ʻ CF$ ʻ Q3ʻ @H J R 13 $Q 3ʻ Hʻ C34 3ʻ $Cʻ ' 3 -4E E2ʻ <&& N34ʻ &H4ʻ $EOʻ BH4H-2Fʻ &H4ʻ F NFʻ F3ʻ CF$ ʻ F$ 3ʻ Q33Eʻ EH J E$ 3Dʻ $EDʻ $11H E 3Dʻ QOʻ F3ʻ ?F34 &&ʻ $Cʻ $&H43C$ Dʻ &ʻ F Eʻ <E3ʻ 9 33+ʻ $& 34ʻ F3ʻ CF$ ʻ F$ 3ʻ 43N3 3Dʻ , H N3ʻ H&ʻ F Cʻ , H J E$ HEʻ $EDʻ 11H E J 3E ʻ $Cʻ ' 3 -4E E2ʻ <&& N34ʻ F3ʻ CF$ ʻ J $+3ʻ <$ Fʻ H&ʻ C-NFʻ \ -$ & N$ HEʻ Q3&H43ʻ $EOʻ 5-C N3ʻ H&ʻ F3ʻ I 3$N3 ʻ $EDʻ

I 4H CH ʻ

CF$ ʻ &H4 F Fʻ EH &Oʻ F3ʻ C$ J 3ʻ Hʻ F3ʻ 34 &&.ʻ I 4H D3Dʻ $ CH ʻ F$ E

E' N$C3' 8 C' P$(3C O' CF$ ' Q3' 1 3$C3D' H' 24$E ' 8 C' ' ' HO$ ' @ $4 34'
H&' ENH41H4$ HE' H' $EO' H&' F3' BH4H-2FC' E$J 3D' E' F3' C$ D' ?NF3D- 3C'
^@ _' $ED' ^G _' F NF' $43' EH ' EH ' ENH41H4$ 3D ' $ED' CF$ ' QO' C-NF'
@F$4 34' 2 3' I H 34' H' 3 3N ' $' P $OH4' H4' H F34' @F 3&' P -E N 1$ '
<&& N34' &H4' $EO' C-NF' BH4H-2F' F3E' $ED' E' 3 34O' C-NF' @$C3' C-NF'
P $OH4' H4' H F34' @F 3&' P -E N 1$ ' <&& N34' &H4' F3' * J 3' Q3 E2' CF$ '
Q3' F3' HE O' ' 3 -4E E2' <&& N34' &H4' C-NF' BH4H-2F' ' $ED' F3' I 4H C HEC'
F343 Q3&H43' NHE $ E3D' F' 432$4D' H' F3' , H J E$ HE' $ED' 11H E R
J 3E ' H&' $' ' 3 -4E E2' <&& N34' &H4' C-NF' BH4H-2F' CF$ ' F3EN3&H4 F'
N3$C3' $ED' D3 34 J E3

W ' ED' Q3' ' 3E$N 3D ' * F$ ' E' $ ' &- -43' I $4 $ J 3E C' F343' CF$ ' C ' %E 2F C' 7
Q3' ? ' %E 2F C' H&' F3' ?F 43 ' EC 3$D' H&' 6H-4 ' H' C34 3' &H4' F3' @H-E O' H&' F3' ?F 43'
H&' H , ' ^ F$ ' C' H' C$O _' * H' %E 2F C' &H4' 3$NF' H&' F3' * F433'
' D E2C' H&' F3' C$ D' @H-E O' H' Q3' 3 3N 3D' E' F3' C$ J 3' P $EE34 ' $ED' ' C E2C '
QO' F3' C$ J 3' @ $CC3C' $ED' G3CN4 1 HEC' H&' H 34C ' $ED' E' 43C13N ' H&' F3
C$ J 3' C3 34$ ' ' 2F C' H&' H E2 ' $C' &' 3$NF' H&' F3' * F433' ' D E2C' 343'
$' C31$4$ 3' @H-E O ' $ED' F$ ' F3' @H-4 ' &H4' F3' ; 3N HE' H&' %E 2F C'
H&' F3' ?F 43' &H4' F3' , H4 F' ' D E2' H&' F3' C$ D' @H-E O' CF$ ' Q3' FH D3E'
$ ' F3' @ O' H&' =H4+ ' $ED' F3' @H-4 ' &H4' F3' ; 3N HE' H&' %E 2F C' H&'
F3' ?F 43' &H4' F3' 9 3C ' ' D E2' H&' F3' C$ D' @H-E O' CF$ ' Q3' FH D3E' $ '
! %& ' $ED' F3' @H-4 ' &H4' F3' ; 3N HE' H&' %E 2F C' H&' F3' ?F 43'
&H4' F3' ; $C ' ' D E2' H&' F3' C$ D' @H-E O' CF$ ' Q3' FH D3E' $ ' " ! O ! %

W ' ED' Q3' ' 3E$N 3D ' * F$ ' E' $ ' &- -43' I $4 $ J 3E C' F343' CF$ ' 6H-4%- 2F C
Q3' 6H-4' %E 2F C' H&' F3' ?F 43 ' EC 3$D' H&' * H ' H' C34 3' &H4' F3' @H-E O' H&' 3' ?F 43'
H&' < #' , %#' ^ F$ ' C' H' C$O _' * H' &H4' F3' I $4 C' H&' < #&1! ' E' F3' C$ D'
@H-E O ' $ED' * H' &H4' F3' I $4 C' H&' !1 !O !#' $ED' , %%3#&' E' F3' C$ J 3' I $4 C
@H-E O ' $ED' F$ ' C-NF' 6H-4' %E 2F C' CF$ ' Q3' NFHC3E' E' F3' C$ J 3' H&' > EDC3O '
P $EE34 ' $ED' QO' F3' C$ J 3' @ $CC3C' $ED' G3CN4 1 HEC' H&' H 34C ' $ED' * H' &H4
E' 43C13N ' H&' F3' C$ J 3' C3 34$ ' ' 2F C' H&' H E2 ' $C' &' F3' C$ D' I $4 C'
H&' < #&1! ' 343' $' C31$4$ 3' @H-E O ' $ED' F3' C$ D' I $4 C' H&' !1 !O !#'
$ED' , %% #&' H23 F34' 343' $ CH' $' C31$4$ 3' @H-E O' ' $ED' F$ ' F3'
@H-4 ' &H4' F3' ; 3N HE' H&' %E 2F C' H&' F3' ?F 43' &H4' F3' I $4 C' H&'
< #&1! ' #' F3' C$ D' @H-E O' CF$ ' Q3' FH D3E' $ ' F3' @ O' H&' W J NH '
$ D' F3' @H-4 ' &H4' F3' ; 3N HE' H&' %E 2F C' H&' F3' ?F 43' &H4' F3'
I $4 C' H&' !1 !O !#' $ED' , %% #&' E' F3' C$ D' @H-E O' CF$ ' Q3' FH D3E'
$ ' + %! , &

W ' ED' Q3' ' 3E$N 3D ' * F$ ' 3$NF' H&' F3' @H-E 3C' 3E- J 34$ 3D' E' @34 $ E'
F3' ?NF3D- 3' J $4+3D' ^6 _' H' F C' N ' $EE3 3D' CF$ ' Q3' D D3D' E H' @H-E 3C' H'
* H' G C HEC ' F NF' G C HEC' CF$ ' Q3' C3 3D' $ED' & ! 1 ' 4 ! &' 4 ')
N ' H' Q3' 1$CC3D' &H4' F$ ' I -41HC3' E') 1' 143C3E ' * % ! # ' F) ')' # ( ) 1'
/ ' ' F3E' 1$CC3D ' CF$ ' Q3' D33 J 3D' $ED' ! #' , ' 4 !' * ' , ') 1' / ' ' ! +' F3' ?F 43'
$C' &- O' $ED' 3&&3N -$ O' $C' &' F3' C$ J 3 ' 343' ENH41H4$ 3D' F343 F '
$ED' F$ ' E' $ ' &- -43' I $4 $ J 3E C' F343' CF$ ' Q3' 6H-4' %E 2F C' H&' F3'
?F 43 ' EC 3$D' H&' * H ' H' C34 3' &H4' 3$NF' H&' F3' C$ D' @H-E 3C ' ^ F$ '
C' H' C$O _' * H' %E 2F C' H&' F3' ?F 43' &H4' 3$NF' G C HE' H&& F3' C$ D'
@H-E 3C ' $ED' F$ ' C-NF' %E 2F C' CF$ ' Q3' NFHC3E' E' F3' C$ J 3'
P $EE34 ' $ED' QO' F3' C$ J 3' @ $CC3C' $ED' G3CN4 1 HEC' H&' H 34C ' $ED' E'
43C13N ' H&' F3' C$ J 3' C3 34$ ' ' 2F C' H&' H E2 ' $C' &' 3$NF' H&' F3' C$ D'
G C HEC' 343' $' C31$4$ 3' @H-E O ' $ED' F$ ' F3' @H-4 ' &H4' F3'
; 3N HE' H&' %E 2F C' H&' F3' ?F 43' &H4' 3$NF' G C HE' H&' F3' C$ D'
' ' ' @H-E 3C

@H-E 3C' CF$ ' Q3' H P 3-' $ ' F3' I $N3' &H' Q3' $$C$3D' &H4' F$ ' I -41HC3' E' F3' N ' CH' H' Q3' 1$CC3D' $C' $&H43C$ D' &H4' C3 E2' $ED' D3CN4 Q E2' F3' G C HEC' H &' F3' C$ D' @H-E 3C

@34 $ E' @H-E 3C' H' 43 -4E' * 433' %E 2F C' H&' F3' ?F 43

W ' ED' Q3' ' 3E$N 3D' * F$ ' E' $ ' &- -43' I $4 $ J 3E C' F343' CF$' ' Q3' * F433' %E 2F C' , ' F3' ?F 43' EC 3$D' H&' * H ' H' C34 3' &H4' 3$NF' H&' F3' @H-E 3C' 3E- J 34$ 3D' E' F3' ?NF3D- 3' J $4+3D' ^6 ' U _ ' H' F C' N ' $EE3 3D' $ED' * H' %E 2F C' H&' F3' ?F 43' EC 3$D' H&' < E3' H' C34 3' &H4' 3$NF' H&' F3' @H-E 3C' H&' 6) ! #' 2 ! # 4 ( ) ' $ED' % , (#

C 3' H&' 9 2F ' C3 343D' &4H J' 8$ J 1CF 43' H' 43 -4E' $ P 3 J Q34

W ' ' ED' Q3' ' 3E$N 3D' * F$ ' F3' $1O' , ' ( ) ' E' F3' @H-E O' H& + , 3) 5 , #' CF$ ' &H4' F3' I -41HC3C' H&' F C' N ' Q3' $' @H-E O' H&' C3 &' C31$4$ 3' $ED' $1$4 ' &4H J' F3' @H-E O' H&' + , 3) 5 , # ' $ED' CF$%' 43 -4E' < E3' %E 2F ' H&' F3' ?F 43' H' C34 3' E' 3 34O' &- -43' I $4 $ J 3E ' $ED' F$ ' C-NF' %E 2F ' CF$ ' Q3' NFHC3E' QO' F3' C$ J 3' @ $CC3C' $ED' G3CN4 1R HEC' H&' H 34C ' $ED' E' 43C13N ' H&' F3' C$ J 3' C3 34$' ' 2F C' H&' H E2' $C' $EO' %E 2F ' H&' F3' ?F 43' CF$ ' Q3' NFHC3E' E' $EO' @H-E O' E' 8 # (% # & =' $ED' F$ ' $ ' ; 3N HEC' &H4' F3' C$ D' @H-E O' H&' F3' $1%! ' , ' ( ) ' CF$ ' Q3' FH D3E' $ ' F3' * H E' H&' E ! F 5 , ' E' F3' $1%! ' , ' ( ) ' $ED' F3' ?F34 &&' H&' F3' $1%! ' , ' ( ) ' H4' F C' G31- O ' CF$ ' Q3' F3' ' 3 -4E E2' < && N34' $ ' C-NF' ; 3N HEC' '

* H EC' F NF' $43' @H-E 3C' H&' F3 J C3 3C' H' Q3' EN -D3D' E' $D(H E E2' @H-E 3C' &H4' @H-E O' ; 3N HEC

W ' ED' Q3' ' 3E$N 3D' * F$ ' &H4' F3' I -41HC3' H&' 3 3N E2' $ %E 2F ' H4' %E 2F C' H&' F3' ?F 43' H' C34 3' E' $EO' &- -43' I $4 $ J 3E ' F3' ; $C' ' D E2' H&' F3' @H-E O' H&' H , ' F3' , H4 F' ' D E2' H&' F3' @H-E O' H&' H , ' F3' I $4 C' H&' < # & 1 ! ' E' F3' @H-E O' H&' < # ' , % # ' $ED' F3' C3 34$' @H-E 3C' $ ' $423' 3E- J 34$ 3D' E' F3' ?3NHED' @H - J E' H&' F3' ?NF3D- 3' J $4+3D' ^M _ ' H' F C' N ' $EE3 3D' CF$ ' 43C13N 3 O' EN -D3' F3' C3 34$' @ 3C' $ED' * H EC' $ED' @H-E 3C' H&' F3' C$ J 3' F NF' $43' 43R C13N 3 O' J 3E HE3D' E' NHE(-EN HE' F' C-NF' ' D E2C' I $4 C' $ED' @H-E 3C' $ ' $423' $ED' E$ J 3D' E' F3' 6 4C' @H - J E' H&' F3' C$ D' ?NF3D- 3' ^M _

> J $ HE' HE' F3' ' 2F ' H&' H E2' &H4' @H-E 3C' $ED' &H4' @ 3C' Q3 E2' @H-ER 3C' H&' F3 J R C3 3C' E' 43C13N ' H&' ' 6433FH DC' &H4' > &3

W ' ED' Q3' ' 3E$N 3D' * F$ ' EH' I 34CHE' CF$ ' Q3' 3E 3D' H' H 3' E' F3' ; 3N HE' H&' $' %E 2F ' H4' %E 2F C' H&' F3' ?F 43' H' C34 3' E' $1O' &- -43' I $4 $ J 3E ' H4' E' F3' ; 3N HE' H&' $' P 3 J Q34' H4' P 3 J Q34C' H' C34 3' E' $EO' &- -43' I $4 $ J 3E ' &H4' $EO' @ O' H4' * H E' Q3 E2' $' @H-E O' H&' C3 &' E' 43C13N ' H&' $EO' 6433FH D' > $EDC' H4' * 3E3 J 3E C' F343H&' C-NF' I 34CHE' J $O' Q3' C3 C3D' &H4' F C' H E' > &3 ' H4' &H4' F3' > &3' H&' $EH F3&' H4' &H4' $EO' > 3C' F$ CH3 34' 3 N31 ' C-NF' I 34CHE' CF$ ' Q3' E' Q3' $N -$ ' $ED' 4 , # & & ! ' < NN-1$ HE' H&' C-NF' > $EDC' H4' * 3E3 J 3E C' H4' 3 N31 ' F3' C$ J 3' CF$ ' F$ 3' NH J 3' H' C-NF' I 34CN J' QO' P $44 $23' P $44 $23' ?3 3 J 3E ' G3 C3 ' H4' I 4H J H HE' H' $EO' B3E3& N3' H4' H' $EO' < && N3' H4' 3 N31 ' F3' C$ J 3' CF$ ' Q3' H&' F3' N 3$4' O3$4 O' $ -3' H&' EH ' 3CC' F$E' * 3E' I H-EDC' $QH 3' $ ' ' 3E C' $ED' @F$423C' 1OQ 3' H- ' H&' H4' E' 43C13N ' H&' F3' C$ J 3' ($EO' ? $ - 3' H4' # C$23' H' F3' NHE 4$4O' EH FR C $ED E2 .' I 4H D3D' $ $OC' F$ ' EH F E2 ' E' F C' N ' NHE $ E3D' CF$ ' 143 3E ' $EO' I 34CHE' EH ' C3 C3D' &H4' E C' H E' > &3 ' H4' &H4' F3' > &3' H&' $EH F34 ' H4' &H4' $EO' > 3C' F$ CH3 34' H&' $EO' 6433FH D' > $EDC' H4' * 3E3 J 3E C' E' 43C13N ' H&' F NF' F3' EH ' F$C' H4' Q- ' &H4' F3' 1$CC E2' H&' F C' N ' J 2F ' $NX- 43' F3' ' 2F ' H&' H E2' E' C-NF' 43C13N 3' ; 3N HEC' &4H J' 43 $ E E2' H4' $NX- 4 E2' CH' HE2' $C' F3

U`M#> ;>P ' ' @$1' ! S $

CF$ ' Q3' CH' C3 C3D' H&' F3' C$J3' >$EDC' H4' *3E3J3E C' C-NF' ' 2F ' H&' HH E2' E' 43C13N ' F343H&' &' D- O' 432 C 343D' $NNH4D E2' H' F3' 43R C13N 3' I4H C HEC' F343 E $& 34' NHE $ E3D

W W ' ED' Q3' ' 3E$N 3D ' *F$ ' 3 340' P$ 3' I34CHE ' H&' &- ' 23 ' $ED' ' 2F ' H&' EH ' C-Q(3N ' H' $EO' 32$' EN1N O' FH' CF$ ' Q3' C3 C3D' $ ' >$ ' H4' E' E' ; X- O' H&' $EO' >$EDC' H4' *3E3J3E C' H&' @H1OFH D' H4' $EO' H F34' *3E-43' F$ 3 34' 3 N31 ' 6433FH D' &H4' F C' H E' > &3' H4' &H4' F3' > &3' NH1OFH D34C' H&' $EH F34' H4' &H4' $EO' > 3C' F$ CH3 34' H4' &H4' $EO' $4234' ; C $ 3' H& F3' N 3$4' O3$4 O' $ -3' H&' EH ' 3CC' F$E' *3E' I H-EDC' H 34' $ED' $QH 3' $ ' ' 3E C' $ED' @F$423C' 1OQ 3' H- ' H&' H4' E' 43C13N ' H&' F3' C$J3' CF$ ' Q3' 3E 3D' H' H 3' E' F3' ; 3N HE' H&' $' %E 2F ' H4' %E 2F C' H&' F3' ?F 43' H' C34 3' E' $EO' &- -43' I$4 $J3E ' &H4' F3' @H-E O' H4' &H4' F3' ' D E2' I$4 C' H4' G C HE' H&' F3' @H-E O' E' F NF' C-NF' >$EDC' H4' *3E3J3E C' CF$ ' Q3' 43C13N 3 O' C -$ 3

WW ' ED' Q3' ' 3E$N 3D ' *F$ ' 3 340' P$ 3' I34CHE' H&' &- ' 23 ' $ED' ' 2F ' H&' EH ' C-Q(3N ' H' $EO' 32$' EN1N O' FH' CF$ ' Q3' 3E 3D ' 3 F34' $C' / E2 -' >3CC33' H4' CC 2E33' H' $EO' >$EDC' H4' *3E3J3E C' F3 F34' H&' 6433 ' 2L 3ED3D' H' FH D' H4' H&' $EO' H F34' *3E-43' F$ 3 34' &H4' F3' -E3 1 43D' ' 3C D-3' >3$C3FH D34C' F$ 3 34' ' J$O' Q3' H&' $EO' *34J' H4 2 E$ O' N43$ 3D' &H4' $' I34 HD' H&' $ED' <NN- ' EH ' 3CC' F$E' ? O' =3$4C' ^ F3 F34' D3 34J E$Q 3' HE' $' > &3' H4 > 3C' H4' EH _' H&' F3' N 3$4' O3$4 O' $ -3' H&' EH ' 3CC' F$E' *3E' N34 $E' D-3' I H-EDC' H 34' $ED' $QH 3' $ ' ' 3E C' $ED' @F$423C' 1OQ 3' H- ' H&' H4' E' $QH 3 43C13N ' H&' F3' C$J3' H4' &H4' F3' -E3 1 43D' ' 3C D-3' F$ 3 34' ' J$O' @F$423C' Q3' H&' $EO' *34J' H4 2 E$ O' N43$ 3D' &H4' $' I34 HD' H&' EH ' 3CC' F$E' * 3E O' =3$4C' ^ F3 F34' D3 34J E$Q 3' HE' $' > &3' H4' > 3C' H4' EH _' H&' F3' N 3$4' O3$4 O' $ -3' H&' EH ' 3CC' F$E' 6 & O' I H-EDC' H 34' $ED' $QH 3' $ ' ' 3E C' $ED' @F$423C' 1OQ 3' H- ' H&' H4' E' 43C13N ' H&' F3' C$J3' H4' FH' CF$ ' HNN-1O' $C' *3E$E ' $EO' >$EDC' H4' *3E3J3E C' &H4' F NF' F3' CF$ ' Q3' 4,#&' &!' $Q 3' H' $' O3$4 O' ' 3E ' H&' EH ' 3CC' F$E' 6 & O' I H-EDC' CF$ ' Q3' 3E 3D' H' H 3' E' F3' ; 3N HE' H&' $' %E 2F ' H4' %E 2F C' H&' F3' ?F 43' H' C34 3' E' $EO' &- -43' I$4 $J3E ' &H4' F3' @H-E O' H4' &H4' F3' ' D E2' I$4 C' H4' G C HE' H&' F3' @H-E O' E' F NF' C-NF' >$EDC' H4' *3E3J3E C' CF$ ' Q3' 43C13N 3 O' C -$ 3 I4H D3D' $ $OC' F$' EH' I34CHE' Q3 E2' HE O' $' ?-Q >3CC33' H4' F3' CC 2E33' H&' $EO' #ED34 3$C3' CF$ ' F$ 3' $' ' 2F ' H' H 3' E' C-NF' ; 3NR HE' E' 3C13N ' H&' $EO' C-NF' *34J' H&' ? O' =3$4C' H4' * 3E O' =3$4C' $C' $&H43C$ D' -E 3CC' F3' CF$ ' Q3' E' F3' $N -$' <NN-1$ HE' H&' F3 I 43J 3C3C

WW ' ED' Q3' ' D3N $43D' $ED' 3E$N 3D ' *F$ ' EH' I -Q N' H4' I$4 $' 9 F$' EH ' H J3E $4O' *$ ' EH4' $EO' @F-4NF' ' $ 3' @H-E O' ' $ 3' H4' I$4HNF $' ' $ 3' D33J3D' CF$ ' Q3' D33J3D' H' Q3' $EO' @F$423' 1OQ 3' H- ' H&' H4' E' 43C13N ' H& $EO' >$EDC' H4' *3E3J3E C' F E' F3' P 3$E E2' H&' F C' N

WW ' ED' Q3' ' 3E$N 3D ' *F$ ' E' H4D34' H' 3E 3' $EO' I34CHE' H' @H-E O' H 3' E' $EO' ; 3N HE' H&' $' %E 2F ' H&' F3' ?F 43' H4' H F34' P 3J Q34' H' C34 3' E' $EO' &- -43' I$4 $J3E ' E' 43C13N ' H&' $EO' P 3CC-$23C' >$EDC' C3CC3D' H' F3' H4' *3E3J3E C' F3 F34' 6433FH D' H4' H F34 C3' ' CF$ ' EH ' Q3' E3N3CC$4O' >$ED' *$ ' F$' F3' C$J3' CF$ ' Q3' $CC3CC3D' H' F3' >$ED' *$ ' ' $EO' ? $ - 3' H' F3' NHE 4$4O' EH FC $ED E2

' WW >' ED

U/ Y # > ; > P ' ' @$1 !

I4H C HE))d' [' *4-C 33C $XD PH4 R 2$233C

' ED' Q3' '3E$N 3D' *Q$ $' I34CKE CF 'Q3'$ H 3D' H' F$ 3 $EO' H 3' E' F3' ; 3N HE' <& $' %E 2F ' H4' %E 2F C' H&' F3' ?F 43' &H4' H4' QO' 3$CHE' H&' $EO' *4-C ' ; %$3' <4 PH4 2$23 ' -E 3CC' C-NF' *E C 33' H4' PH4 2$233' Q3' E' $N -$' I HCC3CC HE' H4' ' 3N3 1 ' H&' F3' ' 3E C' $ED' I4H& C' H&' F3' C$J3' ; C $ 3' Q- ' F$ ' F3' PH4 2$2H4' H4' @3C - X-3' *4-C ' E' I HCC3C $HE' CF$ ' $J ' J$O' H 3' &H4' 3' C$J3' ; C $ 3' EH FR C $ED E2' C-NF' PH 2$23' H4' *4-C

, H' 34CHE' H' H 3' &H4' $ @H-E O' E' 43C13N ' H&' $EO' 6433FH D' 8H-C3' KN' HNN-1 3D' QO' F J C3 &' F NF H-D' NHE&34' $ H 3' &H4' $ BH4H-2F

WW ' ED' 4!' ' 3E$N 3D' * F$ ' EH FC $ED E2' $EO' F E2' F343 ER Q3&H43' NHE $ E3D' EH' I34CHE' CF$ ' Q3' 3E 3D' H' H 3' E' F3' ; 3N HE' H&' $' WE 2F ' H4' %E 2F C' H&' F3' ?F 43' H' C34 3' E' $EO' &- -43' I $4R $ J 3E ' E' 43C13N ' H&' F C' ; C $ 3' H4' E 343C ' $C' $' 6433FH D34' E' $EO' 8 H-C3' 9 $43FH-C3' @H-E E2 FH-C3' ?FH1 ' H4' H F34' B- D E2' HNN-1 3D' QO' F J C3 &' H4' E' $EO' >$ED' HNN-1 3D' QO' F J C3 &' H23 F34' F' $EO' 8 H-C3' 9 $43FH-C3' @H-E E2 FH-C3' ?FH1 ' H4' H F34' B-8D E2 ' C-NF' 8 H-C3' 9 $43FH-C3' @H-- E2 FH-C3' ?FH1 ' H4' H F34' B- D E2' Q3 E2 ' 3 F34' C31$4$ 3 O' H4' (H E O' F' F3' >$ED' CH' HNN-1 3D' F343R F ' H&' C-NF' $ -3' $C' H- D' $NNH4D E2' H' F3' I4H C HEC' F343 ER $& 34' NHE $ E3D ' NHE&34' HE' F J' F3' ' 2F ' H&' H E2' &H4' $EO' @ O' H4' BH4H-2F ' F3 F34' F3' CF$ ' H4' CF$ ' EH ' F$ 3' $N -$ O' $NX- 43D' F3' ' 2F ' H' H 3' &H4' C-NF' @ O' H4' BH4H-2F' E' 43C13N ' F343H&

, H' I34CHE' H' H 3' &H4' $' @H-E O' E' 43C13N ' H&' N34 $ E' @H1O ' FH DC' $ED' >3$C3FH DC' E' $' BH4H-2F

WW ' ED' Q3' ' 3E$N 3D' * F$ ' EH FC $ED E2' $EO' F E2' F343 ER Q3&H43' NHE $ E3D' EH' I34CHE' CF$ ' Q3' 3E 3D' H' H 3' E' F3' ; 3N HE' H&' $' %E 2F ' H4' %E 2F C' H&' F3' ?F 43' H' C34 3' E' $EO' &- -43' I $4 $ J 3E ' E' 43C13N ' H&' F C' ; C $ 3' H4' E 343C ' $C' $' @H1OFH D34' H4' @-C H J $4O' *3E$E ' H4' *3E$E ' E' EN 3E ' G3 J 3CE3 ' FH D E2' QO' @H1O' H&' @H-4 ' ' H ' H4' $C' C-NF' >3CC33' H4' CC 2E33 ' H4' $C' C-NF' *3E$E ' $ED' <NN-R 1 34' $C' $&H43C$ D ' E' $EO' 8 H-C3' 9 $43FH-C3' @H-E E2 FH-C3' ?FH1 ' H4' H F34' B- D E2 ' H4' E' $EO' >$ED' HNN-1 3D' H23 F34' F' $' 8 H-C3' 9 $43FH-C3' @H-E E2 FH-C3' ?FH1 ' H4' H F34' B- D E2 ' C-NF' 8 H-C3' 9 $43FH-C3' @H-E E2 FH-C3' ?FH1 ' H4' H F34' B- D E2' Q3 E2 ' 3 F34' C31$4$ 3 O' H4' (H E O' F' F3' >$ED' CH' HNN-1 3D' F343 F ' H&' C-NF' $ -3' $C' H- D' $NNH4D E2' H' F3' I4H C HEC' F343 E $& 34' NHE $ E3D' NHE&34' HE' F J' H4' HE' $EO' H F34' I34CHE' F3' ' 2F 'H&' H E2' &H4' $EO' @ O' H4' BH4H-2F ' F3 F34' F3' H4' $EO' H F34' I34CHE' CF$ ' H4' CF$ ' EH ' F$ 3' $N -$ O' $NX- 43D' F3' ' 2F ' H' H 3' &H4' C-NF' @ O' H4' BH4H-2 4' E' 43C13N ' F343H&

I HCC3CC HE' &H4' $' N34 $ E' * J 3 ' $ED' ' 32 C 4$ HE' 3CC3E $' H' F3' ' 2F ' H&' H E2' &H4' $ @H-E

WW ' ED' Q3' ' 3E$N 3D' $ ' EH FC $ED E2' $EO' F E2' F343 ER Q3&H43' NHE $ E3D' EH' I34CHE' CF$ ' Q3' 3E 3D' H' H 3' E' F3' ; 3N HE' H&' $' %E 2F ' H4' %E 2F C' H&' F3' ?F 43' H' C34 3' E' $EO' &- -43' I $4 $ J 3E ' -E 3CC' F3' CF$ ' F$ 3' Q33E' D- O' 432 C 343D' $NNH4D E2' H' F3' I4H C HEC' F343 E $& 34' NHE $ E3D ' $ED' F$ ' EH' I34CHE' CF$ ' Q3' CH' 432 C 343D' E' $EO' =3$4' E' 43C13N ' H&' F C' ; C $ 3' H4' E 343C ' E $EO' >$EDC' H4' *3E3R J 3E C ' $C' $' 6433FH D34' @H1OFH D34' @-C H J $4O ' *3E$E ' H4' *3E$E ' E' EN 3E ' G3 J 3CE3 ' -E 3CC' F3' CF$ ' F$ 3' Q33E' E' F3' $N -$' I HCC3CR C HE' F343H&' H4' E' 3' ' 3N3 1 ' H&' F3' ' 3E C' $ED' I4H& C' F343H&' &H4' F C' H E' #C3 ' &H4' ? ' @$ 3ED$4' PHE FC' $' 3$C ' E3 ' 143 H-C' H' F3' $C ' G$O' H&' E' C-NF' =3$4' F NF' C$D' I34 HD' H&' ? ' @$ 3ED$4' PHE FC' CF$ ' Q3' C-&& N 3E ' $EO' ? $ - 3' H' F3' NHE& $4O' EH FC $ED E2 ' $ED' F$ ' EH' I34CHE' CF$ ' Q3' CH' 432 C 343D' $EO' =3$4' E' 43C13N ' H&' $EO' >$EDC H4' *3E3 J 3E C' F3 D' QO' F J' $C C-NF

C-NF' >3CC33' H4' CC 2E33 ' H4' $C' C-NF' <NN-1 34' $ED' *3E$E ' $C' $&H43R C$ D' -E 3CC' F3' CF$ ' F$ 3' Q33E' E' F3' $N -$' I HCC3CC HE' F343H&' H4' E F3' ' 3N3 1 ' H&' F3' ' 3E C' $ED' I 4H& C' F343H&' &H4' F C' H E' #C3 ' $C' F3' @$C3' J $O' 43X- 43 ' &H4' * 3 3' @$ 3ED$4' P HE FC' E3 ' 143 H-C' H' F3' $C ' G$O' H&' ?3% ' E' C-NF' =3$4.' I 4H D3D' $ $OC' F$ ' F343' $EO' >$ DC' H4' * 3E3 J 3E C' F NF' H- D' H F34 C3' 3E 3' F3' < E34 8 H D34 ' H4' <NN-1 34' F343H&' H' H 3' E' $EO' C-NF' ; 3N HE ' CF$ ' NH J 3' H' $EO' I 34CHE ' $ ' $EO' * J 3' F E' C-NF' 43C13N 3' I 34 HDC' H&' ? ' H4' * 3 3' @$ 3ED$4' P HE FC ' QO' G3CN3E ' ?-NN3CC HE ' P $44 $23' P $44 $23' ?3 3 J 3E ' G3 C3 ' H4' I 4H J H HE' H' $EO' B3E3& N3' E' $' @F-4NF ' H4' QO' I 4H J H HE' H' $EO' <&& N3 ' C-NF' I 34CHE' CF$ ' Q3' 3E 3D' E' 43C13N ' F343H&' H' F$ 3' F C' , $ J 3' EC34 3D' $C' $ H 34' E' F3' ; 3N HE' H&' $' %E 2F ' H4' %E 2F C' H&' F3' ?F 43' E' F3' > C C' F3E' E3 ' H' Q3' J $D3' QO' 4 -3' H&' F C' N ' $C' F343 E $& 34' J 3E HE3D ' $ED' -1HE' F C' Q3 E2' D- O' 432 C 343D' $NNH4D E2' H' F3' I 4H C HEC' F343 E $& 34' NHE $ E3D ' H' H 3' E' C-NF' ; 3N HE

; N31 HE' E N$C3' H&' I 4H QO (3CN3 E ' KN

WW ' ED' Q3' ' 3E$N 3D ' * F$ ' E' 3 340' @ O' H4' BH4H-2F ' F NF' CF$ ' 43 -4E' $' P 3 J Q34' H4' P 3 J Q34C' H' C34 3' E' $EO' &- -43' I $4 $ J 3E ' 3 340' P $ 3' I 34CHE' H&' &- ' 23 ' $ED' EH ' C-Q(3N ' H' $EO' 32$ ' EN1N O' FH' CF$ ' HNN-1O ' F E' C-NF' @ O' H4' BH4H-2F ' H4' F E' $EO' I $N3' CF$4 E2' E' F3' ; 3N HE' &H4' C-NF' @ O' H4' BH4H-2F ' $C' < E34' H4' * 3E$E ' $EO' 8 H-C3 ' 9 $43FH-C3 ' @H-E E2 FH-C3 ' ?FH1 ' H4' H F34' B- D E2 ' Q3 E2 ' 3 F34' C31$4$ 3 O ' H4' (H E O' F' $EO' >$ED' F E' C-NF' @ O' BH4H-2F ' H4' I $N3' HNN-1 3D' F343 F' QO' F J ' $C' < E34 ' H4' HNN-1 3D' F343R F' QO' F J ' $C' * 3E$E ' -ED34' F3' C$ J 3' >$ED H4D ' H&' F3' N 3$4' O3$4 O' $ -3' H&' EH ' 3CC' F$E' * 3E' I H-EDC ' CF$ ' &' D- O' 432 C 343D' $NNH4DR E2' H' F3' I 4H C HEC' F343 E $& 34' NHE $ E3D ' Q3' 3E 3D' H' H 3' E' F3' ; 3N HE' H&' $' P 3 J Q34' H4' P 3 J Q34C' H' C34 3' E' $EO' &- -43' I $4 $R J 3E ' &H4' C-NF' @ O ' H4' BH4H-2F.' I 4H D3D' $ $OC ' F$ ' EH' C-NF' I 34CHE' CF$ ' Q3' CH' 432 C 343D' E' $EO' =3$4' -E 3CC' F3' CF$ ' F$ 3' HNN-1 3D' C-NF' I 43 J C3C' $C' $&H43C$ D' &H4' * 3 3' @$ 3ED$4' P HE FC' E3 ' 143 H-C' H' F3' $C ' G$O' , ' ?3% ' E' C-NF' =3$4 ' EH4' -E 3CC' C-NF' I 34CHE ' F343' C-NF' I 43 J C3C' $43' C -$ 3' E' $EO' I $4 CF' H4' * H ECF 1' E' F NF' F343' CF$ ' Q3' $' ' $ 3' &H4' F3' ' 3 3&' H&' F3' I HH4 ' CF$ ' F$ 3' Q33E' 4$ 3D' E' 43C13N ' H&' C-NF' I 43 J C3C' H' $ ' ' $ 3C' &H4' F3' ' 3 3&' H&' F3' I HH4' E' C-NF' I $4 CF' H4' * H ECF 1' J $D3' D-4 E2' F3' * J 3' H&' C-NF' F C' <NN-1$R HE' CH' 43X- 43D' $C' $&H43C$ D ' EH4' -E 3CC' C-NF' I 34CHE' CF$ ' F$ 3' 1$ D' HE' H4' Q3&H43' F3' * 3E 3 F' G$O' H&' ?3% ' E' C-NF' =3$4 ' $ ' F3' I HH4 C' ' $ 3C' $ED' CC3CC3D' * $ 3C' F NF' CF$ ' F$ 3' Q3NH J 3' 1OQ 3' &4H J ' F J ' E' 43C13N ' H&' C-NF' I 43 J C3C' 143 H-C O' H' F3' ? F' G$O' H&' / 5 % F3E' E3 ' 143N3D E2' .' I 4H D3D' $ CH ' F$ ' EH' C-NF' I 34CHE' CF$ ' Q3' CH' 432 C 343D' E' $EO' =3$4' -E 3CC' F3' CF$ ' F$ 3' 43C D3D' &H4' ? ' @$ 3ED$4' P HE FC' E3 ' 143 H-C' H' F3' $C ' G$O' H&' ?3% ' E' C-NF' =3$4' F E' F3' @ O' H4' BH4H-2F ' H4' F E' F3' I $N3' CF$4 E2' E' F3' ; 3N HE' &H4' F3' @ O' H4' BH4H-2F ' E' 43C13N ' H&' F NF' @ O ' BH4H-2F ' H4' I $N3' 43C13N 3 O' F3' CF$ ' Q3' 3E 3D' H' H 3 ' H4' F E' ?3 3E' ? $ - 3' P 3C' F343H&' H4' H&' $EO' I $4 ' F343H&

' 2F ' H&' H E2' E' BH4H-2FC' " Q3' 3E(HO3D' QO <NN-1 34C' H&' 8 H-C3C ' KN ' H&' F3' $EE-$ ' $ -3' H&' [

, H' <NN-1 34' H' H 3' -E 3CC' 4$ 3D' H' F3' I HH4' ' $ 3

' $ 3' $ED' CC3CC3D' * $ 3C' J -C ' Q3' 1$ D

' 3C D3EN3' ' $ CH' 43X- 43D

WW ' ED' Q3' ' 3E$N 3D ' * F$ ' F3' I 43 J C3C' E' 43C13N ' H&' F3' <NN-1$ HE' H&' F NF' $EO' I 34CHE' CF$ ' Q3' 3E 3D' H' Q3' 432 C 343D' E' $EO' =3$4 ' $ED' H' H 3' E' F3' ; 3N HE' &H4' $EO' @ O' H4' BH4H-2F' $C' $&H43 ' C$ D ' CF$ ' EH ' Q3' 43X- 43D' H' Q3' F3' C$ J 3' I 43 J C3C ' Q- ' J $O' Q3

I 4H C HE' $C' H' I 43 J C3C HNN-1 3D' J

' ?

D &&343E ʻ I 43 J C3C HNN-1 3D E J J 3D $ 3 ?-NN3CC HE QO C-NF I 34CHE D-4 E2 F3 * 3 3 @$ 3ED$4 P HE FC E3 ʻ 143 H-C H F3 $C ʻG$O H& ?3% ʻ E C-NF =3$4 ʻ?-NF I 34CHE F$ E2 1$ D ʻHE H4 Q3&H43 F3 * 3E 3 F G$O H& ?3% ʻ E C-NF =3$4 ʻ $ ʻ F3 I HH4 C ʻ $ 3C $ED CC3CC3D *$ 3C F NF CF$ ʻ 143 H-C O H F3 ? F G$O H& / 5 % F3E E3 ʻ 143N3D E2 F$ 3 Q3NH J 3 1OQ 3 &4H J ʻ F J ʻ E 43C13N ʻ H& $ ʻ C-NF I 43 J C3C CH HNN-1 3D QO F J ʻ E ?-NN3CC HE

C H(H E ʻ <NN-1 34C ʻ

WW W ʻ ED Q3 ʻ 3E$N 3D ʻ *F$ ʻ F343 $EO I 43 J C3C $C $&H43C$ D E $EO C-NF @ O H4 BH4H-2F ʻ H4 E $EO I $N3 CF$4 E2 E F3 ; 3N HE F343 F ʻ CF$ ʻ Q3 (H E O HNN-1 3D QO J H43 I 34CHEC F$E <E3 $C < E34C H4 *3E$E C ʻ 3$NF H& C-NF (H E ʻ <NN-1 34C CF$ ʻ C-Q(3N ʻ H F3 @HED HEC F343 E Q3&H43 NHE $ E3D $C H I 34CHEC HNN-10 E2 I 43 J C3C E $EO C-NF @ O ʻ BH4H-2F ʻ H4 I $N3 ʻ Q3 3E 3D H H 3 E F3 ; 3N HE &H4 C-NF @ O H4 BH4H-2F ʻ E 43C13N ʻ H& F3 I 43 J C3C CH (H E O HNN- ʻ 1 3D ʻ E N$C3 F3 N 3$4 O3$4 O $ -3 H& C-NF I 43 J C3C CF$ ʻ Q3 H& $E J H-E ʻ F NF ʻ F3E D D3D QO F3 , - J Q34 H& C-NF <NN-1 34C ʻ CF$ ʻ 2 3 $?- J ʻ H& EH ʻ 3CC F$E *3E ʻ I H-EDC &H4 3$NF $ED 3 34O C-NF <NR N-1 34 ʻ Q- ʻ EH ʻ H F34 C3

<NN-1 34C J$O D3 J$ED H Q3 4$ 3D

WWW ʻ ED Q3 ʻ 3E$N 3D ʻ *F$ ʻ E 3 34O @ O H4 BH4H-2F F NF CF$ ʻ 43 -4E $ P 3 J Q34 H4 P 3 J Q34C H C34 3 E $EO &- -43 I $4 $ ʻ J 3E ʻ $ED E 3 34O I $N3 CF$4 E2 E F3 ; 3N HE &H4 C-NF @ O H4 BH4H-2F ʻ ʻ CF$ ʻ Q3 $ &- ʻ &H4 $EO I 34CHE HNN-10 E2 $EO 8 H-C3 ʻ 9 $43FH-C3 ʻ @H-E E2 FH-C3 ʻ ?FH1 ʻ H4 H F34 B- D E2 ʻ 3 F34 C31$R 4$ 3 O ʻ H4 (H E O F $EO >$ED HNN-1 3D F343 F QO F J ʻ $C < E34 ʻ H4 HNN-1 3D F343 F QO F J ʻ $C *3E$E ʻ -ED34 F3 C$ J 3 >$ED H4D ʻ E $EO I $4 CF H4 *H ECF 1 E F NF F343 CF$ ʻ Q3 $ ʻ $ 3 &H4 F3 ʻ 3 3& H& F3 I HH4 ʻ H N $ J ʻ H Q3 4$ 3D H F3 ʻ 3 3& H& F3 I HH4 ʻ E 43C13N ʻ H& C-NF I 43 J C3C ʻ F3 F34 F3 >$ED H4D CF$ ʻ H4 CF$ ʻ EH ʻ Q3 $Q 3 < Q3 4$ 3D H F3 ʻ 3 3& H& F3 I HH4 E 43C13N ʻ F343H&d $ED -1HE C-NF <NN-1 34 CH N $ J E2 $ED $N -$ O 1$O E2 H4 3ED34 E2 F3 &- ʻ J H-E ʻ H& F3 ʻ $ 3 H4 ʻ $ 3C & $EO ʻ F3E D-3 E 43C13N ʻ H& C-NF I 43 J C3C ʻ F3 < 34C334C H& F3 I $4 CF H4 *H ECF 1 E F NF C-NF I 43 J C3C $43 C -$ 3 $43 F343QO 43X- 43D H 1- ʻ F3 , $ J 3 H& C-NF <NN-1 34 -1HE F3 ʻ $ 3 &H4 F3 * J 3 Q3 E2 ʻ $ED E N$C3 C-NF < 34C334C CF$ ʻ E32 3N ʻ H4 43&-C3 CH H DH ʻ C-NF <NN-1 34 CF$ ʻ E3 34 F3 3CC &H4 F3 I -41HC3C H& F C N ʻ Q3 D33 J 3D H F$ 3 Q33E 4$ 3D H F3 ʻ 3 3& H& F3 I HH4 E 43C13N ʻ H& C-NF I 43 J C3C &4H J ʻ F3 I 34 HD $ ʻ F NF F3 ʻ $ 3 CF$ ʻ F$ 3 Q33E J $D3 E 43C13N ʻ H& F NF F3 CF$ ʻ F$ 3 CH N $ J 3D H Q3 4$ 3D $C $&H43C$ D: I 4H D3D $ $OC ʻ F$ ʻ F343 QO 4 -3 H& $EO N ʻ H& I $4 $ J 3E ʻ F3 >$EDR H4D CF$ ʻ Q3 $Q 3 H F3 I $O J 3E ʻ H& F3 ʻ $ 3 &H4 F3 ʻ 3 3& H& F3 I HH4 E 43C13N ʻ H& $EO I 43 J C3C HNN-1 3D QO F C *3E$E ʻ EH F E2 F343 E NHE $ E3D CF$ ʻ Q3 D33 J 3D H $4O H4 D CNF$423 F3 > $Q O H& C-NF >$ED H4D ʻ Q- ʻ F$ ʻ E N$C3 ʻ F3 *3E$E ʻ F1 CF$ ʻ F$ 3 Q33E 4$ 3D &H4 C-NF I 43 J C3C E NHEC3X-3EN3 H& $EO C-NF @ $ J ʻ $C $&H43C$ D CF$ ʻ J $+3 G3&$- ʻ E F3 I $O J 3E ʻ H& F3 I HH4 C ʻ $ 3 D-3 E 43C13N ʻ F343H& ʻ C-NF >$ED H4D CF$ ʻ Q3 $ED 43 J $ E $Q 3 &H4 F3 I $O J 3E ʻ F343H& E F3 C$ J 3 P $EE34 $C & F3 $ HE3 F$D Q33E 4$ 3D E 43C13N ʻ H& F3 I 43 J C3C CH HNN-1 3D QO F C *3E$E

WWW ʻ ED'Q3' ʻ 3E$N 3D' *F$' E' 3 340' @ O' H4' *H E' Q3 E2' $' I4H C HE' $C'
@H-E O' H&' C3 &' E' F3' ; 3N HE' '&H4' F NF' 6433FH D34C' H4' B-42$23' H' 6433FH D'
*3E$E C' 3 F34' F' H4' FH-' $EO' C-134$DD3D' \-$ & N$ HE' EH ' 340H-E('&H4
F$ 3' $' ' 2F' H' H 3'3 340' C-NF' 6433FH D34' H4' B-42$23' *3E$E 'CF$ ' ECQ3 E2'
Q3' 3E 3D' H' H 3' E' F3' ; 3N HE' H&' $' P3 J Q34' H4' P3 J Q34C' H' C34 3' NH-E 3C' H&
E' $ ' &H -43' I$4 $J3E C' &H4' C-NF' @ O' H4' *H E' 14H D3D' F3' CF$ ' F3 JC3 3C'
Q3' D- O' 432 C 343D' $NNH4D E2' H' F3' I4H C HEC' F343 E $& 34' NHE $ E3D'
Q- ' F$' EH' C-NF' I34CHE' CF$ 'Q3' CH' 432 C 343D' E' $EO' =3$4' E' 43C13N'
H&' $EO' 6433FH D' H4' B-42$23' *3E3 J 3E ' -E 3CC' F3' CF$ 'F$ 3' Q33E' E'
F3' $N -$' IHCC3CC HE' F343H&' H4' E' F3' '3N3 1' H&' F3' '3E C' $ED'
I4H& C' F343H&' &H4' F C' H E' #C3' &H4' * 3 3' @$ 3ED$4' P HE FC' E3 '
143 H-C' H' F3' $C 'G$O' H&' ?3% U' E' C-NF' =3$4' ^3 N31 ' F343' F3' C$J3'
CF$ ' F$ 3' NH J 3' H' F J ' $' $EO' * J 3' F E' C-NF' * 3 3' P HE FC'
QO' G3CN3E '?-NN3CC HE' P$44 $23' P$44 $23' ?3 3 J 3E ' G3 C3' H4'
I4H J H HE' H' $EO' B3E3& N3' E' $' @F-4NF' H4' H' $EO' <&& N3 _' EH4' -E 3CC'
F3' CF$ 'F$ 3' 43C D3D' &H4' ? ' @$ 3ED$4' P HE FC' E3 ' 143 H-C' H' F3'
$C ' G$O' H&' ?3% ' E' C-NF' =3$4' F E' C-NF' @ O' H4' *H E' H4' F E'
?3 3E' ? $ - 3' P 3C' F343H&' H4' H&' $EO' I$4' F343H&'. I4H D3D' $ $OC'
F$' EH F E2' E' F C' ; E$N J 3E' NHE $ E3D' CF$ ' Q3' D33 J 3D' H' $4O' H4'
$Q4 D23' F3' I4H C HEC' F343 E Q3&H43' J $D3' 43 $ 3' H' F3' ' 2F' H&'
H E2' &H4' $EO' @ O' H4' *H E' Q3 E2' $' @H-E O' H&' C3 &' E' 43C13N' H&'
$EO' 6433FH D' &H4' > &3' H4' > 3C'. I4H D3D' $ CH' F$' 3 340' 6433FH D' *H' 3 3ED' H
H4' B-42$23' *3E3 J 3E ' F NF' J $O' Q3' C -$ 3' FH-' F3' 143C3E'
> J C' H&' $EO' C-NF' @ O' H4' *H E' Q3 E2' $' @H-E O' H&' C3 &' Q- ' BH-E'
F E' F3' > J C' H&' C-NF' @ O' H4' *H E' $C' F3' C$J3' CF$ 'Q3' C3 3D' D$4 3C'
$ED' D3CN4 Q3D' QO' F3' N ' H' Q3' 1$CC3D' &H4' F$' I -41HC3' $C' F343 ER
Q3&H43' J 3E HE3D' CF$ ' NHE&34' F3' ' 2F' H&' H E2' E' F3' ; 3N HE'
H&' $' P3 J Q34' H4' P3 J Q34C' H' C34 3' E' $EO' &- -43' I$4 $J3E' &H4'
C-NF' @ O' H4' *H E' E' F3' C$J3' P$EE34' $C' &' C-NF' 6433FH D' H4'
B-42$23' *3E3 J 3E ' 343' C -$ 3' F E' F3' 143C3E' > J C' F343H&

WWW ʻ ED'Q3' '3E$N 3D' *F$'3 340' I34CHE' FH' H- D' F$ 3' Q33E' 6433 J 3E' EH'
3E 3D' H' H 3' E' F3' ; 3N HE' H&' $' P3 J Q34' H4' P3 J Q34C' H' C34 3' E' H' H 3' E'
$EO' &- -43' I$4 $J3E' &14' $EO' @ O' H4' BH4H-2F' EH ' EN -D3D' E' F3' BH4H-2FC'
?NF3D- 3' J $4+3D' ^ _' H' F C' N ' $EE3 3D' 3 F34' $C' $' B-423CC' H4' -E 3CC' 43C R D3E ' KN
6433 J $E' H4' E' F3' @ O' H&' <,#&,#' $C' $' 6433 J $E' $ED' > 340 J $E' &'
F C' N 'F$D' EH 'Q33E' 1$CC3D' CF$ 'Q3' 3E 3D' H' H 3' E' C-NF' ; 3N HE'
14H D3D' C-NF' I34CHE' CF$ ' (3' D- O' 432 C 343D' $NNH4D E2' H' F3' I4HR
C HEC' F343 E $& 34' NHE $ E3D' Q- ' F$' EH' C-NF' I34CHE' CF$ ' Q3' CH'
432 C 343D' E' $EO' =3$4' -E 3CC' F3' CF$ ' HE' F3' $C ' G$O' H&' ?3% ' E'
C-NF' =3$4' Q3' X-$ & 3D' E' C-NF' P$EE34' $C' H- D' 3E 3' F J ' F3E' H'
H 3' &' C-NF' G$O' 343' F3' G$O' H&' ; 3N HE' $ED' F C' N ' F$D' EH '
Q33E' 1$CC3D' EH4' -E 3CC' F343' F3' CF$ ' Q3' $' B-423CC' H4' 6433 J $E' H4'
6433 J $E' $ED' > 340 J $E' H&' $EO' @ O' H4' BH4H-2F' F3' CF$ 'F$ 3' 43C D3D'
&H4' ? ' @$ 3ED$4' P HE FC' E3 ' 143 H-C' H' F3' $C ' G$O' H&' ?3% ' E'
C-NF' =3$4' F E' C-NF' @ O' H4' BH4H-2F' H4' F E' ?3 3E' ? $ - 3'
P 3C' &4H J ' F3' I $N3' F343' F3' I H '&H4' C-NF' @ O' H4' BH4H-2F' CF$ '
F343 H&H43' F$ 3' Q33E' $+3E' EH4' -E 3CC' F343' F3' CF$ 'Q3' $' B-423CC' H4'
6433 J $E' H&' $EO' I $N3' CF$4 E2' E' F3' ; 3N HE' &H4' $EO' @ O' H4'
BH4H-2F' F3' CF$ 'F$ 3' 43C D3D' &H4' ? '@$ 3ED$4' P HE FC' E3 '143 H-C'
H' F3' $C ' G$O' H&' ?3% ' E' C-NF' =3$4' F E' C-NF' 43C13N 3' I $N3'
CH' CF$4 E2' $C' $&H43C$ D' H4' F E' ?3 3E' ? $ - 3' P 3C' H&' F3'
I $N3' J 3E HE3D' E' NHE(-EN HE' F' C-NF' 43C13N 3' I $N3' CH
CF$4 E2

CF$4 E2' $C' $&H43C$ D' $ED' E$E$3D' E' F3' ?3NHED' @H - E' H&' F3'
; N-CHE' H&' ?NF3D- 3' E $4+3D' ^; ' _ ' H' F C' N '$EE3 3D'. I4H D3D' $ $OC'
6433J3E' X43' F$ ' G< I34CHE' FH' CF$ ' F$ 3' Q33E' 3 3N 3D' J$D3' H4' $D J 3D' $
6433J$E' C EN3' F3' 6 4C' G$O' H&' ')' 6#,' FH-C$ED'
C'H&' P$4NF 3 2F 'F-ED43D' $ED' F 4 0 HE3' H F34 C3' F$E' E' 43C13N' H&' B 4 F' H4'
?34 -D3' H4' FH' CF$ ' F343$& 34' Q3' 3 3N 3D' J$D3' H4' ; J 3D'
$' B-423CC' H4' 6433J$E' H F34 C3' F$E' E' 43C13N' H&' B 4 F' H4' ?34R
-D3' CF$ ' Q3' 3E 3D' H' H 3' $C' C-NF' E' $EO' C-NF' ; 3N HE' &H4'
$EO' @ O' H4' BH4H-2F' $C' $&H43C$ D' H4' H' Q3' CH' 432 C 343D' $C' $&H43C$ D'.
; N3(5 HE I4H D3D' $ CH' F$' EH' I34CHE' CF$ ' Q3' CH' 3E 3D' $C' $' B-423CC' H4'
6433J$E' E' 43C13N' H&' B 4 F' -E 3CC' F C' ' 2F ' Q3' H4 2 E$ O' D34 3D'
&4H J' H4' F4H-2F' CH J3' I34CHE' FH' $C' $' B-423CC' H4' 6433J$E' H4'
3E 3D' H' Q3' $D J 3D' $' B-423CC' H4' 6433J$E' 143 H-C O' H' F3'
6 4C' G$O' H&' ')' E' F3' =3$4' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED'
F 4 0 HE3' H4' &4H J' H4' F4H-2F' CH J3' I34CHE' FH' C EN3' F$' * J3'
CF$ ' F$ 3' Q3NH J3' H4' CF$ ' F343$& 34' Q3NH J3' $' B-423CC' H4' 6433J$E'
I4H CHE' $C' E' 43C13N' H&' ?34 -D3'. I4H D3D' $ CH' F$' 3 340' I34CHE' FH' H- D'
H' F3' 6433R F$ 3' Q33E' 3E 3D' &' F C' N ' F$D' EH' Q33E' 1$CC3D' H' H 3' $C' $'
J3E' H&' ? $E B-423CC' H4' 6433J$E' H&' +F #1! ' <,3(), ' E!)' /4! 0,#' H4' Z#'
,3$F' Q34' F3' ; 3N HE' H&' $' P3J Q34' H' C34 3' E' $EO' &- -43' I$4 $J3E
$4HE' $ED' F3' BH4H-2F' H&' I & ' CF$ ' N3$C3' H' H 3' E' C-NF' ; 3N HE' $ED
a(%?)*' CF$ ' EC 3$D' F343H&' Q3' 3E 3D' H' H 3' $C' C-NF' B-423CC' H4' 6433J$E'
E' F3' ; 3N HE' H&' $' P3J Q34' H' C34 3' E' $ '&- -43' I$4 $J3E C' &H4' F3'
BH4H-2F' NH J1HC3D' H&' F3' *H EC' H&' +F #1! ' <,3(), ' E!)'
/4! 0,#' $ED' !# U (' C-Q(3N' $ $OC' H' F3' I4H C HEC' F343 E Q3&H&3'
NHE $ E3D' F' 432$4D' H' $' B-423CC' H4' 6433J$E' H&' $EO' I $N3' CF$4 E2'
E' F3' ; 3N HE' &H4' $EO' @ O' H4' BH4H-2F

'3C34 $ HE' H&' H F34' ' 2F C' H&' H E2' E' BH4H-2FC WWW ' ED' Q3' '3E$N 3D' *F$' EH' I34CHE' CF$ ' Q3' 3E 3D'
H 3' E' F3' ; 3N HE' H&' $' P3J Q34' H4' P3J Q34C' H' C34 3' E' $EO' &- -43'
I$4 $J3E' &H4' $EO' @ O' H4' BH4H-2F' C$ 3' $ED' 3 N31 ' E' 43C13N' H&'
CH J3' ' 2F 'NHE&3443D' QO' F C' N ' H4' $C' $' B-423CC' H4' 6433J$E' H4' $C'
$' 6433J$E' $ED' > 340J$E' H4' E' F3' @$C3' H&' $' @ O' H4' *H E' Q3 E2'
$' @H-E O' H&' C3 &' $C' $' 6433FH D34' H4' B-42$23' *3E$E ' $C' F343 ER
Q3&H43' J3E HE3D'. I4H D3D' $ $OC' F$' 3 340' I34CHE' EH 'F$ E2' $'
' 2F ' H' H 3' E' F3' ; 3N HE' &H4' $EO' @ O' H4' BH4H-2F' ^3 N31 ' FHC3'
3E- J34$ 3D' E' F3' C$ D' ?NF3D- 3' ^ _ ' E' 4 -3' H&' $EO' H F34' \-$ R
&N$ HE' F$E' $C' $' B-423CC' H4' 6433J$E' H4' $C' $' 6433J$E' $ED' > 340R
J$E' H4' E' F3' @$C3' H&' $' @ O' H4' *H E' Q3 E2' $' @H-E O' H&' C3 &' $C'
$' 6433FH D34' H4' B-42$23' *3E$E ' $C' F343 E Q3&H43' J3E HE3D' CF$ '
43 $E' C-NF' ' 2F ' H&' H E2' CH' HE2' $C' F3' CF$ 'Q3' X-$ & 3D' $C' $E'
; 3N H4' $NNH4D E2' H' F3' #C$23C' $ED' @-C H J C' H&' C-NF' @ O' H4'
BH4H-2F' H4' $EO' >$ 'EH ' E' &H4N3' $ED' C-NF' I34CHE' CF$ 'Q3' 3E 3D'
H' H 3' E' F3' ; 3N HE' H&' $' P3J Q34' H4' P3J Q34C' H' C34 3' E' $EO'
&- -43' I$4 $J3E' &H4' C-NF' @ O' H4' BH4H-2F' &' D- O' 432 C 343D'
$NNH4D E2' H' F3' I4H C HEC' F343 E $& 34' NHE $ E3D' ' Q- ' F$' EH' C-NF'
I34CHE' CF$ 'Q3' CH' 432 C 343D' E' $EO' =3$4' -E 3CC' F3' CF$ ' HE' F3' $C'
G$O' H&' ?3% ' E' C-NF' =3$4' Q3' X-$ & 3D' $C' C-NF' ; 3N H4' E' C-NF'
P$EE34' $C' H- D' 3E 3' F J' F3E' H' H 3' &' C-NF' G$O' 343' F3' G$O'
'3C D3EN3 H&' ; 3N HE' $ED' F C' N ' F$D' EH' Q33E' 1$CC3D' EH4' -E 3CC' C-NF' I34'
KN' 43X- 43D' 2HE' F343' F C' \-$ & N$ HE' CF$ 'Q3' E' $EO' @ O' H4' BH4H-2F' CF$ 'F$ 3'
43C D3D' &H4' ? '@$ 3ED$4' P HE FC' E3 '143 H-C' H' F3' $C 'G$O' H&' ?3% '
E' C-NF' =3$4' F E' C-NF' @ O' H4' BH4H-2F' H4' F E' ?3 3E' ?&3D- 3' P 3C
&4H J

&4H J F3 I $N3 F343 F3 I H &H4 C-NF @ O H4 BH4H-2F CF$ F343 H&H43 F$ 3 Q33E $+3E EH4 -E 3CC C-NF I34CHE F343 F C \-$ & N$ HE CF$ Q3 F E $EO I $N3 CF$4 E2 E F3 ; 3N HE &H4 $EO @ O H4 BH4H-2F CF$ F$ 3 43C D3D &H4 ? @$ 3ED$4 P HE FC E3 143 H-C H F3 $C G$O H& ?3% E C-NF =3$4 F E C-NF 43C13N 3 I $N3 CH CF$4 E2 $C $&H43C$ D H4 F E ?3 3E ? $ - 3 P 3C H& F3 I $N3 J 3ER HE3D E NHE(-EN HE F C-NF 43C13N 3 I $N3 CH CF$4 E2 $C $&H43R C$ D $ED E$ J 3D E F3 ?3NHED @H - J E H& F3 ?NF3D- 3 J $4+3D ^ ; H F C N $EE3 3D I4H D3D E3 34 F3 3CC F$ 3 34O C-NF I34CHE CF$ &H4 3 34 N3$C3 H 3E(HO C-NF 2F H& H E2 &H4 $EO C-NF @ O H4 BH4H-2F $C $&H43C$ D & F C , $ J 3 CF$ F$ 3 Q33E H J 3D &H4 * H C-NN3CC 3 =3$4C &4H J F3 32 C 34 H& C-NF H 34C &H4 C-NF @ O H4 BH4H-2F F343 E $& 34 D 43N 3D H Q3 J $D3 -E 3CC F3 CF$ F$ 3 Q33E CH H J 3D E NHEC3X-3EN3 H& F C F$ E2 43N3 3D I $4HNF $ 3 3& F E * 3 3 @$ 3ED$4 P HE FC E3 143 H-C H F3 $C G$O H& ?3% E $EO =3$4 H4 E NHEC3X-3EN3 H& F C QC3EN3 HE F3 , $ $ H4 P $4O ?34 N3 H& 8 C P $(3C O

WWW ED Q3 3E$N 3D * F$ 3 34O I34CHE EH F$ E2 $ 2F I4H C HE $C H H 3 &H4 F3 BH4H-2F H& E ! 1 +) , !) H4 H& I % &! / %!143 H4 8 1 L ! , & 43C13N 3 O E 43C13N H& $EO 6433FH D F343CH3 34 F3 C$ J 3 J $O Q3 C -$ 3 CF$ 43 $ E C-NF 2F H& H E2 C-Q(3N ,3 ?FH43 $ $OC H F3 C$ J 3 I4H C HEC $C $43 F343 E Q3&H43 J 3E HE3D F F$ J @4 N+ 432$4D H I34CHEC FHC3 2F H& H E2 &H4 $EO BH4H-2F C C$ 3D $ED 43C34 3D QO F C N C$ 3 $ED 3 N31 F$ C-NF I34CHEC EH 3 & J D E F$ E2 $ 2F H H 3 &H4 F3 BH4H-2F H& E! F +) , !) H4 H& 43C13N H& I % &! / %!143 H4 8 1 L ! , & 43C13N 3 O CF$ EH Q3 6433FH DC 432 C 343D E $EO =3$4 -E 3CC F3O CF$ F$ 3 43C D3D &H4 ? @$ 3ED$4 P HE FC E3 143 H-C H F3 $C G$O H& ?3% E C-NF =3$4 F E F3 BH4H-2F H& E! 1 +) , !) H4 H& I % &! / %!143 H4 8 1 L ! , & 43C13N 3 O $C D3& E3D QO F C N H4 F E ?3 3E ? $ - 3 P 3C H& C-NF 43C13N 3 BH4H-2F H4 H& $EO I $4 F343H& $ED F$ &H4 F3 I -41HC3 H& F3 32 C 4$ HE F343 E $& 34 43X- 43D $ I34CHEC EH F$ E2 $ 2F H H 3 &H4 F3 BH4H-2F H& E ! F +) , !) E 43C13N H& $EO 6433FH DC F NF J $O Q3 C -$ 3 E F3 BH4H-2F H& , 1) H4 &H4 F3 BH4H-2F H& I % &! E 43C13N H& $EO 6433R FH DC F NF J $O Q3 C -$ 3 E F3 BH4H-2F H& % 143 $C C-NF BH4H-2FC H& , 1) H4 % 143 J $O 43C13N 3 O Q3 D3& E3D QO F3 N H Q3 1$CC3D &H4 F$ I -41HC3 $C F343 E Q3&H43 J 3E HE3D CF$ Q3 EC34 3D E F3 > C H& H 34C F343 E $& 34 D 43N 3D H Q3 J $D3 QO F3 < 34C334C H& F$ I $4 CF H4 * H ECF 1 F E F3 BH4H-2F H& E ! F +) , !) H4 F3 BH4H-2F H& I % &! 43C13N 3 O $C D3& E3D QO F C N F NF CF$ Q3 E3 $D(H E E2 H F3 I $4 CF H4 * H ECF 1 E F NF C-NF 6433FH DC CF$ 43C13N 3 O Q3 C -$ 3 $ED & F3 I $4 CF H4 * H ECF 1 E F NF $EO C-NF 6433FH DC CF$ Q3 C -$ 3 CF$ $D(H E * H H4 J H43 I $4 CF3C H4 * H ECF 1C F E 3 F34 H& F3 C$ D BH4H-2FC H& E ! F +) , !) H4 I % &! F3 I34CHEC CH F$ E2 $ 2F H H 3 E 43C13N H& C-NF 6433FH DC CF$ Q3 EC34 3D E F3 > C H& H 34C H Q3 J $D3 QO F3 < 34C334C H& F3 3$C 1H1- H-C H& C-NF $D(H E E2 I $4 CF3C H4 * H ECF 1C $NNH4D E2 H F3 $C @3EC-C &H4 F3 * J 3 Q3 E2

; N -C HEʻ H&ʻ N34 $ Eʻ ʻ 2F Cʻ H&ʻ H E2ʻ Eʻ BH4H-2FCʻ $NR X- 43Dʻ C EN3ʻ F3ʻ Cʻ ʻH&ʻ P$4NFʻ ZS

ʻ WWW ʻ I4H D3Dʻ E3 34 F3 3CC ʻ $EDʻ Q3ʻ ʻ 3E$N 3D ʻ *F$ ʻ EH FR C $ED E2ʻ $EOʻ F E2ʻ F343 E4Q3&H43ʻ NHE $ E3Dʻ EHʻ I34CHEʻ CF$ ʻ Q3ʻ 3E 3Dʻ Hʻ H 3ʻ Eʻ F3ʻ ; 3N HEʻ H&$ʻ P3JQ34ʻ H4ʻ P3JQ34Cʻ Hʻ C34 3ʻ Eʻ $EOʻ &- -43ʻ I$4 $J3E ʻ&H4ʻ $EOʻ @ Oʻ H4ʻ BH4H-2Fʻ ^H F34ʻ F$Eʻ $ʻ @ Oʻ H4ʻ *H Eʻ Q3 E2ʻ $ʻ @H-E Oʻ H&ʻ C3 &ʻ Eʻ F3ʻ ; 3N HEʻ &H4ʻ F NFʻ 6433FH D34Cʻ H4ʻ B-42$23ʻ *3E$E Cʻ F$ 3ʻ $ʻ ʻ 2F ʻ Hʻ H 3ʻ $Cʻ F343 E Q3&H43ʻ J3E HE3D _ʻ Eʻ 43C13N ʻ H&ʻ $EOʻ ; C $ 3ʻ H4ʻ E 343C ʻ Eʻ $EOʻ B-42$23ʻ *3E3 J3E ʻH4ʻ 6433FH Dʻ F NFʻ CF$ ʻF$ 3ʻ Q33Eʻ $NX- 43Dʻ QOʻ C-NFʻ I34CHEʻ C EN3ʻ F3ʻ 6 4C ʻ G$Oʻ H&ʻ <E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ F 4 O HE3 ʻ -E 3CCʻ F3ʻ C$J3ʻ CF$ ʻ F$ 3ʻ NHJ3ʻ Hʻ H4ʻ Q33E ʻ $NX- 43Dʻ QOʻ C-NFʻ I34CHE ʻ C EN3ʻ F$ ʻ G$O ʻ $EDʻ 143 H-C Oʻ Hʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ FOʻ G3CN3E ʻ ?-NN3CC HE ʻ P$4R 4 $23 ʻ P$44 $23ʻ ?3 3J3E ʻ G3 C3 ʻ H4ʻ I4HJH HEʻ Hʻ $EOʻ B3E3& N3ʻ Eʻ $ʻ @F-4NF ʻ H4ʻ FOʻ I4HJH HEʻ Hʻ $EOʻ <&& N3

Cʻ Hʻ ʻ3N3 1ʻ H&ʻ I$4HNF $ʻ ʻ3 3&

WWW ʻ EDʻ Q3ʻ ʻ3E$N 3D ʻ *F$ ʻ EHʻ I34CHEʻ CF$ ʻ Q3ʻ 3E 3Dʻ Hʻ Q3ʻ 432 C 343Dʻ Eʻ $EOʻ =3$4ʻ $Cʻ $ʻ H 34ʻ Eʻ F3ʻ ; 3N HEʻ H&ʻ $ʻ P3JQ34ʻ H4ʻ P3JQ34Cʻ Hʻ C34 3ʻ Eʻ $EOʻ &- -43ʻ I$4 $J3E ʻ &H4ʻ $EOʻ @ Oʻ H4ʻ BH4H-2Fʻ FHʻ CF$ ʻ F Eʻ * 3 3ʻ @$ 3ED$4ʻ PHE FCʻ E3 ʻ143 H-Cʻ Hʻ F3ʻ $C ʻ G$Oʻ H&ʻ ?3% ʻ Eʻ C-NFʻ =3$4ʻ F$ 3ʻ 43N3 3Dʻ I$4HNF $ʻ ʻ3 3&ʻ H4ʻ H F34ʻ JCʻ F NFʻ QOʻ F3ʻ >$ ʻ H&ʻ I$4 $J3E ʻ EH ʻ D CX-$ &Oʻ &4HJ ʻ H E2ʻ Eʻ F3ʻ ; 3N HEʻ H&ʻ P3JQ34Cʻ Hʻ C34 3ʻ Eʻ I$4 $J3E

< 34C334Cʻ Hʻ 2 3ʻ ,H N3ʻ $EE-$ Oʻ 43X- 4 E2ʻ @H-E Oʻ H 34Cʻ Hʻ C3EDʻ Eʻ F3 4ʻ @$ JC

WWW ʻ EDʻ F343$Cʻ ʻ Cʻ 3 13D 3E ʻ Hʻ &H4J ʻ $ʻ ʻ32 C 34ʻ H&ʻ $ ʻ I34CHECʻ 3E 3Dʻ Hʻ H 3ʻ Eʻ F3ʻ ; 3N HEʻ H&ʻ $ʻ %E 2F ʻ H4ʻ %E 2F Cʻ H&ʻ F3ʻ ?F 43ʻ Hʻ C34 3ʻ Eʻ $EOʻ &- -43ʻ I$4 $J3E ʻ $EDʻ F$ ʻ &H4ʻ F3ʻ I-41HC3ʻ H&ʻ &H4J E2ʻ C-NFʻ ʻ32 C 34ʻ F3ʻ < 34C334Cʻ H&ʻ 3 34Oʻ I$4 CFʻ $EDʻ *H ER CF 1ʻ CFH- Dʻ $EE-$ Oʻ J$+3ʻ H- ʻ > C Cʻ Eʻ F3ʻ P$EE34ʻ F343 E $& 34ʻ J3E HE3Dʻ (Q3ʻ ʻ F343&H43ʻ 3E$N 3D ʻ *F$ ʻ F3ʻ < 34C334Cʻ H&ʻ F3ʻ IHH4ʻ H&ʻ 3 34Oʻ I$4 CFʻ $EDʻ *H ECF 1ʻ CF$ ʻ HEʻ F3ʻ * 3E 3 Fʻ G$Oʻ H&ʻ ?3#!ʻ Eʻ F3ʻ 143C3E ʻ$EDʻ Eʻ 3 34Oʻ C-NN33D E2ʻ =3$4ʻ N$-C3ʻ Hʻ Q3ʻ & 3Dʻ HEʻ H4ʻ E3$4ʻ F3ʻ GHH4Cʻ H&ʻ $ ʻ F3ʻ @F-4NF3Cʻ $EDʻ @F$13 Cʻ F Eʻ C-NFʻ I$4 CFʻ H4ʻ *H ECF 1 ʻ H4ʻ &ʻ F343ʻ Q3ʻ EHʻ @F-4NFʻ H4ʻ @F$13 ʻ F343 E ʻ F3Eʻ Hʻ Q3ʻ & 3Dʻ Eʻ CHJ3ʻ 1-Q Nʻ $EDʻ NHEC1 N-H-Cʻ ? -$ HEʻ F Eʻ F3ʻ C$J3ʻ 43C13N 3 O ʻ $ʻ ,H N3ʻ $NNH4D E2ʻ Hʻ F3ʻ 6H4J ʻ E- JQ343Dʻ ʻ Eʻ F3ʻ ?NF3D- 3ʻ ^8 _ʻ Hʻ F Cʻ N ʻ $EE3 3D ʻ 43X- 4 E2ʻ $ ʻ I34CHECʻ FHʻ J$Oʻ Q3ʻ 3E 3Dʻ Hʻ H 3ʻ Eʻ F3ʻ ; 3N HEʻ H&ʻ $ʻ %E 2F ʻ H4ʻ %E 2F Cʻ H&ʻ F3ʻ ?F 43ʻ Hʻ C34 3ʻ Eʻ $EOʻ &- -43ʻ I$4 $J3E ʻ Eʻ 43C13N ʻ H&ʻ $EOʻ I4H134 Oʻ C -$ 3ʻ FH Oʻ H4ʻ Eʻ 1$4 ʻ Eʻ C-NFʻ I$4 CFʻ H4ʻ *H EC 1ʻ Hʻ D3 34ʻ H4ʻ 4$ECJ ʻ Hʻ F3ʻ C$Dʻ < 34C334Cʻ HEʻ H4ʻ Q3&H43ʻ F3ʻ * 3E 3 Fʻ G$Oʻ H&ʻ ?3% ʻ Eʻ F3ʻ 143C3E ʻ$EDʻ Eʻ 3 34Oʻ C-NN33D E2ʻ =3$4ʻ $ʻ ,H N3ʻ H&ʻ F3 4ʻ @$ Jʻ $Cʻ C-NFʻ H 34Cʻ $NNH4D E2ʻ Hʻ F3ʻ 6H4J ʻ E- JQ343Dʻ ʻ Eʻ F3ʻ C$Dʻ ?NF3R D- 3ʻ ^8 _ ʻ H4ʻ Hʻ F3ʻ +3ʻ ; &&3N : I4H D3Dʻ $ $OC ʻ F$ ʻ$& 34ʻ F3ʻ 6H4R

I34CHECʻ HEN3ʻ HEʻ F3ʻ ʻ32 C 34ʻ EH ʻ 43X- 43Dʻ Hʻ J$+3ʻ $EOʻ C-QC3X-3E ʻ @$ J

J$ HE H&ʻ F3ʻ ʻ32 C 34ʻ Hʻ Q3ʻ J$D3ʻ Eʻ 3$NFʻ =3$4 ʻ $Cʻ F343 E $& 34ʻ J3E HE3D ʻ EHʻ I34CHEʻ FHC3ʻ ,$J3ʻ CF$ ʻ Q3ʻ -1HEʻ C-NFʻ ʻ32 C 34ʻ &H4ʻ F3ʻ * J3ʻ Q3 E2ʻ CF$ ʻ Q3ʻ 43X- 43Dʻ F343$& 34ʻ Hʻ J$+3ʻ $EOʻ C-NFʻ @$ Jʻ $Cʻ $&H43C$ D ʻ CHʻ HE2ʻ $Cʻ F3ʻ CF$ ʻ43 $ Eʻ F3ʻ C$J3ʻ \-$ & N$ HE ʻ $EDʻ NHE E-3ʻ Eʻ F3ʻ C$J3ʻ I $N3ʻ H&ʻ QHD3ʻ D3CN4 Q3Dʻ Eʻ C-NFʻ ʻ32 C 34

< 34C334Cʻ Hʻ 1431$43ʻ > C Cʻ H&ʻ @H-E Oʻ H 34C ʻ $Eʻ

WWW ʻ EDʻ Q3ʻ ʻ3E$N 3D ʻ *F$ ʻ F3ʻ < 34C334ʻ H&ʻ F3ʻ IHH4ʻ H&ʻ 3 34Oʻ I$4 CFʻ $EDʻ *H ECF 1ʻ CF$ ʻHEʻ H4ʻ Q3&H43ʻ F3ʻ $C ʻ G$Oʻ H&ʻ ?3% ʻ Eʻ F3ʻ 143C3E ʻ =3$4ʻ J$+3ʻ H- ʻ H4ʻ N$-C3ʻ Hʻ Q3ʻ J$D3ʻ H- ʻ $NNH4D E2ʻ Hʻ F3ʻ ?NF3D- 3ʻ ^8 _ʻ $Eʻ $ 1F$Q3 N$ ʻ > C ʻH& $

$ ' I34CHEC FH CF$ 'N $ J' $C $&H43C$ D H Q3 EC34 3D E C-NF > C '$C H 34C E F3 ; 3N HE H&'$'%E 2F 'H4 %E 2F C H& F3 ?F 43 H C34 3 &H4 F3 @H-E O'H4 &H4 F3 ' D E2 ' I$4 C 'H4 G C HE H& F3 @H-E O F343 E C-NF I$4 CF H4 *H ECF 1' 3C ' E 43C13N ' H&' $EO >$EDC H4 *3E3 J 3E C C -$ 3 FH O H4 E 1$4 ' F E C-NF I$4 CF H4 *H ECF 1 ' $ED F$ ' F3 C$ D < 34C334C CF$ ' HE H4 Q3&H43 F3 $C 'G$O H& ?3% ' E 3 34O C-NN33D E2 =3$4 J $+3 H- 'H4 N$-C3 H Q3 J $D3 H- ' $ +3 > C ' NHER $ E E2 F3 , $ J 3C H& $ ' I34CHEC FH CF$ ' Q3 -1HE F3 ' 32 C 34 &H4 F3 * J 3 Q3 E2 $C C-NF H 34C '$ED $ CH F3 , $ J 3C H& $ ' I34CHEC FH CF$ 'N $ J' $C $&H43C$ D H Q3 EC34 3D E C-NF $C J 3E HE3D > C '$C C-NF H 34C '$ED E 3 34O > C 'CH H Q3 J $D3 QO F3 < 34C334C $C $&H43C$ D F3 @F4 C $E , $ J 3 $ED ?-4E$ J 3 H& 3 34O I34CHE CF$ ' Q3 4 3E $ ' &- ' >3E2 F ' H23 F34 F F3 I $N3 H& F C QHD3 ' F3 , $ -43 H& Q C \ -$ & N$ HE ' $ED ' F3 HN$ ' H4 H F34 G3CN4 1 HE H& C-NF >$EDC H4 *3E3 J 3E C ' $C F3 C$ J 3 $43 43C13N 3 O C3 '&H4 F E F C @ $ J' H H 3 '$ED F3 , $ J 3 H& F3 HNN-1O E2 *3E$E ' & C $ 3D E C-NF @ $ J' ' $ED F3 C$ D < 34C334C ' & F3O CF$ ' F$ 3 43CHEQ 3 @$-C3 H Q3 3 3 F$ '$EO I34CHE CH N $ J E2 $C $&H43C$ D ' H4 FHC3 , $ J 3 CF$ '$113$4 E F3 ' 32 C 34 &H4 F3 * J 3 Q3 E2 ' C EH '3E 3D H H 3 E F3 ; 3N HE H& $ %E 2F 'H4 %E 2F C H& F3 ?F 43 &H4 F3 @H-E O'H4 &H4 F3 ' D E2 ' I$4 C ' H4 G C HE H& F3 @H-E O E F NF F3 4 I$4 CF H4 *H ECF 1' C C -$ 3 ' CF$ ' F$ 3 IH 34 H $DD F3 9 H4DC `' HQ(3N 3D Hc H11HC 3 F3 , $ J 3 H& 3 34O C-NF I34CHE HE F3 P $42 E H&'C-NF > C ' $ED F3 C$ D < 34C334C CF$ ' C 2E C-NF > C ' $ED CF$ ' N$-C3 $ C-&& N 3E ' , - J Q34 H& @H1 3C H& C-NF > C ' H Q3 4 3E H4 14 E 3D ' $ED H Q3 & 3D HE H4 E3$4 F3 GHH4C H& $ ' F3 @F-4NF3C $ED @F$13 C F E F3 4 I$4 CF H4 *H ECF 1 ' H4 & F343 Q3 EH @F-4NF H4 @F$13 ' F343 E ' F3E H Q3 & 3D -1 E CH J 3 1-Q N $ED NHEC1 N-H-C ? -$ HE F E F3 C$ J 3 43C13N 3 O ' HE F3 * H +3#& 1 E3 ' $& 34 C-NF > C ' CF$ ' F$ 3 Q33E J $D3 ' $ED F3 C$ D < 34C334C CF$ ' +3 C3 +331 $ 4-3 @H1O H&'C-NF > C ' H Q3 134-C3D QO $EO I34CHE ' FH- ' I$O J 3E 'H& $EO 633 ' $ '$ ' 43CHEQ 3 8 H-4C D-4 E2 F3 * H & 4C ' 9 33+C $& 34 C-NF > C ' CF$ ' F$ 3 Q33E J $D3. I4H D3D $ $OC ' F$ '3 34O I43N EN 'H4 I $N3 ' F3 F34 3 4$ 1$4HNF $ ' H4 H F34 C3 ' F NF CF$ ' F$ 3 EH < 34C334C H& F3 IHH4 ' CF$ ' &H4 F3 I -41HC3 H& J $+ E2 H- ' C-NF > C ' $C $&H43C$ D Q3 D33 J 3D H Q3 F E F3 I$4 CF H4 *H ECF 1' $D(H E E2 F343 H ' C-NF I$4 CF H4 *H ECF 1' Q3 E2 C -$ 3 F E F3 C$ J 3 @H-E O ' H4 F3 C$ J 3 ' D E2 I$4 C ' H4 G C HE H& $ @H-E O '$C C-NF I43N EN 'H4 I $N3 ' $ED &'C-NF I43N EN ' H4 I $N3 CF$ ' $D(H E * H H4 J H43 I$4 CF3C H4 *H ECF 1C CH C -$ 3 $C $&H43C$ D ' ' CF$ ' Q3 D33 J 3D H Q3 F E F3 3$C ' 1H1- H-C H&'C-NF I$4 CF3C H4 *H ECF 1C $NNH4D E2 H F3 $C '@3EC-C &H4 F3 * J 3 Q3 E2 ! $ED F3 < 34C334C H& F3 IHH4 H& 3 34O C-NF I$4 CF H4 *H ECF 1' CF$ ' EC34 ' E F3 > C '&H4 F3 4 43C13N 3 I$4 CF H4 *H ECF 1' F3 , $ J 3C H& $# I34CHEC FH CF$ ' N $ J' $C $&H43C$ D H Q3 EC34 3D F343 E $C H 34C E F3 ; 3N HE H& $ %E 2F 'H4 %E 2F C H& F3 ?F 43 H C34 3 &H4 F3 @H-E O ' H4 &H4 F3 ' D E2 ' I$4 C ' H4 G C HE H& F3 @H-E O ' E F NF C-NF I43N EN ' H4 I $N3 $C $&H43C$ D 3C ' E 43C13N 'H& $EO >$EDC H4 *3E3 J 3E C C -$ 3 FH O H4 E 1$4 ' F E C-NF I43N EN 'H4 I $N3

H 1-Q CF F3 J '3 34O =3$4

< 34C334C H F$ 3 I H 34 H& HQ(3N E2 H $EO , $ J 3 EC34 3D E F3 > C C

H +331 @HR 1 3C H& > C C &H4 EC13NR HE

I4H C HE $C H I $N3C F$ E2 EH < 34C334C

WWW W ' ED Q3 ' 3E$N 3D ' *F$ '3 34O I34CHE FH CF$ 'Q3 -1HE H 3N HE QO F3 ' 32 C 34 &H4 F3 * J 3 Q3 E2 H& H 34C &H4 $EO @H-E O ' H4 &H4 $EO F 4D "&!#)(A ' D E2 ' H I34CHEC

S ` M # >   ; > P '   ' @$1   !

S!U

EH ' 3E 3D ' H Q3 43 $ E3D E Q3@H-E O > C C

' D E2 ' I$4 C ' H4 G C HE H& $ @H-E O ' H4 FH CF$ ' F$ 3 N $ J 3D D Q3 EC34 3D E $EO > C ' &H4 F3 F3E N-443E ' =3$4 H& H 34C &H4 $EO @H-E O ' H4 $EO ' D E2 ' I$4 C ' H4 G C HE H& $ @H-E O ' J $O HQ(3N ' H $EO I 34CHE $C EH ' F$ E2 Q33E 3E 3D HE F3 $C ' G$O H& 5 O F3E E3 ' 143N3D E2 H F$ 3 F C , $ J 3 EC34 3D E $EO > C ' H& H 34C , ' C-NF @H-E O ' ' D E2 ' I$4 C ' H4 G C HE CH H Q3 J $D3 H- ' $C $&H43C$ D ($ED 3 340 I 34CHE CH HQ(3N E2 ^C$ 3 $ED 3 N31 ' < 34C334C HQ(3N E2 E F3 P $EE34 F343 E Q3&H43 J 3E HE3D _ ' CF$ ' HE H4 Q3&H43 F3 * 3E O & & F G$O H& / 3 (31 ' E F3 143C3E ' $ED E 3 340 C-NN33D E2 =3$4 ' 2 3 H4 N$-C3 H Q3 2 3E $, H N3 E 9 4 E2 $NNH4D E2 H ' F3 6H4 J ' E- J Q343D ' E F3 C$ D ?NF3D- 3 @ A ' , ' , ' F3 +3 ; &&3N ' H F3 < 34C334C FH CF$ ' F$ 3 J $D3 H- ' F3 > C ' E F NF F3 , $ J 3 H& F3 I 34CHE CH HQ(3N 3D H CF$ ' F$ 3 Q33E EC34 3D ' $ED F3 I 34CHE CH @Q(3N E2 CF$ ' $ CH ' HE H4 Q3&H43 F3 * 3E O & & F G$O H& / 3 (31 ' E F3 143C3E ' $ED E 3 340 C-NN33D E2 =3$4 ' 2 3 H F3 ' I 34CHE HQ(3N 3D H ' H4 3$ 3 $ ' F C I $N3 H& QHD3 $C D3CN4 Q3D E C-NF > C ' H4 134CHE$ O D3 34 H F C * 3E$E ' E <NN-R 1$ HE H& F3 I 43 J C3C D3CN4 Q3D E C-NF > C ' $, H N3 E 9 4 E2 $NNH4D E2 H F3 6H4 J ' E- J Q343D 9 ' E F3 C$ D ?NF3D- 3 ^8 _ ' H4 H F3 +3 ; &&3N ' $ED F3 < 34C334C CF$ ' EN -D3 F3 , $ J 3C H& $ ' I 34CHEC CH HQ(3N 3D H E $ > C ' $NNH4D E2 H F3 6H J ' E- J Q343D Y ' E F3 C$ D ?NF3D- 3 ^8 _ ' $ED CF$ ' N$-C3 @H1 3C H& C-NF > C ' H Q3 & 3D HE H4 E3$4 F3 GHH4C H& $ ' F3 @F-4NF3C $ED @F$13 C F E F3 4 I $4 CF H4 * H ECF 1 ' H4 & F343 Q3 EH @F-4NF H4 @F$13 ' F343 E ' F3E H Q3 & 3D E CH J 3 1-Q N $ED NHEC1 N-H-C ? -$ HE F E F3 C$ J 3 43C13N 3 O ' HE F3 * H +3#& 1 E3 ' 143N3D E2 F3 6 &R 33E F G$O H& +!5 ! 4! ' O ' F3 143C3E ' $ED E 3 340 C-NN33D E2 =3$4 ' $ED F3 < 34C334C CF$ ' +3 C3 +331 $ @H1O H& F3 , $ J 3C H& $ ' F3 I 34CHEC CH HQ(3N 3D H ' H Q3 134-C3D QO $EO I 34CHE ' FH- ' I $OR J 3E ' H& $EO 633 ' $ ' $ ' 43CHEQ 3 8 H-4C D-4 E2 F3 * 3E G$OC E3 ' 143N3D E2 F3 C$ D 6 & 33E F G$O H& +!5 ! 4! ' E F3 143C3E ' $ED E 3 340 C-NN33D E2 =3$4

> C C H& I 34CHEC HQR (3N 3D H QO * F 4D I $4 3C H Q3 1-QR CF3D ' KN

W> ' ED Q3 ' 3E$N 3D ' * F$ ' HE F3 * 3E O4 E E F G$O H& / 3 (31 ' E F3 143C3E ' $ED E 3 340 C-NN33D E2 =3$4 F3 < 34C334C H& 3 340 I $4 CF $ED * H ECF 1 CF$ ' D3 34 F3 > C ' H& H 34C CH J $D3 H- ' $C $&H43C$ D ' H23 F34 F $ 4 3E ? $ 31 3E ' H& F3 , - J Q34 H& I 34CHEC HQ(3N 3D H QO F3 < 34C334C $ED QO H F34 I 34CHEC ' H F3 8 2F @HER C $Q 3 H4 8 2F @HEC $Q 3C H& F3 8 -ED43D H4 H F34 +3 G C 4 N ' E F NF C-NF I $4 CF H4 * H ECF 1 C C -$ 3 ' $ED C-NF 8 2F @HEC $Q 3 H4 8 2F @HEC $Q 3C CF$ ' &H4 F F D3 34 $ ' C-NF > C C ' H23 F34 F C-NF ? $ 3 J 3E C $C $&H43C$ D ' H F3 @ 34+ H& F3 I 3$N3 H& F3 @H-E O ' ' D E2 ' D4 I $4 C ' FH CF$ ' &H4 F F J $+3 H- ' $E QC 4$N ' H& F3 , - J Q34 H& I 34CHEC HQ(3N 3D H QO F3 < 34C334C $ED QO H F34 I 34CHEC E 3$NF I $4 CF $ED * H ECF 1 ' $ED 4$EC J ' F3 ?$ J 3 H F3 B$44 C 34 H4 B$44 C 34C $11H E 3D $C F343 E $& 34 J 3E HE3D H 43 C3 C-NF > C C ' E H4D34 F$ ' F3 C$ D B$44 C 34 H4 B$44 C 34C J $O & ' 14H134 * J 3C $ED I $N3C &H4 FH D E2 F C H4 F3 4 @H-4 C &H4 F3 ' 3 C HE H& F3 ?$ D > C C ' '

> C C H& @H-E O H 34C H Q3 &H4 $4D3D H F3 @ 34+C H& F3 I 3$N3

W> ' ED Q3 ' 3E$N 3D ' * F$ ' F3 >H4D @F 3& 5-C N3 H& F3 @H-4 ' H& % E2 C B3ENF &H4 F3 * 4E3 Q3 E2 CF$ ' E F3 P HE F H& ?3% ' H4 U 3 (31 ' E F3 143C3E ' $ED E 3 340 C-E D E2 =3$4 ' EH J E$ 3 $ED $11H E

5-D23C H& ' CC T3 H E$ J 3 B$4EC ' 4C" FH

$11H E ' ,0' &&%!1!J ' $ED' F3' ?3E H4' 5-D23' &H4' F3' * J 3' Q3 E2' E'
F3' @H J J CC HE' H&' CC T3' &H4' 3 340' H F34' @H-E 0' CF$ ' F3E'
4$ 3 E2' F3' ?-J J34' @ 4N- ' E' F3' 143C3E ' $ED' E' 3 340' C-NN33D E2'
=3$4 ' EH J E$ 3' $ED' $11H E ' &H4' 3 340' C-NF' @H-E 0 ' H4' &H4' 3$NF' H&'
F3' ' D E2C ' I$4 C ' H4' G C HEC' H&' C-NF' @H-E 0 ' $' B$44 C 34' H4'
B$44 C 34C' H' 43 C3' F3' > C C' H&' H 34C' E' F3' ; 3N HE' H&' $' %E 2F '
H4' %E 2F C' H&' F3' ?F 43 ' $ED' C-NF' B$44 C 34' H4' B$44 C 34C' CH' $11H E 3D'
$C' $&H43C$ D' CF$ ' 2 3' 1-Q N' , H N3 ' $C' 3 ' Q0' D 34 C3 J 3E ' E'
CH J 3' H&' F3' , 3 C1$134C' N 4N- $ E2' F E' F3' @H-E 0 ' ' D E2 ' I$4 C '
H4' G C HE ' $C' $ CH' Q0' $' , H N3' H' Q3' & 3D' E' CH J 3' 1-Q N' $ED' NHER
C1 N-H-C' ? -$ HE' $ ' F3' 14 EN 1$ ' I $N3' H&' ; 3N HE' &H4' F3' @H-E 0
' D E2 ' I$4 C ' H4' G C HE ' ^C-NF' $C J 3E HE3D' , H N3' H' Q3' 2 3E'
*F433' G$0C' $ ' F3' 3$C ' Q3&H43' F3' @H J J 3EN3 J 3E ' H&' F C' H4' F3 4'
@ 4N- _' F$ ' F3' H4' F30' J $+3' $' @ 4N- ' H&' F3' @H-E 0 ' ' D E2
I$4 C ' H4' G C HE' &H4' F NF' F3' H4' F30' CF$ ' Q3' CH' $11H E 3D ' $ED'
H&' F3' C3 34$ ' * J 3C' $ED' I $N3C' $ ' F NF' F3' H4' F30' ' FH D' @H-4 C'
&H4' F$ ' I-41HC3 ' C-NF' * J 3C' Q3 E2' Q3 33E' F3' 6 & 33E F' G$0' H&'
+!5 ! 4! ' EN -C 3' $ED' F3' * 3E 0 & & F' G$0' H&' 6 ' ,4! ' EN -C 3'
E' F3' 143C3E ' $ED' E' 3 340' C-NN33D E2' =3$4 ' $ED' F3' H4' F30' CF$ '
FH D' H13E' @H-4 C' &H4' F$ ' I-41HC3' $ ' F3' * J 3C' $ED' I $N3C' CH' H' Q3'
$EEH-EN3D ' $ED' F343' * H' H4' J H43' B$44 C 34C' CF$ ' Q3' $11H E 3D'
&H4' F3' C$ J 3' @H-E 0 ' ' D E2 ' I$4 C ' H4' G C HE ' F30' CF$ ' $ 3ED' $ '
F3' C$ J 3' I $N3C' H23 F34 ' Q- ' CF$ ' C ' $1$4 ' &4H J ' 3$N ' H F34 ' $ED' FH D'
C31$4$ 3' @H-4 C' $ ' F3' C$ J 3' * J 3' &H4' F3' G C1$ NF' H&' B-C E3CC' : I4HR
D3D' $ $0C' F$ ' EH' P 3 J Q34' H&' I$4 $ J 3E ' EH4' $E0' I34CHE' FH D E2'
$E0' <&& N3' H4' I $N3' H&' I4H& ' -ED34' F3' @4H E ' CF$ ' Q3' $11H E 3D'
C-NF' B$44 C 34 ' $ED' F$ ' EH' B$44 C 34' CH' $11H E 3D' $C' $&H43C$ D' CF$ '
Q3' 3 2 Q 3' H' C34 3' E' I$4 $ J 3E ' &H4' ; 2F 33E' P HE FC' &4H J ' F3' * J 3'
H&' C-NF' F C' 11H E J 3E ' &H4' F3' @H-E 0 ' ' D E2 ' I$4 C ' H4' G C HE'
&H4' F NF' F3' CF$ ' Q3' CH' $11H E 3D

W> ' ED' Q3' ' 3E$N 3D ' *F$ ' F3' @ 34+' H&' F3' I 3$N3' CF$ ' $ ' F3'
H13E E2' H&' F3' & 4C ' @H-4 ' H' Q3' F3 D' Q0' 3 340' C-NF' B$44 C 34' &H4' $E0'
@H-E 0 ' H4' &H4' $E0' ' D E2 ' I$4 C ' H4' G C HE' H&' $' @H-E 0 ' 14HD-N3' H4'
N$-C3' H' Q3' 14HD-N3D' Q3&H43' F J ' F3' C3 34$ ' > C C' H&' H 34C' &H4' C-NF'
@H-E 0 ' ' D E2 ' I$4 C ' H4' G C HE' F NF' CF$ ' F$ 3' Q33E' D3 343D' H'
C-NF' @ 34+' H&' F3' I 3$N3' Q0' F3' 8 2F' @HEC $Q 3C' $C' $&H43C$ D' ' $ED' F3'
< 34C334C' H&' 3 340' I$4 CF' $ED' *H ECF 1' FH' CF$ ' F$ 3' J $D3' H- ' F3'
> C C' H&' H 34C' CF$ ' $ 3ED' F3' @H-4 ' H' Q3' F3 D' Q0' 3 340' C-NF'
B$44 C 34' $ ' F3' I $N3' $11H E 3D' &H4' 43 C E2' F3' > C C' 43 $ E2' H'
C-NF' I$4 CF' H4' *H ECF 1' 43C13N 3 0 ' $ED' CF$ ' $ CH' D3 34' H' C-NF'
B$44 C 34' $' @H10' H&' F3' > C ' H&' F3' I34CHEC' HQ(3N 3D' H ' CH' J $D3'
H- ' Q0' F3 J ' $C' $&H43C$ D' _ $ED' F3' C$ D' < 34C334C' CF$ ' $EC 34'
-1HE' <$ F' $ ' C-NF' \ -3C HEC' $C' C-NF' B$44 C 34' J $0' 1- ' H' F3 J ' H4'
$E0' H&' F3 J ' H-NF E2' $E0' P $ 34' E3N3CC$40' &H4' 43 C E2' F3' > C C' H&'
H 34C ' $ED' 3 340' C-NF' B$44 C 34' CF$ ' 43 $ E' HE' F3' > C C' H&' H 34C' F3'
, $ J 3C' H&' $ ' I34CHEC' H' FH J ' EH' <Q(3N HE' CF$ ' F$ 3' Q33E' J $D3'
Q0' F3' < 34C334C ' H4' Q0' $E0' H F34' I34CHE ' E' F3' P $EE34' F343 ER
Q3&H43' J 3E HE3D ' $ED' F3' CF$ ' $ CH' 43 $ E' HE' F3' > C ' H&' H 34C' F3'
, $ J 3' H&' 3 340' I34CHE' FH' CF$ ' F$ 3' Q33E' HQ(3N 3D' H' Q0' $E0'
I34CHE' H F34' F$E' F3' < 34C334C ' -E 3CC' F3' I$4 0' CH' HQ(3N E2' CF$ '
$113$4' Q0 ' F J C3 &' H4' Q0' CH J 3' HE3' HE' F C' B3F$ &' E' C-11H4 ' H&' C-NF'
' #' ' <Q(3N HE

CF$ ' 43 K3
H 34C'
I34 HD' &H4'
@ 34+' /H& F3'
I 3$N3' $ED'
< 34C334C' H'
$ 3ED' Q3&H43'
F3B$44 C 34C'
FH CF$ ' 43R
$ E' HE' F3'
@H-E 0' > C C'
$ ' , $ J 3C' EH'
HQ(3N 3D' H'
$ED' CF$ ' 3 R
1-E23' FHC3'
FHC3' \ -$ R
& N$ HE' &'
HQ(3N 3D' H'
CF$ ' EH ' Q3'
14H 3D

<Q(3N HE' $ED' F343' Q3' ,$J3' H&' $EO' I34CHE' EC34 3D' E' F3' > C' H&' H 34C' CF$' F$ 3' Q33E' HQ(3N 3D' H' QO' F3' < 34C334C' H4' QO' $EO' H F34' I34CHE' E' F3' P$EE34' F343 E Q3&H43' J3E HE3D' $ED' C-NF' I34CHE' CH' HQ(3N E2' CF$' $113$4' QO' F J C3 &' H4' QO' CH J3' HE3' HE' F C' B3F$ &' E' C-11H4' H&' C-NF' <Q(3N HE' 3 340' C-NF' B$44 C 34' CF$' 43X-43' ' H' Q3' 14H 3D' F$' F3' I34CHE' CH' HQ(3N 3D' H' $C' 3E 3D' HE' F3' $C' G$O' H&' F3E' E3 ' 143N3D E2' H' F$ 3' F C' ,$J3' EC34 3D' E' F3' > C' H&' H 34C' E' 43C13N' H&' F3' \-$ &N$ HE' D3CN4 Q3D' E' C-NF' > C ' $ED' E' N$C3' F3' C$J3' CF$' EH' Q3' 14H 3D' H' F3' ?$ C&$N HE' H&' C-NF' B$44 C 34' H4' E' 3$C3' ' CF$' Q3' 14H 3D' F$' C-NF' I34CHE' $C' F3E' EN$1$N $ 3D' QO' $EO' >$ ' H4' ? $ - 3' &4H J' H E2' E' F3' ; 3N HE' H&' P3J Q34C' H' C34 3' E' I$4 $J3E ' C-NF' B$44 C 34' CF$' 3 1-E23' F3' ,$J3' H&' 3 340' C-NF' I34CHE' &4H J' F3' C$D' > C C' $ED' F3' CF$' $CH' 3 1-E23' &4H J' F3' C$D' > C C' F3' ,$J3' H&' 3 340' I CHE' FH' CF$' Q3' 14H 3D' H' F J' H' Q3' D3$D' $ED' CF$' NH443N' $EO' P C $+3' F NF' CF$' Q3' 14H 3D' H' F J' H' F$ 3' Q33E' J$D3' E' $EO' H&' F3' C$D' > C C' $C' H' $EO' H&' F3' I$4 N- $4C' QO' F C' N' 43X-F 3D' H' Q3' EC34 3D' E' C-NF' > C C' $ED' F343' F3' @F4 C $E' ,$J3' H&' $EO' I34CHE' H4' F C' I $N3' H&' QHD3' H4' F3' ,$ -43' H&' F C' \-$ &N$ HE' H4' F3' HN$' H4' H F34' G3CN4 1 HE' H&' F C' I4H134 O' H4' F3' ,$J3' H&' F3' *3E$E' E' F3' <NN-1$ HE' F343H&' $C' F3' C$J3' 43C13N 3 O' $43' 43X-43D' H' Q3' EC34 3D' E' $EO' C-NF' > C ' CF$' Q3' FH O' HJ 3D' F343&4H J' C-NF' B$44 C 34' CF$' 3 1-E23' F3' ,$J3' H&' 3 340' C-NF' I34CHE' I4H J' C-NF' > C ' -E 3CC' F3' P$ 34' H4' P$ 34C' CH' HJ 3D' Q3' C-11 3D' H' F3' ?$ C&$N HE' H&' C-NF' B$44 C 34' Q3&H43' F3' CF$' F$ 3' NH J1 3 3D' F3' '3 C HE' H&' C-NF' > C ' E' F NF' @$C3' F3' CF$' F3E' $ED' F343' EC34' F3' C$J3' E' C-NF' > C : I4H D3D' $ $OC' F$' EH' I34CHE C' ,$J3' CF$' Q3' 3 1-E23D' &4H J' $EO' C-NF' > C ' 3 N31' E' N$C3' H&' F C' G3$ F' H4' H&' F C' Q3 E2' HQ(3N 3D' H' HE' F3' P$42 E' H&' F3' > C' QO' F3' < 34C334C' $C' $&H43C$ D' H4' 3 N31' E' N$C3' H&' $EO' C-NF' < J CC HE' H4' < J CC HEC' $C' F343 E Q3&H43' $C J3E HE3D' -E 3CC' C-NF' ,H N3' $C' C' F343 E Q3&H43' 43X-43D' E' F$' B3F$ &' CF$' F$ 3' Q33C' 2 3E' H' F3' < 34C334C' EH4' -E 3CC' C-NF' ,H N3' $C' C' F343 E Q3&H43' 43X-43D' E' F$' B3F$ &' CF$' F$ 3' Q33E' 2 3E' H' C-NF' I34CHE' H4' 3&' $ F C' I $N3' H&' QHD3' H4' D3 343D' H' F C' *3E$E' $C' F343 ER Q3&H43' J3E HE3D

IH 34' H43NR &O' P C $+3C' $ED' C-11 O' < J CC HEC' E' F3' > C C

I4H CH

B$44 C 34' H' F$ 3' IH 34' H' EC34' E' F3' @H-E O' > C C' F3' ,$J3C' H&' @$ J$E C' HJ 3D' QO' F3' < 34C334C' HE' I4HH&' H&' @$ J' $ED' \-$ &N$ HE

W> ' I4H D3D' $CH' $ED' Q3' ' 3E$N 3D' *F$' &' ' CF$' F$113E' F$' $EO' I34CHE' FH' CF$' F$ 3' 2 3E' H' F3' \ 34C334C' H&' $EO' I$4 CF' H4' *H ECF 1' D-3' ,H N3' H&' F C' @$ J' H' F$ 3' F C' ,$J3' EC34 3D' E' F3' > C' H&' H 34C' E' F3' ; 3N HE' H&' $' %E 2F' H4' %E 2F C' H&' F3' ?F 43' CF$' F$ 3' Q33E' HJ 3D' QO' C-NF' < 34C334C' &4H J' C-NF' > C ' ' CF$' Q3' $ &-' &H4' F3' B$44 C 34' -1HE' F3' '3 C HE' H&' C-NF' > C ' H' EC34' F343 E' F3' ,$J3' H&' F3' I34CHE' CH' HJ 3D' E' N$C3' ' CF$' Q3' 14H 3D' H' F3' ?$ C&$N HE' H&' C-NF' B$44 C 34' F$' C-NF' I34CHE' 2$ 3' D-3' ,H N3' H&' C-NF' F C' @$ J' H' F3' C$D' < 34C334C' $ED' F$' F3' $C' 3E 3D' HE' F3' $C' G$O' H&' 5-(' F3E' E3 ' 143N3D E2' H' Q3' EC34 3D' E' F3' > C' H&' H 34C' E' F3' ; 3N HE' H&' $' %E 2F' H4' %E 2F C' H&' F3' ?F 43 ' &H4' F3' @H-E O' H4' &H4' F3' ' D E2' I$4 C' H4' G C HE' H&' F3' @H-E O' F343 E' F3' I$4 CF' H4' *H ECF 1' H&' C-NF' < 34C334C' J$O' Q3' C -$ 3' E' 43C13N' H&' $EO' >$EDC' H4' *3E3 J3E C' F E' C-NF' 1$4 CF' H4' *H ECF 1

' ' ' W> ' ED

W> ' ED'Q3' '3E$N 3D' *F$' F3' < 34C334C' H&' F3' IHH4' H&'3 340' I$4 CF' $ED' *H ECF 1' 3 F34' FH 0' H4' E' 1$4 ' C -$ 3' F E' $EO' @ 0' H4' BH4H-2F ' H4' I $N3' CF$ E2' E' F3' ; 3N HE' &H4' $EO' @ 0' H4' BH4H-2F' F NF' CF$ ' 43 -4E' $' P3JQ34' H4' P3JQ34C' H' C34 3' E' $EO' &- -43' I$4 $J3E ' CF$ ' HE' H4' Q3&H43' F3' $C ' G$0' H&' ?3% ' E' F3' 143C3E ' $ED' E' 3$NF' C-NN33D E2' =3$4' J$+3' H- ' H4' N$-C3' H' Q3' J$D3' H- ' $NHH D E2' H' F3' 6H4J' E-JQ343D' ' E' F3' ?NF3D- 3' J$4+3D' ^ _' H' F C N ' $EE3 3D' $E' $ 1F$Q3 N$' > C ' H&' $ ' I34CHEC' FH' J$0' Q3' 3E 3D' QO' 4 -3' H&' F C' N ' H' H 3' E' F3' ; 3N HE' H&' $' P3JQ34' H4' P3JQ34C' H' C34 3' E' $EO' &- -43' I$4 $J3E ' &H4' C-NF' @ 0' H4' BH4H-2F' E' 43C13N ' H&' F3' <NN-1$ HE' H&' I43J C3C' H&' F3' N3$4' O3$4 0' $ -3' H&' EH ' 3CC' F$E' *3E' IH-EDC' $C' F343 E Q3&H43' J3E HE3D' C -$ 3' FH 0' H4' E' 1$4' F E' C-NF' I$4 CF' H4' *H ER CF 1' $ED' $EH F34' $ 1F$Q3 N$' > C ' $NNH4D E2' H' F3' 6H4J' E-JQ343D' ' E' F3' C$D' ?NF3D- 3' ^ _' H&' $ ' H F34' I34CHEC' ^3 N31 ' 6433J3E_' FH' J$0' Q3' 3E 3D' H' H 3' E' F3' ; 3N HE' &H4' C-NF' @ 0' H4' BH4H-2F' QO' 4 -3' H&' $EO' H F34' ' 2F ' F$ CH3 34' ' $ED' E' 3$NF' H&' F3' C$D' > C C' F3' @F4 C $E' , $J3' $ED' ?-4E$J3' H&' 3 340' I34CHE' CF$ ' Q3' 4 3E' $' &- ' >3E2 F' H23 F34' F' F3' , $ -43' H&' F C' \-$ & N$ HE' $ED' F343' $EO' I34CHE' CF$ ' Q3' 3E 3D' H' H 3' E' 43C13N ' H&' $EO' I4H134 O' F3E' F3' , $J3' H&' F3' ? 433 ' >$E3' H4' H F34' G3CN4 1 HE' H&' F3' I $N3' F343' C-NF' I4H134 0' J$0' Q3' C -$ 3' CF$ ' Q3' C13N & 3D' E' F3' > C ' $ED' F343' $EO' I34CHE' CF$ ' Q3' 3E 3D' H' H 3' H F34 C3' F$E' E' 43C13N ' H&' $EO' I4H134 O' F3E' F3' , $J3' H&' F3' ? 433 ' >$E3' H4' H F34' G3CN4 1 HE' H&' F3' I $N3' H&' C-NF' I34CHE C' QHD3' CF$ ' Q3' C13N & 3D' E' F3' > C ' ($ED' F3' < 34R C334C' CF$ ' C 2E' 3$NF' H&' C-NF' > C C ' $ED' CF$ ' N$-C3' $' C-& N 3E ' , - JQ34' H&' @H1 3C' H&' C-NF' > C C' H' Q3' 14 E 3D' $ED' H' Q3' & 3D' HE' H4' E3$4' F3' GHH4C' H&' $ ' F3' @F-4NF3C' $ED' @F$13 C' E' F3 4' C3 34$' I$4 CF3C' $ED' *H ECF 1C' H4' &' F343' Q3' EH' @F-4NF' H4' @F$13' F343 E' F3E' H' Q3' & 3D' -1' E' CHJ3' 1-Q N' $ED' NHEC1 N-H-C' ? -$ HE' F E' F3' C$J3' 43C13N 3 0' HE' F3' * H' +3#& 1' E3 ' $& 34' C-NF' > C C' CF$ ' F$ 3' Q33E' J$D3' $ED' F3' C$D' < 34C334C' CF$ ' +3 C3' +331' 4-3' @H1 3C' H&' C-NF' > C C ' H' Q3' 134-C3D' QO' $EO' I34CHE' FH- ' I$0 J3E' H&' $EO' 633' $' $ ' 43CHEQ 3' 8H-4C' D-4 E2' F3' * H' & 4C' 9 33+C' $& 34' C-NF' > C C' CF$ ' F$ 3' Q33E' J$D3

W> ' ED' Q3' ' 3E$N 3D' *F$' 3 340' I43N EN ' H4' I $N3' F3 F34' 3 4$ 1$4HNF $' H4' H F34 C3' F$ E2' EH' < 34C334C' H&' F3' IHH4' F NF' EH ' C' H4' F343$& 34' J$0' Q3' F E' $EO' @ 0' H4' BH4H-2F' H4' F E' $EO' I $N3' CF$4 E2' E' F3' ; 3N HE' &H4' $EO' @ 0' H4' BH4H-2F' CF$ ' &H4' F3' I-41HC3' H&' J$+ E2' H- ' F3' > C ' H&' H 34C' &H4' C-NF' @ 0' H4' BH4H-2F' Q3' D33J3D' H' Q3' F E' F3' I$4 CF' H4' *H ECF 1' $D(H E E2' F343 H' EED' C -$ 3' FH 0' H4' E' 1$4' F E' C-NF' @ 0' H4' BH4H-2F' H4' F E' C-NF' I $N3' CF$4 E2' E' F3' ; 3N HE' F343 F' $ED' &' C-NF' I43N EN ' H4' I $N3' CF$ ' $D(H E' * H' H4' JH43' I$4 CF3C' H4' *H ECF 1C' CH' C -$ 3' $C' $&H43C$ D' ' CF$ ' Q3' D33J3D' H' Q3' F E' F3' 3$C' 1H1- H-C' H&' C-NF' I$4 CF3C' H4' *H ECF 1C' $NNH4D E2' H' F3' $C ' @3EC-C' &H4' F3' * J3' Q3 E2' $ED' F3' < 34C334C' H&' 3 340' C-NF' I$4 CF' H4' *H ECF 1' CF$ ' EC34' E' F3' > C ' &H4' F3 4' 43C13N 3' I$4 CF' H4' *H ECF 1' F3' , $J3C' H&' $ ' I34CHEC' FH' J$0' Q3' 3E 3D' H' H 3' E' F3' ; 3N HE' H&' $' P3JQ34' H4' P3JQ34C' H' C34 3' E' $EO' &- -43' I$4 $J3E ' &H4' $EO' C-NF' @ 0' H4' BH4H-2F' E' 43C13N ' H&' $EO' I4H134 0' HNN-1 3D' QO' C-NF' I34CHEC F E

< 34C334C' H' 1431$43' > C C' H&' I34CHEC' ^H F34' F$E' 6433J3E' 3ER 3D' H' H 3' E' BH4H-2FC' $ED' H' 1-QR CF' F3J

@H1 3C' H&' > C C' H' Q3' +31' &H4' E' C13N HE

I4H C HE' &H4' I $N3C' F E' QH4H-2FC' H J c33/C)

F E' C-NF' @ O' H4' BH4H-2F' H4' F E' $EO' I $N3' CF$4 E2' E' F3' ; 3N HE' F343 F' C-NF' I4H134 O' Q3 E2' C -$ 3' FH O' H4' E' 1$4' F E' C-NF' I43N EN' H4' I $N3' $C' $ Q43C$ D'

*H E' @ 34+C H' 1431$43 $ED' 1-Q CF F3' > C C' H&' 6433 J 3E

W> ' ED' Q3' '3E$N 3D' *F$' F3' *H E' @ 34+' H&' 3 340' @ O' H4' BH4H-2F' CF$ ' HE' H4' Q3&H43' FH' $C' G$O' H&(TD ' E' F3' 143C3E '$ED' E' 3$NF' C-NN33D E2' =3$4' J $+3' H- 'H4' N$-C3' H' Q3' J $D3' H- ' $NNH4DR E2' H' F3' 6H4 J' J -EF34 '?' E' F3' C$ D' ?NF3D- 3'^ _ '$E' $ 1F$Q3 N$' > C 'H&' $ ' F3' 6433 J 3E' H&' C-NF' @ O' H4' BH4H-2F' FH' J $O' Q3' 3E 3D' H' H 3' E' F3' ; 3N HE' H&' $' P 3 J Q34' H4' P 3 J Q34C' H' C34 3' E' $EO' &- -43' I$4 $ J 3E' &H4' C-NF' @ O' H4' BH4H-2F' H23 F34' F' F3' 43C13N 3' I $N3C' H&' F3 4' QHD3' ($ED' F3' *H E' @ 34+' H&' 3 340' I $N3' CF$4 E2' E' F3' ; 3N HE' &H4' $EO' @ O' H4' BH4H-2F' CF$ ' $' F3' 43C13N 3' * J 3C' $4H43C$ D' J $+3' H- ' H4' N$-C3' H' F3' J $D3' 1-' $' +3' > C ' H&' $ ' F3' 6433 J 3E' H&' C-NF' I $N3' FH' J $O' Q3' 3E &HD' H' H 3' E' F3' ; 3N HE' H&' $' P 3 J Q34' H4' P 3 J Q34C' H' C34 3' E' $EO' &- -43' I$4 $R J 3E' &H4' C-NF' @ O' H4' BH4H-2F' $ED' 3 340' C 3F' *H E' @ 34+' CF$ ' N$-C3' $' @H1O' H&' 3 340' C-NF' > C ' H' Q3' & 3D' HE' H4' E3$4' F3' GHH4' H&' F3' *H E' 8$ ' H4' E' CHJ 3' 1-Q N' $ED' NHEC1 3-H J' ? -$ HE' F E' C-NF' 43C13N 3' @ O' BH4H-2F' H4' I $N3' $C' $&H43C$ D' <-' F3' * H' +3#& 1' E3 ' $& 34' C-NF' > C ' CF$ ' F$ 3' Q33E' J $D3' $ED' CF$ ' +3 C3' +331' $' 4-3' @H1O' H&' C-NF' > C ' H' Q3' 134-C3D' QO' $EO' I34CHE' FH-' I$O J 3E' H&' $EO' 633' $' $ ' 43CHEQ 3' 8H-4C' D-4 E2' F3' * H' & 4C' 9 33+C' $& 34' C-NF' > C ' CF$ ' F$ 3' Q3$E' J $D3' I4H D3D' $ $OC' F$' F343' F343' CF$ ' Q3' EH' *H E' @ 34+' &H4' C-NF' @ O' BH4H-2F' H4' I $N3' $C' $&H43C$ D' H4' F343' F3' *H E' @ 34+' CF$ ' Q3' D3$D' H4' EN$1$Q 3' H&' $N E2' $ ' P$ 34C' QO' EC' N' 43R X- 43D' H' Q3' DHE3' QO' $ED' F' 432$4D' H' F3' *H E' @ 34+' CF$ ' F3' DHE3' QO' $ED' F' 432$4D' H' F3' I34CHE' 3 3N- E2' G- 3C' C J $4' H' FHC3' H&' F3' *H E' @ 34+' $ED' &' F343' Q3' EH' C-NF' I34CHE' F3E' QO' $ED' F' 432$4D' H' F3' NF 3&' @ '<&& N34' H&' C-NF' @ O' BH4H-2F' H4' I $N3

I34CHEC' H J R 3D' E' F3' BH4H-2F' > C C' H' 2 3' , H N3' H&' F3 4' @ $ J C

W> ' ED' Q3' '3E$N 3D' *F$' 3 340' I34CHE' FHC3' , $ J 3' CF$ ' F$ 3' Q331' H J 3D' E' $EO' CXN ' > C ' H&' H 34C' &H4' $EO' @ O' H4' BH4H-2F' CH' H' Q3' J $D3' H- ' $C' F343 - Q3&H43' J 3E HE3D' $ED' FH' CF$ ' N $ J' H' F$ 3' F C' , $ J 3' EC34 3D' F343 E' $C' F$ E2' Q33E' 3E 3D' E' F3' $C 'G$O' H&' ?3% ' F3E' E3 '143N3D E2' CF$ ' HE' H4' Q3&H43' F3' * 3E O ' & & F' G$O' H&' / 3(31' E' F3' 143C3E' $ED' E' 3 340' C-NN33D E2' =3$4' 2 3' H4' N$-C3' H' Q3' 2 3E' $' , H N3' E' 9 4 E2C' $NNH4D E2' H' F3' 6H4 J' E- J Q343D' ' E' F3' C$ D' ?NF3D- 3'^> _ 'H4' H' F3' +3' ; &&3N ' H' F3' < 34C334C' H&' F$' I$4 CF' H4' *H ECF 1' E' F3' > C ' F343H&' F3' CF$ ' N $ J' H' F$ 3' F C' , $ J 3' EC34 3D' H4' &' F3' CF$ ' N $ J' $C' $' 6433 J $E' H&' $EO' @ O' H4' BH4H-2F' H4' I $N3' CF$4 E2' E' F3' ; 3N HE' F343 F' F3E' H' F3' *H E' @ 34+' H&' C-NF' @ O' BH4H-2F' H4' I $N3' $ED' 3 340' I34CHE' FHC3' , $ J 3' CF$ ' F$ 3' Q33E' EC34 3D' E' $EO' > C 'H&' H 34C' &H4' $EO' @ O' H4' BH4H-2F' J $O' HQ(3N ' H' $EO' H F34' I34CHE' $C' EH' F$ E2' Q33E' 3E 3D' HE' F3' $C 'G$O' H&' ?3& ' F3E' E3 '143N3D E2' H' F$ 3' F C' , $ J 3' EC34 3D' E' $EO' > C ' H&' H 34C' &H4' F3' C$ J 3' @ O' H4' BH4H-2F' $ED' 3 340' I34C J ' CH' HQ(3N E2' CF$ ' HE' H4' Q3&H43' F3' * 3E O & & F' G$O' , ' / 3(31' ' F3' 143C3E' $ D' E' 3 340' C-NN33D E2' =3$4' 2 3' H4' N$-C3' H' Q3' 2 3E' $' , H N3' ' 9 4 E2' $NNH4D E2' H' F3' 6H4 J' E- J Q343D' !' E' F3' C$ D' ?NF3D- 3'^>_ 'H4' H' F3' +3' ; &&3N H

, H N3C' $C' H I34CHEC' EH' 3E 3D' H' Q3' 43 $ E3D' E' F3' C C

U M#> ;> P ʻ ʻ @$1 !

Hʻ F3ʻ< 34C334Cʻ FHʻ CF$ ʻ F$ 3ʻ J$D3ʻ H-ʻ F3ʻ> C ʻ Eʻ F NFʻ F3ʻ
, J3ʻ H&ʻ F3ʻ I34CHEʻ CHʻ HQ(3N 3Dʻ Hʻ CF$ ʻ F$ 3ʻ Q33Eʻ EC34 3Dʻ H4ʻ &ʻ F3ʻ
I34CHEʻ HQ(3N 3Dʻ Hʻ CF$ ʻ F$ 3ʻ Q33Eʻ EC34 3Dʻ Eʻ F3ʻ> C ʻ 34& 6433 J3Eʻ H&ʻ
$EOʻ @ Oʻ BH4H-2Fʻ H4ʻ I $N3ʻ $Cʻ $&H43C$ Dʻ F3Eʻ Eʻ F3ʻ *H Eʻ @ 34+ʻ H&ʻ
C-NFʻ @ Oʻ BH4H-2Fʻ H4ʻ I $N3ʻ $EDʻ F3ʻ< 34C334Cʻ CF$ ʻ EN -D3ʻ F3ʻ> C H&
ʻ, $J3Cʻ H&ʻ $ ʻ I34CHECʻ CHʻ N $ J E2ʻ $Cʻ $&H43C$ Dʻ Eʻ $ʻ> C ʻ $NNH4D E2ʻ
Hʻ F3ʻ 6H4 Jʻ E- J Q343Dʻ ʻ Eʻ F3ʻ C$ Dʻ ?NF3D- 3ʻ ^ _ʻ $EDʻ F3ʻ, $J3Cʻ 2HECHQFN 3Dʻ
H&ʻ $ ʻ I34CHECʻ CHʻ HQ(3N 3Dʻ Hʻ $Cʻ $&H43C$ Dʻ Eʻ $ʻ> C ʻ $NNH4D E2ʻ Hʻ H HQ31-Qʻ
F3ʻ 6H4 Jʻ E- J Q343Dʻ ʻ Eʻ F3ʻ C$ Dʻ ?NF3D- 3ʻ ^ _ʻ $EDʻ CF$ ʻ N$-C3ʻ CF3D KNʻ
@H1 3Cʻ H&ʻ C-NFʻ * Hʻ> C Cʻ Hʻ Q3ʻ & 3Dʻ HEʻ H4ʻ E3$4ʻ F3ʻ GHH4Cʻ H&ʻ
$ ʻ F3ʻ @F-4NF3Cʻ $EDʻ @F$13 Cʻ F Eʻ F3 4ʻ I$4 CFʻ H4ʻ *H ECF 1ʻ
H4ʻ &ʻ F343ʻ Q3ʻ EHʻ @F-4NFʻ H4ʻ @F$13ʻ F343 Eʻ F3Eʻ Hʻ Q3ʻ & 3Dʻ Eʻ
CH J3ʻ 1-Q Nʻ $EDʻ NHEC1 N-H-Cʻ ? -$ HEʻ & F Eʻ 43ʻ C$ J3ʻ 43C13NR
3 Oʻ HEʻ F3ʻ * ʻ+3#& 1ʻ E3 ʻ 143N3D E2ʻ F3ʻ 6 & 33E Fʻ G$Oʻ H&ʻ
+!5 ! 4! ʻ Eʻ F3ʻ 143C3E ʻ $E&ʻ Eʻ 3 340ʻ C-NN33D E2ʻ =3$4ʻ ! $EDʻ 3 340ʻ
*H Eʻ @ 34+ʻ CF$ ʻ EN -D3ʻ F3ʻ, $J3Cʻ H&ʻ $ ʻ I34CHECʻ CHʻ N $ J E2ʻ $Cʻ
6433 J3Eʻ Eʻ $ʻ> C ʻ $NNH4D E2ʻ Hʻ F3ʻ 6H4 Jʻ E- J Q343Dʻ ʻ Eʻ F3ʻ C$ Dʻ ?NF3R
D- 3ʻ ^ _ʻ $EDʻ F3ʻ, $J3Cʻ H&ʻ $ ʻ I34CHECʻ CHʻ HQ(3N 3Dʻ Hʻ $Cʻ 6433 J3Eʻ Eʻ $
> C ʻ $NNH4D E2ʻ Hʻ F3ʻ 6H& Jʻ E- J Q343Dʻ Vʻ Eʻ F3ʻ C$ Dʻ ?NF3D- 3ʻ ^>_ʻ
$EDʻ CF$ ʻ N$-C3ʻ @H1 3Cʻ H&ʻ C-NFʻ * Hʻ> C Cʻ Hʻ Q3ʻ & 3Dʻ HEʻ <4 E3$4ʻ F3ʻ
GHH4ʻ 4& F3ʻ *H Eʻ 8$ ʻH4ʻ Eʻ CH J3ʻ 1-Q Nʻ $EDʻ NHEC1 N-H-Cʻ ? -$ HEʻ
F Eʻ F Cʻ 43C13N 3ʻ @ Oʻ BH4H-2Fʻ H4ʻ I $N3ʻ $Cʻ $&H43C$ Dʻ HEʻ F3ʻ * Hʻ
+3#& 1ʻ F343 E Q3&H43ʻ $C ʻ J3E HE3Dʻ Eʻ F3ʻ 143C3E ʻ $EDʻ Eʻ 3 340ʻ C-NR
N33D E2ʻ =3$4dʻ $EDʻ F3ʻ < 34C334Cʻ $EDʻ *H Eʻ @ 34+Cʻ CF$ ʻ +3 C3ʻ
+331ʻ $ʻ @H1Oʻ H&ʻ F3ʻ, $J3Cʻ, ʻ$ ʻ F3ʻ I34CHECʻ CHʻ N $ J E2ʻ $Cʻ $&H43C$ Dʻ
$EDʻ $ CHʻ $ʻ @H1Oʻ H&ʻ F3ʻ, $J3Cʻ H&ʻ $ ʻ I34CHECʻ CHʻ HQ(3N 3Dʻ Hʻ $Cʻ $&H43C$ Dʻ
Hʻ Q3ʻ 134-C3Dʻ QOʻ $EOʻ I34CHEʻ FH-ʻ I$O J3E ʻ H&ʻ $EOʻ 633ʻ $ ʻ $ ʻ
43CHEQ 3ʻ 8H-4Cʻ D-4 E2ʻ F3ʻ *3Eʻ G$OCʻ /E3 ʻ 143N3D E2ʻ F3ʻ C$ Dʻ
6 & 33E F ʻG$Oʻ H&ʻ +!5 ! 4! ʻ Eʻ F3ʻ 143C3E ʻ $EDʻ Eʻ 3 340ʻ C-NN33D E2ʻ
=3$4ʻ $EDʻ CF$ ʻ D3 34ʻ $ʻ @H1Oʻ H&ʻ 3$NFʻ H&ʻ C-NFʻ> C Cʻ Hʻ $EOʻ I34CHEʻ
43X- 4 E2ʻ F3ʻ C$ J3 ʻHEʻ I$O J3E ʻ H&ʻ <E3ʻ ?F E2ʻ &H4ʻ 3$NFʻ @H1O

W> ʻ EDʻ Q3ʻ ʻ3E$N 3Dʻ *F$ ʻ&H4ʻ 14H D E2ʻ $ʻ> C ʻ H&ʻ C-NFʻ H&ʻ> C H& ʻ
F3ʻ 6433 J3Eʻ H&ʻ F3ʻ @ Oʻ H&ʻ <,#&,#ʻ $Cʻ $43ʻ > 340 J3Eʻ H&ʻ F3ʻ C3 34$ʻ 340 J E(&
@H J1$E 3Cʻ 3E 3Dʻ Hʻ H 3ʻ Eʻ F3ʻ ; 3N HEʻ H&ʻ $ʻ P3 J Q34ʻ H4ʻ P3 J Q34Cʻ Hʻ @"EDH" HQ3
C34 3ʻ Eʻ $EOʻ &- -43ʻ I$4 $J3E ʻ&H4ʻ F3ʻ @ Oʻ H&ʻ <,#&,#ʻ F3ʻ ʻ3 -4E E2ʻ
<&& N34ʻ H4ʻ <&& N34Cʻ H&ʻ F3ʻ C$ Dʻ @ Oʻ CF$ ʻ HEʻ H4ʻ Q3&H43ʻ F3ʻ $C ʻ G$Oʻ H&ʻ -41 E2
?3% ʻ Eʻ F3ʻ 143C3E ʻ $EDʻ Eʻ 3$NFʻ C-NN33D E2ʻ =3$4ʻ CC-3ʻ I43N31 Cʻ Hʻ <&?N34ʻ
F3ʻ @ 34+Cʻ H&ʻ F3ʻ C$ Dʻ > 340ʻ @H J1$E 3C ʻ 43X- 4 E2ʻ F3 Jʻ &H4 F Fʻ Hʻ
J$+3ʻ H- ʻ H4ʻ N$-C3ʻ Hʻ Q3ʻ J$D3ʻ H- ʻ $ ʻ F3ʻ ; 13EN3ʻ H&ʻ F3ʻ 43C13N 3ʻ
@H J1$E 3C ʻ $Eʻ $ 1F$Q3 N$ʻ> C ʻ $NNH4D E2ʻ Hʻ F3ʻ 6H4 Jʻ Eʻ F3ʻ ?NF3D- 3ʻ
^% Oʻ Hʻ F Cʻ N ʻ$EE3 3Dʻ H&ʻ F3ʻ 6433 J3Eʻ H&ʻ Q3 E2ʻ> 3 O J3E
H&ʻ F3ʻ C$ Dʻ 43C13N 3ʻ @H J1$E 3Cʻ $EDʻ 3E 3Dʻ Hʻ H 3ʻ Eʻ C-NFʻ ; 3NR
HEʻ d $EDʻ 3 340ʻ C-NFʻ @ 34+ʻ CF$ ʻ C 2Eʻ C-NFʻ > C ʻ $EDʻ 4$EC J ʻ F3ʻ
C$ J3ʻ Fʻ * Hʻ 14 E 3Dʻ @H1 3Cʻ F343H&ʻ Hʻ C-NFʻ ʻ3 -4E E2ʻ <&& N34ʻ H4ʻ
<&& N34Cʻ FHʻ CF$ ʻ&H4 F Fʻ & ʻ<E3ʻ C-NFʻ @H1Oʻ Eʻ F3ʻ 3 %&) %%ʻ $EDʻ
<E3ʻ Eʻ F3ʻ L, %ʻ 8J') #(!ʻ H&ʻ F3ʻ C$ Dʻ @ Oʻ & 343ʻ Hʻ 43 J$ Eʻ 6H-4 33Eʻ
G$OCʻ Eʻ F3ʻ 143C3E ʻ $EDʻ Eʻ 3 340ʻ C-QC3X-3E ʻ =3$4d $EDʻ F3ʻ @ 34+Cʻ H&ʻ
F3ʻ C$ Dʻ > 340ʻ @H J1$E 3Cʻ CF$ ʻ N$-C3ʻ $ʻ C-&& N 3E ʻ, - J Q34ʻ H&ʻ C-NFʻ
> C Cʻ H&ʻ 6433 J3Eʻ $EDʻ > 340 J3Eʻ H&ʻ F3 4ʻ 43C13N 3ʻ @H J1$E 3Cʻ Hʻ Q3ʻ
14 E 3Dʻ $ʻ F3ʻ ; 13EN3ʻ H&ʻ F3ʻ 43C13N 3ʻ @H J1$E 3C ʻ $EDʻ CF$ ʻ +331ʻ
F3ʻ C$ J3ʻ Hʻ Q3ʻ 134-C3Dʻ QOʻ $EOʻ I34CHEʻ FH-ʻ I$O J3E ʻH&ʻ $EOʻ 633ʻ
$ ʻ $ ʻ 43CHEQ 3ʻ 8H4E Cʻ D-4 E2ʻ F3ʻ * Hʻ & 4C ʻ 9 33+Cʻ $& 34ʻ C-NFʻ > C Cʻ
ʻ ʻWʻ CF$

,H N3C HQ3 & 3E H& < J CC HEC $ED <Q(3N ' HEC E > C ' H& > 340 ' E3H

fF$ ' F$ 3 Q33E 14 E 3D ($ED 3 3 O I34CHE FHC3 , $ J 3 CF$ ' F$ 3 H J 3D E $EO C-NF H& I 3 J 3E $ED > 340 J 3E ' $ED FH fF$ ' N $ J ' H F$ 3 F C , $ J 3 EC34 3D F343 E $C F$ E2 Q33E 3E 3D HE F3 $C ' G$O 1&'?3% ' F3E E3 ' 143N3D E2 ' CF$ ' HE H4 Q3&H43 F3 * O & & F O'H& F3'143C3E '$ED E 3 340 C-NN33D E2 =3$4 ' 2 3 H4 N$-C3 H Q3 2 3E $, H N3 E 9 4 E2 $NNH4D E2 H F3 ' 5 4E ' E- J Q343D ' E F3 C$ D ?NF3D- 3 ^% _ ' H4 H F3 +3 ; &&3N ' H F3 ' 3 -4E E2 6 Z I ! ' , ' <&& N34C ' $ED H F3 @ 34+ H& F$ '@H J 1$EO E F3 > C ' F) ! ! , '4! &&$ ' N $ J ' H F$ 3 F C , $ J 3 EC34 3D ' (JD F3 ' 3 -4E E2 <&& N34 H4 <&& N34C CF$ ' EN -D3 F3 , $ J 3C H& $ ' I 34CHEC CH N $ J E2 $C $&H43C$ D E $ > C ' $NNH4D E2 H F3 6H4 J ' E- J Q343D B ' ' E) ! ' C$ D ?NF3D- 3 ^% _ '$ED CF$ ' N$-C3 C-NF $C J 3E HE3D > C ' H Q3 & 3D E F3 Y ?) O $ED U ! ! ' 8 J !) (! ' F3 C$ D @ O HE F3 * H ,#& 1 E3 ' 143N3D E2 F3 6 & 33E F G$O H& +!5 ! 4! ' E F3 143C3E ' $ED E 3 340 C-NN33D E2 =3$4 ($ED F3 C$ D ; 3 -4E ' $2 <&& N34 H4 <&& N34C ' $ED @ 34+C H& F3 C$ D @H J 1$E 3C ' CF$ ' +3 C3 +331 $ @D1O H& F3 , $ J 3C H& $ ' F3 I 34CHEC ' N $ J E2 ' $&H43C$ D ' H Q3 134-C3D QO $EO I 34CHE ' FH- ' I $O J 3E ' H& $EO 633 ' $ ' $ ' 43CHEQ 3 8 H-4C D-4 E2 F3 * 3E G$OC E3 ' 143N3D E2 F3 C$ D 6 & 33E F G$O H& +!5 !# ! ' ' F3 133C3E ' J$D E 3 340 C-NN33D E2 =3$4 ! $ED 3 340 I 34CHE FH CF$ ' HQ(3N ' H $EO H F34 I 34CHE $C EH ' ' F$ E2 Q33E 3E 3D HE F3 $C ' G$O H& ?3% ' F3E E3 ' 143N3D E2 H F$ 3 F C , $ J 3 EC34 3D E $EO C-NF > 340 C ' C ' HE H4 Q3&H43 F3 * 3E O"& & F G$O H& / 3 (31 ' E F3 143C3E ' $ED E 3 340 C-NN33D E2 =3$4 ' 2 3 H C-NF H F34 I 34CHE ' H4 3$ 3 $ ' F C C-$ ' I $N3 H& QHD3 ' $, H N3 E 9 4 E2 $NNH4D E2 H F3 6H4 J '

I H ' & > ' 340E 3E H Q3 $+3E $ ' M- DF$

E- J Q343D St E F3 C$ D ?@F3D- 3 ^% _ ' H& H F3 +3 ; &&3N ' ($ED E F3 @ O H& < ,#&,#) ! ' ' 3 -4E E2 <&& N34 H4 <&& N34C CF$ ' $+3 F3 I H# H4 H 3C H& C-NF 6433 J 3E H& F3 C$ D @ O Q3 E2 > 340 J 3E H& F3 C3 34$ ' @H J 1$E 3C $C ' $43 J 3D H H 3 $ ' C-NF ; 3N HE E F3 &%&) ' F3 C$ D @ O ' $ED F3 " D ' ' 3 - J E ' <&& N34 H4 <&& N34C CF$ ' EH ' Q3 43X- 43D H ' 14H D3 $EO BHH F H4 @H J 1$4 R J 3E C ' Q- ' CF$ ' $11H E ' H4 $+3 < E3 I H ' &H4 F3 FH 3 , - J Q34 H& +-NF > 340 J 3E $ ' F3 C$ J 3 I $N3

5-D23C H& ?C 3 H E$ J 3 B$4 ' a 3 $ ' FH CF$ ' 43 C3 F3 > C C H& BH4H-2F H 34C

W> W ' ED Q3 ' 3E$N 3D ' * F$ ' F3 >H4D @F 3& 5-C N3 H& F3 @H-4 ' H& % E2 C B3ENF &H4 F3 * J 3 Q3 E2 CF$ ' E F3 P HE F , '?3% ' 34 / 3 (31 ' E F3 J 43C3E ' $ED E 3 340 C-NN33D E2 =3$4 ' EH J E$ 3 $ED $11H E ' CH J $EO B$44 C 34C $C F3 C$ D >H4D @F 3& 5-C N3 CF$ ' D33 J ' E3N3CC$4O ' H 43 C3 F3 43C13N 3 > C C H& H 34C &H4 F3 @ O H& < ,#&,# ' $ED ' &H4 F3 @ ' H& !1 #1 ! ' $ED &H4 F3 C3 34$ ' BH4H-2FC E F3 @H-E O H4 5& DD&3C3 I ' $ED F$ ' F3 C3E H4 5-D23 &H4 F3 ' * J 3 Q3 E2 E F3 @H J J CC HE H& CC T3 &H4 3 340 H F34 @H-E O CF$ ' F3E 4$ 3 E2 F3 ?- J J 34 @ 4N- ' E F3 143C3E ' $ED E 3 340 C-NN33D E2 =3$4 ' EH J E$ 3 $ED $11H E ' CH J $EO B$4R 4 C 34C $C F3 C$ D 5-D23 CF$ ' D33 J ' E3N3CC$4O ' H 43 &33 F3 43C13N 3 > C C N&& H 34C ' $C 9 3 ' &H4 F3 C3 34$ ' @ 3+ $ED BH4H-2FC E 3 340 C-NF @H-E O ' $C &H4 3 340 @ O $ED * H E ' $ED @H-E O H& $ @ O $ED * H E ' E3 ' $D P E E2 H $EO C-NF @H-E O ($ED F3 * H E $ED @H-E O H& F3 * H E H& #(1 ,# >35,# 3O CF$ ' &H4 F C I -41HC3 Q3 NHEC D343D $C E3 ' $D(H E E2 H F3 @H-E O H& H, %! ' $ED F3 * H E $ED @H- J O H& F3 * H E H& E!F ' 1 %! 35,# $C E3 ' $D(H E E2 H F3 @H-E O , 'E,)3 4! % #& ' $ED F3 @ O $ED @H-E O

, F3 @ O H& " 1 ,% $C E3 $D(H E E2 H F3 @H-E O H& +, ! 1!
$ED F3 C$ D >H4D @F 3& 5-C N3 $ED 5-D23 43C13N 3 O CF$
F$ 3 I H 34 H EH J E$ 3 $ED $11H E <E3 34 J H43 B$44 C 34C
H 43 C3 F3 > C C &H4 F3 C$ J 3 @ O H4 BH4H-2F H4 H F34
I $N3 $C $&H43C$ D H4 <E3 B$ 4 C 34 HE O H 43 C3 F3 > C C &H4
C3 34$ @ 3C BH4H-2FC $ED H F34 I $N3C $C $&H43C$ D. I 4H D3D I4H CH
$ $OC F$ EH P 3 J Q34 H& I $4 $ J 3E EH4 $EO I 34CHE FH D E2 $EO
<&& N3 H4 I $N3 H& I 4H& -ED34 F3 @4H E CF$ Q3 $11H E 3D $C C-NF
B$44 C 34 $C $&H43C$ D $ED F$ EH B$44 C 34 CH $11H E 3D $C $&H43C$ D
CF$ Q3 3 2 Q 3 H C34 3 E I $4 $ J 3E &H4 ; 2F 33E P HE FC &4H J
F3 * J 3 H& F C 11H E J 3E &H4 $EO @ O BH4H-2F H4 H F34 I $N3
$C $&H43C$ D &H4 F NF F3 CF$ Q3 CH $11H E 3D. I 4H D3D $ CH F$
EH F E2 F343 E NHE $ E3D CF$ 143 3E F3 C$ J 3 B$44 C 34 &4H J Q3 E2
1H E 3D H 43 C3 F3 > C C &H4 * H H4 J H43 @H-E 3C 8 D E2C
I $4 C H4 G C HEC H4 &H4 $EO @H-E O D E2 I $4 C H4 G C HE
$ED $EO <E3 H4 J H43 H& F3 @ 3C H4 BH4H-2FC F343 E

> ED Q3 3E$N 3D *F$ F3 B$44 C 34 H4 B$44 C 34C CH $1R B$44 C 34 H
1H E 3D H 43 C3 F3 > C C H& H 34C &H4 $EO @ O <4 BH4H-2F F 43 C3 > C C
FH D $E H13E @H-4 H4 @H-4 C &H4 F$ I -41HC3 F E C-NF @ O H4 H& BH4H-2F
BH4H F $ED $ CH F E 3 34O I $N3 CF$4 E2 E F3 ; 3N HE &H4 H 34C $ED
C-NF @ O H4 BH4H-2F $ CH J 3 * J 3 Q3 33E F3 ; & 33E F G$O H& -1HE D-3
+!5 ! 4! EN -C 3 $ED F3 * 3E O & & F G$O H& 6 ,)! EN -C 3 14HH& H ER
E F3 143C3E $ED E 3 34O C-NN33D E2 =3$4 F$ E2 & 4C 2 3E *F433 C34 $ED 3
N 3$4 G$OC , H N3 H& F3 FH D E2 H& C-NF @H-4 H4 @H-4 C H Q3 1-E23
& 3D HE F3 GHH4C H& $ F3 @F-4NF3C $ED @F$13 C F E C-NF , $ J 3C
@ O BH4H-2F H4 I $N3 43C13N 3 O H4 & F343 Q3 EH @F-4NF H4
@F$13 F343 E F3E H Q3 & 3D E CH J 3 1-Q N $ED NHEC1 N-H-C
? -$ HE F E F3 C$ J 3 43C13N 3 O $ED F3 < 34C334C $ED *H E
@ 34+C FH CF$ F$ 3 J $D3 H- &H3 > C C H& H 34C $C $&H43C$ D
$ED E F3 @$C3 H& &H3 @ O H& >H DHE F3 3 -4E E2 <&& N34 H4
<&& N34C H1 &H3 C$ D @ O CF$ $ F3 H13E E2 H& F3 & 4C @H-4 H
Q3 F3 D QO 3 34O C-NF B$44 C 34 &H4 43 C E2 C-NF > C C 14HD-N3 F3 4
43C13N 3 > C C Q3&H43 F J $XD F3 C$ D < 34C334C $ED *H E @ 34+C
CF$ $ CH D3 34 H C-NF B$44 C 34 $ @H1O H& F3 > C H& F3 I 34CHEC
HQ(3N 3D H CH J $D3 H- QO F3 J $C $&H43C$ D $ED F3 @ 34+C H&
&H3 C3 34$ 34O @H J 1$E 3C <& &H3 @ O H& <,#&,# $ED F3 *H E
@ 34+ H& 3 34O H 9 4 @ O H4 BH4H-2F H4 I $N3 CF$4 E2 E &H3 ; 3N HE
F343 F $ED F3 C3 34$ < 34C334C F E 3 34O @ O BH4H-2F H4
I $N3 $C $&H43C$ D CF$ $ 3ED F3 @H-4 H Q3 F3 D QO 3 34O C-NF
B$44 C 34 &H4 $EO C-NF @ O BH4H-2F H4 I $N3 $C $&H43C$ D $ED CF$
$EC 34 -1HE <$ F $ C-NF \ -3C HEC $C C-NF B$44 C 34 J $O 1- H
F3 J H4 $EO H& F H-NF E2 $EO P $ 34 E3N3CC$4O &H4 43 C E2 &H3
> C C H& H 34C ! $ED 3 34O C-NF B$44 C 34 CF$ EC34 E C-NF > C b
F3 , $ J 3 H& 3 34O I 34CHE F1 CF$ Q3 14H 3D H F C ?$ C&$N HE H
F$ 3 Q33E 3E 3D HE &H3 $C G$O H& ?3% F3E E3 143N3D E2 H
F$ 3 F C , $ J 3 EC34 3D E $EO C-NF > C H& H 34C &H4 C-NF @ O H4
BH4H-2FO $ED C-NF B$E C 34 CF$ 43 $ E HE F3 > C C H& H 34C &H4
C-NF @ O H4 BH41-2F &H3 , $ J 3C H& $ I 34CHEC H FH J EH <Q(3NR
HE &H$ F$ 3 Q33E J $D3 E F3 P $EE34 F343 E Q3&H43 J 3E HE3D
$ED F3 CF$ $ CH 43 $ E HE F3 C$ D > C C F3 , $ J 3 H& 3 34O I 34CHE
FH CF$ F$ 3 Q33E HQ(3N 3D H QO $EO I 34CHE -E 3CC F3 I $ O
?<

' HQ(3N E2' CF$ ' $113$4' QO' F JC3 ' H4' QO' CH J 3' HE3' HE' F C' B3F$ &' E' C-11H4 ' H&' C-NF' <Q(3N HE' ' $ED' F343' F3' , $ J 3' H&' $EO' 634CHE' EC34 3D' E' F3' > C ' H&' H 34C' &H4' C-NF' @ O' H4' BH4H-2F' CF$ ' F$ 3' Q33E' HQ(3N 3D' H' E' F3' P $EE34' F343 E Q3&H43' J 3E HE3D ' $ED' F3' I 34CHE' CH' HQ(3N E2' CF$ ' $113$4' QO ' Q J K3 &' H4' QO' CH J 3 ' HE3' HE' F C' B3F$ &' E' C-11H4 ' H&' C-@F' <Q(3N HE ' 3 340' C-NF' B$44 C 34' CF$ ' 43X- 43' 7 H' Q3' 14H 3D' F$ ' F3' I 34CHE' CH' HQ(3N 3D' H' $C' 3E 3D' HE' F3' $C ' G$O' H&' ?3% ')Z ' E3 ' 143N3D E2' H' F$ 3' F C' , $ J 3' EC34 3D' E' F3 ' > C ' H&' H 34C' &H4' C-NF' @ O' H4' BH4H-2F' E' 43C13N ' H&' F3' \ -$ & N$ HE' D3CN4 Q3D' E' C-NF' > C ' $ED' E' N$C3' F3' C$ J 3' CF$ ' EH ' Q3' 14H 3D' H' F3' ?$ C&$N HE' H&' C-NF' B$44 C 34 ' H4' E' N$C3' ' CF$ ' Q3' 14@ 3D' F$ ' C-NF' I 34CHE' $C' F3E' EN$1$N $ 3D' QO' $EO' >$ ' H4' ? $ - 3' &4H J ' H E2' E' F3' B 334 HE' H&' P 3 J Q34C' H' C3 3' E' I $4 $ J 3E _' C-NF' B$44 C 34' CF$ ' '3 1-E23' F3' , $ J 3' H&' 3 340' C-NF' I 34CHE' &4H J ' F3' C$ D' > C C ' $ED' F3' CF$ ' $ CH' 3 1-E23' &4H J ' F3' C$ D' > C C' F3' , $ J 3' H&' 3 340' I 34CHE' FH' CF$ ' Q3' 14H 3D' H' F J ' H' Q3' D3$D ' $ED' CF$ ' NH443N ' $E(' P C $+3' F NF' CF$ ' Q3' 14H 3D Q33E' J $D3' E' $EO' H&' F3' C$ D' > C C' $C' H' $EO' H&' F3' I $4 N- $4C' QO' F C' N ' 43X- 43D' H' Q3' EC34 3D' E' C-NF' > C C ' $ED' F343' F3' @F4 C $E' , $ J 3 ' H4' F3' I $N3' H&' QHD3 ' H4' F3' , $ -43' H&' F3' \ -$ & N$ HE ' H4' F3' HN$ ' G3CN4 1 HE ' H&' F3' I 4H134 O' H&' $EO' I 34CHE' FH' CF$ ' Q3' EN -D3D' E' J O' C-NF' > C ' CF$ ' J ' FH O' H J 3D' E' C-NF' > C ' E ' $EO' @$C3' F343' F3' C$ J 3' C' QO' F C' N ' D 43N 3D' H' Q3' C13N & 3D' F343 E ' C-NF' B$44 C 34' CF$8' 3 1-E23' F3' , $ J 3' H&' 3 340' C-NF' I 34CHE' &4H J ' C-NF' C ' -E 3CC' F3' P $ 34' H4' P $ 34C' CH' H J 3D' Q3' C-11 3D' H' F3' ?$ C&$N HE' <&' C-NF4' B$44 C 34' Q3&H43' F3' CF$ ' F$ 3' NH J 1 3 3D' F3' ' 3 C HE' <&' C-NF' > C ' E' F NF' @$C3' F3' CF$ ' F3E' $ED' F343' EC34 ' F3' C$ J 3' E' C-NF' > C : I 4H D3D' $ $OC ' F$ ' EH' I 34CHE C' , $ J 3' CF$ ' Q3' EC34 3D' QO' C-NF' B$44 C 34' E' $EO' C-NF' > C ' &H4' '$EO7@ O' <4' BH4H-2F ' H4' CF$ ' Q3' 3 1-E23D' F343&4H J ' 3 N31 ' E' F3' @$C3' H&' G3$ ' H4' H&' C-NF' < J CC HE' H4' < J CC HEC' $C' F343 E Q3&H43' $C J 3E HE3D ' -E 3CC' C-NF' , H N3' CF$ ' F$ 3' Q33E' 2 3E' $C' C' F343 E Q3&H43' 43X- 43D' E' 3$NF' H&' F3' C$ D' @$C3C ' ' ^ '

IH 34' H43N'

$ED' C-11 O' < J CC HEC' E' F3' > C C

IH 34' H&' E4 C13N E2' *$ ' CC3CC J 3E C' ' $ED' ' $ 3' BHH+C

> ' ED' Q3' ' 3E$N 3D ' *F$ ' F3' < 34C33 C' H&' 3 340' I $4 CF' H4' *H ECF 1' CF$ ' &H4' F3 4' CC C $EN3' E' J $+ E2' H- ' F3' > C C' E' 1-4C-$EN3' H&' F C' N ' ^-1HE' ' 3X-3C ' J $D3' QO' F3 J ' H4' $EO' H&' F3 J ' $ ' $EO' 43$CHE$Q 3' * J 3' Q3 33E' F3' & 4C ' G$O' H&' ?3#!' $ED ' F3' $C ' G$O' H&' ?3% '0 ' F3' 143C3E ' $ED' E' $EO' C-NN33D E2' =3$4 ' H' $EO' CC3CCH4' H4' @H 3N H4' H&' *$ 3C ' H4' H' $EO' H F34' <&& N34' F$ E2' F3' @-C HDO' H&' $EO' G-1 N$ 3' H4' *$ ' CC3CC J 3E ' &H4' C-NF' I $4 CF' H4' *H ECF 1 _' F$ 3' & 33' > Q34 O' H' EC13N ' $EO' C-NF' G-1 N$ 3' H4' *$ ' CC3CC J 3E ' $ED' H' 3 4$N ' &4H J ' F3EN3' C-NF' I $4 N- $4C' $C' J $O' $113$4' H' C-NF' < 34C334' H4' < 34C334C' H' Q3' E3N3CC$40 ' $ED' 3 340' B$44 C 34' $11H E 3D' -ED34' F C ' N ' CF$ ' F$ 3' IH 34' H' 43X- 43' $EO' CC3CCH4 ' @H 3N H4' H&' *$ 3C ' H4' H F34' <&& N34' F$ E2' F3' @-C HDO' H&' $EO' G-1 N$ 3' H4' *$ ' CC3CC J 3E ' H4' $EO' < 34C334' H4' < 34C334C' F$O E2' F3' @-C HDO' <&' $EO' I HH4' ' $ 3 ' H' 14HD-N3' F3' C$ J 3' 43C13N 3 O' Q3&H43' F J ' $ ' $EO' @H-4 ' H' Q3' F3 D' QO' F J ' &H4' F3' I -41HC3' H&' $CC C E2' F J ' E' 43 C E2' F3' > C C' H' Q3' QO' F J ' 43 C3D' E' 1-4C-$EN3' H&' F C' N '

> ' ED

5> ʻ EDʻ Q3ʻ ʻ3E$N 3Dʻ *F$ʻ 3 340ʻ B$44 C 34ʻ FH D E2ʻ $EOʻ @H-4ʻ -ED34ʻ F Cʻ N ʻ $Cʻ $&H43C$ Dʻ CF$ ʻ F$ 3ʻ I H 34ʻ Hʻ $D(H-4Eʻ F3ʻ C$J 3ʻ ʻ&4H J ʻ * J 3ʻ Hʻ * J 3ʻ $EDʻ &4H J ʻ $EOʻ HE3ʻ I $N3ʻ Hʻ $EOʻ H F34ʻ I $N3ʻ H4ʻ I $N3Cʻ F Eʻ F3ʻ C$J 3ʻ @H-E O ʻ ʻ D E2ʻ I$4 Cʻ H4ʻ G C HE ʻ H4ʻ F Eʻ F3ʻ C$J 3ʻ @ Oʻ H4ʻ BH4H-2F ʻ H4ʻ F Eʻ $EOʻ I $N3ʻ CF$4 E2ʻ Eʻ F3ʻ ; 3N HEʻ &H4ʻ C-NFʻ @ Oʻ H4ʻ BH4H-2F ʻ Q- ʻ CHʻ $Cʻ FF ʻ EHʻ C-NFʻ $D(H-4E3Dʻ @H-4 ʻ CF$ ʻ Q3ʻ F3 Dʻ $& 34ʻ F3ʻ * 3E O & & Fʻ G$Oʻ H&ʻ Y' ,4Z ʻ Eʻ $EOʻ =3$4 ʻ $EDʻ 3 340ʻ C-NFʻ B$44 C 34ʻ CF$ ʻ F$ 3ʻ I H 34ʻ Hʻ $D J E C 34ʻ $Eʻ <$ Fʻ nH4 ʻ Eʻ F3ʻ @$C3ʻ H&ʻ $ʻ \ -$+34ʻ H4ʻ P H4$ $E ʻ $Eʻ && 4 J $ HE _ʻ Hʻ $ ʻ I 34CHECʻ J $+ E2ʻ <Q(3N HEʻ Hʻ F3ʻ EC34 HEʻ H4ʻ < J CC HEʻ H&ʻ $EOʻ , $ J 3ʻ Eʻ $EOʻ H&ʻ C-NFʻ > C Cʻ $Cʻ $&H43C$ D ʻ $EDʻ Hʻ $ ʻ I 34CHECʻ HQ(3N 3Dʻ Hʻ H4ʻ N $ J E2ʻ Hʻ Q3ʻ EC34 3Dʻ Eʻ $EOʻ H&ʻ C-NFʻ > C C ʻ H4ʻ N $ J E2ʻ Hʻ F$ 3ʻ $EOʻ P C $+3ʻ NH443N 3Dʻ H4ʻ $EOʻ < J CC HEʻ C-11 3Dʻ Eʻ $EOʻ H&ʻ C-NFʻ > C C ʻ $EDʻ Hʻ $ ʻ 9 E3CC3Cʻ FHʻ J $Oʻ Q3ʻ 3ED343Dʻ HEʻ 3 F34ʻ ? D3ʻ $EDʻ F$ ʻ &ʻ $EOʻ I 34CHEʻ $+ E2ʻ $EOʻ <$ Fʻ H4ʻ J $+ E2ʻ $EOʻ && 4 J $ HEʻ -ED34ʻ F Cʻ N ʻ CF$ ʻ &- Oʻ C 3$4ʻ H4ʻ $&& 4 J ʻ &$ C3 O ʻ C-NFʻ I 34CHEʻ CF$ ʻ Q3ʻ D33 J 3Dʻ 2- Oʻ H ʻ I 3((-40 ʻ $EDʻ CF$ ʻ Q3ʻ 1-E CF3Dʻ $NNH4D E2 O ʻ $EDʻ F$ ʻ $ ʻ F3ʻ FH D E2ʻ H&ʻ C-NFʻ 43C13N 3ʻ @H-4 Cʻ F3ʻ 1$4 3Cʻ CF$ ʻ EH ʻ Q3ʻ $ 3ED3Dʻ QOʻ @H-EC3 ʻ $EDʻ F$ ʻ 3 340ʻ C-NFʻ B$44 C 34ʻ CF$ ʻ -1HEʻ F3ʻ F3$4 E2ʻ Eʻ H13E@HE& ʻ & E$ Oʻ D3 3 ʻ 4$ E3ʻ -1HEʻ F3ʻ $ D Oʻ H&ʻ C-NFʻ @ $ J Cʻ $EDʻ <Q(3N HEC ʻ $EDʻ CF$ ʻ &H4ʻ F$ ʻ I -41HC3ʻ F$ 3ʻ F3ʻ C$J 3ʻ I H 34Cʻ $EDʻ 14HN33Dʻ Eʻ F3ʻ C$J 3ʻ P $EE34ʻ ^3 N31 ʻ F343ʻ H F34 C3ʻ D 43N 3Dʻ QOʻ F Cʻ N _ʻ $Cʻ F3ʻ '3tʻ -4E E2ʻ <&& N34ʻ H&ʻ $EOʻ @H-E O ʻ @ Oʻ H4ʻ BH4H-2Fʻ $NNH4D E2ʻ Hʻ F3ʻ >$ Cʻ $EDʻ #C$23Cʻ EH ʻ HQC34 3Dʻ $ ʻ ; 3N HEC ʻ $EDʻ C-NFʻ B$44 C 34ʻ CF$ ʻ Eʻ H13Eʻ @H-4 ʻ 4 3ʻ F Cʻ E $ Cʻ 2 EC ʻ F3ʻ , $ J 3Cʻ 43C13N 3 Oʻ C 4-N+ʻ H- ʻ H4ʻ EC34 3D ʻ $EDʻ 2 EC ʻ $EOʻ I$4 ʻ H&ʻ F3ʻ C$ Dʻ > C Cʻ Eʻ F NFʻ $EOʻ P C $+3ʻ CF$ ʻ F$ 3ʻ Q33Eʻ NH443N 3Dʻ 34ʻ $EOʻ < J CC HEʻ C-11 3D ʻ $EDʻ CF$ ʻ C 2Eʻ F C ʻ , $ J 3ʻ Hʻ 3 340ʻ I $23ʻ H&ʻ F3ʻ C3 34$ ʻ > C Cʻ CHʻ C3 3D

B$44 C 34ʻ HEʻ 43 C E2ʻ 3ʻ > C C ʻ !ʻ 2*ʻ I H 34ʻ ! +ʻ $DR (H-4E E2 ʻ H&ʻ $D J E C 34 E2ʻ <$ FC ʻ KN

> ʻ EDʻ Q3ʻ ʻ3E$N 3D ʻ *F$ ʻ EH FC $ED E2ʻ $EOʻ F E ʻ F343 E ʻ Q3&H43ʻ NHE $ E3D ʻ &ʻ ʻ CF$ ʻ Q3ʻ J $D3ʻ Hʻ $113$4ʻ Hʻ F3ʻ >H4Dʻ @F 3&ʻ 5-C N3ʻ H4ʻ 5-D23ʻ FHʻ CF$ ʻ F$ 3ʻ $11H E 3Dʻ $EOʻ B$44 C 34ʻ H4ʻ B$4 ʻ 4 C 34Cʻ -ED34ʻ F Cʻ N ʻ Hʻ 43 C3ʻ F3ʻ > C ʻ H&ʻ H 34C ʻ F$ ʻ QOʻ 43$CHEʻ H&ʻ F3ʻ G3$ F ʻ E3CC ʻ H4ʻ QC3EN3ʻ H&ʻ $EOʻ C-NFʻ B$44 C 34ʻ H4ʻ B$44 C 34C ʻ H4ʻ QOʻ 43$CHEʻ H&ʻ F3ʻ EC-&& N 3ENOʻ H&ʻ F3ʻ , - J Q34ʻ H&ʻ C-NFʻ B$44 C 34C ʻ H4ʻ &4H J ʻ $EOʻ H F34ʻ @$-C3 ʻ C-NFʻ > C Cʻ N$EEH ʻ Q3ʻ 43 C3Dʻ F Eʻ F3ʻ I 34 HDʻ D 43N 3Dʻ QOʻ F Cʻ N ʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ C-NFʻ >H4Dʻ @F 3&ʻ 5-C N3ʻ H4ʻ 5-D23 ʻ $EDʻ F3ʻ Cʻ F343QOʻ 43X- 43D ʻ Hʻ $11H E ʻ <E3ʻ H4ʻ J H43ʻ B$44 C 34ʻ H4ʻ 44 C 34Cʻ Hʻ $N ʻ Eʻ F3ʻ I $N3ʻ H&ʻ H4ʻ Eʻ $DD HEʻ Hʻ F3ʻ B$44 C 34ʻ H4ʻ B$44 C 34Cʻ H4 2 E$ Oʻ $11H E 3D ʻ $EDʻ C-NFʻ B$44 C 34ʻ H4ʻ B$44 C 34Cʻ CHʻ C-QC3X-3E Oʻ $11H E 3Dʻ CF$ ʻ F$ 3ʻ F3ʻ C$J 3ʻ I H 34Cʻ $EDʻ - FH4 3Cʻ Eʻ 3 340ʻ 43C13N ʻ $Cʻ &ʻ F3Oʻ F$Dʻ Q33Eʻ H4 2 E$ Oʻ $11H E 3Dʻ QOʻ C-NFʻ >H4Dʻ @F 3&ʻ 5-C N3ʻ H4ʻ 5-D23

5-D23Cʻ H$1 ʻ 1H E ʻ $DD ʻ B$44 C ʻ H&, 33D* ʻ

> ʻ FDʻ Q3ʻ ʻ3E$N 3D_ʻ *F$ ʻ F3ʻ > C Cʻ H&ʻ H 34Cʻ &H4ʻ 3$NFʻ @H-E O ʻ H4ʻ &H4ʻ F3ʻ ' D E2ʻ I$4 Cʻ H4ʻ G C HEʻ H&ʻ 3$NFʻ @H-E O ʻ CHʻ C 2E3Dʻ $Cʻ $&H43C$ Dʻ QOʻ $EOʻ C-NFʻ B$44 C 34 ʻ CF$ ʻ Q3ʻ &H4 F Fʻ 4$EC J 3Dʻ QOʻ F J ʻ Hʻ F3ʻ @ 34+ʻ H&ʻ F3ʻ I 3$N3ʻ H&ʻ F3ʻ @H-E O ʻ ' D E2 ʻ H4ʻ I J Cʻ &H4ʻ F NFʻ C-NFʻ B$44 C 34ʻ CF$ ʻ F$ 3ʻ Q33Eʻ $11H E 3D ʻ $EDʻ F3ʻ @ 34+ʻ H&ʻ F3ʻ I 3$N3ʻ CF$ ʻ +331ʻ F3ʻ C$ Dʻ > C Cʻ $ J HE2ʻ F3ʻ ' 3NH4DCʻ H&ʻ F3ʻ ?3CC HEC ʻ 44E23Dʻ Fʻ 3 340ʻ 8 -ED43Dʻ Eʻ $ 1F$Q3 N$ ʻ <4D34 ʻ $EDʻ Fʻ 3 340ʻ I$4 CFʻ 2 EDʻ *H ECF 1ʻ F Eʻ C-NFʻ 8 -ED43Dʻ +3 C3ʻ Eʻ $ 1F$Q3 N$ ʻ <4D34 ʻ $EDʻ CF$ =ʻ

@H-E Oʻ > C Cʻ Hʻ Q3ʻ 4$ECR J 3Dʻ Hʻ @ 34+ʻ H&ʻ F3ʻ I 3$N3 ʻ BH4HE2F> C Cʻ Hʻ Q3ʻ %&31 ʻ QOʻ '3 -4E E2ʻ <&& N34ʻ $EDʻ F$ED3Dʻ Hʻ DCʻ ?-NN3CCH4

> C C H Q3 NH1 3D # H BHH+C F3 , $ J 3C E- J Q343D

CF$ &H4 F F N$-C3 F3 C$ D > C C H Q3 &$ 4 O $ED 4- O @H1 3D E F3 C$ J 3 <4D34 E $ BHH+ H Q3 QO F J 14H D3D &H4 F$ I -41HC3 $ED CF$ 143& H 3 34O , $ J 3 CH NH1 3D H- C 14H134 , - J Q34O Q32 EE E2 F3 , - J Q34C &4H J F3 & 4C , $ J 3 $ED NQE F %2 F3 J E $ 432- $4 ?34 3C DH E H F3 $C , $ J 3 $ED CF$ 3HEE J 3 3 $ED D3 34 C-NF BHH+ HE H4 Q3&H43 F3 $C G$O H& 6 ,4! E F3 143C3E $ED E 3 34O C-NN33D E2 =3$4 H F3 ?F34 && H& F3 @H-E O H4 F C #ED34 ?F34 && FH CF$ C$&3 O +331 F3 C$ J H $ED CF$ $ F3 ; 1 4$ HE H& F C <&& N3 D3 34 H 34 F3 C$ J 3 H F3 C-NN33D E2 ?F34 && H4 F C #ED34 ?F34 && $ED F3 > C C H& H 34C &H4 3$NF @ O H4 BH4H-2F ?H C 2E3D $C $&H43C$ D QO $EO C-NF B$44 C 34 CF$ Q3 &H4 F F D3 343D QO F J H F3 3 -4E E2 <&& N34 &H4 C-NF @ O H4 BH4H-2F FH CF$ C$&3 O +331 F3 C$ J 3 $ED CF$ N$-C3 F3 C$ D > C C H Q3 &$ 4 O $ED 4- O NH1 3D E $ BHH+ H Q3 QO F J 14H D3D &H4 F$ I -41HC3 F 3 34O , $ J 3 F343 E E- J Q343D $NNH4D E2 H F3 G 43N HEC $&H43C$ D $ED CF$ N$-C3 C-NF BHH+ H Q3 NH J 1 3 3D HE H4 Q3&H43 F3 $C G$O ,: 6 ,4! E F3 143C3E $ED E 3 34O C-NN33D E2 =3$4 $ED CF$ D3 34 H 34 C-NF BHH+ H23 F34 F F3 > C C $ F3 ; 1 4$ HE H& F C <&& N3 H F3 I 34CHE C-3@33D E2 F J

?-NF HH+C H Q3 3 32 C 34 H& ; +3 H4C

E Z#NF <&& N]($ D 3 34O C-NF BHH+ H Q3 CH NH J 1 3 3D HE H4 Q3&H43 F3 $C G H&<N HK34 E F3 143C3E =3$4 CF$ Q3 D33 J 3D F3 32 C 34 H& D 3 ; 3N H4C H H 3 $& 34 F3 ; ED H& F C 143C3E I$4R $ J 3E E F3 @FH N3 H& $ P3 J Q34 H4 P3 J Q34C H C34 3 E I$4 $R J 3E &H4 F3 @H-E O D E2 I$4 C H4 G C HE H& $ @H-E O @ O H4 BH4H-2F H F NF C-NF 32 C 34 CF$ 43 $ 3 $ $EO ; 3N HE F NF J $O $+3 1 $N3 $& 34 F3 C$ D $C G$O H& 6 ,4! E F3 143C3E =3$4 $ED Q3&H43 F3 6 4C G$O H& E ,0! 4! E F3 =3$4 <E3

32 C 34 FH HE2 H Q3 E &H4N3

FH-C$ D 3 2F F-& D43D $ED F 4 O F433 $ED 3 34O C-NF BHH+ H Q3 ?< @H J 1 3 3D HE H4 Q3&H43 F3 $C G$O H& 6 ,4! E F3 =3$4 \((2 FH-C$ED 3 2F F-ED43D $ED F 4 O - 33 $ED E 3 34O C-NN33DR E2 =3$4 CF$ Q3 F3 32 C 34 H& ; 3N H4C H H 3 $ $EO ; 3N HE F NF CF$ $+3 1 $N3 Q3 33E F3 6 4C G$O H& E ,0! 4! EN -C 3 E F3 = 31 F343 E C-NF 43C13N 3 32 C 34 CF$ F$ 3 Q33E J $D3 $ED F3 6 &C G$O H& E ,0! 4! E F3 C-NN33D E2 =3$4

@H1 3C H& F3 > C C $ED H& H Q3 EE 3D &H4 ?$&3 O /

> ED Q3 3E$N 3D * F$ F3 < 34C334C H& 3 34O I$4 CF $ED *H ECF 1 CF$ N$-C3 H Q3 4 3E H4 14 E 3D @H1 3C H& F3 C C F3 J H Q3 J $D3 E F3 143C3E $ED E 3 34O C-NN33D E2 =3$4 $ED CF$ D3 34 C-NF @H1 3C H $ I 34CHEC $11 O E2 &H4 F3 C$ J 3 3E I$O J 3E H& $ 43$CHE 3 I 4 N3 &Q4 3$NF @H1O $ED F3 P HE 3C $4 C E2 & H J F3 ?$ 3 F343H& CF$ Q3 $NNH-E 3D &34 QO F3 C$ D < 34C334C $ED $11 3D H F3 C$ J 3 I -41HC3C $C P HE 3C NH R 3N 3D &H4 F3 3%3& H& F3 I HH4 $ED F3 @ 34+C H& 3 I 3$N3 CF$ N$-C3 H Q3 4 3E H4 14 E 3D @H1 3C H& F3 32 C 34C H& F3 ; 3N H4C &H4 F3 4 43C13N 3 @H-E 3C D E2C H4 I$4 C H4 &H4 F3 G C HEC H& F3 4 43C13N 3 @H-E 3C $ED F3 3 -4E E2 <&& N34 H& 3 34O @ O H4 BH4H-2F CF$ N$-C3 H Q3 4 3E H4 14 E 3D @H1 3C H& F3 32 C 34 H& F3 ; 3N H4C &H4 C-NF @ O H4 BH4H-2F $ED 3 34O C-NF @ 34+ H& F3 I 3$N3 $ED 3 34O C-NF 3 -4E E2 <&& N34 CF$ D3 34 C-NF 43C13N 3 @H1 3C H $ I 34CHEC $11 O E2 &H4 F3 C$ J 3 HE I$OR J 3E H& $ 43CHEQ 3 I 4 N3 &H4 3$NF @H1O $ED F3 P HE 3C $4 C E2 &4H J F3 ?$ 3 H& $ C-NF @H1 3C CF$ Q3 $NNH-E 3D &H4 H F3 * 43$R C-434 H& F3 @H-E O D E2 H4 I$4 C

> ' ED' Q3' ' 3E$N 3D' *F$ ' &H4' F3' I -41HC3' H&' D3&4$O E2' F3' ; 13EN3CH&'
; 13EN3C' H' Q3' EN-443D' QO' F3' < 34C334C' H&' F3' IHH4' $ED' QO' F3' < 34C334C'
@ 34+' H&' F3' I3$N3' E' N$440 E2' E H' 3&&3N' F3' C3 34$' I4H C HEC' H&' 13$N3'
F C' N ' CH' &$4' $C' 43 $ 3C' H' F3' ; 3N H4C' &H4' $EO' @H-E O' H4' &H4' $EO' '&H Q3'
' D E2' I$4 C' H4' G C HE' H&' $' @H-E O' 3 340' I34CHE' -1HE' 2 E2' D3&4$O3D'
, H N3' H&' F C' @ $ J' $C' C-NF' ; 3N H4' H' F3' < 34C334C' $C' F343 E Q3&H43'
J <E HE3D' CF$ ' 1$O' H4' N$-C3' H' Q3' 1$ D' H' F3' C$ D' < 34C334C' F3'
?- J' H&' <E3' ?F E2' ! $ED' C-NF' , H N3' H&' @ $ J' CF$ ' EH ' Q3' D33 J 3D'
$ D' -E ' C-NF' ?- J' CF$ ' F$ 3' Q33E' 1$ D' $ED' F3' < 34C334C' H&'
3$NF' I$4 CF' H4' *H ECF 1' CF$ ' $DD' $ ' PHE 3C' CH' 43N3 3D' QO' F3 J'
-' F3' PHE3O' NH 3N 3D' H4' H' Q3' NH 3N 3D' &H4' F3' ' 3 3&' H&' F3' IHH4'
E' C-NF' I$4 CF' H4' *H ECF 1' $ED' C-NF' PHE 3C' CH' $DD3D' CF$ ' Q3'
$11 N$Q 3' H' F3' C$ J 3' I -41HC3C' $C' PHE 3C' NH 3N 3D' &H4' F3' ' 3 3&'
H&' F3' IHH4' ' $ED' F$ ' &H4' F3' I -41HC3' H&' D3&4$O E2' F3' ; 13EN3C' H'
Q3' EN- *3D' QO' F3' ' 3 -4E E2' <&& N34' H&' 3 340' @ O' $ED' BH4H-2F'
$ED' QO' F3' < 34C334C' H&' F3' C3 34$' I$4 CF3C' $ED' *H ECF 1C' E' 3 340'
@ O' $ED' BH4H-2F' $ED' I $N3' CF$4 E2' E' F3' ; 3N HE' F343 F' E'
N$440 E2' E H' 3&&3N' F3' I4H C HEC' H&' F C' N ' CH' &$4' $C' 43 $ 3C' H'
F3' ; 3N H4C' &H4' C-NF' @ O' H4' BH4H-2F' 3 340' C-NF' ; 3N H4' FHC3'
, $ J 3' CF$ ' Q3' -1HE' F3' ' 32 C 34' H&' H 34C' &H4' C-NF' @ O' H4' BH4H-2F'
&H4' F3' * J 3' Q3 E2' CF$ ' Q3' $Q 3' H' F3' I$O J 3E' H&' <E3' ?F E2'
$EE-$ O' F NF' ?- J' CF$ ' Q3' 3 3D' $ED' NH 3N 3D' &4H J' 3$NF' ; 3N H4'
E' $DD HE' H' $ED' $C' $' I$4' H&' F3' PHE3O' 1OQ 3' QO' F J' $C' F C'
@HE 4 Q- HE' H' F3' ' $ 3' &H4' F3' ' 3 3&' H&' F3' IHH4' $ED' C-NF' ?- J'
CF$ ' Q3' $11 N$Q 3' H' F3' C$ J 3' I -41HC3C' $C' PHE3O' NH 3N 3D' &H4' F3'
' 3 3&' H&' F3' IHH4' ' $ED' F$ ' F3' ; 13EN3C' EN-443D' QO' F3' < 34R
C334C' H&' $EO' I$4 CF' H4' *H ECF 1' E' J $+ E2' H- ' 14 E E2' $ED' 1-Q'
C EE2' F3' C3 34$' > C C' $ED' , H N3C' D 43N 3D' QO' F C' N ' $ED' $ '
H F34' ; 13EN3C' EN-443D' QO' F3 J' E' N$440 E2' E H' 3&&3N' F3' I4H C HEC'
H&' F C' N ' CF$ ' Q3' D3&4$O3D' <-' H&' F3' PHE3O' NH 3N 3D' H4' H' Q3'
NH 3N 3D' &H4' F3' ' 3 3&' H&' F3' IHH4' E' C-NF' I$4 CF' H4' *H ECF 1' (
$ED' F$ ' $ ' ; 13EN3C' EN-443D' QO' F3' ' 3 -4E E2' <&& N34' H&' $EO' @ O'
H4' BH4H-2F' E' N$-C E2' F3' > C C' H&' F3' ; 3N H4C' &H4' C-NF' @ O'
H4' BH4H-2F' H' Q3' NH1 3D' H-' $ED' J $D3' E H' $' ' 32 C 34' $ED' E'
N$-C E2' @H1 3C' H&' C-NF' ' 32 C 34' H' Q3' 4 3E' H4' 14 E 3D' CF$ ' Q3'
D3&4$O3D' QO' F3' < 34C334C' H&' F3' IHH4' H&' F3' C3 34$' I$4 CF3C' $ED'
*H ECF 1C' F E' C-NF' @ O' H4' BH4H-2F' H4' I $@3' CF$4 E2' E' F3'
; 3N HE' F343 F' H-' H&' F3' PHE3O' NH 3N 3D' H4' H' (3' NH 3N 3D'
&H4' F3' ' 3 3&' H&' F3' IHH4' E' C-NF' I$4 CF3C' $ED' *H ECF 1C' E' 14HR
1H4 HE' H' F3' , - J Q34' H&' I34CHEC' 1 $N3D' HE' F3' ' 32 C 34' H&' H 34C'
&H4' 3$NF' I$4 CF' H4' *H ECF 1' $ED' F$ ' $ ' ; 13EN3C' EN-443D' QO'
F3' @ 34+' H&' F3' I3$N3' H&' $EO' @H-E O' ' D E2' H4' I$4 C' E' N$-C E2'
F3' > C C' H&' F3' ; 3N H4C' &H4' C-NF' @H-E O' ' D 2' H4' I$4 C' H4' &H4'
$EO' G C HE' H&' C-NF' @H-E O' H' Q3' NH1 3D' H-' $ED' J $D3' E H' $'
/ ' 32 C 34' $ED' E' N$-C E2' @H1 3C' H&' C-NF' ' 32 C 34' H Q3' 4 3E' H4'
14 E 3D' $ED' E' H F34 C3' N$444 E2' E H' 3&&3N' F3' I4H C HEC' H&' F C'
N ' CF$ ' Q3' D3&4$O3D' QO' F3' *43$C-434' H&' C-NF' @H-E O' ' D E2' H4'
I$4 C' H-' H&' $EO' 1-Q N' PHE3O' E' F C' 8$EDC($ED' F3' CF$ ' Q3' $ H 3D'
$ ' C-NF' I$O J 3E C' E' F C' NNH-E C:' I4H D3D' $ $OC' F$ ' EH' ; '
13EN3C' EN-443D' QO' $EO' @ 34+' H&' F3' I3$N3' -ED34' F C' N ' CF$ ' Q3'
CH' D3&4$O3D' -E 3CC' F3' NNH-E ' CF$ ' Q3' $ D' Q3&H43' F3' 5-C N3C' H&'
F3' I3$N3' $' F3' E3 ' \-$4 34' ?3CC HEC' $& 34' C-NF' ; 13EN3C' CF$ '
F$ 3' Q33E' EN-443D' $ED' $ H 3D' QO' F3' @H-4

SM

U M # > ; > P @$1 !

'3 J -E34$R HE H&' F3' B$44 C 34C' &H4' 43 C E2' F3' > C C

> ' ED' Q3' '3E$N 3D' * F$ ' 3 340' B$44 C 34' $&"1q 8 3D' H' 43 C3' $EO' > C C' H&' H 34C' -ED34' F C' N' CF$ ' Q3' 1$ D' $ ' F3' ' $ 3' H&' 6 3' M- E3$C' &H4' 3 340' G$O' F$ ' F3' CF$ ' Q3' CH' 3 J 1 HO3D ' H 34' $ED' $QH 3' F C' 4$ 3 E2' $ED' H F34' B 13EN3C' ' $ED' 3 340' C-3F' B$44 C 34' $& 34' F3' * 34 J E$ HE' , ') 1' $C ' ? E2 ' CF$ ' $O' H4' N$-C3' H' Q3' $ D' Q3&H43' F3' >H4DC' @H J J CC HE34C' H&' 8 C' P $(3C O C' * 43$C-4O' &H4' F3' * J 3' Q3 E2' $? $ 3 E3E ' H&' F3' , - J Q34' H&' G$OC' D-4 E2' F NF' F3' CF$ ' F$ 3' Q33E' CH' 3 J 1 HO3D' $ED' $E' NNH-E ' H&' F3' 4$ 3 E2' $ED' H F34' ; 13 33C' EN-443D' QO' F J' E' 43C13N ' H&' C-NF' ; J 1 HO J 3E ' $ED' F3' C$ D' >H4DC' @H J J CC HE34C' CF$ ' J $+3' $E' < 4D34' &H4' F3' J H-E ' H' Q3' 1$ D' < ?-NF' B$44 C 34

, H' EX- 4O' $' F3' * J3' H&' ; 3N HE' 3 N31 ' $C' H F3' D3E O' H&' F3' H 34' F3' @HE E-R $EN3' H&' F C' \ -$ & N$ HE' $ED' F3 F34' F3' F$C' H 3D' Q3&H43' $' C$ J 3' ; 3N ' H1'

< C$$$' ED' Q3' '3E$N 3D' * F$ ' E' $ ' ; 3N HEC' F$ 3 34' H&' P 3 J R Q34C' H' C34 3' E' $EO' &- -43' I $4 $ J 3E ' EH' EX- 4O' CF$ ' Q3' 134 J 3D' $ ' F3' * J 3' H&' 1H&& E2 ' $C' H' F3' ' 2F ' H&' $EO' I 34CHE' H' H 3 ' 3 N31 ' HE O' $C' &H H C ' F$ ' C' H' C$O ' F$ ' F3' ' 3 -4E E2' < && N34' H4' F C' 43C13N 3' G31- O' CF$ ' &' 43X- 43D' HE' Q3F$ &' H&' $EO' @$ED D$ 3' 1- ' H' $EO' H 34' $ ' F3' * J 3' H&' F C' 3ED34 E2' F C' H 3 ' $ED' EH ' $& 34 $4DC' &Q3' &H H E2' \ -3C HEC' H4' $EO' H& J ' $ED' EH' H F34

>' 43' OH-' F3' C$ J 3' I 34CHE' FHC3' , $ J 3' $113$4C' $C' / " ' HE' F3' ' 32 C 34' H&' H 34C' EH ' E' &H4N3' &H4' F3' @H-E O' H&' $5 ' &H4' F3' ' D E2' ' I $4 C' , ' G C HE' , ' &H4 F3' @ O' ' ' Z) !' d 1!' ') ! ' 0

+!@' +?' VG(A#)+ A' &A' #+' #J (A(' "+) #A' P

?' 8$ 3' OH-' $ 43$DO' H 3D' 3 F34' F343' H4' 3 C3 F343' $ ' F C' ; 3NR HE' &H4' F3' @H-E O' H&' , ' &H4' F3 ' D E2' I $4 C' H4' G C HE' H&' F3' @H-E O' H&' ' H4 &H4' F3' @ O' H4' BH4H-2F' 3 &' 1') !' 1! ' 4! ' 0

!' 8$ 3' OH-' F3' C$ J 3' \ -$ & N$ HE' &H4' F NF' OH-4' , $ J 3' $C' H4 2 E$ O' EC34 3D' E' F3' ' 32 C 34' 3 &' H 34C' EH ' E' &H4N3' &H4' F3' @H-E O' H&' ! ' IH4' &H4' F3' ' D E2' ' ' H4' &H4 F3' @ O' ' ' 1') !' I M!' ' 4! ' 15! ' U #(' #' ! ')' I 1!') !' * '3% 1' V ') !' Y3 % ' , # 1' &!1' 4! &' #') !' L! (1 ! a' 0

&#J' #+' I (' &<@))A#(!(<')?' ! (OG)! (<

ED' &' $EO' I 34CHE' CF$ ' &- O' J $+3' $' &$ C3' EC 34' H' $EO' H&' F3' \ -3C HEC' $&H43C$ D' F3' CF$ ' Q3' D33 J 3D' 2- O' H&' $E' ED N $Q 3' P CD3 J 3$EH4 ' $ED' CF$ ' Q3' 1-E CF3D' $NNH4 E2 O ' $ED' F3' ' 3 -4E E2' < [N34' H4' F C' G31- O ' H4' $' @H J J CC HE34' H4' @H J J CC HE34C' H' F3' &H4' F$ ' I -41HC3' QO' F J' H4' F3 J' $11H E 3D' CF$ ' ^ &' 43X- 43D' HE' Q3F$ &' H&' $EO' @$ED D$ 3' $ ' F3' * J 3' $&H43C$ D_' $D J E C 34' $E' < $ F' ^H4 ' E' N$C3' < &' $' \ -$+34' H4' P H4$ $E ' $E' && 4 J $ HE_' H' $EO' H 34' E' F3' &H H E2' 6H4 J' A' ^ F$ ' C' H' C$O _

"+!@' +?' &#J

7 = < # ' DH' C 3$4' IH4' 4! #(' &' Y3 ! ' , ' , 0 # ' DH' $&& 4 J m' * F$ '
7 OH-' $43' F3' C$ J 3' I 34CHE' FHC3' , $ J 3' $113$4C' $C' / " ' HE' F3'
7 ' 32 C 34' H&' H 34C' EH ' E' &H4N3' &H4' F3' @H-E O' H&'
7 IH4' &H4' F3' ' D E2' I $4 C' H4' G C HE' H&' F3' @H-E O' H&'
7 H4' &H4' F3' @ O' H4' BH4H-2F' H&' 1') !' I 1!' ' QHm

$ED' F$ ' OH-' F$ 3' EH ' Q3&H43' H 3D' 3 F34' F343' H4' 3 C3 F343' $ ' F3'
7 143C3E ' ; 3N HE' &H4' F3' C$ D' @H-E O' &H4' &H4' & 3' C$ D' ' D E2' I $4 C
7 H4' G C HE' H & &' F3' C$ D' @H-E O ' H4' &H4' F3' C$ D' @ O' H4' BH4H-2F
7 1') !>I 1!' ' Q3m ' ?H' F3 1' OH-' M< G

+' +#J (! ' &#J' &A' #+' VG&)?)H&#)+

ED' EH' ; 3N H4' CF$ ' F343$& 34' $ ' $EO' C-NF' ; 3N HE' Q3' 43X- 43D' H' $+3' $EO' < $ F' H4' && 4 J $ HE ' 3 N31 ' $C' $&H43C$ D' 3 F34' E I 4HH&

I 4HH&ʿ H&ʿ F Cʿ 64q3FH ^5ʿ H4ʿ H&ʿ F Cʿ ' 3C D3EN3 ʿ 23 ʿ H4ʿ H F34ʿ \ -$ & N$R HEʿ H4ʿ ' 2 ʿ Hʿ H 3 ʿ $EOʿ >$ ʿ H4ʿ ? $ - 3 ʿ >HN$ ʿ H4ʿ M3E34$ ʿ Hʿ F3ʿ NHE 4$40ʿ EH FC $ED E2 ʿ $EDʿ EHʿ I 34CHEʿ N $ J E2ʿ Hʿ H 3ʿ $ ʿ $EOʿ C-NFʿ ; 3N HEʿ C $ ʿ F3ʿ 3 N -D3Dʿ &4H J ʿ H E2ʿ F343$ ʿ 3 N31 ʿ QOʿ 43$CHEʿ H&ʿ Cʿ $113$4 E2ʿ Hʿ F3ʿ ' 3 -4E E2ʿ <&& N34ʿ H4ʿ F Cʿ 43C13N 3ʿ G31- O ʿ -1HEʿ 1- E2ʿ C-NFʿ \ -3C HECʿ $Cʿ $&H43C$ D ʿ H4ʿ $EOʿ H&ʿ F3 J ʿ F$ ʿ F3ʿ I 34CHEʿ CHʿ N $ J E2ʿ Hʿ H 3ʿ Cʿ EH ʿ F3ʿ C$ J 3ʿ I 34CHEʿ FHC3ʿ , $ J 3ʿ $113$4Cʿ HEʿ C-NFʿ ' 32 C 34ʿ $Cʿ $&H43C$ D ʿ H4ʿ F$ ʿ F3ʿ F$Cʿ 143 H-C Oʿ H 3Dʿ $ ʿ F3ʿ C$ J 3ʿ ; 3N HE ʿ H4ʿ -+ ʿ F3ʿ F$Cʿ EH ʿ F3ʿ C$ J 3ʿ \ -$ & N$ HEʿ &H4ʿ F NFʿ F Cʿ , $ J 3ʿ $Cʿ H4 2 E$ Oʿ EC34 3Dʿ Eʿ C-NFʿ ' 32 C 34 ʿ H4ʿ 3 N31 ʿ QOʿ 43$CHEʿ H&ʿ C-<Fʿ I 34CHEʿ 43&-C E2ʿ Hʿ $+3ʿ F3ʿ C$ Dʿ <$ Fʿ H4ʿ J $+3ʿ F3ʿ C$ Dʿ K J $ HEʿ H4ʿ Hʿ $+3ʿ H4ʿ J $+3ʿ F3ʿ <$ Fʿ H4ʿ & 4 J $ HEʿ 2 EC ʿ B4 Q340 ʿ H4ʿ $EOʿ H F34ʿ <$ Fʿ H4ʿ && 4 J $ HEʿ EH ʿ 43X- 43Dʿ QO ʿ >$ ʿ $EDʿ ʿ EH ʿ F343QOʿ D C13EC3Dʿ F ʿ $EDʿ EHʿ ?N4- EOʿ CF$ ʿ F343$& 34ʿ Q3ʿ $ H 3Dʿ 5 ʿ >, + $ʿ QOʿ H4ʿ Q3&H43ʿ J Oʿ ' 3 -4E E2ʿ <&& N34ʿ Fʿ 432$4Dʿ Hʿ $EOʿ H 3Cʿ 2 3Eʿ H4ʿ 3ED343Dʿ $ ʿ $EOʿ ; 3N HEʿ , ʿ $ʿ P 3 J Q34ʿ H4ʿ P 3 J Q34Cʿ Hʿ C34 3ʿ Eʿ $EOʿ &- -43ʿ I $4 $ J 3E ʿ $EOʿ >$ ʿ ? $ - 3 ʿ H4ʿ # C$23ʿ Hʿ F3ʿ NHE 4$40ʿ EH R FC $ED E2

> W ʿ I 4H D3Dʿ $ $OC ʿ $EDʿ Q3ʿ ʿ 3E$N 3D ʿ * F$ ʿ $EOʿ I 34CHEʿ FHC3ʿ I 34CHECʿ 3 R , $ J 3ʿ CF$ ʿ F$ 3ʿ Q33Eʿ H J 3Dʿ &4H J ʿ $EOʿ ' 32 C 34ʿ H&ʿ H 34Cʿ ENHEC3R N -D3Dʿ &4H Jʿ X-3EN3ʿ H&ʿ F3ʿ G3N C HEʿ NC& F3ʿ B$44 C 34ʿ FHʿ CF$ ʿ F$ 3ʿ 43 C3Dʿ F3ʿ # I (ʿ (*)A#5ʿ > C Cʿ & &ʿ F NFʿ C-NFʿ ' 32 C 34ʿ CF$ ʿ F$ 3ʿ Q33Eʿ &H4 J 3Dʿ J $Oʿ 3ED34ʿ QOʿ 3B$44 C ʿ F Cʿ H 3ʿ $ ʿ $EOʿ ; 3N HEʿ $ ʿ F NFʿ C-NFʿ ' 32 C 34ʿ CF$ ʿ F3ʿ Eʿ &H4N ʿ 34ʿ J $Oʿ 3ER C $ E2ʿ $ ʿ F3ʿ * J 3ʿ F3ʿ , $ J 3ʿ H4ʿ , $ J 3Cʿ H&ʿ F3ʿ @$ED D$ 3ʿ H4ʿ @$ER D34ʿ Q3 4ʿ D D$ 3Cʿ &H4ʿ FH J ʿ F3ʿ 3ED34Cʿ C-NFʿ H 3 ʿ $EDʿ F3ʿ ' 3 -4E E2ʿ <&& N34ʿ H 3Cʿ $ ʿ H4ʿ F Cʿ G31- Oʿ CF$ ʿ 3E 34ʿ -1HEʿ F3ʿ I H ʿ BHH+ʿ 3 340ʿ H 3ʿ CHʿ 3ER ; 3N HEC D343D ʿ D C E2- CF E2ʿ F3ʿ C$ J 3ʿ &4H J ʿ F3ʿ H 3Cʿ $D J 3Dʿ $EDʿ $ H 3Dʿ * 3ED34ʿ Hʿ Q3ʿ $ ʿ C-NFʿ ; 3N HE 43NH4D3D

>W ʿ I 4H D3Dʿ $ CH ʿ $EDʿ Q3ʿ ʿ 3E$N 3D ʿ * F$ ʿ -1HEʿ I 3 HEʿ Hʿ F3ʿ @H443N E3CCʿ 8 H-C3ʿ H&ʿ @H J J HEC ʿ NH J 1 $ E E2ʿ H&ʿ $Eʿ -ED-3ʿ ; 3N HEʿ H4ʿ ' 3 -4Eʿ F3ʿ ' 32 C ʿ H&ʿ $EOʿ P 3 J Q34ʿ E&ʿ P 3 J Q3 Cʿ]ʿ C34 3ʿ #ʿ I $4 $ J 3E ʿ $EOʿ I 3 HE34 ʿ H4ʿ $EOʿ I 34CHEʿ D3&3ED E2ʿ C-NFʿ ; 3N HEʿ H4ʿ ' 3 -4E ʿ CF$ ʿ Q3ʿ $ ʿ 3&H 3$ʿ Q34 Oʿ Hʿ J 13$NFʿ F3ʿ @H 43N E3CCʿ H&ʿ F3ʿ ' 32 C 34ʿ H&ʿ H 34Cʿ Eʿ @H J J 33ʿ H&ʿ &H4N3ʿ $ ʿ F3ʿ * J 3ʿ H&ʿ C-NFʿ ; 3N HE ʿ QOʿ 14H E2ʿ F$ ʿ Eʿ NHEC3 ʿ 8 H-C3ʿ H&ʿ X-3EN3ʿ H&ʿ F3ʿ G3N C HEʿ H&ʿ F3ʿ B$44 C 34ʿ FHʿ CF$ ʿ F$ 3ʿ 43 C3Dʿ F3ʿ > C Cʿ H&ʿ H 34Cʿ &H4 J ʿ F NFʿ C-NFʿ ' 32 C 34ʿ CF$ ʿ F$ 3ʿ Q33Eʿ &H4 J 3Dʿ F3ʿ , $ J 3ʿ H&ʿ $EOʿ I 34CHEʿ FHʿ H 3Dʿ $ ʿ C-NFʿ ; 3N HEʿ $Cʿ J 14HR 134 Oʿ EC34 3Dʿ H4ʿ 43 $ E3Dʿ Eʿ C-NFʿ ' 32 C 34 ʿ H4ʿ F3ʿ , $ J 3ʿ H&ʿ $EOʿ I 34 ʿ CHEʿ FHʿ 3ED343Dʿ F Cʿ H 3ʿ $ ʿ C-NFʿ ; 3N HEʿ J 14H134 Oʿ H J 3Dʿ &4H J ʿ C-NFʿ ' 32 C 34 ʿ $EDʿ F3ʿ ?3 3N ʿ @H J J 33ʿ $11H E 3Dʿ &H4ʿ F3ʿ * 4 $ ʿ H&ʿ C-NFʿ I 3 HEʿ CF$ ʿ $ 34ʿ F3ʿ I H ʿ $+3Eʿ $ ʿ C-NFʿ ; 3N HEʿ $NNH4D E2ʿ Hʿ F3ʿ * 4- Fʿ H&ʿ F3ʿ @$C3 ʿ $EDʿ CF$ ʿ 431H4 ʿ F3 4ʿ G3 34 J E$R HEʿ F343-1HEʿ Hʿ F3ʿ 8 H-C3 ʿ $EDʿ F3ʿ 8 H-C3ʿ CF$ ʿ F343-1HEʿ N$440ʿ C-NFʿ G3 34 J E$ HEʿ E Hʿ 3&&3N ʿ $EDʿ F3ʿ ' 3 -4Eʿ CF$ ʿ Q3ʿ $ J 3ED3D ʿ H4ʿ F3ʿ ; 3N HEʿ D3N $43Dʿ H D ʿ $Cʿ F3ʿ @$?3ʿ J $Oʿ Q3 ʿ $EDʿ F3ʿ ' 32 C 34ʿ NH443N 3Dʿ $NNH4D E2 O ʿ H4ʿ C-NFʿ H F34ʿ <4D34ʿ CF$ ʿ Q3ʿ J $D3ʿ $Cʿ Hʿ F3ʿ 8 H-C3ʿ CF$ ʿ C33 J ʿ 1&H134

>W& ʿ EDʿ Q3ʿ ʿ 3E$N 3D ʿ * F$ ʿ F3ʿ ?F34 &&Cʿ H&ʿ H, 1) !ʿ $EDʿ W ʿ ?Q34 & &Cʿ H&ʿ F3 <)2)<(< , %#1) ! ʿ $EDʿ F3ʿ ?F34 &&Cʿ H&ʿ F3ʿ @H-E 3Cʿ D D3Dʿ QOʿ F Cʿ N ʿ CF$ ʿ D- Oʿ N$-C3ʿ I 4HN $ J $ HEʿ Hʿ Q3ʿ J $D3ʿ H&ʿ F3ʿ C3 34$ ʿ G$OCʿ & 3Dʿ &H4 F3ʿ &#ʿ (H#)+ A

F3 ; 3N HE H&'$ %E 2F ' H4 %E 2F C H& F3 ' ?F 43 &H4 F3 C3 34$ '
' D E2C ' I$4 C ' $ED G C HEC H& F3 4 43C13N 3 @H-E 3C ' $ED CF$ '
143C D3 $ ' F3 ; 3N HE QO F3 J C3 3C H4 F3 4 $ &- 'G31- 3C

@HJ J3EN3 ' 4$3E ' $ED @H-E O ; 3N >C ' >W > ' ED Q3 ' 3E$N 3D ' * F$ ' $ ' 3 34O NHE 3C 3D ; 3N HE H&' $ %E 2F ' H4 %E 2F C H C34 3 E $E '&- -43 I$4 $ J 3E ' &H ' $EO @H-E O ' H4 &H4 $EO ' D E2 ' I$4 C ' <4 G C HE H& $ @H-E O ' F3 1H E2 CF$ ' NH J J 3EN3 $ ' , E3 H @ HN+ ' E F3 6H43EHHE H&c F3 E3 'G$O Q- ' * H $& 34 F3 G$O & 3D &H4 F3 ; 3N HE ' -E 3CC C-NF E3 'G$O Q- ' * H CF$ 'Q3 + 3 & 'H4 +3#& ' $ED F3E HE F3 ,#& ' &H H E2 ' $ ' F3 5 ' 5& ' I $N3 H& ; 3N HE ' $ED '$ CH $ ' F3 C3 34$ ' I $N3C H Q3 55, # !& $C F343 E $& 34 D 43N 3D &H4 $+ E2 I H C ' $ED C-NF 1H E2 CF$ ' @HE E-3 &H4 * H G$OC HE O ' C-NF * H G$OC Q3 E2 C-NN3CC 3 G$OC ' ^ F$ ' C H C$O_ &H4 ?3 3E 8H-4C HE F3 & 4C ' G$O H& 1H E2 ' $ED &H4 ; 2F ' 8H-4C HE F3 ?3NHED G$O H& 1H E2d $ED EH I H ' CF$ ' F3 +31 ' H13E $ 34 F$E 1H-4 < @HN+ E F3 & 34EHHE H& F3 ?3NHED G$Od $EO ? $ - 3 H F3 NHE 4$4O EH FC $ED E2

+G #)(A #+ ' I (' <)2)<(< J HGC4NC ; W8 ' ED Q3 ' 3E$N 3D ' * F$ ' F3 43C13N 3 @H-E 3C E #(> % #& $ED)1 ' $ED F3 43C13N 3 ' D E2C ' I$4 C ' $ED G C HEC H& @H-E 3C ' CF$ 'Q3 D D3D E H NHE 3E 3E 'G C 4 N C &H4 1H E2 ' $ED

$EO &- -43 I$4 $ J 3E ' $ED C-NF G C 4 N C $ED I $N3C &H4 $+ E2 F3 I H 'CF$ ' Q3 C3 3D $ED $11H E 3D QO F3 N ' H Q3 1$CC3D E F C 143C3E ' I$4 $ J 3E ' &H4 F3 I -41HC3 H& C3 E2 $ED D3CN4 Q E2 F3 G C HEC H& F3 @H-E 3C 3E-J 34$ 3D E F3 ?NF3D-3 J $4+3D ^6 _ ' -' F C N ' $EE3 3D ! E4H D3D F$ ' EH @H-E O ' EH4 $EO ' D E2 ' I$4 C ' <4G C HE H& $ @H-E O ' CF$ 'F$ 3 J H43 F$E 6 & 33E G C 4 N C $ED 43C13N 3 I $N3C $11H E 3D &H4 $+ E2 F3 I H '&H4 C-NF @H-E O ' ' D E2 ' 1$4 C ' H4 G C HE

C H BHH FC $ F3BH #E2 I $N3C &H4 @H-E 3C ; W ' ED Q3 '3E$N 3D ' * F$ ' $ '3 34O NHE 3C 3D ; 3N HE &H4 $EO @H-E O ' H4 ' D E2 ' I$4 C ' H4 G C HE H& $ @H-E O ' F3 ?F34 && ' #ED34 ?F34 && ' <4 ?F34 && C G31- O CF$ ' & 43X- 43D F343 H QO H4 HE Q3F$ & H& $EO @$ED D$ 3 ' HE F3 G$O & 3D &H4 F3 ; 3N HE ' $ED & EH ' CH 43X-J 3D J $O & ' CF$ ' $113$4 H F J ' 3 13D 3E ' N$-C3 H F3 343N 3D $ 43CHEQ 3 , -J Q34 H& BHH FC &H4 $+ E2 F3 I H ' $ ' F3 14 EN 1$ ' I $N3 H& ; 3N HE ' $ED $ CH $ ' 3$NF H& F3 I H E2 ' I $N3C CH H Q3 $11H E 3D $C $&H43C$ D ' $ED CF$ ' N$-C3 H Q3 $&& 3D HE F3 J HC ' NHE ' C1 N-H-C I $4 ' H& 3$NF H& F3 C$ D BHH FC F3 , $ J 3C H& F3 C3 34$ ' 1$4 CF3C ' * H ECF 1C ' $ED I $N3C &H4 F NF C-NF BHH F C 43C13N 3 O , H H 34 H 1H 'H- 'H& F3 G C 4 N ' F343 F C I4H134 O 3C $ H 3Dd $ED EH I34CHE CF$F Q3 $D J 3D H H 3 $ ' $EO C-NF ; 3N HE E 43C13N ' H& $EO I4H134 O C -$ 3 E $EO I$4 CF ' * H ECF 1 ' H ' I $N3:/ 3 N31 ' $ ' F3 BHH F CH $ H 3D &H4 C-NF I$4 CF ' * H ECF 1 ' H4 I $N3 ' $ED & EQ BHH F CF$ 'Q3 CH $ H 3D &H4 & 3 C$ J 3 ' F3E $ ' $EO H& F3 BHH FC &H4 F3 C$ J 3 G C 4 N 'A ' $ED E N$C3 $EO I$4 CF ' * H E ' CF 1 ' H4 I $N3 CF$ 'F$113E EH ' H Q3 EN -D3D E $EO H& F3 G C 4 N C H Q3 $11H E 3D ' F3 H 3C E 43C13N ' H& I4H134 O C -$ 3 E $EO I$4 CF ' * H ECF 1 ' H4 I $N3 CH H J 3D CF$ ' Q3 $+3E $ ' F3 14 EN 1$ ' I $N3 H& ; 3N HE &H4 F3 @H-E O ' H4 ' D E2 ' I$4 C ' H4 G C HE H& F3 @H-E O ' $C F3 @$C3 J FO Q3

>W ' ED' Q3' ' 3E$N 3D' *F$' F3' ?F34 && CF$ ' F$ 3' IH 34' H' $11H E' G31- 3C' H' 143C D3' $ED' @ 34+C' H' $+3' F3' IH ' $' F3' 14 EN 1$' I $N3' H&' ; 3N HE' $ED' $ CH' $' F3' C3 34$' I $N3C' $11H E 3D' &H4' $+ E2' F3' IH ' &H4' $EO' @H-E O' H4' $EO' ' D E2' I$4 C' H4' G C HE' H&' $' @H-E O' &' $ED' F$' F3' IH ' @ 34+C' 3 J 1 HO3D' $' & HC3' C3 34$' I $N3C' CF$ ' $' F3' @ HC3' H&' 3$NF' G$O C' IH ' 3EN HC3' $ED' C3$' F3 4' C3 34$' BHH+C' $"D' CF$ '1-Q N O' D3 34' F3 J 'CH' 3EN HC3D' $ED' C3$ 3D' H' F3' ?F34 && #ED34' ?F34 && H4' ?F34 && C' G31- O' 143C D E2' $' C-NF' IH ' FH' CF '2 3' $' '3N3 1 '&H4' F3' C$ J 3' $ED' CF$ ' HE' F3' @H H' ' J 3EN3 J 3E' H&' F3' IH ' HE' F3' ?3NHED' G$O' D3 34' F3 J' Q$N+' CH' 3EN HC3D' $ED' C3$ 3D' H' F3' I 34CHEC' &4H J' FH J' F3' CF$ ' F$ 3' 43N3 3D' F3 J ' $ED' HE' F3' & $' @ HC3' H&' 3' IH ' 3 34O' C-NF' 2 !53 ' FH' CF$ 'F$ 3' 43N3 3D' $EO' C-NF' IH ' BHH+C' CF$ ' &H4 F F' D3 34' H4' 4$EC J ' F3' C$ J 3' CH' 3EN HC3D' $ED' C3$ 3D' H' F3' ?F34 && H4' F C' #ED34' ?F34 && ' IFH CF$ ' 43N3 3' $ED' +331' $' F3' IH ' BHH+C' -EH13E3D' -E ' F3' 43 $CC3 J F E2' H&' F3' @H-4 ' HE' F3' G$O' E3 'Q-' <E3' $& 34' F3' @ HC3' H&' F3' IH ' -E 3CC' C-NF' E3 'G$('Q- ' <E3' CF$ ' F3' +3#& ' $ED' F3E' HE' F3' ,#& ' &H H E2' F3E' F3' CF$ ' H13E O' Q43$+' F3' ?3$ C' F343HE' $ED' N$C' -1' F3' , - J Q34' H&' 1 3C' ' $C' F3O' $113$4' HE' F3' C$ D' C3 34$' BHH+C' $ED' CF$ ' H13E O' D3N $43' F3' ? $ 3' H&' F3' IH ' $ED' CF$ ' J $+3' I 4HN $ J $ HE' H&' F3' P 3 J Q34' H4' P 3 J Q34C' NFHC3E' EH ' $ 34' F$E' * H' H @ HN+' E' F3' & 34EHHE' H&' F3' C$ D' $O

I4H C HE' $C H' ?F34 &&C G31- 3C' F3' @-C HDO' H&' IH ' BHH+C' $ED' & E$' G3N 4 HE' H&' F3' IH ' &H4' @H-E 3C

>W ' ED' Q3' ' 3E$N 3D' *F$' E' $' P$ 34C' 43 $ 3' H' F3' ; 3N HE' H&' %E 2F C' H4' $' %E 2F' H&' F3' ?F 43' H' C3 3' E' $EO' &- -43' I$4 $ J 3E' &H4' $EO' @H-E O' H4' &H4' $EO' ' D E2' I$4 C' H4' G C HE' H&' $' @H-E O' F3' ?F34 && H&' F3' @H-E O' F C' #ED34' ?F34 && ' H4' $EO' $ &- ' G31- O' H&' C-NF' ?F34 && ' CF$ ' F$ 3' IH 34' H' $N' E' $' I $N3C' F$ E2' $EO' 3 N -C 3' 5-4 CD N HE' H4' I4 323' F$ CH3 34' E' F3' C$ J 3' P$EE34' $C' C-NF' ?F34 && ' #ED34' ?F34 && ' H4' G31- O' J $O' $N' F E' $E(' I$4 ' H&' C-NF' ?F34 && C' \4D J $4O' 5-4 CD N HE

CF34 && E @H-E OB 3N' 3 N -C 3C 5-4 CD N HE'

>W ' ED' Q3' ' 3E$N 3D' *F$' $' 3 34O' NHE 3C 3D' ; 3N HE' H&' $' P 3 J Q34' H4' P 3 J Q34C' H' C34 3' E' $EO' &- -43' I$4 $ J 3E' &H4' $EO' @ O' H4' BH4H-2F' E' 8#(% #&' 3 N31' F3' BH4H-2F' , ' ,# ,3)' F3' IH ' CF$ ' NH J J 3EN3' HE' F3' G$O' & 3D' &H4' F3' ; 3N HE' H4' HE' F3' G$O' E3 '&H H E2' H4' $' F3' $ 3C' HE' F3' *F 4D' G$O' -E 3CC' $EO' H&' F3' C$ D' G$OC' CF$ ' Q3' + 3 & ' , ' +3#& ' $ED' F3E' HE' F3' &H H E2' F3' 1$4 N- $4' G$O' &H4' F3' @H J J 3EN3 J 3E' H&' F3' IH ' H' Q3' & 3D' QO' F3' ' 3 -4E E2' <&& N34' ' $ED' C NF' 1H E2' CF$ ' NHE E-3' &H4' * H' G$OC' HE O' C-NF' * H' G$OC' Q3 E2' C-NN3CC 3' G$OC' ^ F$' C' H' C$O _' &H4' ?3 3E' 8H-4C' HE' F3' 6 4C' G$O' H&' 1H E2' $ED' &H4' ; 2F ' 8H-4C' HE' F3' ?3NHED' G$O' H&' 1H E2' $ED' F$' F3' IH ' CF$ ' HE' EH' NNH-E ' Q3' +31' H13E' $ 34' F$E' 6H-4' H @ HN+' E' F3' & 34EHHE' H&' C-NF' ?3NHED' G$O ' $EO' ? $ - 3' H' F3' NHE 4$4O' EH R FC $ED E2

@H J J 3EN3' J 3E' $ED' BH4H-2F' ; 3N HEC ; E2 $ED

>W O ' ED' Q3' ' 3E$N 3D' *F$' $' 3 34O' NHE 3C 3D' ; 3N HE' H&' $' P 3 J Q34' 'H4' P 3 J Q34C' H' C34 3' E' $EO' &- -43' I$4 $ J 3E' &H4' $EO' BQ4H-2F' E' 8#(% #&' 3 N31' F3' BH4H-2F' H&' ,# ,3)' F3' 1D&E E2' <&& N34' CF$ ' &' 43X- 43D' F343 H' QO' H4' HE' Q3F$ &' H&' $EO' $ED D$ 3' HE' F3' G$O' & 3D' &H4' F3' ; 3N HE' $ED' &' EH ' CH' 43X- 43D ' J $O

1H E2' &H4 BH4H-2FC' E ; E2 $ED' H Q3' $' C3 34$' BHH FC' EH' E H43' F$E Y[[' H E2' $

0 '# 2 G 'BHH F

J$O' &' ' CF$ ' $113$4' ' F J' 3 13D 3E ' N$-C3' <' Q3' 3(3N 3D' &H4' $+ E2' F3' I H ' $' C-NF' ; 3N ' D &&343E ' BHH 3C' &H4' D &&343E ' I$4 CF3C' G C 4 N C' H4' I$4 C' H&' C-NF' @ O' H4' BH4H-2F ' F NF' BHH FC' J$O' Q3' C -$ 3D' 3 F34' E' HE3' I 3' H4' E' C3 34$' I $N3C ' $ED' CF$ ' Q3' CH' D D3D' $ED' $ H 3D' E H' @H J 1$4 J 3E C' $C' H' F3' B3 -4E E2' <&& N34' CF$ ' C33E ' JHC ' NHE 3E 3E ' CH' F$ ' EH' 243$ 34' , - J Q34' F$E' ? ' F-ED43D' CF$ ' Q343 1P43D' H' 1H ' $ ' $EOHE3' @H J 1$4 J 3E ' ' $ED' F3' ' 3 -4E E2' <&& N34' CF$ ' $11H E ' $' @ 34+' H' $+3' F3' I H ' $ ' 3$NF' @H J 1$4 J 3E ' $ED' CF$ ' N$-C3' <' Q3' $&& 3D' HE' F3' J HC ' NHEC1 N-H-C' I$4 ' H&' 3$NF' H&' F3' C$ D' BHH FC' F3' , $ J 3C' H&' F3' C3 34$' I$4 CF3C' G C 4 N C' $ED' I$4 C' &H4' F NF' C-NF' BHH F' C' 43C13N 3 O' '$ H 3D' =

; $NF' I34CH(' H H 3' $' F3 BHH F' $1R 1H E 3D' &H4 F C' I$4 CF' H4' G C 4 N

$ED' EH' I34CHE' CF$ ' Q3' $D J 3D' H' H 3' $ ' $EO' C-NF' ; 3N HE ' 3 N31 ' $ ' F3' BHH F' $ H 3D' &H4' F3' I$4 CF ' G C 4 N ' H4' I$4 ' F343 E' F3' I4H134 O' J $O' Q3' C -$ 3' E' 43C13N ' H&' F NF' F3' N $ J C' H' H 3 ' H4' E' N$C3' F3' ^ H3C' EH ' 3 $ J' H' H 3' E' 43C13N ' H&' I4H134 O ' F3E' F3 H E' F C' I $N3' H&' QHD3' $C' D3CN4 Q3D' E' F3' ' 32 C 34' J $O' Q 3 ' Q- ' E' N$C3' EH' BHH F' CF$ ' F$113E' H' Q3' 14H D3D' &H4' $EO' 1$4 N- $4' I$4 CF ' G C 4 N ' H4' I$4 ' $C' $&H43C$ D ' F3' H 3C' H&' I34CHEC' H E2' E' 43C13N ' H&' I4H134 O' C -$ 3' E' $EO' I$4 CF ' G C 4 N ' H4' I$4 ' CH' H J 3D ' H4' F$ E2' F3 4' I $N3' H&' QHD3' F343 E ' J $O' Q3' $+3E' $ ' $EO' H ' &H3' C$ D' BHH FC' ' $ED' &H3' H 3C' H&' 6433 J 3E' 43C D E2' H- ' H&' F3' > J C' H&' F3' @ O' H4' BH4H-2F' J $O' Q3' $+3E' $ ' $EO' H&' F3' C$ D' BHH FC ' $ED' 1-Q N' , H N3' H&' F3' ? -$ HE ' G C HE ' $ED' H J 3E ' H&' F3' D & ' &3 3E ' BHH FC' CF$ ' Q3' 2 3E' * H' G$OC' Q3&H43' F3' @H J J 3EN3 J 3E ' H&'

&' F3BHH F'" $43' E D &' &343E ' I $N3C ' $G31- O H' 143C D3' $ ' 3$NF' I $N3 ' C' H @ C ' HDO' H&' I H ' BHH+C' $ED' & E$ ' G3N 4 ' HBH&' I H ' &H4' BH4H-2FC

F3' I H ' QO' &H3' ' 3 -4E E2' < && N34 ' $ED' E' N$C3' F3' BHH FC' CF$ ' Q3' C -$ 3D' E' D &&343E ' I $N3C ' F3' ' 3 -4E E2' <&& N34' J $O' $11H E ' $' G - O' H' 143C D3' $ ' 3$NF' I $N3 ' $ED' $ ' 3 34O' C-NF' ; 3N HE' F3' I J ' @ 34+C' $ ' F3' @ HC3' H&' 3$NF' G$O $' I H ' CF$ ' 3EN HC3' $ED' C3$ ' F3 4' C3 34$' I H ' BHH+C' $ED' CF$ ' 1-Q N O' D3 34' F3 J ' CH' 3EN HC3D' $ED' C3$ 3D ' H' F3' ' 3 -4E E2' <&& N34' H4' F C' G31- O ' FH' CF$ ' 2 3' $' ' 3N3 1 ' &H4' &H3' C$ J 3 ' $ED' CF$ ' HE' F3' @H J J 3EN3 J 3E ' H&' F3' I H ' HE' F3' ?3NHED' G$O ' D3 34' F3 J ' Q$N+ ' CH' 3EN HC3D' $ED' C3$ 3D ' H' F3' I34CHEC' &4H J' FH J' F3' CF$ ' F$ 3' 43N3 3D' &H3' C$ J 3 ' $ED' 3 34O' G31- O' CH' 43N3 E2' $EO' C-NF' I H ' BHH+C ' HE' F3' & E$ ' @ HC3' H&' F3' I H ' CF$ ' &H4 F F' D3 34' H4' 4$EC J ' F3' C$ J 3 ' CH' 3EN HC3D' $ED' C3$ 3D ' H' F3' ' 3 -4E E2' <&& N34' FH' CF$ ' 43N3 3' $ED' +331' $ ' F3' I H ' BHH+C' -EH13E3D' -E ' F3' &H H E2' G$O ' -E 3CC' C-NF ' G$O' Q3' +3#& ' $ED' F3E' ' F3' , #& ' &H H E2 ' F3E' F3' CF$ ' H13E O' Q43$+' F3' ?3$ C' F343HE ' $ED' N$C ' -1' F3' , - J Q34' H&' H 3C' $C' F3O' $113$4' HE' F3' C$ D' C3 34$' BHH+C ' $ED' CF$ ' H13E O' D3N $43' F3' ? $ 3' H&' F3' I H ' $ED' J $+3' I4HN $ J $ + J' H&' F3' P 3 J Q34' H4' P 3 J Q34C' @FHC3E ' EH ' $ 34' F$E' * H' H @ HN+' E' F3' & 34EHHE' H&' F3' C$ D' G$O' : 14H D3D' $ $OC ' F$ ' F3' ' 3 -4E E2' <&& N34 ' H4' F C' $ & - ' G31- O ' J $O ' &' F3' F E+' & ' D3N $43' &H3' & E$ ' ? $ 3' H&' &H3' I H ' $ED' 14H333N ' H' J $+3' F3' ' 3 -4E' J J 3D $ 3 O' $& 34' F3' I H ' CF$ ' F$ 3' Q3&H' $ &- O' N HC3D' : I4H D3D' $ CH ' F$ ' EH' , H J E$ HE' CF$ ' Q3' J $D3' ' ; 3N HE' FH D3E' H&' $EO' P 3 J Q34' &H4' $EO' @ O' <4 BH4H-2F' E' $EO' @F-4NF ' @F$13 ' H4' H F34' I $N3' H&' I -Q N' 9 H4CF 1

IH E2' G C' 4 N C' H' Q3' $11H E 3D' H4 ?FH43F$ J '

>W W ' I4H D3D' $ $OC ' $ED' Q3' ' 3E$N 3D ' * F$ ' CH' &$4' $C' 43 $ 3C' H' F3' C3 34$' BH4H-2FC' H&' E ! F' +) , !? ' I % &! ' / %!143 ' $ED L! , & ' $C' D3& E3D' QO' F C' N ' F3' C$ D' C3 34$' BH4H-2FC' ' D D3D' E H' NHE 3E 3E ' G C 4 N C' &H4' 1H E2 ' $ED' F343 X9' CF$

CF$ ʻ Q3ʻ $11H E 3Dʻ Eʻ 3$NFʻ G C N ʻ $ʻ NHE 3E 3E ʻ I $N3ʻ &H4ʻ $+ E2ʻ F3ʻ IH ʻ $ʻ $ ʻ ; 3N HECʻ H&ʻ P3JQ34Cʻ Hʻ C34 3ʻ Eʻ $EOʻ &- -43ʻ I$4ʻ $J3E ʻ &H4ʻ 3$NFʻ H&ʻ F3ʻ C$Dʻ BH4H-2FC ʻ F NFʻ G C 4 N Cʻ $EDʻ I $N3C ʻ &H4ʻ $+ E2ʻ F3ʻ IH ʻ CF$ ʻ Q3ʻ C3 3Dʻ $EDʻ $11H E 3Dʻ QOʻ $Eʻ N ʻ Hʻ Q3ʻ 1$CC3Dʻ Eʻ F Cʻ 143C3E ʻ I$4 $J3E

2 - 2ʻ ;$Cʻ '3&H4Dʻ

>WW ʻ EDʻ Q3ʻ ʻ3E$N 3D ʻ *F$ ʻ EH F E2ʻ Eʻ F Cʻ N ʻ NHE $ E3Dʻ CF$ ʻ 143 3E ʻ $EOʻ ?F34 &&ʻ H4ʻ H F34ʻ ' 3 -4E E2ʻ <&& N34 ʻ H4ʻ F3ʻ $ &- ʻ G31- Oʻ H&ʻ $EOʻ ' 3 -4E E2ʻ <&& N34 ʻ &4H Jʻ N HC E2ʻ F3ʻ IH ʻ 143 H-Cʻ Hʻ F3ʻ ; ʻ 1 4$ HEʻ H&ʻ F3ʻ * J 3ʻ & 3Dʻ QOʻ F Cʻ N ʻ Eʻ $EOʻ @$C3ʻ F343ʻ F3ʻ C$J3ʻ J 2F ʻ F$ 3ʻ Q33Eʻ $ &- Oʻ N HC3Dʻ Q3&H43ʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ $EDʻ F$ ʻ F343ʻ F3ʻ I 4HN33D E2Cʻ $ ʻ $EOʻ ; 3N HEʻ CF$ ʻ Q3ʻ E 344-1 3Dʻ H4ʻ HQC 4-N 3Dʻ QOʻ $EOʻ ' H ʻ H4ʻ H13Eʻ H 3EN3 ʻ F3ʻ ?F34 &&ʻ H4ʻ H F34ʻ ' 3R -4E E2ʻ <&& N34 ʻ H4ʻ F3ʻ $ &- ʻ G31- Oʻ H&ʻ $EOʻ ' 3 -4E E2ʻ <&& N34 ʻ CF$ ʻ EH ʻ &H4ʻ C-NFʻ @$-C3ʻ & E$ Oʻ N HC3ʻ F3ʻ IH ʻ Q- ʻ Eʻ N$C3ʻ 3ʻ I 4HN33D E2Cʻ CF$ ʻ Q3ʻ CHʻ E 344-1 3Dʻ H4ʻ HQC 4-N 3Dʻ $ ʻ $EOʻ 1$4 N- $4ʻ IH E2ʻ I $N3ʻ H4ʻ I $N3C ʻ CF$ ʻ $D(H-4Eʻ F3ʻ IH ʻ $ ʻ C-NFʻ I $N3ʻ H4ʻ I $N3Cʻ HE Oʻ -E ʻ F3ʻ &H H E2ʻ G$O ʻ $EDʻ &ʻ E3N3CC$4Oʻ CF$ ʻ &-4 F34ʻ $D(H-4Eʻ F3ʻ C$J3ʻ -E ʻ C-NFʻ F 344-1 H ʻ H4ʻ <QC -N HEʻ CF$ ʻ F$ 3ʻ N3$C3D ʻ F3Eʻ F3ʻ ' 3 -4E E2ʻ <&& N34ʻ H4ʻ F Cʻ G31- Oʻ CF$ ʻ 2 Eʻ 14HN33Dʻ Hʻ $+3ʻ F3ʻ IH ʻ $ ʻ C-NFʻ I $N3ʻ H4ʻ I $N3Cʻ ($EDʻ $EOʻ G$Oʻ F343HEʻ F3ʻ IH ʻ CF$ ʻ F$ 3ʻ Q33Eʻ CHʻ $D(H-4E3Dʻ CF$ ʻ H ʻ $Cʻ Hʻ C-NFʻ I $N3ʻ H4ʻ I $N3C ʻ Q3ʻ 43N+HE3Dʻ <E3ʻ H&ʻ F3ʻ * Hʻ G$OCʻ H&ʻ 1H E2ʻ $ ʻ C-NFʻ ; 3N HEʻ F Eʻ F3ʻ P3$E E2ʻ H&ʻ F Cʻ N ʻ $EDʻ F343 34ʻ F3ʻ IH ʻ CF$ ʻ F$ 3ʻ Q33Eʻ ?H $D(H-4E3Dʻ QOʻ $EOʻ G31- Oʻ H&ʻ $EOʻ ?F34 &&ʻ H4ʻ H F34ʻ ' 3 -4E E2ʻ <&& N34 ʻ C-NFʻ G31- Oʻ CF$ 8ʻ &H4 F Fʻ 2 3ʻ , H N3ʻ H&ʻ C-NFʻ D(H-4E J3E ʻ Hʻ F3ʻ ?F34 &&ʻ H4ʻ ' 3 -4E E2ʻ <&& N34 ʻ FHʻ CF$ ʻ EH ʻ & E$ Oʻ D3N $43ʻ F3ʻ ? $ 3ʻ H&ʻ F3ʻ *,%% ʻ H4ʻ J$+3ʻ I 4HN J HEʻ H&ʻ F3ʻ P3JQ34ʻ H4ʻ P3JQ34Cʻ NFHC3E ʻ #E ʻ F3ʻ IH ʻ CHʻ $D(H-4E3Dʻ $ ʻ C-NFʻ I $N3ʻ <4 I $N3Cʻ $Cʻ $&H43C$ Dʻ CF$ ʻ F$ 3ʻ Q33Eʻ & E$ Oʻ N HC3D ʻ $EDʻ D3 343Dʻ H4ʻ 4$EC J 3Dʻ Hʻ C-NFʻ ?F34 &&ʻ H4ʻ H F34ʻ ' 3 -4E E2ʻ <&& N34ʻ ʻ $EOʻ F E2ʻ F343 E Q3&H43ʻ NHE $ E3Dʻ Hʻ F3ʻ NHE 4$4Oʻ EH FC $ED E2

9 F3Eʻ ' 3R -4E E2 <&& N34Cʻ J$Oʻ N HC3ʻ F3ʻ IH ʻ Q3&H43ʻ F3ʻ ; 1 4$ HEʻ H&ʻ F3ʻ * J3ʻ & 3D

D(H-4E J3E ʻ H&ʻ IH ʻ Eʻ N$C3ʻ H&ʻ ' H

22 >WW ʻ EDʻ Q3ʻ ʻ3E$N 3D ʻ *F$ ʻ &4H Jʻ $EDʻ $& 34ʻ F3ʻ ; EDʻ H&ʻ F Cʻ 143C3E ʻ I$4 $J3E ʻ $ ʻ BHH FCʻ 343N 3Dʻ &H4ʻ F3ʻ @HE 3E 3EN3ʻ H&ʻ $+ E2ʻ IH Cʻ CF$ ʻ Q3ʻ 343N 3Dʻ $ ʻ F3ʻ (H E ʻ $EDʻ 3X-$ ʻ ; 13EN3ʻ H&ʻ F3ʻ C3 34$ ʻ @$ED D$ 3C ʻ $EDʻ F3ʻ C$J3ʻ CF$ ʻ Q3ʻ 343N 3Dʻ QOʻ @HE 4$N ʻ Fʻ F3ʻ @$ED D$ 3C ʻ &ʻ F3Oʻ CF$ ʻ F E+ʻ & ʻ Hʻ J$+3ʻ C-NFʻ @HE 4$N ʻ H4ʻ &ʻ F3Oʻ CF$ ʻ EH ʻ J$+3ʻ C-NFʻ @HE 4$N ʻ F3Eʻ F3ʻ C$J3ʻ CF$ ʻ Q3ʻ 343N 3Dʻ QOʻ F3ʻ ?F34 &&ʻ H4ʻ H F34ʻ ' 3 -4E E2ʻ <&& N34ʻ $ ʻ F3ʻ ; 13EN3ʻ H&ʻ F3ʻ C3 34$ ʻ @$ED D$ 3Cʻ $Cʻ $&H43C$ D ʻ C-Q(3N ʻ Hʻ C-NFʻ > J $ HEʻ $Cʻ Cʻ F343 E $& 34ʻ E3 ʻ J3E HE3D ʻ ^ F$ ʻ Cʻ Hʻ C$O _ F$ ʻ F3ʻ ; 13EN3ʻ Hʻ Q3ʻ EN-443Dʻ &H4ʻ F3ʻ BHH Fʻ H4ʻ BHH FCʻ Hʻ Q3ʻ 343N 3Dʻ $ ʻ F3ʻ 14 EN 1$ ʻ I $N3ʻ H&ʻ ; 3N HEʻ &H4ʻ $EOʻ @H-E Oʻ ' D E2ʻ I$4 Cʻ H4ʻ G C HEʻ H&ʻ $ʻ @H-E Oʻ H4ʻ $ ʻ $EOʻ H& ʻ F3ʻ IH E2ʻ I $N3Cʻ CHʻ Hʻ Q3ʻ $11H E 3Dʻ $Cʻ $&H43C$ D ʻ CF$ ʻ EH ʻ 3 N33Dʻ F3ʻ ?- Jʻ H&ʻ 6H4 Oʻ IH-EDCʻ Eʻ 43C13N ʻ H&ʻ $EOʻ <E3ʻ C-NFʻ 14 EN 1$ ʻ I $N3ʻ H&ʻ ; 3N HEʻ H4ʻ $EOʻ <E3ʻ C-NFʻ IH E2ʻ I $N3ʻ ʻ $EDʻ F$ ʻ F3ʻ ; 13EN3ʻ Hʻ Q3ʻ EN-443Dʻ &H4ʻ $EOʻ BHH Fʻ H4ʻ BHH FCʻ Hʻ Q3ʻ 343N 3Dʻ &H4ʻ $EOʻ I$4 CF ʻ G C 4 N ʻ H4ʻ I$4 ʻ H&ʻ $EOʻ @ Oʻ H4ʻ BH4H-2Fʻ CF$ ʻ EH ʻ 3 N33Dʻ F3ʻ ?- Jʻ H&ʻ * 3E O & 3ʻ IH-EDCʻ Eʻ 43C13N ʻ H&ʻ $EOʻ <E3ʻ C-NFʻ I$4 CF ʻ G C 4 N ʻ H4ʻ I$4 ʻ $EDʻ F$ ʻ $ ʻ G31- 3Cʻ $11H E 3Dʻ QOʻ F3ʻ ?F34&& ʻ H4ʻ H F34ʻ ' 3 ʻ &-4E E2ʻ <&& N34ʻ CF$ ʻ Q3ʻ 1$ Dʻ 3$NFʻ * Hʻ M- E3$Cʻ QOʻ F3ʻ G$O ʻ $EDʻ $ ʻ @ 34+Cʻ 3J 1 HO3Dʻ Eʻ $+ E2ʻ F3ʻ IH ʻ CF$ ʻ Q3ʻ 1$ Dʻ 3$NFʻ <E3 ʻ M- E3$ʻ QOʻ F3ʻ G$O ʻ $ ʻ F3ʻ ʻ ; 13EN3ʻ H&ʻ F3ʻ @$ED D$ 3Cʻ $ ʻ C-NFʻ ; 3N HEʻ .

@$ED D$ 3C ʻ H4ʻ I 34CHECʻ 14H1HC E2ʻ $ @$ED D$ 3ʻ FH- ʻ F Cʻ @HEC3E ʻ Hʻ Q3ʻ $ ʻ F3ʻ ; 13EN3ʻ H&ʻ BHH FCʻ $EDʻ IH ʻ @ 34+C > J $ HE ʻ H&ʻ ; 13EN3

8H-C3C J$OR Q3 F43D &H4 1H E&N E' EC 3$D H&' BHH FC

I4H D3D'$ $OC' F$' &'$EO I34CHB CF$ 'Q3 14N HC3D FH-' Q C @HEC3E ' F3E F3 I34CHE CH 14H1HC E2 F J' CF$ 'Q3 $Q 3 H D3&4$O F C ?F$43 H&' F3 C$ D ; 13EN3C E +3 P $EE34 $C &' F3 F$D Q33E $ @$ED D$ 3' 14H D3D'$ CH' F$' F3 ?F34 & H4 '3 -4E E2 <&& N34 J $O' &' F3 CF$ ' F E+' & ' EC 3$D H&'343N E2 C-NF B3H F , ' BHH FC $C $&H43C$ D' 14HN-43 H4 F 43 $ED -C3.'$EO 8H-C3C H4 H F34 B- D E2C &H4 F3 I-41HC3 H&' $+ E2 F3 I H ' F343 E' C-Q(3N ' $ $OC H F3 C$ J 3 '32-$ HEC' I4H C HEC' ; $Q 3C'$ED> J $ HEC H&' ; 13EN3 $C $43 F343 E Q3&H43 J 3E HE3D F 432$4D H BHH FC &H4 $+ E2 F3 I H

@34 & 3D @H1 3C H& F3 O*4 &H4 ' 3 F BHH F'

>WW ' ED Q3 ' 3E$N 3D' *F$' F3 ?F34 && H4 H F34 '3 -4E E2 <&& N34 CF$ ' Q3&H43 F3 G$O & 3D &H4 F3 ; 3N HE' N$-C3 H Q3 J$D3'&H4 F3 #C3 H&'3$NF BHH F H4 < F34 I H E2 8$N3 $' C-NF ; 3N HE' $ 4-3.' @H1O H&' F3 '32 C 34 H&' H 34C' $ED CF$ ' -ED34 F C 8$ED N34 &O 3 34O C-NF @H1O H Q3 4-3

IH 34C H& G31- 3C H& '3 -4E E2 <&& N34C

>WW ' ED Q3 '3E$N 3D' *F$ '3 3 O G31- O H&'$?F34 &&H4 H F34 '3 -4E E2 <&& N34 CF$ ' F$ 3 F3 C$ J 3 I H 34 H & $D J E C 34 E2 F3 <$ FC $ED && 4 J $ HEC 43X- 43D 9'>$ ' $ED H&' $11H E E2 @H J R J CC HE34C &H4 $D J E C 34 E2 C-NF <$ FC $ED && 4 J $ HEC $C J $O QO >$ 'Q3 $D J E C 343D QO @H J J CC HE34C' $C F3 ?F34 && H4 H F34 '3R -4E E2 <&& N34 F$C QO 4 -3 H&' F C H4 $EO H F34 N ' $ED C-Q(3N ' H F3 C$ J 3 '32-$ HEC $ED I4H C HEC E 3 34O 43C13N '$C C-NF ?F3 && H4 H F34 '3 -4E E2 <&& N34

(*2) &#)+))A !(A'(H#) * 1H E2 4H'?+!'#J(' ' +!+G*J +? + @+G#I1 & <'?+!'#J(' H+ #!)IG#+!B +!+G*JA >& (A

>WW ' ED Q3 '3E$N 3D' *F$ '&4H J' $ED $& 34 F3 ; ED H&' F C 143C3E' I$4 $ J 3E '3 34O I34CHE FH CF$ ' F$ 3 $ ' 2F ' H H 3 E F3 ; 3N HE H&'$ P 3 J Q34 &H4 F3 BH4H-2F H& ,# ,3 ' E 43C13N ' H& F3 *H EC H&' E!F5, 'H4 ^1 'CF$ '2 3 F C H 3 $' E!F5, 'H4 #C '43C13N 3 O Q3&H43 F3 G31- O &H4 3$NF H&'C-NF *H EC' FH J' F3 '3 -4E E2 <&& N34 H&' F3 BH4H-2F H& ,# ,3)' C F343QO $- FHR 4 T3D $ED 43X- 43D H $11H E ' $ED 3 34O I34CHE FH CF$ ' F$ 3 $ ' 2F ' H H 3 E F3 ; 3N HE H&'$ P 3 J Q34 &H4 $EO ?F(43 *H E H4 BH4H-2F ' E 43C13N 'H& $EO I $N3 E$ J 3D E F3 6 4C '@H - J E H&' F3 ?NF3D- 3 J $4+3D ^; _' H F C N ' $EE3 3D' CF$ '2 3 F C H 3 $' C-NF I $N3 Q3&H43 F3 G31- O &H4 C-NF I $N3 FH J' F3 '3 -4E E2 <&& N34 H&' F3 ?FF3 *H E H4 BH4H-2F C F343QO $- FH4 T3D $ED 43X- 43D H $11H E ' $ED 3 34O I34CHE FH CF$ ' F$ 3 $ ' 2F ' H H 3 E F3 ; 3N HE H&'$ P 3 J Q34 &H4 F3 BH4H-2F NH J 1HC3D H&' F3 *H EC H&' +F #1! ' <,3(), ' E!)' /4! O,#' $ED !# ?(' CF$ ' 2 3 F C H 3 $' F3 *H E E 43C13N 'H& F NF Q3 CF$ 'Q3 3E 3D H H 3' ^F$' C H C$O _' +F #1! 'Q3&Q43 F3 I H4 433 3 H&' +F #1! ' $ED $' 3$NF H&' F3 H F34 *H EC Q3&H43 F3 G31- O H&'C-NF *H E FH J' F3 C$ D I H4 433 3 C F343QO $- FH4 T3D $ED 43X- 43D H $11H E ' $ED $'3 34O NHE 3C 3D ; 3N HE &H4 F3 BH4H-2F H& ,# ,3)' H4 &H4 $EO ?F 43 *H E H4 BH4H-2F E$ J 3D E F3 ?3NHED @H - J E H&' F3 C$ D ?NF3D- 3 ^; _' H4 &H4 F3 BH4H-2F NH J 1HC3D H&' F3 C$ D 6 3 *H EC' H4 &H4 F3 BH4H-2F H&' " !',#' F3 1H E2 CF$ 'NH J J 3EN3 HE F3 G$O E3 '$& 34 F3 G$O & 3D &H4 F3 43C13N 3 ; 3N HE' -E 3CC C-NF E3 ' G$O A' + 3 & 'H4 +3#& ' $ED F3E HE F3 ,#& '&H H E2' $C 3 '$' ,# ,3)' $C $' E!F5, ' $ED O1 '43C13N 3 ' $ED $C 3 ' $' F3 ?F 43 *H E H4 BH4H-2F $C $ '3$NF H&' F3 I $N3C CF$ E2 E F3 ; 3N HE F343 F 43C13N 3 O' $ED $C 3 '$' +F #1! ' $C $' 3$NF H& F3 6H-4 H F34 *H EC 43C13N 3 O ' $ED C-NF 1H E2 CF$ ' NHE E-3

&H4ʻ * Hʻ G$OCʻ HE O ʻ C-NFʻ * Hʻ G$OCʻ Q3 E2ʻ C-NN3CC 3ʻ G$OC ʻ ^ F$ ʻ C
Hʻ C$O _ʻ &H4ʻ ?3 3Eʻ 8 H-4Cʻ HEʻ F3ʻ 6 4C ʻ G$Oʻ H&ʻ 1H E2 ʻ $EDʻ &H4ʻ ; 2F ʻ
8 H-4Cʻ HEʻ F3ʻ ?3NHEDʻ G$Oʻ H&ʻ 1H E2 ʻ $EDʻ F$ ʻ F3ʻ I H ʻ CF$ ʻ HEʻ EH
NNH-E ʻ Q1ʻ +31 ʻ H13Eʻ $ 34ʻ F$Eʻ 6H-4ʻ H @ HN+ʻ Eʻ F3ʻ & 34EHHEʻ H&ʻ
C-NFʻ ?3NHEDʻ G$Oʻ ʻ $EDʻ F3ʻ ' 3 -4E E2ʻ <&& N34ʻ H&ʻ F3ʻ BH4H-2Fʻ H&ʻ
, ,)ʻ CF$ ʻ 2 3ʻ Hʻ F3ʻ G31- 3Cʻ &H4ʻ E ! F5 , ʻ $EDʻ O1)ʻ 43C13NR
3 O ʻ $EDʻ F3ʻ ' 3 -4E E2ʻ <&& N34ʻ H&ʻ 3 34Oʻ ?F 43 * H Eʻ H4ʻ BH4H-2Fʻ
E$ J 3Dʻ Eʻ F3ʻ ?3NHEDʻ @H - J Eʻ H&ʻ F3ʻ C$ Dʻ ?NF3D- 3ʻ ^ ; _ʻ CF$ ʻ 2 3ʻ Hʻ
F3ʻ G - Oʻ &H4ʻ 3$NFʻ H&ʻ F3ʻ I $N3Cʻ CF$4 E2ʻ Eʻ F3ʻ ; 3N HEʻ &H4ʻ C-NFʻ
?F 43 * H Eʻ H4ʻ BH4H-2F ʻ , H N3ʻ H&ʻ F3ʻ G$Oʻ & 3Dʻ &H4ʻ C-NFʻ 43C13N 3ʻ
; 3N HE ʻ $EDʻ CF$ ʻ Q3&H43ʻ F3ʻ G$Oʻ & 3Dʻ &H4ʻ C-NFʻ 43C13N 3ʻ ; 3N HEʻ
N$-C3ʻ Hʻ Q3ʻ J $D3 ʻ $EDʻ Hʻ Q3ʻ D3 343Dʻ Hʻ 3 34Oʻ C-NFʻ G31- O ʻ $ʻ 4-3ʻ
@H1Oʻ H&ʻ F3ʻ ' 3 C 34ʻ H&ʻ H 34Cʻ &H4ʻ F3ʻ BH4H-2Fʻ H&ʻ , # , 3) ʻ H4ʻ
&H4ʻ C-NFʻ ?F 43 * H ʻ H4ʻ BH4H-2F ʻ $Cʻ F3ʻ @$C3ʻ J $Oʻ Q3 ʻ $EDʻ CF$ ʻ
-ED34ʻ F Cʻ 8 $EDʻ N34 &Oʻ 3 34Oʻ C-N ʻ @H1Oʻ Hʻ Q3ʻ 4-3ʻ ! $EDʻ F3ʻ I H4 R
433 3ʻ H&ʻ F3ʻ * H Eʻ H&ʻ +F #1! ʻ CF$ ʻ 2 3ʻ , H N3ʻ H&ʻ F3ʻ G$Oʻ H&ʻ
; 3N HEʻ Hʻ F3ʻ G31- Oʻ &H4ʻ 3$NFʻ H&ʻ F3ʻ * H ECʻ , ʻ < , 3 ( ) , ʻ E !)
/ 4 ! 0 , # ʻ $EDʻ ! # (ʻ $EDʻ CF$ ʻ Eʻ +3ʻ P $EE34ʻ N$-C3ʻ Hʻ Q3ʻ J $D3 ʻ
$EDʻ Hʻ Q3ʻ D3 343Dʻ Hʻ 3 34Oʻ C-NFʻ G31- O ʻ $ʻ 4-3ʻ $EDʻ N34 & 3Dʻ @H1Oʻ
H&ʻ F3ʻ ' 32 C 34ʻ H&ʻ H 34Cʻ &H4ʻ F3ʻ BH4H-2Fʻ NH J 1HC3Dʻ H&ʻ F3ʻ C$ Dʻ 6 3ʻ
* H EC ʻ $EDʻ F3ʻ 43C13N 3ʻ G31- 3Cʻ &H4ʻ 3 1H4 ʻ $EDʻ 7%1 ʻ $EDʻ &H4ʻ
F3ʻ 43C13N 3ʻ 8 $N3Cʻ E$ J 3Dʻ Eʻ F3ʻ 6 4C ʻ @H - J Eʻ H&ʻ F3ʻ C$ Dʻ ?NF3D- 3ʻ
^ ; _ʻʻʻ 3 ʻ $Cʻ &H4ʻ F3ʻ * H ECʻ H&ʻ $ ( ) , ʻ E !) ʻ / 4 ! 0 , # ʻ $EDʻ
! # U (ʻ CF$ ʻ 43C13N 3 Oʻ $+3ʻ $EDʻ NHED-N ʻ F3ʻ I H ʻ $EDʻ D3 34ʻ
<4ʻ 4$EC J ʻ F3ʻ I H ʻ BHH+C ʻ Eʻ F3ʻ C$ J 3ʻ P $EE34ʻ $Cʻ F3ʻ G31- 3Cʻ H&ʻ
F3ʻ ' 3 -4E E2ʻ <&& N34Cʻ <&ʻ F3ʻ @ 3Cʻ $EDʻ BH4H-2FCʻ 44ʻ 8 # (% # &ʻ $43ʻ
Q343 Q3&H43ʻ D 43N 3Dʻ Hʻ DH ʻ $EDʻ CF$ ʻ F$ 3ʻ F3ʻ C$ J 3ʻ I H 343ʻ $EDʻ
134&H4 J ʻ F3ʻ C$ J 3ʻ G- 3Cʻ Eʻ 3 34Oʻ 43C13N ʻ $Cʻ $43ʻ 43C13N 3 Oʻ @HER
&3443Dʻ $EDʻ J 1HC3Dʻ HEʻ F3 ʻ C$ Dʻ G31- 3Cʻ QOʻ F Cʻ N : I 4H D3Dʻ Cʻ Hʻ 1ʻ
$ $OC ʻ F$ ʻ F343ʻ F343ʻ CF$ ʻ Q3ʻ $ʻ P $OH4 ʻ I H4 433 3 ʻ H4ʻ H F34ʻ @F 3&ʻ H&
P -E N 1$ ʻ <&& N34ʻ Eʻ $EOʻ * H Eʻ H4ʻ I $N3ʻ &H4ʻ F NFʻ F3ʻ ' 3 -4E E2ʻ
<&& N34ʻ H4ʻ F3ʻ I H4 433 3ʻ H&ʻ (? J$E ?3$ Cʻ 43X- 43Dʻ Hʻ $11H E ʻ $ʻ G31- Oʻ
$Cʻ $&H43C$ D ʻ C-NFʻ ' 3 -4E E2ʻ <&& N34ʻ H4ʻ F3ʻ I H4 433 3ʻ , ʻ +F 1! ʻ $Cʻ
F3ʻ @$C3ʻ J $Oʻ Q3 ʻ Cʻ F343QOʻ 43X- 43Dʻ Hʻ $11H E ʻ C-NFʻ @F 3&ʻ P -E N 1$ ʻ
<&& N34ʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2ʻ Hʻ Q3ʻ C-NFʻ G31- Oʻ &H4ʻ C-NFʻ * H Eʻ H4ʻ
I $N3

>WWʻ ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ * F$ ʻ $ ʻ >$ C ʻ ? $ - 3C ʻ $EDʻ GC$23Cʻ EH 9ʻ ʻ ; 3N HE
Eʻ &H4N3ʻ 43C13N E2ʻ F3ʻ ; 3N HEʻ H&ʻ P 3 J Q34Cʻ Hʻ C34 3ʻ Eʻ I $4 $ J 3E ʻ >$ Cʻ H 43R
&34ʻ F$ ʻ I $4 ʻ H&ʻ F3ʻ # E 3Dʻ % E2DH J ʻ N$ 3Dʻ 8 # (% # &ʻ $EDʻ %!1ʻ CF$ ʻ c F
Q3ʻ $EDʻ 43 J $ E ʻ $EDʻ $43ʻ F343QOʻ D3N $43Dʻ Hʻ Q3ʻ $EDʻ 43 J $ E ʻ Eʻ & - ʻ C-134$3D3 * ʻ ʻ
6H4N3 ʻ $EDʻ CF$ ʻ $11 Oʻ Hʻ F3ʻ ; 3N HEʻ H&ʻ P 3 J Q34Cʻ Hʻ C34 3ʻ Eʻ QOʻ F Cʻ N ʻ
I $4 $ J 3E ʻ &H4ʻ $ ʻ F3ʻ @H-E 3C ʻ ' D E2C ʻ I $4 C ʻ $EDʻ G C HECʻ H&ʻ
@H-E 3C ʻ @ 3Cʻ $EDʻ BH4H-2FC ʻ F343QOʻ 3 J 1H 343Dʻ Hʻ 43 -4Eʻ P 3 J ʻ
Q34C ʻ $Cʻ & - Oʻ $EDʻ 3&&3N -$ Oʻ $Cʻ &ʻ F3ʻ C$ J 3ʻ 43C13N 3 Oʻ F$Dʻ F343 HR
&H43ʻ 43 -4E3Dʻ P 3 J Q34C ʻ 3 N31 ʻ CHʻ &$4ʻ $Cʻ $EOʻ H&ʻ F3ʻ C$ Dʻ >$ C
? $ - 3C ʻ H4ʻ # C$23Cʻ $43ʻ 4313$ 3Dʻ H4ʻ $ 343Dʻ QOʻ F Cʻ N ʻ H4ʻ $43ʻ ER
NHEC C 3E ʻ Fʻ F3ʻ I 4H C HECʻ F343H&

>WW ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ * F$ ʻ &ʻ $EOʻ ?F34 &&ʻ ' 3 -4E E2ʻ <&& N34 ʻ I 3E$ 3Cʻ HE
B$44 C 34 ʻ < 34C334 ʻ H4ʻ $EOʻ I 34CHEʻ F$ CH3 34ʻ CF$ ʻ & - Oʻ NHE ʻ Lʻ
O$ 3E3ʻ H4ʻ D CHQ3Oʻ F3ʻ I 4H C HECʻ H&ʻ F Cʻ N ʻ H4ʻ $EOʻ H&ʻ F3 J ʻ Fʻ GkOʻ
43 (3N ʻ Hʻ $EOʻ P $ 34ʻ H4ʻ * F E2ʻ F NFʻ C-NFʻ ?F34 &&ʻ ' 3 -4E E2ʻ
<&& N34 ʻ B$44 C 34 ʻ < 34C334 ʻ H4ʻ H F34ʻ I 34CHEʻ Cʻ F343QOʻ 43X- 43Dʻ H
DH

DH F3 CF$ &H4 C-NF F C <&&3EN3 Q3 $Q 3 H Q3 C-3D E $E N HE H&
G3Q E $EO H& 8 C P$(3C O C @H-4 C H& '3NH4D $!1 #1 ! , F3
13E$?-J H& 6 3 F-ED43D I H-EDC $ED F3 5-40 Q3&H43 FH J C-NF
N HE CF$ Q3 4 3D J$O & ED & 3 4 34D N &H4 F3 &- ?-J H& 6 3
F-ED43D I H-EDC H4 &H4 $EO 3CC ?-J F NF F3 C$ D 5-40 CF$ F E+
(-C F$ F3 CFH- D 1$O &H4 C-NF F C <&&3EN3 $ED F3 G3&3ED$E
E C-NF N HE Q3 E2 N<E N 3D" CF$ 1$O C-NF 13E$?-J CH $ $4D3D
F &- @HC C H& ?- H F3 I $4 O FH J $O C-3 &H4 F3 C$ J 3.
I 4H D3D $ $OC F$ E$?-NF N HE CF$ Q3 Q4H-2F 3 N31 QO
$ I 34CHE Q3 E2 $E ; 3N H4 H4 N $ J E2 H Q3 $E ; 3N H4 H4 $ @$ER
D D$ 3 H4 $ P3 J Q34 $N -$ O 43 -4E3D H4 H F34 I $4 O $224 3 3D.
* ,0 &!& %1, F$ F3 '3 J 3DO F343QO 2 3E 2 EC F3 '3 -4E E2
<& N34 CF$ ''EH Q3 NHEC 4-3D H C-134C3D3 $EO '3 J 3DO H4 N HE
2 EC F J $NNH4D E2 H F3 >$ EH E &H4N3

>WW ED Q3 3E$N 3D *F$ $ 9 4 C H Q3 CC-3D &H4 F3
; 3N HE H& P3 J Q34C H C34 3 E $ &- -43 I $4 $ J 3E C $ED $ P $ER
D$ 3C I 43N31 C EC 4-J 3E C I 4HN33D E2C $ED , H N3C NHEC3X-3E
-1HE C-NF 9 4 C CF$ Q3 $ED F3 C$ J 3 $43 F343QO $- FH4 T3D H Q3
&4$ J 3D $ED 3 143CC3D E C-NF P $EE34 $ED 6H4 J $C J $O Q3 E3N3CC$4O
&H4 F3 N$44O E2 F3 I 4H C HEC H& F C N E H 3&&3N

*F C N EH H O NED H #E 34C 3C @$EQ4D2/

>WW I 4H D3D $ $OC $ED Q3 3E$N 3D *F$ EH F E2 E
Q C N NHE $ E3D CF$ 3 3ED H H4 E $EO C3 $&&3N F3 ; 3N HE H&
P3 J Q34C H C34 3 E I $4 $ J 3F &H4 F3 #E 34C 3C H& 6 J , & H4
H4 CF$ 34 3 $EO I 34CHE H H 3 E F3 ; 3N HE H&
P3 J Q34C H C34 3 E I $4 $ J 3E &H4 F3 @ O H& 6 J , & H4 *H E
H& I 4 &(! E 43C13N H& F3 <NN-1$ HE H& $EO @F$ J Q34C H4
I 43 J C3C E $EO H& F3 @- 323C H4 P$ C H& Q #E 34C 3C H&
6 J , & H4 I 4 &(!

<& F3 ?3EC3 E F NF 9 H4DC E F C N $43 H Q3 -ED34C HHD. `@ O H4 BH4H-2F

>WW W ED Q3 3E$N 3D *F$ F4H-2FH- F C N F343 34 F3
9 H4DC `@ O H4 BH4H-2F c `@ 3C H4 BH4H-2FC c J $O HNN-4 FHC3
9 H4DC CF$ Q3 NHEC 4-3D H EN -D3 3 N31 F343 Q3 CH J 3 F E2 E
F3 ?-Q(3N H4 @HE 3 J $E &3C O 431-2E$E &H C-NF @HEC 4-N HE $
*H EC @H41H4$ 3 @ EX-3 I H4 C G C 4 N C H4 I $N3C F E 8#(% #&
$ED %!1 F NF CF$ Q3 3E 3D $& 34 F C N CF$ F$ 3 1$CC3D H
43 -4E $ P3 J Q34 H4 P3 J Q34C H C34 3 E I $4 $ J 3E H F34 F$E
@H-E 3C $ $423 $ED D E2C I $4 C $ED G C HEC H&/ @H-E 3C $
$423 $ED CF$ $ CH EN -D3 F3 *H E H& "! F ' 35,# 7 !!& $ED

F3 9 H4DC ` '3 -4E E2 <&& N34c CF$ $11 O H 3 34O I 34CHE H4 I 34CHEC
H FH J QO 4 -3 H& J C H4 F3 4 <&& N3 3 F34 -ED34 F3 143C3E N(
H4 -ED34 $EO &H4 J 34 >$ @-C H J H4 ? $ - 3 F3 ; 3N- HE H& $EO
9 4 H4 I 43N31 DH F H4 CF$ Q3 HE2 &H4 F3 ; 3N HE H& $ P3 J Q34 H4
P3 J Q34C H C34 3 E I $4 $ J 3E QO F$ 3 34 , $ J 3 H4 * 3 C-NF

I 34CHE H4 I 34CHEC J $O Q3 N$ 3D $ED F3 9 H4DC I $4 CF H4 *H ER
CF 1c CF$ 3 3ED H 3 34O I $4 CF ; H ECF 1 8$ J 3 G C 4 N
<4 I $N3 J $ E $ E E2 C H E I HH4 $ED F3 9 H4DC < 34C334C H&
F3 I HH4c CF$ 3 3ED H $ I 34CHEC FH QO 4 -3 H& $EO <&& N3 H4
11H E J 3E CF$ 3 3N- 3 F3 G- 3C H& < 34C334C H& F3 I H<4 QO
F$ 3 34 , $ J 3 H4 * 3 C-NF I 34CHEC J $O Q3 N$ 3D $ED E F$ CH3 34
P $EE34 F3O J $O Q3 $11H E 3D $ED F$ $ P$ 34C Q F C N
D 43N 3D H Q3 DHE3 QO F3 < 34C334C H& $ I $4 CF H4 *H ECF 1 J $OQ3
$ &- O DHE3 QO F3 J $(H4 I $4 H& C-NF < 34C334C $ED F$ F343 34
$EO

$EO' , H N3' C' QO' F C' N ' 43X - 43D' H' Q3' 2 3E' H' F3' < 34C334C' H&'
$EO' I $4 CF' H4' * H ECF 1 ' ' CF$ ' Q3' C - & N 3E ' &' C - NF' , H N3' CF$ ' Q3'
D3 343D' H' $1O' < E3' H&' C - NF' < 34C334C ' H4' CF$ ' Q3' 3& ' $ ' F C' I $N3' H&'
QHD3 ' H4' $ ' F C' <&& N3' H4' H F34' I $N3' &H4' 4$EC$N E2' I $4HNF $ '
B - C E3CC ' H4' CF$ ' Q3' C3E ' QO' F3' I HC ' $DD43CC3D' QO' $' C - && N 3E '
G 43N HE ' H' F3' < 34C334C' H&' F3' 1$4 N - $4' I $4 CF' H4' * H ER
CF 1 ' H4' H' $EO' < E3' H&' F3 J ' 3 F34' QO' F3 4' H4' F C' @F4 C $E'
, $ J 3' $ED' ? - 4E$ J 3 ' H4' QO' F3 4' H4' F C' , $ J 3' H&' <&& N3 ' $ED' F$ '
$ ' I 4H C HEC' E' F C' N ' 43 $ 3' H' $EO' P $ 34C' H' Q3' DHE3' QO' H4'
F' 432$4D' H' 5 - C N3C' H&' F3' I 3$N3' &H4' @H - E 3C ' H4' ?3CC HEC'
H&' F3' I 3$N3' &H4' @H - E 3C ' H4' @ 34+C' H&' F3' I 3$N3' &H4' @H - E 3C ' H4'
* 43$C - 434C' H&' @H - E 3C ' CF$ ' 3 3ED' H' F3' 5 - C N3C ' ?3CC HEC ' @ 34+C'
H&' F3' I 3$N3 ' $ED' * 43$C - 434C' H&" F3' C3 34$ ' ' D E2C' H&' H , 1) ! '
$ED' I $4 C' H&' < # ' , %#1) !A' $ED' F$ ' F3' @ 34+' H&' F3' I 3$N3' &H4' F3'
* J 3' Q3 E2' &H4' F3' BH4H - 2F' H&' E ! F5 , ' E' F3' $1%! ' , ' ( ) ' CF$ '
&H4' F3' I - 41HC3C' H&' F C' N ' Q3' D33 J 3D' $ED' $+3E' H' Q3' F3' @ 34+'
H&' F3' I 3$N3' &H4' F3' @H - E O' H&' F3' $1%! ' , ' ( ) ' $ED' F$ ' $ ' F3'
C$ D' 43C13N 3' 5 - C N3C ' ?3CC HEC ' $ED' @ 34+C' H&' F3' I 3$N3' CF$ ' F$ 3'
I H 34' H' DH' F3' C3 34$ ' P $ 34C' 43X - 43D' QO' F C' N ' $C' 9 3 '
F E' I $N3C' H&' 3 N - C 3' 5 - 4 CD N HE' $A' FH - ' $ED' F$ ' EH'
P CEH J 34' H4' E$NN - 4$ 3' G3CN4 1 HE' H&' $EO' I 34CHE' H4' I $N3' E$ J 3D'
H4' D3CN4 Q3D' E' $EO' ?NF3D - 3' H' F C' N ' $EE3 3D ' H4' E' $EO' > C ' H4
' 32 C 34' H&' H 34C ' H4' E' $EO' , H N3' 43X - 43D' QO' F C' N ' F$ '
E' $EO C3' 143 3E ' H4' $Q4 D23' F3' < 134$ HE' H&' F C' N ' F'
43C13N ' H' C - NF' I 34CHE' H4' I $N3 ' 14H D3D' F$ ' C - NF' I 3 CHE' H4' I $N3'
CF$ ' Q3' CH' D3C 2E$ 3D' E' C - NF' ?NF3D - 3 ' > C ' ' 32 C 34 ' H4' , H N3'
$C' H' Q3' NH J J HE O' - ED34C HHD

' 5 - C N3C' H&' F3' I 3$N3' &H4' @H - E 3C C' P CEH J 34' EH ' H' $ 3'

> WWW ' ED' F343$C' ' J $O' F$113E' F$ ' F3' N ' H4' N C' &H4'
C3 E2' F3' BH - ED$4 3C' H&' @ 3C ' BH4H - 2FC ' $ED' H F34' I $N3C ' $ED'
F3' G C HEC' H&' @H - E 3C ' $C' F343 E Q3&H43' J 3E HE3D ' J $O' EH ' Q3'
1$CC3D' F E' C - NF' * J 3' $C' ' $ H ' F3' C3 34$ ' I 4H C HEC' H&' F C'
N ' 43 $ 3' H' F3' > C C' H&' H 34C' F E' C - NF' 43C13N 3' BH - ED$4 3C'
$ED' G C HEC ' $ED' F3' $4 H - C' , H N3C' $ED' I 4HN33D E2C' 1431$4$ H4O'
H' $ED' NHEE3N 3D' F' C - NF' > C C ' H' Q3' N$44 3D' E H' 3&&3N ' F E'
F3' C3 34$ ' I 34 HDC' E' F3' 143C3E ' =3$4' F343 E Q3&H43' C13N & 3D' $ED'
J 3D' E' F$ ' B3F$ & ' $ED' ' C' F343&H43' 3 13D 3E ' E' C - NF' ; 3E '
$C' $&H43C$ D' H' $11H E ' H F34' I 34 HDC' &H4' F3' I - 41HC3C' $&H43C$ D' (
Q3' ' F343&H43' 3E$N 3D ' * F$ ' &' F3' N ' H4' N C' &H4' C3 E2' F3'
BH - ED$4 3C' $ED' G C HEC' F343 E Q3&H43' J 3E HE3D' CF$ ' EH ' Q3' 1$CC3D'
Q3&H43' F3' * 3E 3 F' G$O' H&' ?3#! ' E' F3' 143C3E ' =3$4 ' F3E' $ED' E'
C - NF' @$C3' F3' , H N3' F343 E Q3&H43' 43X - 43D' H' Q3' 2 3E' HE' F3' C$ D'
* 3E 3 F' G$O' H&' ?3#! ' CF$ ' EH ' Q3' 2 3E' HE' F$ ' G$O ' $ED' F3' > C C'
H&' H 34C ' $ED' F3' , H N3C' $ED' H F34' I 4HN33D E2C' 1431$4$ H4O' H' $ED'
NHEE3N 3D' F' C - NF' > C C ' CF$ ' EH ' Q3' J $D3' H - ' 2 3E ' H4' F$D' - 1HE'
H4' F E' F3' C3 34$ ' G$OC' H4' * J 3C' E' F3' 143C3E ' =3$4' F343 E Q3&H43'
C13N & 3D' E' F$ ' B3F$ & ' Q - ' &' F3' N ' H4' N C' &H4' C3 E2' F3'
BH - ED$4 3C' H&' @ 3C ' BH4H - 2FC ' $ED' H F34' I $N3C ' $ED' F3' G C HEC' H&'
@H - E 3C ' $C' F343 E Q3&H43' J 3E HE3D ' CF$ ' Q3' 1$CC3D' E' F3' 143C3E '
=3$4' C - QC3X - 3E O' H' F3' * 3E 3 F' G$O' H&' ?3#! ' F3E' $ED' E' C - NF'
@$C3' 8 C' P $(3C O' CF$ ' QO' $E' < 4D34' J $D3' F' F3' D N3' H&' 8 C'
P HC ' 8 HEH - 4$Q 3' I 4 O' @H - EN ' $11H E ' E' 3 - ' H&' F3' G$O' &H4' F3'
143C3E ' =3$4' F343 E Q3&H43' C13N & 3D' E' F$ ' B3F$ & ' $' N34 $ E' H F34'
G$O ' Q3&H43' H4' - 1HE' F NF' F3' 43C13N 3' > C C' H&' H 34C' CF$ ' Q3'
J $D3' H - ' $ED' CF$ ' $ CH' $11H E ' E' 3 - ' H&' F3' C3 34$ ' G$OC' $ D'

E' N$C3' F3' 14H1HC3D' BH - ED$4O N ' CF$ ' EH ' 1$CC' Q3&H43' F3' U[F' H&' 5 - E3' ZSU ' F3' I 431$4$ HEC' &H4' 6 4C ' ' 32 C 4$ HE' H' Q3' D3R &3443D' ' Q - ' &' F3' BH - EDR $4O' N ' 1$CC' $& 34' F$ ' G$O ' F3' I 34 HDC' 143R 1$4$ H4O' H' $ED' NHER E3N 3D' F' F3' 6 4C ' ' 32 C 4$ HE' H' QH' C3 3D' QO' $E' < 4D34' E' @H J N

* J3C' &H4' F3' 143C3E ' =3$4' F343 E Q3&Q43' C13N & 3D' H4' J 3D' E' F$ ' B3F$ &' N34 $ E' H F34' G$OC' $ED' * J3C' -1HE' H4' F E' F NF' $ ' , H N3C ' @$ JC ' <Q(3N HEC ' $ED' H F34' P$ 34C' F$ CH3 34' O' F C' N ' 43X- 43D' H' Q3' 2 3E ' D3 343D ' 4$EC J 3D ' DHE3 ' H4' 134&H4 J 3D' E' 43 $ HE' H' C-NF' > C C ' 3 F34' Q3&H43' H4' $& 34' F3' J $+ E2' H- ' H&' C-NF' > C C ' CF$ ' Q3' 43C13N 3 O' 2 3E ' D3 343D ' 4$EC J 3D ' DHE3 ' $ED' 134&H4 J 3D ' $ED' 8 C' P$(3C O' CF$ ' $ CH' QO' C-NF' <4D34' $11H E ' E' 3-' H&' F3' *34 HD' &H4' F3' 143C3E ' =3$4' F343 E Q3&H43' J 3D' E' F$ ' B3F$ &' $' N34 $ E' H F34' I 34 HD' &H4' F3' %3 C HE' F3' 43C13N 3' > C C' H&' H 34C' QO' F3' B$44 C 34C ' $ED' CF$ ' $ CH' $11H E ' F E' F$ ' * J3 ' E' 3-' H&' F3' * J3' &H4' F3' 143C3E ' =3$4' F343 E Q3&H43' J 3D' E' F$ ' B3F$ &' C-NF' 43C13N 3' > C C' CF$ ' Q3' NH1 3D' H- ' J H' BHH+C ' $ED' F343' E3N3CC$4O ' D3 343D' H' F3' ?F34 &' H4' #ED34' ?F34 & ' $ED' &4H J' F$ ' G$O ' E' 3-' H&' F3' G$O' &H4' F3' 143C3E ' =3$4' F343 E Q3&H43' C13N & 3D' E' F$ ' B3F$ &' C-NF' 43C13N 3' BHH+C' CF$ ' Q32 E' H' Q3' E' &H4N3' $C' F3' % 32 C 34C' H&' H 34C' ($ED' 8 C' P$(3C O' J $O' $ CH' QO' C-NF' <4D34' E' @H-EN ' $11H E ' $EO' G$OC' $ED' * J3C' &H4' DH E2' F3' C3 34$ ' H F34' P$ 34C' 43X- 43D' H4' $- FH4 T3D' QO' F C' N ' E' 3-' H&' F3' C3 34$ ' G$OC' $ED' G J3C' &H4' F3' 143C3E ' =3$4' F343 E Q3&H43' C13N & 3D ' $ED' $ ' G$OC' $ED' * J3C ' CH' $11H E 3D' QO' 8 C' P$(3C O' $C' $&H43C$ D' CF$ ' Q3' D33- 3D' H' Q3' H&' F3' C$ J3' 6H4N3' $ED' ; & 3N ' $C' &' F3O' F$D' E' 3 34O' EC $EN3' Q33E' J3E HE3D' E' F C' N ' E' 3-' H&' F3' G$OC' $ED' * J3C' &14' F3' 143C3E ' =3$4' F343 E Q3&H43' C13N & 3D' E' F$ ' B3F$ &.' I4H D3D' $ $OC ' F$ ' EH F E2' F343 E' NHE $ E3D' CF$ ' $- FH4 T3' 8 C' P$(3C O' H' $11H E ' $EO' G$OC' H4' * J3C' E' 3-' H&' F3' G$ OC' $ED' * J3C' J3E HE3D' E' F C' N ' 3 N31 ' &H4' F3' I -41HC3' H&' N$44O E2' E H' 3&&3N ' F3' & 4C ' ' 32 C 4$ HE' H&' H 34C' -ED34' F C' N .' I4H D3D' $ CH ' F$ ' EH' I34CHE' CF$ ' Q3' 3E 3D' H' Q3' EN -D3D' E' C-NF' & 4C ' ' 32 C 4$ HE' H&' H 34C' -E 3CC' F3' H- D' F$ 3' Q33E' 3E 3D' HE' F3' $C ' G$O' H&' ? & ' E' F3' 143C3E ' =3$4' H' F$ 3' F C' , $ J3' EC34 3D' E' CH J3' > C ' H&' H 34C' &' C-NF' > C ' F$D' Q33E' J $D3' H- ' HE' F3' C$ D' $C ' G$O' H&' ?3%

I4H C\

>WWW ' 14H D3D' $ $OC ' $ED' Q3' ' 3E$N 3D ' *F$ ' &' $' G CCH - HE' H&' F3' 143C3E ' I$4 $ J3E ' CF$ ' $+3' 1 $N3' $& 34' F3' 1$CC E2' H&' F C' N ' $ED' $& 34' F3' 1$CC E2' H&' F3' N ' H4' N C' &H4' C3 E2' F3' BH-ED$4 3C' H&' @ 3C ' BH4H-2FC ' $ED' H F34' I $N3C ' $ED' F3' G C HEC' H&' @H-E 3C ' $C' F343 J Q3&H43' J3E HE3D ' Q- ' Q3&H43' F3' G$O' $ ' $ED' &4H J' F NF' F3' ' 32 C 34C' H&' H 34C' H' Q3' & 4C ' J $D3' QO' 4 -3' H&' F C' N ' CF$ ' Q32 E' H' Q3' E' &H4N3 ' E' C-NF' @$C3' C-QF' I34CHEC' HE O' CF$ ' Q3' 3E 3D' H' H 3' E' F3' ; 3N HE' H&' P3 J Q34C' H' C34 3' E' $' E3 ' I$4 $ J3E ' &H4' $EO' @H-E O ' H4' &H4' $EO' ' D E2 ' I$4 C ' H4' G C HE' H&' $' @H-E O ' H4' &H4' $EO' @ O' H4' BH4H-2F ' $C' H- D' Q3' 3E 3D' H' Q3' EC34 3D' E' F3' 43C13NR 3' > C C' H&' H 34C' &H4' F3' C$ J3' D 43N 3D' H' Q3' J $D3' -ED34' F C' N ' &' F3' G$O' H&' ; 3N HE' F$D' Q33E' F3' G$O' &H4' J $+ E2' H- ' C-NF' 43C13NR 3' > C C ' $ED' C-NF' I34CHEC' CF$ ' Q3' 3E 3D' H' H 3' E' C-NF' ; 3N HE' $ FH-2F' F3O' J $O' EH ' Q3' 432 C 343D' $NNH4D E2' H' F3' I4H C HEC' H&' F C' N ' $EO' F E2' F343 E' NHE $ E3D' EH FC $ED E2' ' $ED' F3' 1H E2' $ ' C-NF' ; 3N HE' &H4' $EO' @H-E O ' H4' &H4' $EO' ' D E2 ' I$4 C ' H4' G C HE' H&' $' @H-E O ' J $O' Q3' NHE E-3D' &H4' 6 & 33E' G$OC ' $ED' F3' 1H E2' $ ' C-NF' ; 3N HE' &H4' $EO' @ O' H4' B14H-2F' J $O' Q3' NHE E-3D' &H4' ; 2F ' G$OC ' $EO' F E2' F343 E' NHE $ E3D' EH FC $ED E2

E' N$C3' H&' $ G CCH - HE' H&' I$4 $ J3E ' $& 34' F3' 1$CC E2' H&' F3' 14H1HC3D' BH-ED$4O' N ' $ED' Q3&H43' ' 32 CR 4$ HE' F3' ' 2F C' H&' HR E2' CF$ ' $+3 3&&3N ' FH- ' ' 32 C 4$ HE

>WWW ' I4H D3D' $ CH ' $ED' Q3' ' 3E$N 3D ' *F$ ' &' $' G CCH - HE' H&' F3' 143C3E ' I$4 $ J3E ' CF$ ' $+3 ' 1 $N3' $& 34' F3' 1$CC E2' H&' F C N

E' N$C3' H&' $' G CCH - HE' H&' I$4 $ J3E '

N ' $ED' Q3&H43' F3' 1$CC E2' H&' F3' N ' H4' N C' &H4' C3 E2' 43C13N 3 O' F3' BH-ED$4 3C' H&' @ 3C ' BH4H-2FC ' $ED' H F34' I $N3C ' $ED' F3' G C HEC' H&' @H-E 3C ' $C' F343 E Q3&H43' J 3E HE3D ' F3E' $ED' E' C-NF' @$C3' F3' ; 3N HE' H&' P 3 J Q34C' H' C34 3' E' $' E3 ' I $4 $ J 3E ' CF$ ' QH F' $C' H' F3' I 34CHEC' 3E 3D' H' H 3 ' $ED' H F34 C3 ' Q3' 432 - $ 3D' $NNH4D E2' H' F3' I 4H C HEC' H&' F C' N ' C$ 3' $ED' 3 N31 ' $C' F343 ER $& 34' J 3E HE3D ' ^ F$ ' C' H' C$O _' F$ ' $C' H' F3' C3 34$ ' @H-E 3C' 3E - J 34$ 3D' E' F3' ?NF3D - 3' ^6 _' H' F C' N ' $EE3 3D ' $ ' I 34CHEC' 3E 3D' QO' 4 - 3' H&' F C' N ' E' 43C13N ' H&' I 4H134 O' F343 E' H' H 3' E' F3' ; 3N HE' H&' %E 2F C' H&' F3' ?F 43' CF$ ' Q3' 3E 3D' H' H 3' &H4' 6H - 4' %E 2F C' H&' F3' ?F 43' H' C34 3' E' C - NF' E3 ' I $4 $ J 3E ' &H4' 3$NF' H&' F3' C$ D' @H - E 3C ' $ED' EH ' &H4' * H' %E 2F C' H' C34 3' &H4' $EO' G C HE' H&' F3' C$ D' @H - E 3C' ($ED' F$ ' $C' H' F3' C3 34$ ' BH4H - 2FC' 3E - J 34$ 3D' E' F3' ?NF3D - 3C' ^@ _' $ED' ^G _' H' F C' N ' $EE3 3D ' 3$NF' H&' F3' C$ D' BH4H - 2FC' CF$ ' &H4' F3' I - 41HC3' H&' 3 3N E2' $' P 3 J Q34' H4' P 3 J Q34C' H' C34 3' E' C - NF' E3 ' I $4 $ J 3E ' Q3' D33 J 3D' H' EN - D3' C - NF' I $N3C' $C' $43' C13N & 3D' $ED' D3CN4 Q3D' E' NHE(- EN HE' 9 F' F3' , $ J 3' H&' 3$NF' H&' F3' C$ D' BH4H - 2FC' E' F3' ?NF3D - 3' J $4+3D' ^> _' H' F C' N ' $EE3 3D ' $ED' F$ ' $C' H' F3' C3 34$ ' @ 3C' $ED' BH4H - 2FC' E' $ED' %!1'#, ' EN - D3D E' F3' ?NF3D - 3' ^ _' H' F C' N ' $EE3 3D ' $ED' EH ' 43 - 4E E2' $' P 3 J Q34' H4' P 3 J Q34C' H' C34 3' E' I $4 $ J 3E ' $ED' F3' I $N3C' CF$4 E2' E' F3' ; 3N HE' &H4' C - NF' @ 3C' $ED' BH4H - 2FC ' 3$NF' H&' C - NF' @ 3C ' BH4H - 2FC ' $ED' I $N3C' 43C13N 3 O' CF$ ' &H4' F3' I - 1HC3' H&' 3 3N E2' $' P 3 J Q34' H4' P 3 J Q34C' H' C34 3' E' C - NF' E3 ' I $4 $ J 3E ' $?' $&H43C$ D' Q3' D33 J 3D' H' Q3' NH J 143F3ED3D' F E' F3' C$ J 3' > J C' $C' Q3&H43' F3' 1$CC E2' H&' F C' N ' $ED' EH ' H F34 C3' ($ED' F$ ' EH' I $N3' E$ J 3D' E' F3' 6 4C ' @H - J E' H&' F3' ?NF3D - 3' ^ ; _' H' F C' N ' $EE3 3D ' F NF' Q3&H43' F3' 1$CC E2' H&' F C' N ' D D' EH ' CF$43' E' F3' ; 3N HE' H&' $' P 3 J Q34' &H4' $EO' ?F 43 * H E' H4' BH4H - 2F' E$ J 3D' E' F3' ?3NHED' @H - J E' H&' F3' C$ D' ?NF3D - 3' ^ ; _' CF$ ' CF$43' E' F3' ; 3N HE' H&' $' P 3 J Q34' &H4' $EO' ?F 43 * H E' H4' BH4H - 2F' H' C34 3' E' C - NF' E3 ' I $4 $ J 3E ' $EO' F E2' F343 E Q3&H43' NHE $ E3D' H' F3' NHE 4$4O' EH R FC $ED E2 ' $ED' F$ ' F3' BH4H - 2F' NH J 1HC3D' H&' F3' * H EC' H&' +F #1! ' < , 3 ( ) , ' E !) ' /) ! 0 , # ' $ED' !# (' CF$ ' EH ' 43 - 4E' $' P 3 J Q34' H' C34 3' E' C - NF' E3 ' I $4 $ J 3E ' Q - ' CF$ ' EC 3$D' F343H&' CF$43' E' F3' ; 3N HE' H&' $' P 3 J Q34' H' C34 3' E' C - NF' F3 ' I $4 $ J 3E ' &H4' F3' BH4H - 2F' H&' I & ' $EO' F E2' F343 E Q3&H43' NHE $ E3D' H' F3' NHE 4$4O' EH FC $ED E2 ' $ED' F$ ' E' F3' ; 3E ' H&' C - NF' G CCH - HE' H&' I $4 $ J 3E ' CH' $+ E2' 1 $N3' $C' $C ' $&H43C$ D' C - NF' I 34CHEC' HE O' CF$ ' Q3' 3E 3D' H' H 3' E' F3' ; 3N HE' H&' P 3 J R Q34C' H' C34 3' E' C - NF' E3 ' I $4 $ J 3E ' $C' $&H43C$ D' &H4' F3' @H - E 3C ' ' D E2C ' I $4 C ' @ 3C ' $ED' BH4H - 2FC' F NF' E' C - NF' ; 3E ' CF$ ' 43 - 4E' P 3 J Q34C' H' C34 3' E' C - NF' E3 ' I $4 $ J 3E ' $C' H - D' Q3' 3E 3D' H' Q3' EC34 3D' E' F3' 43C13N 3' > C C' H&' H 34C' D 43N 3D' H' Q3' J $D3' - ED34' F C' N ' &' F3' G$O' H&' ; 3N HE' F$D' Q33E' F3' G$O' &H4' J $+ E2' H - ' C - NF' 43C13N 3' > C C ' $ED' C - NF' I 34CHEC' CF$ ' Q3' 3E 3D' H' H 3' E' C - NF' ; 3N HE ' $ FH - 2F' F3O' J $O' EH ' Q3' 432 C 343D' $NNH4D E2' H' F3' I 4H C HEC' <&' F C' N ' $EO' F E2' F343 E Q3&H43' NHE $ E3D' H' F3' NHER 4$4O' EH FC $ED E2 ' $ED' F3' 1H E2' $ ' C - NF' ; 3N HE' &N4' $EO' @H - E O' H4' &H4' $EO' ' D E2' H&' H , 1) !' <4 I $4 C' H&' < #' , %#1) ! ' ' Q3' NHE E - 3D' &H4' 6 & 33E' G$OC ' $ED' F3' 1H E2' $ ' C - NF' ; 3N HE' &H4' $EO' @ O' H4' BH4H - 2F' J $O' Q3' NHE E - 3D' &H4' ; 2F ' G$OC ' $EO' F E2' F343 E Q3&H43' NHE $ E3D' H' F3' NHE 4$4O' EH FC $ED E2

Q3&H43' 3' 1$CC E2' H&' F3' 14H1HC3D' BH-ED$4(4 N '@H-E 3C' EH ' H' Q3' D D3D

BH-ED$4 3C' H&' E3 ' BHR 4H-2FC' D3& E3D

BH-ED$4 3C' H&' H D' BHR 4H-2FC' H' 43 J $ E'

$ED' F3' ' 2F C' H&' H E2' H' $+3' 3&&3N ' FH- ' ' 3R 2 C 4$ HE

S Y U`M#> ;>P ' ' @$1' !

?@8 ;G#>;?' H' FNF' F3' &H432H E2' N' 43&34C

?@8 ;G#>;' ^ _

BH4H 2 C :	@H E O	BH4 2FC	@H-E O
< D' ?$4-J	9 CF 43	9 ENF3 C3$	?-CC3
,3 H E'	C 3' H&' 9 2F	*432HEO	@H4E $
? ' P NF$3 C' H4' = P DCF$ ' >	@H4E $	8$C 3J 343 c	?-4430
		?$ $CF	@H4E $
M$ HE' '	?-4430	<4&H4D	?-& &Q +
B4$J Q34	?-CC3	@$8 E2 HE	@H4E $
BHCC E3O' '	@H4E $	,3 HE	$# N$CF 43
G-E NF'	?-& MC +	NF3C 34	?H J 34C3 CF 43
>-D234CF$	9 CF 43	BH4H-2FQ4 D23	=H4+CF 43
? ' P$ 3C	@H4E $	? HN+Q4 D23	8$J 1CF 43
B334$ C HE	G3 HECF 43	' H J E3O' ^ , 3 _	%3E
9 3C ' >HH3	@H4E $	8 3DHE	=H4+CF 43
? ' M34 J $ E C	@H4E $	I OJ 1 HE	G3 HECF 43
,3 1H4	@H4E $	?3$&H4D	?-CC3
B 3NF E2 3O	?-4430	8 3O 3CQ-4O	9 CF 43'
DQH4H-2F'	=H4+CF 43	? 3OE E2	?-CC3
@$J 3 &H4D	@H4E $	9 F NF-4NF	8$J 1CF 43
8 EDHE	9 CF 43	9 HH HE' B$CC3	9 CF 43
; $C ' >HH3	@H4E $	GH E P '	9 CF 43
@H4&3' @$C 3	GH4C3 CF 43	6H 3O	@H4E $
B3D E' ^M43$ _'	9 CF 43	P QH J 3' I H4	?H E34C3 CF 43
=$EEHE F'	&' C 3' H&' 9 2F ' ' 8$J 1CF 43	D3Q-42F	?-&&H +
\ -33EQH4H-2F'	%3E	P E3F3$D	?H J 34C3 CF 43
@$CD3' ' C E2'	, H4&H +	B CFH1 C' @$C 3'	?F4H1CF 43
; $C ' M4 EC 3$D'	?-CC3	<+3F$J 1 HE	G3 HECF 43
8 2F$J ' 63443 C'	, H4 F$J 1 HECF 43	11 3QO	9 3C J H43 $ED
9 3EDH 34	B-N+ E2F$J CF 43	>HC F 3	@H4E $
9 3QQ O	8 343&H4DCF 43	B4$N+ 3O	, H4 F$J 1 HECF 43
		J 34CF$J	B-N+ E2F$J CF 43

U/M#> ;>P ʻ ʻ @$1 ! S

?@8 ;G#>;ʻ ^B _

BH4H-2FC	@H-E O	BH4H-2FC	@H-E O
I 3 3 C& 3 Dʻ ʻ	8$J 1CF 43	?F$& 3CQ-4O	GH4C3 CF 43
CFQ-4 HE	G3 HECF 43	*F 4C+	=H4+CF 43
; O3ʻ ʻ ʻ	?-&&H +	@F4 C NF-4NF	8$J 1CF 43
9 3C Q-4O	9 CF 43	8H4CF$J	?-CC3
9 $43F$Jʻ	GH4C3 CF 43	M43$ʻ M4 J CQOʻ	> ENH ECF 43
P DF-4Cʻ	?-CC3	@$ E3	9 CF 43
9 HHDC HN+	< &H4DCF 43	4-ED3ʻ	?-CC3
9 HEʻ ʻ ʻ	9 CF 43	? ʻ 3Cʻ	@H4E $
P$ J 3CQ-4Oʻ ʻ	9 CF 43	' O3	?-CC3
> C+3$4Dʻ ʻ	@H4E $	@ F34H3ʻ	>ENCF 43
' 3 2$ 3	?-443O	PH413 F	, H4 F- J Q34 $ D
8 O F3	%3E	8 3 C HEʻ ʻ	@H4E $
G4H NFʻ ʻ	9 H4N3C 34CF 43	, H4 ʻ 34 HEʻ	=H4+CF 43
>O J 3ʻ ' 32 C	GH4C3 CF 43	9 $ E2&H4D	B34+CF 43
>$-EN3C HE	@H4E $	G$4 J H- F	G3 EC E43

S Z ULʻ M # > ; > P ʻ ʻ @$1 !

?@ 8 ; G # > ; ʻ ^q _

I4 EN 1$ʻ I $N3Cʻ Hʻ Q3ʻ BH4H-2FC	' 3 -4E E2ʻ @P& N34C
P $ENF3C 34ʻ ^>$EN$CF 43_ ʻ ʻ	* F3ʻ BH4H-2F433 3ʻ $EDʻ @HEC $Q 3Cʻ H&ʻ P $ER NF3C 34
B 4 J E2F$ Jʻ ^9 $4 N+CF 43_	* F3ʻ * Hʻ B$ &&3ʻ H&ʻ B 4 J E2F$ J
>33DCʻ ^=H4+CF 43_ʻ ʻ 4ʻ ʻ	* F3ʻ P $OH4ʻ H&ʻ >33DC
M433E NFʻ ^%3E _	
?F3&& 3 Dʻ ^=H +CF 43_ʻ	* F3ʻ P $C 34ʻ @- 34
?-ED34 $EDʻ ^G-4F$ J _	
G3 HE1H4ʻ ^G3 HECF 43_	
9 H 34F$ J 1 HEʻ ^? $&&H4DCF 43_	@HEC $Q 3ʻ H&ʻ F3ʻ P $EH4ʻ H&ʻ F3ʻ G3$E34Oʻ H&ʻ 9 H 34F$ J 1 HE
*H 34ʻ 8$ J 3 3ʻ ^P D 5 3C3 _	
6 ECQ-4Oʻ ^P DD 3C3 _	
P $4O 3 QHE3ʻ ^P DD 3C3 _	
>$ J Q3 Fʻ ^?-443O_	
BH HEʻ ^>ENCF 43_ʻ ʻ	* F3ʻ BH4H-2F433 3Cʻ H&ʻ M43$ʻ $EDʻ > 3ʻ BH HE
B4$D&H4Dʻ ^=H4+CF 43_	
B $N+Q-4Eʻ ^>$EN$CF 43_	
B +F HEʻ ^?-CC3 _	
8$ &$ ʻ ^=H4+CF 43_	
P $NN 3C& 3 Dʻ ^@F3CF 43_	* F3ʻ P $OH4ʻ H&ʻ P $NN 3C& 3 Dʻ
< DF$ Jʻ ^>ENCF 43_	
? HN+1H4ʻ ^@F3CF 43_ʻ ʻ ʻ g	* F3ʻ P $OH4ʻ H&ʻ ? HN+1H4
? H+3 i -1HE *43Eʻ ^? $&&H4DCF 43_ʻ	
? 4H-Dʻ ^M H-N3C 34CF 43_	

?@ 8 ; G # > ; ʻ ^G _

I4 EN 1$ʻ I $N3Cʻ Hʻ Q3ʻ BH4H-2FC	' 3 -4E E2ʻ <&& N34C
CF HE -ED34 >OE3ʻ ^>$E3$CF 43_ʻ	* F3ʻ P $OH4ʻ H&ʻ CF HE -ED34 >OE3
B-4Oʻ ^>ENCF 43_	
@F$ F$ Jʻ ^%3E _	
@F3 3EF$ Jʻ ^ʻM H-N3C 34CF 43_ʻ	
G-D 3Oʻ ^9 H4N3C 34CF 43_	
64H J 3ʻ ^?H J 34C3 CF 43_	
M$ 3CF3$Dʻ ^G-4F$ J _ʻ	
8-DD34C& 3 Dʻ ^=H4+CF 43_ʻ	
% DD34 J EC 34ʻ ^9 H4N3C 34CF 43_ʻ	* F3ʻ 8 2Fʻ B$ &&ʻ H&ʻ % DD34 J EC 34ʻ
%3ED$ʻ ^9 3C J H43 $ED_	* F3ʻ P $OH4ʻ H&ʻ %3ED$
' HNFD$ 3ʻ ^>ENCF 43_	
?$ &H4Dʻ ^>ENCF 43_	* F3ʻ BH4H-2F433 3ʻ H&ʻ ?$ &H4D
?H- Fʻ ?F 3 DCʻ ^G-4F$ J _ʻ	
*OE3 J H- Fʻ ^, H4 F- J Q34 $ED_ʻ	
9 $+3& 3 Dʻ ^=H4+CF 4Q_	
9 $ C$ ʻ ^? $&&H4DCF 43_ʻ	* F3ʻ P $OH4ʻ H&ʻ 9 $ C$
9 $ * E2 HEʻ ^>ENCF 43_ʻ	
9 F QOʻ ^=H4+CF 43_	
9 F 3F$ 3Eʻ ^@- J Q34 $ED_ʻ	
P 34 FO4ʻ *OD ʻ M $ J H42$ECF 43	

U`M#> ;>P ʻ ʻ @$1 ! S V

0,

?@8 ;G#>;ʻ ^; _

I $N3C CF$4 E2 E F3 ; 3N HE H& P3E Q34C		?F 43 *H EC H4 I 4 EN 1$ʻ BH4H-2FC	@H-E O E F NF C-NF BH4H-2FC $43 C -$ 3D
J NF 8H OF3$D ʻ $ED > $E23&E	ʻCF$4 E2 F	B3$- J $4 C	E2 3C30
Q34OCC Fʻ >$ J 13 34ʻ $ED D1$4	CF$4 E2 F	@$4D 2$E	@$4D 2$ECF 43
> $E3 O	CF$4 E2 F	@$34 J $4 F3E	@$34 J $4 F3ECF 43
I F3 , 3 E @HE 9 $O B$E2H4 @4 NN 3 F	CF$4 E2 F	@$34E$4 HE	@$34E$4 HECF 43
' - F E 8H ʻ ʻ *H E H& 9 43 F$ J	CF$4 E2 F	G3EQ 2F	G3EQ 2FCF 43
' FODD $E < 34 HE @$34 C @$342 4 3O ? ʻ C$1F 8H O 3 P H Dʻ	ʻCF$4 E2 F	6 E ʻ	6 E CF 43
@H Q4 D23 > $E 4 CC3E	CF$4 E2 F	@$4D && ʻ	M $ J H42$ECF 43
> $E D H3C 9 3 CFʻ I HH P $NFOE 3 F > $E&O E %3 H E	ʻ CF$4 E2 F	P HE 2H J 34O	P HE 2H J 34OCF 43
, $4Q3 F 6 CF2-$4D	CF$4 E2 F	8$ 34&H4D 3C	I 3 J Q4H+3CF 43
*3EQO 9 C HE *H E H& P &H4D	ʻCF$4 E2 F	I 3 J Q4H+3	I 3 J Q4H+3CF 43
%E 2F HE ' F$OD34 %3 E 33N3 %E-N+ $C *H E H& I 43C 3 2E3	CF$4 E2 F	' $DHH4	' $DEH4CF 43

SZ[U` M#> ;>P ʻ ʻ @$1 !

?@8 ;B[>;ʻ@8ʻU_

I $N3C CF$4 E2 E F3 ; 3N HE H& P3JQ34C

I $N3C F343 E&4HJ F NF F3 ?3 3E P 3C $43 H Q3 N$N- $3D

,3 1H4		*F3 P$4+3 I $N3
#C+		*F3 *H E 8$#
Q34(C F		*F3 B4 D23 H 34 F3 'F3 D$
W$J13 34		*F3 I$4 CF @F-4NF
D1$4		*F3 B4 D23 H 34 F3 *3
I F3		*F3 M- DF$
,3 E		*F3 I$4 CF @F-4NF
@H(9$0		*F3 I$4 CF @F-4NF
@4 NN3 F	gP	*F3 @$C 3
'- F E		*F3 I$4 CF @F-4NF N$ 3D ? I3 34C
8H		*F3 I$4 CF @F-4NF
'FODD $E		*F3 I$4 CF @F-4NF
< 34 HE		*F3 I$4 CF @F-4NF
@$3 C		*F3 I$4 CF @F-4NF
@$342 430		*F3 I$4 CF @F-4NF H& 8H13
@H Q4 D23		*F3 *H E 8$
> $E 4 CC3E		*F3 *H E 8$
*3 &30		*F3 I$4 CF @F-4NF
9 C HE		*F3 I$4 CF @F-4NF
%E 2F HE g		*F3 I$4 CF @F-4NF
'F$OD34		*F3 P$4+3 I $N3
%3 E 33N3		*F3 I$4 CF @F-4NF
%E-N+ $$		*F3 ? 3 H& F3 $EN 3E @$C 3 H& @E 32 $C
? $EC3$		*F3 *H E 8$
>H-2FH4		*F3 I$4 CF @F-4NF
,3$ F		*F3 *H E 8$#
Q34$ HE		*F3 B4 D23 H 34 F3 HE
%34 &2		*F3 I$4 CF @F-4NF H& H 34 %3E o

U M # > ; > P @$1 ! SZ

?@ 8 ; G # > ; ^6 _

@ < # , * ; ? H Q3 *3 3 * + *

@F3CF 43
@H4E $
@-(E$Q34 $ED
G34QOCF 43
G3 HECF 43
G-4F$ J
; CC3
M H-N3C 34CF 43
%3E
8 $ J 1CF 43
>ENCF 43
>3 N3C 34CF 43
, H4&H +

, H4 F -EQ34 $ED
, H4 F$ J 1 HECF 43
, H E2F$ J CF 43
?F4H1CF 43
?H J 34C3 CF 43
? $&&H4DCF 43
?-&&H +
?-E 30
?-CC3
9 $4 N+CF 43
9 CF 43
9 H4N3C 34CF 43

?@ 8 ; G # > ; ^6 U _

@ < # , * ; ? H 43 -4E (++ + 4 @+ (% 3$NF

B34+CF 43
B-N+ E2F$ J CF 43
@$ J Q4 D23CF 43
GH4C3 CF 43

8 343&H4DCFF 3
8 34 &H4DCF 43
< &H4DCF 43

?@ 8 ; G # > ; ^M _

@ 3C $ED *@ E C $ED @H-E 3C F343H&	E F NF @ 3C $ED *H EC $ED @H-E 3C F343H& @H-E 3C $ $423 $43 H Q3 EN -D3D
@$34 J $4 F3E g	@$34 J $4 F3ECF 43
@$E 34Q-40 g	%3E
@F3C 34 4	@F3CF 43
@H 3E 40	9 $4 N+CF 43
M H-N3C 34	M H-N3C 34CF 43
% E2C HE -1HE 8 -	; $C ' D E2 H& =H4+CF 43
> ENH E	* F3 I $4 C H& > EDC3O > ENH ECF 43
>HEDHE	P DD 3C3
, 3 N$C 3 -1HE * OE3	, H4 F- J Q34 $ED
I HH 3 g g	GH4C3 CF 43
9 H4N3C 34	9 H4N3C 34CF 43
=H4+ $ED EC O	, H4 F ' D E2 H& =H4+CF 43
?Q- F$4 1 HE g	8 $ J 1CF 43

! G

‹ 9 ? 6 ' G : 6 ' ' & Y #) !

?@8 ; G#> ; ' ^G _

6< ' P ?' H&' > ? * ?' $ED' , < * @ ; ?' $11 N$Q 3' H' . >) 23+%

, H '

, < * @ ; ' H&' F3' 4 ' 3) / ' . >2' H&' F3' 6 3%2%' H' Q3' 2 3E' QO' F3' ; + (%++ (%

9 ; ' F343QO' 2 3' , 1 33O' * F$ ' O3' CF$ ' H H4' Q3&H43' F3' $C ' G$O' H&'5 - O' E' F C' =3$4 ' J $+3' H - ' $' > C ' H&' $ ' I 34CHEC' 3E 3D' H' H 3' E' F3' ; 3N HE' H&' $' %E 2F ' H4' %E 2F C' H&' F3' ?F 43' &H4' F3' @H - E O' H&' IH4' &H4' F3' ' D E2 I $4 C ' , ' G C HE' H&' F3' @H - E O' H&' 1 / !' I 1!' ') ! ' Q' 43C13N ' H& I 4H134 O' ? - $ 3' FH O' H4' E' 1$4 ' F E' F C' I $4 CF' IH4' * H ECF 1m ' $ED' $ ' I 34R CHEC' CH' 3E 3D' $43' F343QO' 43X - 43D' H' D3 34' H4' 4$EC1 ' H' - C ' HE' H4' Q3&H43' F3' * 3E 3 F' G$O' H&'5 - O' E' F C' =3$4 ' $' @ $ J ' E' 9 4 E2 ' NHE $ E E2' F3 4' @F4 C $E' , $ J 3' $ED' ? - 4E$ J 3 ' F3 4' I $N3' H&' QHD3 ' F3' , $ - 43' H&' F3 4' \ - $ & N$ HE ' $ED' F3' , $ J 3' H&' F<' ? 433 ' >$E3 ' H4' H F34' +3' I $N3' 9 F343 E' F3' I 4H134 O' &' 43C131 ' H&' F NF' F3O' N $ J ' H' H 3' C' C - $ 3D ' $ED' &' F3' I 4H134 O' Q3 ' EH ' C - $ 3D' E' $EO' ? 433 ' >$E3 ' H4' H F34' +3' I $N3 ' Q3E' C - NF' @ $ J ' J - C ' D3CN4 Q3' F3' I 4H134 O' QO' F3' , $ J 3' QO' F NF' ' C' - C - $ O' +EH E' ' H4' QO' F3' , $ J 3' H&' F3' * 3E$E ' HNN - 10 E2' F3' C$ J 3' ' $ED' 3$NF' H&' C - NF' I 3OCH C' CH' N $ J E2' J - C ' $ CH' $ ' F3' C$ J 3' * J 3' 1$O' H' - C' F3' ? - J ' H&' < E3' ?F E2 ' I 34CHEC' H J ' H' D3 34' H4' 4$EC J ' C - NF' @ $ J ' H4' H' J $+3' C - NF' I $O J 3E ' ' Q3' 3 N - D3D' &4H J ' F3' ' 32 C 34' H&' H 34C' &H4' F C' @H - E O' IH4' ' D E2 ' I $4 C ' , ' G C HE ' 1') !' I 1!' ' 4! ' I ' 1341!V3!# ' H! 1' V ! ' 6#!') , 31 #&' ! ( ) ')3#& !&' #&')0 F6 ' &&') !' , %%, F #(' , &1 ' `' B - ' I 34CHEC' FHC3' , $ J 3C' $43' EH ' HE' F3' ' 32 C 34' $43' EH ' 43X - 43D' H' J $+3' $' &43CF' @ $ J ' CH' HE2' $C' F3O' 43 $ E' F3' C$ J 3' \ - $ & R N$ HE' $ED' NHE E - 3' E' F3' C$ J 3' I $N3' H&' QHD3' $C' D3CN4 Q3D' E' F3' ' 32 C 34 m

^? 2E3D_' ' B ' < 34C334C' H&' F3' I $4 CF'
@ ' G ' ' IH4' * H ECF 1m' H&'
; ' 6 5

, H ' U

, < * @ ; ' H&' A 34' H' Q3' 2 3E' H' F3' ; + (%++ (%

' F343QO' 2 3' OH - ' , H N3 ' * F$ ' ' N $ J ' H' Q3' EC34 3D' E' F3' > C ' H&' H 34C' &H4' F3' @H - E O' H&' IH4' &H4' F3' ' D E2 ' I $4 C ' H4' G C HE H&' F3' @H - E O' H&' 1') !' I 1!' ') ! ' $ED' F$ ' F3' I $4 N - $4C' H& J O' I $N3' H&' QHD3' $ED' \ - $ & N$ HE' $43' C $ 3D' Q3 H ' G$ 3D' F3' G$O' H&' E' F3' =3$4

^? 2E3D_' 5HFE' D$ J C

1 $N3' H&' QHD3 ' @F3$1C D3 ' >HEDHE

, $ - 43' H&' \ - $ & N$ HE ' 6433FH D' 8 H - C3 ' IH4' 9 $43FH - C3 ' ? $Q 3 ' >$ED ' 6 3 D ' EE - O ' ' 3E NF$423 ' ' ' 1') !' I 1!' ') !' (0 #(' 13')' ' 2 !1' 5 , #' , ') !' * , 5! ' 1' (' 1! 0!' , ' & & '

9 F343' C - $ 3' E' F' (C' I $4 CF' IH4' * H ECF 1m ' % E2' ? 433 ' G$ ') !' * , 5! ') !' # , ' ' 1 3 !' #' # ' + !! ' < #! ' , ' ,) ! ' % !' * % ' ! ') !#') ' `' , $ J 3' H&' F3' I 4H134 O ' 8 2F& 3 D' 6$4 J C' , ' `' , $ J 3' H&' F3' HNN - 10 E2' * 3E$E ' 5HFE' ; D $4DC cm

, H ' -

+G #B' +? #+ L)#1' 6+)% KY " 1 > ? * ' +? ! ' (#)# (< #+' 2+#(') ; 3N HE' H&' $' %4 2F ' IH4' %E 2F Cm' H&' F3' ?F 43' &H4' F3' @H-E O' H&' IH4' &H4' F3' ' D E2 ' I $4 C' , ' G C HE' H&' F3' @H-E O' H& 1') !' I 1!' ') ! a ' E' 43C13N ' H&' I 4H134 O' C -$ 3' F E' F3' I $4 CF' H&' IH4' * H ECF 1 ' 1') !' I 1!' ' Y3m

J!)A#)& ' &@(' & <' G! &@(' +?' (&HJ' +#(!1 &#' ?)< ' E(*#J	" &H(' +?' I+<(	&#G! (' +?' VG&)?)H&#)+	#!((#1' E& (1' +!' +#J(!'); (' " &H(' ' #J)A' "&!)AJ6+! +L AJ) ' e' LJ(!(' #J(' "!+ ' (!#B')A' A)#G&#(1' +!' &@(' +?' #J(' "!+ ' (!#B1' +!' &@(' +?' #J((& '#
D$ J C' 5HFE'	@F3$1C D3' >HEDHE	6433FH D' 8 H-C3'	% E2' ? 433
30 ' 5$ J 3C' 0	?' >HE2' >$E3 ' E' ' ' F C' I $4 CF' '3	@H1OFH D' 6 3 D' %	5HFE' ; D $4DC ' * 3E$E
8 5 B$ ' 9 # $$	?' P $4+3 ' ? 433 (' ' 6' >$EN$C 34' '3	>3$C3' H&' 9 $43 S' FH-C3' &H4' =3$4C' '3	G - +3' ? 433
BHON3 ' 8 3E40	&' @F-4NF' ? 433 ' E' ' ' F C' I $4 CF' '5	! [' N43C' H&' >$ED' ' $C' < NN-1 34' '5	8 2F& 3 D' 6$4 J

^? 2E3D_' ' < 34C334C' H&' F3' C$ D' I $4 CF ; ' 6' _' I< ' * H ECF 1m

, H '

, < * @ ; ' H&' 7 - ' H' I (' *)2(' H' #J(' 8

* H' F3' < 34C334C' H&' F3' I $4 CF' H&' IH4' * H ECF 1 ' $C') ! I 1!' ' &3m

' F343QO' 2 3' OH-' , H N3' * F$ ' ' HQ(3N ' H' F3' , $ J 3' H&' 9 # $ J ' B$ ' Q3 E2' 43 $ E3D' E' F3' > C ' H&' H 34C' &H4' F3' @H-E O' H&' IH4' &H4' F3 ' D E2 ' I $4 C' H4' G C HE' H&' F3' @H-E O' H&' m' G$ 3D F3' G$O' H&' E' F3' =3$4' '

^? 2E3D_' ' B ' H&' I I &HN3' , ' / 4 , &!

E , -

, < * @ ; ʿ H&ʿ 7 - ʿ Hʿ ! ʿ EC34 3Dʿ Eʿ F3ʿ 9

* Hʿ P 4 ʿ 9 & $ J ʿ B$

ʿ F343QOʿ 2 3ʿ OH- ʿ E , ' ! ʿ * F$ ʿ ʿ HQ(3N ʿ Hʿ OH - 4ʿ , $ J 3ʿ Q3 E2ʿ 43 $ E3Dʿ Eʿ F3ʿ > C ʿ H&ʿ H 34Cʿ &H4ʿ F3ʿ @H - E Oʿ H&ʿ b , ʿ &H4ʿ F3 ' D E2 ʿ I $4 C ʿ , ʿ G C HEʿ H&ʿ F3ʿ @H - E Oʿ H&ʿ m ʿ $EDʿ F$ ʿ OH - ʿ Q3ʿ 43X - 43Dʿ Hʿ 14H 3ʿ OHE4ʿ \ - $ & N$ HEʿ $ ʿ F3ʿ * J 3ʿ H&ʿ F3ʿ 43 C E2ʿ H&ʿ F3ʿ C$ Dʿ > C ʿ G$ 3Dʿ F3ʿ I $Oʿ H&ʿ Eʿ F3ʿ = 3$4

^? 2E3D_ʿ / " ʿ , ʿ b * % ' !ʿ / 4 , & !

, H ʿ Y

> ? * ʿ H&ʿ I & BC3 &Cʿ HQ(3N 3Dʿ H ʿ Hʿ Q3ʿ 1 - Q CF3Dʿ QOʿ F3ʿ ; + (%++ (%

* * 3ʿ &H H E2ʿ I 34CHECʿ F$ 3ʿ Q33Eʿ HQ(3N 3Dʿ Hʿ $Cʿ EH ʿ Q3 E2ʿ 3E 3Dʿ Hʿ F$ 3ʿ F3 4ʿ , $ J 3Cʿ 43 $ E3Dʿ Eʿ F3ʿ > C ʿ H&ʿ H 34Cʿ &H4ʿ F3ʿ @H - E Oʿ H&ʿ ʿ , ʿ &H4 F3ʿ ' D E2 ʿ I $4 C ʿ , ʿ G C HEʿ H&ʿ F3ʿ @H - E Oʿ H&ʿ m

ʿ J!)A#)&#)ʿ &@(ʿ &@)ʿ G! &@(ʿ +?ʿ (&HJʿ " (!A+ ʿ + 5(H#(<ʿ #+	&H& +?ʿ I+<(	&#G! (ʿ +?ʿ #J (ʿ AG ' ' +A(<ʿ VG&)?)H&#)+	A#! ((#1ʿ & (1ʿ +!ʿ +#J(!ʿ) ; (ʿ " &H(ʿ) ʿ #J)Aʿ "&!)AJʿ 7! ʿ +L AJ) ' eʿ LJ(! (ʿ #J (ʿ " ! + ' (!#Bʿ)Aʿ A)#G&#(1ʿ +!ʿ &@(ʿ +?ʿ #J (ʿ " ! + ' (!#B1ʿ +!ʿ &@(ʿ +?ʿ #J (ʿ (& #1
ʿ 3O ʿ 5$ J 3Cʿ	&> HE2ʿ > $E3ʿ Eʿ ʿ ʿ F Cʿ I $4 CFʿ ʿ	@H1OFH Dʿ 6 3 D	5HFEʿ ; D $4DC ʿ * 3E$E
B$ ʿ 9 $ J	ʿ P $4+3 ʿ ? 433 ʿ ʿ ʿ > ENC 34ʿ ʿ	> 3$C3ʿ H&ʿ 9 $43 /)ʿ FH - C3ʿ &H4ʿ = 3$4Cʿ	G - + 3ʿ ? 433

^? 2E3D_ʿ ʿ B ʿ < 34C334Cʿ H&ʿ F3ʿ I $4 CFʿ H&ʿ @ ʿ G ʿ ʿ IH4ʿ * H ECF 1 ʿ 1 ; ʿ 6 ʿ 5ʿ) !ʿ I 1!ʿ ʿ 4 !

U"ˢ M # > ; > P ˢ ˢ @$1 !

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6 < ' P ?ˢ H&ˢ > ?*?ˢ $EDˢ , < * @ ; ?ˢ $11 N$Q 3ˢ Hˢ 323+%ˢ $ED
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ˢ ˢ ˢ , H

+ˢ A 3% 2 ˢ H&ˢ +(%.)%ˢ 3E 3Dˢ Hˢ H 3ˢ Eˢ F3ˢ ; 3N HEˢ H&ˢ $ˢ P 3 J Q34ˢ b, ˢ P 3 J Q34Cˢ &H4ˢ F3ˢ @ Oˢ IH4ˢ BH4H-2Fmˢ H&ˢ Eˢ 43C13N ˢ H&ˢ I 4H134 O HNN-1 3Dˢ F Eˢ F3ˢ I $4 CFˢ IH4ˢ * H ECF 1mˢ H&ˢ ˢ QOˢ 4 -3ˢ H&ˢ$E N ˢ 1$CC3D Eˢ F3ˢ ?3NHEDˢ = 3$4ˢ H&ˢ F3ˢ ' 3 2Eˢ H&ˢ % E2ˢ 9 $ J ˢ F3ˢ 6H-4 F ˢ E - 3Dˢ `ˢ Eˢ N ˢ Hˢ $ J 3EDˢ F3ˢ ' 3143C3E $ HEˢ H&ˢ F3ˢ I 3H1 3ˢ Eˢ ; E2 $EDˢ `ˢ $EDˢ 9 $ 3C c

J!)A#)&Gˢ &@(ˢ & <ˢ G! &@(ˢ +?ˢ (&HJ +#(!ˢ &#ˢ ?G=]E(*#I	) #G! (ˢ +?ˢ VG&)?)H&#)+	#!((#1ˢ E& (1ˢ +!ˢ +#J(!ˢ " &H(ˢ) ˢ #J)Aˢ "&!)AJ LJ()/(ˢ #J(ˢ "!+' (!#Bˢ)Aˢ A)#G&#(
CF HEˢ 5HFE	8 H-C3	@F-4NFˢ ? 433
+ ECHEˢ 9 $ J ˢ	9 $43FH-C3	BH ˢ@H-4 ˢ 6 33 ˢ ? 433
B$ 3Cˢ * FH J $Cˢ ˢ	?FH1ˢ ˢ ˢ	@$C 3ˢ ? 433 ˢ
B - ˢ * FH J $C	@H-E E2 FH-C3ˢ ˢ	>H4Dˢ ? 433

^? 2E3D_ ˢ B ˢ _ˢ < 34C334Cˢ H&ˢ F3ˢ
@ ˢ G ˢ ˢ C$ Dˢ I $4 CFˢ IH4ˢ
; ˢ 6 ˢ Sˢ * H ECF 1m

, H ˢ U

+ˢ A 3% 2 ˢ H&ˢ $ ˢ +(%.)%ˢ ^EH ˢ Q3 E2ˢ 6433 J 3E_ˢ 3E 3Dˢ Hˢ H 3ˢ Eˢ F3ˢ ; 3N HEˢ H& $ˢ P 3 J Q34ˢ IH4ˢ P 3 J Q34Cmˢ &H4ˢ F3ˢ @ Oˢ IH4ˢ BH4H-2Fmˢ H&ˢ Eˢ 3C13N ˢ H&ˢ$EOˢ ' 2F Cˢ H F34ˢ F$Eˢ FHC3ˢ NHE&3443DˢQOˢ$Eˢ N ˢ 1$CC3Dˢ Eˢ F3ˢ ?3NHEDˢ = 3$4ˢ H&ˢ F3ˢ ' 3 2Eˢ H&ˢ % E2ˢ 9 $ J ˢ F3ˢ 6H-4 F ˢ E - 3Dˢ `ˢ Eˢ N ˢ Hˢ $ J 3EDˢ F3ˢˢ ' 3143C3E $ HEˢ H&ˢ F3ˢ I 3H1 3ˢ Eˢ ; E2 $EDˢ `ˢ $EDˢ 9 $ 3C cˢ

J!)A#)& ˢ &@(ˢ & <ˢ G! &@(ˢ +?ˢ (&HJ +#(!ˢ &#ˢ ?G ˢ E(*#J	&#G! (ˢ +?ˢ VG&)?)H&#)+	#!((#1ˢ V!ˢ +#J(!ˢ " &H( ) ˢ #J)Aˢ "&!)AJˢ LJ(!(ˢ#J(ˢ "!+' (! B)Aˢ A)#G&#(ˢ 9+ˢ * ; / ˢ (+ˢ 2! #/ $!*% #! ˢ $*;*#$!# : ! ' < *# % * *= ! +ˢ)!$*

+

^? 2E3D_ ˢ Eˢ &ˢ < 34C334Cˢ H&ˢ F3ˢ I $4 CFˢ
4 ˢ IH4ˢ * H E
*0 ˢ C# 1mˢ F Eˢ F3ˢ 1 &ˢ
ˢ @ Oˢ IH4ˢ BH4H-2Fm

&ˢ ;

" ' A 3% 2 ' H&' F3' / "' H&' F3' @ ' b, ' BH4H-2F㎡ ^4& , ' H&
Q3 E2' $' I $N3' CF$4 E2' E' F3' ; 3N HE' F' F3' @ O' IH4'
BH4H-2F㎡ H&' 5' 3E 3D' H' H 3' E' F3' ; 3N HE' H&' $' P 3 J Q34
IH4' P 3 J Q34C㎡ , ' F3' C$ D' @ O' I^9' BH4HE2F㎜

@F4 C& $E' , -E3' $ED' ? -4E$ J 3' H&' 3$ F'
6433 J $E' $ ' &- ' >3E2 F
I $N3' H&' F C FHD3

1

' ' *(&' * H E' @ 34+' H&' F3' C$ D' @ O
? 2E3D' B A' ,0, , ( ) ' H4' I $N3㎜

, H '

, < * @ ; ' H&' A 34 ' ≛

* H' F3' < 34C334C' H&' F3' I $4 CF' IH4' * H ECF 1㎡ H&' H4' H
F3' * H E' @ 34+' H&' F3' @ O' IH4' BH4H-2F㎡ H&' , ' ,) ! F 1!
1') !' I 1!' ' K3㎜

' F343QO' 2 3' OH-' , H N3' * F$ ' ' N $ J' H' F$ 3' J O' , $ J 3' EC34 3D' E' F3' > C '
J $D3' QO' OH-' H&' I 34CHEC' 3E 3D' H' H 3' E' F3' ; 3N HE' H&' $' P 3 J Q34' IH4' P 3 J R
Q34C㎡ &H4' F3' @ O' IH4' BH4H-2F㎡ H&' ' ' $ED' F$ ' J O' \ -$ & N$ HE
NHEC C C' H&' $' 8 H-C3' E' G -+3' ? 433 ' E' OH-4' I $4 CF ' H4' ,) !#, 1!' I$C') !' I 1!'
' 4 ! %=' b #&' #') !' I 1!' , ' ' " ! ! ' 1 ' $ED' F$ ' J O' \ -$ & N$ HE' C' $C' $'
6433 J $E' H&' ' $ED' F$ ' ' 43C D3' E' > H4D' ? 433 ' E' F C' @ O' ,
BH4H-2F㎜' G$ 3D' F3' G $O' H&' < E3' FH-C$ED' 3 2F
F-ED4 ' $ED' F 4 O'

^? 2E3D_' -@ / #' / ' , ' b*% ' !' , ' / 4,&!

ULʻ M # > ; > P ʻ ʻ @$1 !

, H ʻ !

, < * @ ; ʻ H& ; @ + 23 .)

* H F3 < 34C334C H& F3 I $4 CF IH4 * H ECF 1m H&
IH4 H F3 * H E @ 34+ H& F3 @ O & ʻ BH4H - 2Fm H&
, ʻ ,) , 1! ʻ 1) !ʻ I 1! ʻ4!a "

ʻ F343QO 2 3 OH-ʻ , H N3 ʻ * F$ ʻ ʻ HQ(3N ʻ H F3 , $ J 3 H& * F1 J $C B$ 3C Q3 E2 43 $ E3D E F3 > C ʻ H& I 34CHEC 3E 3D H H 3 E F3 ; 3N HE H& $ P 3 J Q34 IH4 P 3 J Q34Cm &H4 F3 @ O IH4 BH4H - 2Fm H& ʻ $ED F$ ʻ ʻ CF$ Q4 E2 &H4 $4D C - NF < Q(3N HE $ ʻ F3 * J 3 H& F3 43 C E2 H& C - NF > C ʻ G$ 3D F3 G$O H& E F3 = 3$4

^? 2E3D_ʻ , ʻ b * % ' ! ʻ , ʻ / 4 , & ! a

, H Y

> ? * ʻ H& #+ 3 4) 2% ʻ H Q3 1 - Q CF3D QO F3 ; + (%++ ' %

* F3 &H H E2 I 34CHEC N $ J ʻ H F$ 3 F3 4 , $ J 3C EC34 3D E F3 > C ʻ H& I 34CHEC 3E 3D H H 3 E F3 ; 3N HE H& $ P 3 J Q34 IH4 P 3 J Q34Cm &H4 F3 @ O IH4 BH4H - 2Fm H&

5J!)A#)& ʻ &@(& < G! &@(+? (&HJ &)@& # &# ?G ʻ)(*#J	&#G! (ʻ +? VG&)?)H&#)+	#! ((#1 E& (1 +! +#J (! " &H( ) ʻ #J)A "&!)AJ LJ (! (#J (" !+ ' (!#B)A &#G&# (1 >? * : / ʻ $!*%@ ʻ $* ; *#$!#= ! ʻ ; * < ʻ % * * =. (* ! + ; $*
3E ʻ 5HFE	ʻ 8H - C3	G - +3 ? 433

^? 2E3D_ʻ ʻ ʻ B /
@ ʻ G ʻ ʻ < 34C334C H& ʻ +! ' ʻ
; ʻ 6 ʻ 5

, H

> ? * ʻ H& + (% .) % HQ(3N 3D H ʻ H Q3 1 - Q CF3D QO F3 ; + (%++ (%

* F3 &H H E2 I 34CHEC F$ 3 Q33E HQ(3N 3D H $C EH ʻ Q3 E2 3E 3D H F$ 3 F3 4 , $ J 3C 43 $ E3D E F3 > C ʻ H& I 34CHEC X - $ & 3D H H 3 E F3 ; 3N HE H& $ P 3 J Q34 IH4 P 3 J Q34Cm &H4 F3 @ O IH4 BH4H - 2Fm H&

J!)A#)& ʻ &@(& < @&) (+? (&HJ " (!A+ ʻ +I (H#(< #+	&#G! (+? #J (AG ' ' +A(< VG&)?)H&#)+	#! ((#1 E& (1 +! +#J (! " &H( ) ʻ #J)A "&!)AJ LJ (! (#J (" !+ ' (!#B)A A)#G&# (ʻ * : / ʻ $!*%#! ʻ $* ; *#$!# " !+D ' (!#B1 % * * =. (* ! +) !$*
B$ 3C ʻ * FH J $C	?FH1	@$CD3 ? 433

^? 2E3D_ʻ ʻ B (
@ ʻ G ʻ ʻ < 34C334C H& ʻ f N
; 6 5

,H .

> ?* H& A 34)3% H Q3 1-Q CF3D QO F3 . ,) A+('%

*F3 &H H E2 I34CHEC N$E H F$ 3 F34 ,$J3C EC34 3D E F3 >C H& F3 6433J3E H& F3 @(O , BH4H-2Fm H& IH4 H& Q3 E2 $ I $N3 CF$4 E2 E ; 3N HE F F3 @ O IH4 BH4H-2Fm H& m 3E 3D H H3 E F3 ; 3N HE H& $ P3JQ34 IH4 P3JQ34Cm &H4 F3 C$D @ O IH4 BH4H-2Fm

@F4C $E ,$J3 $ED ?-4E$J3 H& 3$NF @$ J$E $ &- >3E2 F

I $N3 H& FC QHD3

8

^? 2E3D_ 2 & *H E @34+ H& F3 C$D @?O I b5 BH4H-2F H4 I $N3d

,H V

+ A3%2 H& +(%.)% HQ(3N 3D H H Q3 1-Q CF3D QO F3 . ,) A+('%

*F3 &H H E2 I34CHEC F$ 3 Q33E HQ(3N 3D H $C F$ E2 EH ' 2F H Q3 43 $E3D HE F3 >C H& F3 6433J3E H& F3 @ O IH4 BH4H-2Fm H& IH4 H& Q3 2 $ I $N3 CF$4 E2 E F3 ; 3N HE F F3 @ O IH4 BH4H-2Fm H& m 3E 3D H H3 E F3 ; 3N HE H& $ P3JQ34 IH4 P3JQ34Cm &H4 F3 C$D @ O IH4 BH4H-2Fm

@F4C $E $ED ?-4E$J3 H& 3$NF I34CHE HQ(3N 3D H

I $N3 H& FC QHD3

7

!" ! IH4 BH4H-2F H4 I $NYm

?@8 ; G# > ; ^% _

> ? * H& C-NF H& F3 ? +++ 4 +) H& 6 .) * .) $C $43 > 340 J 3E H& F3 @H J 1$EO H& 3E 3D H H 3 E F3 ; 3N HE H& P 3 J Q34C &H4 F3 @ O H& > HEDHE

@F4 C $E %$ J 3 $ED ? -4E$ J 3 H& F3 * H 34 $ &- > 3E2 F

? 433 > $E3 H4 H F34 G3CN4 1 HE H& F C I $N3 H& QHD3

^? 2E3D_ B @ 34+

, H

, < * @ ; H& @ P H Q3 2 3E H F3 +2 > ( ) 3) / ; DD3 + (H4 ; DD3 + (% H& F3 @ O H& > HEDHE $ED H F3 A+ (% H& F3 43C13N 3 > 340 @H J 1$E 3C

* H F3 3 -4E E2 < & ?N34 H4 < && N34C H& F3 @ O H& > HEDHE IH4 H F3 @ 34+ H& F3 @H J 1$EO H& m

F343QO 2 3 OH- , H N3 * F$ N $ J H F$ 3 J O , $ J 3 EC34 3D E F3 > C J $D3 QO && 3 @ 34+ H& F3 @H J 1$EO H& IH4 # 1! , E , ! ,) ! I %! 1 J $D3 QO OH - m H& F3 > 340 J 3E H& F3 C$ D @H J 1$EO IH4 # 1! , E , ! ,) ! I %! 1 H& F3 > 340E 3E H& F3 @H J 1$EO H& m 3E 3D H H 3 E F3 ; 3N HE H& P 3 J Q34C &H4 F3 @ O H& > HEDHE G$ 3D F3 G$O H&

^? 2E3D_ E ! , I , 5 #

M 6

SV[

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> ? * ' + ? ' 4 ' # + ' Q3' o ' (' > =) (' : : - ' + ! ' ; DD3 + (%
^4&' F3' @ O' , @' > HEDHE

* F3' &H H E2' I 34CHEC' D$ (' H' F$ 3' F3 4' , $ J 3C' EC34 3D' E' F3' > C ' H&' I 34CHEC' 3E 3D' H' H 3' $C' 433 J 3<' H&' F3' @ O ' H&' > HEDHE' $ED' > 34O J 3E' H&' F3' C3 34$ ' @H J 1$E 3C' F343 E' C 1 3N ' E' F3' ; 3N HE' "&' P 3 J Q34C' &H4' F3' @ O' H&' > HEDHE

@F4 C $E' , $ J 3' $ED' ? -4E$ J 3' H&' @ $ J$E C' $ ' & D ' > 3E2 F

I $N3' H&' QHD3

, H ' S

. 2 3 + ' H&' 7 - ' # +' ! ') A(!#(<') ' # J(' 9 ' H&' # J(' 9 8 ;

* H' P 4 ' 9 $ E' B$+34

' ' F343QO' 2 3' OHE' , H N3 ' * F$ ' ' HQ(3N ' H' OH - 4' , $ J 3' Q3 E2' 43 $ E3D' E' F3' > C ' H&' I 34CHEC' 3E 3D' H' H 3' $C' ; 4334$3& ' H&' F3' @ O' H&' > H& DHE' $ED' > 34OR J 3E' H&' F3' @H J 1$EO' H&' E' F3' ; 3N HE' H&' P 3 J Q34C' &H4' F3 C$ D @ O ' $ED' F$ ' ' CF$ ' > p 2' &31 $4D' CE D ' < Q(3N HE' $ ' F3' * J 3' H&' 43 C E2 ' F3' C$ D' > C ' < $ 3D' F3' H&

^? 2E3D_' / ' " ' bU*% !!' , !

U7 M # > ; > P ʻ ʻ @$1ʻ ! SV

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*3 J 1H4$40ʻ @HE 3E Cʻ $EDʻ BH-ED$40

CF HE -ED34 >OE3 — *F3ʻ G C HEʻ H&ʻ F3ʻ I $4 CFʻ H&ʻ CF HE -ED34 >OE3ʻ N$ 3Dʻ F3ʻ *H E CʻG C HE

B 44E E2F$E4 — I $4 CF3Cʻ H&ʻ B 4 J E2F$ Jʻ $EDʻ ; D2Q$C HEʻ $EDʻ *H ECF 1Cʻ H&ʻ BH4D3C 30ʻ G34 3EDʻ $EDʻ G -DD3C HEʻ Fʻ , 3NF3 C

B $N+Q -4E — *H ECF 1ʻ H&ʻ B $N+Q -4E

BH HE — *H ECF 1Cʻ H&ʻ M43$ʻ BH HEʻ 8 $- 2Fʻ $EDʻ > 3ʻ BH HEʻ 3 N31ʻ F3ʻ D3 $NF3Dʻ I $4ʻ H&ʻ F3ʻ *H ECF 1ʻ H&ʻ > 3ʻ BH HEʻ F NFʻ 3Cʻ Hʻ F3ʻ , H4 Fʻ H&ʻ F3ʻ *H Eʻ H&ʻ BH HEʻ

B4$D&H4D — *H ECF 1ʻ H&ʻ B4$D&H4D

B4 2F F3 J C HE3 — I $4 CF3Cʻ H&ʻ B4 2F F3 J C HE3ʻ $EDʻ 8 H 3

B -40 — *H ECF 1ʻ H&ʻ B -40

@F$ F$ J — 64H Jʻ F3ʻ ; $C 34E J HCʻ I H Eʻ $ʻ F NFʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ @ Oʻ H&ʻ ' HNF3C 34ʻ J 33 Cʻ F3ʻ ' 2Fʻ B$E+ʻ H&ʻ F3ʻ ' 34ʻ P 3D $0ʻ ?H- F $4Dʻ $ HE2ʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ @ Oʻ H&ʻ ' HNF3C 34ʻ Hʻ F3ʻ BH-ED$40ʻ ? HE3ʻ H&ʻ F3ʻ C$ Dʻ @ Oʻ J $4+3Dʻ ! ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2Fʻ > E3ʻ Hʻ F3ʻ 9 ED J ʻ Eʻ F3ʻ I $4 CFʻ H&ʻ @F$ F$ Jʻ HEʻ F3ʻ *H1ʻ H&ʻ @F$ F$ Jʻ 8 ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2Fʻ > E3ʻ Hʻ F3ʻ < ʻ 9 ED J ʻ Eʻ F3ʻ I $4 CFʻ H&ʻ M E2F$ Jʻ Q3 33Eʻ F3ʻ $23ʻ H&ʻ M E2R F$ Jʻ $EDʻ F3ʻ 6H4 &N$ HECʻ F3EN3ʻ Eʻ $ʻ C 4$ 2Fʻ > E3ʻ F4H-2Fʻ M E2F$ Jʻ 6H4ʻ Hʻ F3ʻ ' ʻ B$E+ʻ H&ʻ F3ʻ ' 34ʻ P 3D $0ʻ F3EN3ʻ $ HE2ʻ F3ʻ ' 2Fʻ B$E+ʻ H&ʻ F3ʻ ' 34ʻ P 3D $0ʻ Hʻ F3ʻ I H Eʻ & 4Cʻ D3CN4 Q3D

@F3 3EF$ J — I $4 CFʻ H&ʻ @F3 3EF$ J

G3 3E1H4 — I $4 CFʻ H&ʻ ? H+3ʻ G$ J 34 ʻ $EDʻ *H ECF 1ʻ H&ʻ ; $Cʻ ? HE3ʻ FH-C3

G -D 30 — I $4 CFʻ H&ʻ G -D 30

6 ECQ -4 — I $4 CF3Cʻ H&ʻ ?$ Eʻ M 3Cʻ Eʻ F3ʻ 6 3 DCʻ ?$ Eʻ M3H423ʻ B HH J CR Q -40ʻ ?$ Eʻ M3H423ʻ F3ʻ P $4 04ʻ ?$ Eʻ ED43 ʻ $QH 3ʻ B$4Cʻ ?$ Eʻ > -+3ʻ ?$ Eʻ ?31- NF43ʻ 3 N31ʻ CHʻ J -NFʻ $Cʻ Cʻ Eʻ F3ʻ @ Oʻ H&ʻ > HEDHEʻ ?$ Eʻ 5$ J 3Cʻ @ 34+3E 3 ʻ 3 N31ʻ CHʻ J -NFʻ $Cʻ Cʻ HN$ Oʻ Eʻ F3ʻ I $4 CFʻ H&ʻ 8 H4EC30ʻ ; NN 3R C $C N$ʻ G C 4 N Cʻ H&ʻ *4 E Oʻ ?$ Eʻ I $- ʻ $EDʻ ?$ Eʻ P $40ʻ Eʻ F3ʻ I $4 CFʻ H&ʻ ?$ Eʻ P $40ʻ C E2 HEʻ > Q34 3Cʻ H&ʻ ?$&&4HEʻ 8 ʻ 8 $ HEʻ M$4D3Eʻ $EDʻ ; Oʻ ' 3E Cʻ ; Oʻ I $N3ʻ F3ʻ ' H Cʻ M $CC FH-C3ʻ = $4Dʻ I 43N EN ʻ H&ʻ F3ʻ @F$4 34ʻ 8 H -C3ʻ > ENH E Cʻ EEʻ M4$0 Cʻ EEʻ CHʻ J -NFʻ H&ʻ 6 -4E $ Cʻ EEʻ $EDʻ ? $1 3 Cʻ EEʻ $Cʻ Cʻ EHʻ F Eʻ F3ʻ @ Oʻ H&ʻ > HEDHE

64H J 3 — *H Eʻ H&ʻ 64H J 3ʻ $Cʻ F Eʻ F3ʻ > J Cʻ EH ʻ $CC 2E3Dʻ Hʻ F3ʻ *H Eʻ H&ʻ 64H J 3ʻ QOʻ F3ʻ *4 -C 33Cʻ -ED34ʻ F3ʻ I 4H C HECʻ H&ʻ $Eʻ N ʻ 1$CC3Dʻ Eʻ F3ʻ 6 4Cʻ $EDʻ ?3NHEDʻ = 3$4ʻ H&ʻ 8 Cʻ 143C3Eʻ P $(3C Oʻ E - 3Dʻ ``ʻ Eʻ N ʻ &H4ʻ Q3 34ʻ 431$ 4 E2ʻ $EDʻ J 14H E2ʻ C3 34$ʻ ' H$DCʻ 3$D E2ʻ Hʻ $EDʻ &4H Jʻ F3ʻ ``ʻ *H Eʻ H&ʻ 64H J 3ʻ Eʻ F3ʻ @H-E Oʻ H&ʻ ?H J 34C3 c

M$ 3CF3$D — I $4 CFʻ H&ʻ M$ 3CF3$D

M433E NF — I $4 CF3Cʻ H&ʻ ?$ Eʻ I $- ʻ $EDʻ ?$ Eʻ , NFH $Cʻ G31 &H4Dʻ $EDʻ CHʻ J -NFʻ H&ʻ F3ʻ I $4 CF3Cʻ H&ʻ M433E NFʻ @F$4 HEʻ $EDʻ 9 HH R NFʻ $Cʻ 3ʻ Q3 33Eʻ F3ʻ *F$ J 3Cʻ $EDʻ F3ʻ GH H4ʻ ' H$D

8 $ &$ — *H ECF 1ʻ H&ʻ 8 $ &$

8 -DD34C& 3 D — *H ECF 1 H&ʻ 8 -DD34C& 3 D

%3ED$ — *H ECF 1ʻ H&ʻ %3ED$ʻ $EDʻ % 4+ $EDʻ $EDʻ $ ʻ C -NFʻ I $4 Cʻ H&ʻ F3ʻ *H* < CF 1ʻ H&ʻ , 3 F342$ 3CF 1ʻ $Cʻ $D(H Eʻ F3ʻ *H ECF 1ʻ H&ʻ %3ED$

BH4H-2FC	*3J1H4$40 @HE 3E C $ED BH-ED$40
% DD34J EC 34	BH4H- 'H&'% DD34J 8C 34
>$JQ3 F	I$4 CF3C H&'?$ E ' P$40 ,3 E2 HE ' ?$ E 'M 3C @$JQ34R 3 '3 N31 ' F3 P$EH4 $ED 8$J 3'H&'G- NF ' I43N EN ' H& F3 I$ $N3 ' $ED CH J -NF H& F3 I$4 CF H& >$JQ3 F $C C ,H4 F H& F3 ; NN 3C $C N$' G C HE H& B4 HE
>33DC	BH4H-2F H& >33DC
P$ND3C& 3 D	BH4H-2F H& P$NN 3C& 3 D
P$ENF3C 34	*H ECF 1C H& P$ENF3C 34 ' @FH4 HE 'H ' 4D N+ ' 8- J3 ' B3C N+ ' @F33 F$J ' B4$D&H4D ' ,3 HE ' $ED 8$41#4 830
P$4(3QH 3	I$4 CF 'H& ?$ E ' P$40 3QHE3 $ED I$DD E2 HE ' $ED CH J -NF H& F3 I$4 CF H& ?$ E ' I$EN4$? $C C ?H- F H& F3 ' 323E C @E
P34 FO ' *OD '	I$4 CF3C H& P34 FO4 *OD '$ED Q34D$43
< DF$4 '	*H ECF 1' H&'M DF$J
'HNFD$3	*H E H& 'HNFD$3 ' $C F E F3 I4H C HEC H& $E N ' 1$ 3D E F3 ? F =3$4 H& 8 C $ 3 P$(3C O ' E -3D `' E N ' &H4 5 2F K'3 3$ C E2 ' $ NF E2 ' $ED 4 - ' `' $ E2 F3 *H E H& 'HNFD$3 E F3 @H-E O I$ $ E3 `' H& >ENC 34 c
?$ &H4D '	*H ECF 1C H& ?$ &H4D ' I3ED 3 HE ' $ED B4H-2F HE
?F3&& 3 D	*H ECF 1C H& ?F3&& @D(34N &&3 NJ G$4E$ ' B4 2F ' C D3 B 34 H '$ED ,3 Q34 8$#$J
?HH F ?F 3 DC '	*H ECF 1C H& ?H- F ?F 3 DC $ED 9 3C H3
? HN+1H4 ' '	'H4HE2F H& ? HN+1H4 ' 8$' 3 ? ! ' B4 E&3C $O $ED ; D23 <0
? H+3 1HE *'43E	*H ECF 1C H& *EEC $ 'BE4C 3J ' 8$E 30 ' ?F3FHE ' I3E+ ' FE ' F BHH F3E ' >$E3 ; ED ' >HE2 EE ' 63E HE $E ' 63E HE @- 34 ' 8$J 3'H& ?E3OD '$#D '<&'-CF HE M4$E23
? 4H-D	I$4 CF3C H& ? 4H-D ' B C 30 ' I$ EC O N+ ' I NFNHE Q ' '$ED ' N+ ' ? HE3FH#C3 ' ; $C E2 HE ' >3HE$4D ? $E 30 3?N ' >H44 D23 C 6$4J ' % E2 C ? $E 30 ' 'HDQH4H-2F ' P E ' NF EF$J1 HE ' 9 HHDNF3C 34 ' 3E E2 ' 8H4C 30
?DED34 $ED'	I$4 CF H& ?-ED34 $ED ' *H ECF 1C H& B CFH1 ' 9 3$4JH- F ' B CFH1 ' 9 3$4JH Q I$EEC ' PHE+ ' 9 3$4JH- F ' PHE+ ' 9 3 &JH- F b Z 3 ' $ED ?H# F &H+
*H 34 8$&E 3 C	> Q34 3C H& F3 *H 34 '$ED *H 34 G C HE H& <CC- C HE 8-ED43D ' 3 N31 ' F3 I$4 CF3C H& ?$ E '5HFE 8$N+E30 ' ?$ E ' P$40 ? 4$ &H4D 3 BH ' $ED ?$ E ' >3HE$4D B4H J 30
*OE3E H- F	*H ECF 1C H& *OE3JH- F ,H4 F ?F 3 D'@F(4 HE ' I43C HE ' $ED @-#34NH$ C
9 $+3& 3 D	*H ECF 1' H& 9 $+3& 3 D
9 $ C$	BH4H-2F H& 9 $ C$ '3 N31 ' F3 I$4 C D3 $NF3D &4HJ ' F3 BH4H-2F H& 9 $ C
9 $44 2 HG	*H ECF 1' H& 9 $44 E2 HE
9 F 3F$ 3E	*H ECF 1' H& 9 F 3F$ 3E
9 F QO	*H 9 ECF 1 'H& 9 F QO
9 H 34F$ (1 HE	*H ECF 1C H& 9 H 34F$J 1 HE ' B C HE ' 9 3DE3C& 3 D '$ED 9 & 3EQ$ ' $ED I$4 CF H& ?3D23 30

, , <' ? ; @# , G<

M # > ; > P ' ' ' ; M ?

@ I ' W>

E' N ' H' 3E$Q 3' 8 C' P$(3C O ' 8 C' 83 4C' $ED'
?-NN3CCH4C ' H' $11H E ' $' * 4 - C 33' H&' F3' # '
, # ' IUSD' 3' ZSU m

8 ; ; ; ?' QO' $E' N ' H&' I $4 $ J 3E ' 1$CC3D' E' F3' * 3E O '
C F ' =3$4' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' ! , (!' F3'
?3NHED ' E - 3D' / #' / ' ' , ') !' * 3 ') 1!' , ') !' 31!3 ' M @ '
H4 I , %%! ' ,#' , ' + ' 8 $EC' ? H$E3 ' #&' , ') !' 8$4 3 $E' I , %%! ' ,#' , '
' 5 1'-' #&' , '5 ,0 & #(' 6#!' !#! %' L !5 ,1 , ' , ') !' 4! ! '
L ! ' !5 ,#' #&' , !' ' ,#0!# !# ' O1!' , ') !' 1 &' I , %%! ' ,#1 ' #&' , ') !'
@H HE $E' < 4 ' #&' , ') !' / && ,#1') ! ! , ' ' $C' $ J HE2C ' H F34'
F E2C' 3E$N 3D ' F$ ' N34 $ E' I 34CHEC' CFH - D' Q3' * 4 - C 33C' &H4' 1 - E2'
F3' C$ D' N ' E H' 3 3N - HE ' $ED' F$ ' F3' C$ D' * 4 - C 33C' F343QO'
$11H E 3D' CFH - D' Q3' $' BHDO' @H41H4$ 3' E' G33D' $ED' E' , $ J 3 ' $ED'
F$ 3' ? - NN3CC HE' &H4' 3 34' QO' F3' , $ J 3' H&' `' * F3' * 4 - C 33C' H&' F3'
" 1)' 31! F ' $ED' CFH - D' $ CH' F$ 3' F3' I H 34 ' @1N O ' $ED'
Q O' H' 1 - 4NF$C3 ' $+3 ' FH D ' $ED' 3E(HO' &H4' F3' I - 41HC3C' H&' F$ '
N ' $C' 3 ' MHHDC' $ED' @F$ 3 C' $C' >$EDC ' * 3E3 J 3E C ' $ED' 8 343R
D $ J 3E C ' $C' E' F3' C$ D' N ' C' J H43' 1$4 N - $4 O' J 3E HE3D' $ED' C3 '
&H4 F ' F' C - NF' I H 34C' $ED' - ED34' C - NF' G 43N HEC' $C' $43' F343 E'
3 143CC3D.' ED' F343$C' $E' N ' $C' 1$CC3D' E' F3' 6 & F' =3$4' <&' F3'
' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' ! , (!' F3' 6H - 4 F ' E - 3D' / #' / ' ' <' ! 1 '
, ' !#& #(' , ! ' / ' 1' !% 0!' ,') !' B4 CF' P - C3 - J .' ED' F343$C'
F3' @H 3N HEC' NHE $ E3D' E' F3' C$ D' P - C3 - J ' F$ 3' Q33E' &4H J ' * J 3'
H' * J 3' NHEC D34$Q O' $ - 2 J 3E 3D ' $ED' F3 4' $ - 3' $ED' J 1H4 $EN3'
!' M' 243$ O

243$ O ʻ3EF$EN3D ʻ QO ʻEE J 34HEC ʻGHE$ HEC ʻQ3C H 3D ʻHE ʻ F3 ʻC$ D ʻ P -C3- J ʻ
QO ʻ 8 C ʻ P $(3C O C ʻ %HO$ ʻ I 43D3N3CCH4C ʻ $ED ʻ 1$4 N- $4 O ʻ QO ʻ F3 ʻ M & ʻ
J $D3 ʻ QO ʻ 8 C ʻ P $(3C O ʻ #(ʻ ! , (! ʻ F3 ʻ ?3NHED ʻH& ʻ F3 ʻ FH 3 ʻH& ʻ F3 ʻ 4$43 ʻ
$ED ʻ J 1H4 $E ʻ Q4$4O ʻ, ʻ14 E 3D ʻ bHH+C ʻ $ED ʻ P $E-CN4 1 C ʻ NH 3N 3D ʻ QO ʻ
F3 ʻ &H4 J 34 ʻ ?H 343 2EC ʻ H& ʻ F3C3 ʻ ' 3$ J C ʻ &4H J ʻ F3 ʻ * J 3 ʻ H& ʻ #(ʻ !# ʻ
F3 ʻ ?3 3E F ʻ $ED ʻ $ CH ʻ QO ʻ $ ʻM & ʻ J $D3 ʻ QO ʻ 8 C ʻ P $(3C O ʻ ' E2 ʻ ! , (! ʻ F3 ʻ
* F 4D ʻ H& ʻ $ J HC ʻ $ -$Q 3 ʻ @H 3N HE ʻ H& ʻ I E1F 3 C ʻ $ED ʻ I 34 HD N$ ʻ
I $134C: ED ʻ F343$C ʻ 8 C ʻ $ 3 ʻ P $(3C O ʻ % E2 ʻ ! , (! ʻ F3 ʻ 6H-4 F ʻ D D ʻ
F ʻ -E3 $ J 1 3D ʻ P -E & N3EN3 ʻ 143C3E ʻ H ʻ) , ʻ " 1) ʻ , $ HE ʻ F3 ʻ
NFH N3 ʻ $ED ʻ 3 3EC 3 ʻ Q4$4O ʻ &H4 J 3D ʻ F ʻ 243$ ʻ @$43 ʻ $ED ʻ $ ʻ 243$ ʻ
; 13EN3 ʻ QO ʻ 8 C ʻ ' HO$ ʻ ' $ F34 ʻ $ED ʻ I 43D3N3CCH4 ʻ % E2 ʻ ! , (! ʻ F3 ʻ
7) & ʻ NHE $ E E2 ʻ J H43 ʻ F$E ʻ ?3 3E O ʻ FH-C$ED ʻ H - J 3C ʻ F NF ʻ
> Q4$4O ʻ C ʻ E< ʻ D31HC 3D ʻ E ʻ) ! ʻ " 1) ʻ 31!3 ʻ $ED ʻ D D ʻ +3 C3 ʻ
QO ʻ F3 ʻ I 43C3E $ HE ʻ H& ʻ $ ʻ C1 3ED D ʻ $ED ʻ $ -$Q 3 ʻ @H 3N HE ʻ H& ʻ @H EC ʻ
$ED ʻ P 3D$ C ʻ $ED ʻ QO ʻ E- J 34H-C ʻ H F34 ʻ GHE$ HEC ʻ E ʻ $4 H-C ʻ G31$4 R
J 3E C ʻ H& ʻ > 34$ -43 ʻ $ED ʻ ?N 3EN3 ʻ 3 EN3 ʻ 8 C ʻ F 2F ʻ ?3EC3 ʻ H& ʻ F3 ʻ # O ʻ
$ED ʻ J 1H4 $EN3 ʻ H& ʻ F3 ʻ B4 CF ʻ 31!3 ʻ ʻ ED ʻ F343$C ʻ E ʻ NHEC D34$R
HE ʻ H& ʻ F3 ʻ E- J 34H-C ʻ $ED ʻ $ -$Q 3 ʻ GHE$ HEC ʻ $ED ʻ B3E3&$N HEC ʻ J $D3 ʻ
H ʻ F3 ʻ " 1) ʻ 31!3 ʻ QO ʻ 8 C ʻ P $(3C O C ʻ ' HO$ ʻ I 43D3N3CCH4C ʻ ʻ C ʻ
& ʻ $ED ʻ 3 13D 3E ʻ F$ ʻ 8 C ʻ P $(3C O ʻ $ED ʻ 8 C ʻ ?-NN3CCH4C ʻ CFH- D ʻ F$ 3 ʻ
I H 34 ʻ H ʻ EH J E$ 3 ʻ $ED ʻ $11H E ʻ $ ʻ * 4-C 33 ʻ H& ʻ F3 ʻ C$ D ʻ P -C3- J : P $O ʻ
ʻ F343&H43 ʻ 1 3$C3 ʻ =H-4 ʻ P $(3C O ʻ F$ ʻ ʻ J $O ʻ Q3 ʻ 3E$N 3D ʻ $ED ʻ Q3 ʻ ʻ
3E$N 3D ʻ QO ʻ F3 ʻ % E2 C ʻ J HC ʻ ; N3 3E ʻ P $(3C O ʻ QO ʻ $ED ʻ F ʻ F3 ʻ
D N3 ʻ $ED ʻ @HEC3E ʻ H& ʻ F3 ʻ >HODC ʻ ?1 4 -$ ʻ $ED ʻ * 3 J 1H4$ ʻ $ED ʻ @H J R
J HEC ʻ E ʻ F C ʻ 143C3E ʻ I $4 $ J 3E ʻ $CC3 J Q 3D ʻ $ED ʻ QO ʻ F3 ʻ - FH4 O ʻ H& ʻ

8 C ʻ P $(33 O J $O ʻ $11H E ʻ $ ʻ * 4-C 33

F3 ʻ C$ J 3 ʻ * $ ʻ &4H J ʻ $ED ʻ $& 34 ʻ F3 ʻ 1$CC E2 ʻ H& ʻ F C ʻ N ʻ ʻ CF$ ʻ $& D ʻ
J $O ʻ Q3 ʻ $ &- ʻ &H4 ʻ 8 C ʻ P $(3C O ʻ QO ʻ 9 4 E2 ʻ -ED34 ʻ 8 C ʻ ? 2E ʻ P $E- P ʻ
H ʻ EH J E$ 3 ʻ $ED ʻ $11H E ʻ C-NF ʻ I 34CHE ʻ $C ʻ H ʻ 8 C ʻ P $(3C O ʻ CF$ ʻ C33 J ʻ
14H134 ʻ H ʻ Q3 ʻ $ ʻ * 4-C 33 ʻ H& ʻ) ! ʻ " 1) ʻ 31!3 ʻ $ED ʻ $C ʻ C-NF ʻ H ʻ Q3 ʻ
$DD3D ʻ H ʻ $ED ʻ $CCHN $ 3D ʻ F ʻ F3 ʻ H F34 ʻ * 4-C 33C ʻ &H4 ʻ F3 ʻ * J 3 ʻ Q3 E2 ʻ
H& ʻ F3 ʻ " 1) ʻ 31!3 ʻ $C ʻ $ ʻ @H 4-C 33 ʻ F ʻ F3 J ʻ F ʻ $ ʻ F3 ʻ ' 2F C ʻ
$ED ʻ I 4 323C ʻ H& ʻ C-NF ʻ H F34 ʻ * 4-C 33C ʻ $ED ʻ F$ ʻ -1HE ʻ F3 ʻ G3N3$C3 ʻ
H4 ʻ ' 3C 2E$ HE ʻ H& ʻ F3 ʻ I 34CHE ʻ CH ʻ H ʻ Q3 ʻ EH J E$ 3D ʻ $ED ʻ $11H E 3D ʻ QO ʻ
8 C ʻ P $(3C O ʻ $C ʻ $&H43C$ D ʻ CF$ ʻ Q3 ʻ $ &- ʻ &H4 ʻ 8 C ʻ P (23C O ʻ 8 C ʻ
8 3 4C ʻ $ED ʻ ?-NN3CCH4C ʻ QO ʻ 9 4 E2 ʻ -ED34 ʻ 8 C ʻ H4 ʻ * F3 4 ʻ ? 2E ʻ P $E-$ ʻ
H ʻ EH J E$ 3 ʻ $ED ʻ $11H E ʻ $EO H F34 ʻ I 34CHE ʻ H ʻ Q3 ʻ $ ʻ * 4-C 33 ʻ E ʻ F3 ʻ
I $N3 ʻ $ED ʻ ? 3$D ʻ H& ʻ F3 ʻ * 4-C 33 ʻ CH ʻ DO E2 ʻ H4 43C 2E E2 ʻ $C ʻ $&H43C$ D ʻ
$ED ʻ CH ʻ &4H J ʻ * J 3 ʻ H ʻ * J 3 ʻ $C ʻ H& 3E ʻ $C ʻ F3 ʻ I 34CHE ʻ CH ʻ H ʻ Q3 ʻ EH J E$ 3D ʻ
$ED ʻ $11H E 3D ʻ CF$ ʻ D 3 ʻ H4 ʻ 43C 2E ʻ F3 ʻ C$ D ʻ * 4-C

* F3 ʻ * 4-C 33 ʻ $11H E 3D ʻ QO ʻ 8 C ʻ P $(3C O ʻ H F$ 3 ʻ F3 ʻ C$ J 3 ʻ I H 34C ʻ $C ʻ F3 ʻ H F34 ʻ * 4-C 33C

ED ʻ Q3 ʻ &-4 Q3 ʻ 3E$N 3D ʻ * F$ ʻ F3 ʻ * 4-C 33 ʻ &H4 ʻ F3 ʻ * J 3 ʻ
Q3 E2 ʻ CH ʻ H ʻ Q3 ʻ 1H E 3D ʻ QO ʻ 8 C ʻ P $(3C O ʻ 8 C ʻ 8 3 4C ʻ H4 ʻ ?-NN3CCH4C ʻ
CF$ ʻ &4H J ʻ F3 ʻ G$ 3 ʻ H& ʻ C-NF ʻ , H J E$ HE ʻ $ED ʻ 11H E J 3E ʻ Q3 ʻ H ʻ $ ʻ
E 3E C ʻ $ED ʻ B-41HC3C ʻ F$ CH3 34 ʻ $ ʻ @H 4-C 33 ʻ F ʻ F3 ʻ H F34 ʻ * 4-C 33C ʻ
H& ʻ F3 ʻ " 1) ʻ 31!3 ʻ &H4 ʻ F3 ʻ * J 3 ʻ Q3 E2 ʻ $ED ʻ $C ʻ C-NF ʻ CF$ ʻ F$ 3 ʻ $ED ʻ
Q3 ʻ 3E 3D ʻ H ʻ -C3 ʻ 3 34N C3 ʻ $ED ʻ 3E(HO ʻ $m ʻ ' 2F C ʻ I H 34C ʻ $ED ʻ I 4 R
323C ʻ F NF ʻ -ED34 ʻ $ED ʻ QO ʻ 4 -3 ʻ H& ʻ F3 ʻ $&H43C$ D ʻ N C ʻ H4 ʻ H F34 C3 ʻ
FH CH3 34 ʻ Q3 HE2 ʻ H ʻ H4 ʻ J $O ʻ Q3 ʻ 32$ O ʻ -C3D ʻ 3 34N C3D ʻ H4 ʻ 3 OHO3D ʻ
QO ʻ F3 ʻ H F34 ʻ * 4-C 33C ʻ H& ʻ F3 ʻ C$ D ʻ P -C3- J ʻ EN -D E2 ʻ F3 ʻ 14 323 ʻ

I 4H CH

H& ʻ H E2 ʻ HE ʻ F3 ʻ ; 3N HE ʻ H& ʻ E3 ʻ * 4-C 33C: I 4H D3D ʻ FH 3 34 ʻ F$ ʻ
EH F E2 ʻ F343 E ʻ NHE $ E3D ʻ CF$ ʻ E ʻ $EO C3 ʻ 143(-D N3 ʻ H4 ʻ $Q4 D23 ʻ 3 ʻ
' 2F C ʻ $ED ʻ I 4 323C ʻ QO ʻ F3 ʻ C$ D ʻ N ʻ H& ʻ F3 ʻ * 3E O C F ʻ =3$4 ʻ H& ʻ F3 ʻ
' 3 2EH& ʻ 8 C ʻ P $(3C O ʻ % E2 ʻ ! , (! ʻ F3 ʻ ?3NHED ʻ 3C 3D ʻ E ʻ F3 ʻ 4NFQ CFH1
H&

U`M#> ;>P ʿ ʿ @$1 Y SV!

H&ʿI #! 43 ʿ Q3ʿ>H4Dʿ @F$EN3 H4ʿ$EDʿ F3ʿ ?13$+34ʿ H&ʿ F3ʿ 8H-C3ʿ H&ʿ @HJJHECʿ Eʿ FHJʿ C-NFʿ ' 2F Cʿ $EDʿ I4 323Cʿ CF$ ʿ 3 N -C 3 Oʿ NHE E-3

>< , G< , .ʿ I4 E 3Dʿ QOʿ #+.(/+ʿ &(+ʿ $EDʿ)*(+,ʿ O1.223%, ..*+ʿ
I4 E 34Cʿ Hʿ F3ʿ % E2 Cʿ JHCʿ ; N3 3Eʿ P$(3C Oʿ ZSU

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M#* *65ʻ P ʻ 0ʻ 8 ;M ?

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Eʻ Nʻ &H4ʻ FH D E2ʻ F3ʻ CC T3Cʻ &H4ʻ F3ʻ @H-E Oʻ H&ʻ = ' *ʻ $EDʻ &H4ʻ F3ʻ @ Oʻ H&ʻ= 3 ʻ $EDʻ @H-E Oʻ H&ʻ F3ʻ C$J3ʻ @ Oʻ* N3ʻ Eʻ 3 34Oʻ=3$4ʻ $ʻ= 3 *

IUSDʻ 2 ʻ ZSU m

/8 ; ' ; ?ʻ ʻ Cʻ 3 13D 3Eʻ F$ʻ F3ʻ CC T3Cʻ &H4ʻ F3ʻ @ Oʻ H&ʻ E, F ')ʻ $EDʻ @H-E Oʻ H&ʻ F3ʻ C$J3ʻ @ Oʻ Q3ʻ F3 Dʻ * N3ʻ Eʻ 3$NFʻ =3$4ʻ Eʻ F3ʻ C$ Dʻ @ Oʻ $EDʻ @H-E Oʻ H&ʻ F3ʻ ?$ Dʻ @ Oʻ: EDʻ F343$Cʻ F3ʻ FH D E2ʻ F3ʻ C$J3ʻ $?ʻ $&H43C$ Dʻ H- Dʻ Q3ʻ NHED-N 3ʻ Hʻ F3ʻ JH43ʻ C133DOʻ $EDʻ 3&&3N 3ʻ $EDʻ D-3ʻ DJ E C 4$ HEʻ H&ʻ 5-C N3ʻ F343 Eʻ: EDʻ F343$Cʻ ʻ Cʻ +3 C3ʻ 3 13D 3Eʻ F$ʻ F3ʻ CC T3Cʻ &H4ʻ F3ʻ @H-E Oʻ H&ʻ E, ,% ʻ CFH- Dʻ F3EN3&H4 Fʻ Q3ʻ F3 Dʻ * N3ʻ Eʻ 3$NFʻ =3$4ʻ Eʻ $EDʻ $ʻ F3ʻ ?F 43 FH-C3ʻ $ʻ F3ʻ @$C 3ʻ H&ʻ E, F ')ʻ B3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ JHCʻ ; N3 3Eʻ P$(3C Oʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3Eʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ʻ $EDʻ *3 J1H4$ʻ $EDʻ @H EJHECʻ Eʻ F Cʻ 143C3Eʻ I$4 $J3Eʻ $CC3JQ 3Dʻ $EDʻ QOʻ F3ʻ - FHR 4 Oʻ H&ʻ F3ʻ C$J3ʻ *F$ʻ&4HJʻ $EDʻ $& 34ʻ F3ʻ 6 4Cʻ G$Oʻ H&ʻ ? #3 ʻ <E3ʻ FH-C$EDʻ 3 2Fʻ F-ED43Dʻ $EDʻ F 4 O F433ʻ $ʻ F3ʻ @HJ J CC HECʻ H&ʻ CC T3ʻ $EDʻ , Cʻ I4 -Cʻ $EDʻ $ʻ 23E34$ʻ @HJ J CC HECʻ H&ʻ <034ʻ $EDʻ *3 J E3&ʻ $EDʻ $ʻ @HJ J CC HECʻ H&ʻ M3E34$ʻ M$Hʻ G3 34Oʻ F NFʻ CF$ʻ Q3ʻ $11H E 3Dʻ Hʻ Q3ʻ F3 Dʻ $EDʻ 3 3N- 3Dʻ &H4ʻ F3ʻ C$ Dʻ @ Oʻ H&ʻ E, F ')ʻ $EDʻ @H-E Oʻ H&ʻ F3ʻ C$ Dʻ @ Oʻ $EDʻ &H4ʻ F3ʻ C$ Dʻ @H-E Oʻ H&ʻ, H ʻ ,% ʻ 43C13N 3 Oʻ CF$ʻ Q3ʻ F3 Dʻ $EDʻ 3 3N- 3Dʻ &H4ʻ F3ʻ C$ Dʻ @ Oʻ H&ʻ E, F ')ʻ $EDʻ @H-E Oʻ H&ʻ F3ʻ C$ Dʻ @ Oʻ $ʻ $EDʻ Eʻ F3ʻ C$ Dʻ @ Oʻ H&ʻ E, [F ')ʻ $EDʻ @H-E Oʻ H&ʻ F3ʻ C$ Dʻ @ Oʻ $EDʻ &H4ʻ F3ʻ C$ Dʻ @H-E Oʻ H&ʻ E, ,% ʻ Eʻ F3ʻ ?F 43 FH-C3ʻ $ʻ F3ʻ @$C 3ʻ H&ʻ E, F ')=ʻ $EDʻ F$ʻ F3ʻ C$ Dʻ @HJ J CC HECʻ &H4ʻ F3ʻ C$ Dʻ @ Oʻ H&ʻ E, F ')ʻ $EDʻ @H-E Oʻ H&ʻ

ʻ@H Eʻ J CC HECʻ H&ʻ M3E34$ʻ M$Hʻ G3 34Oʻ KNʻ &H4ʻ , H4 NFʻ $EDʻ, H4&H +ʻ CF$ʻ Q3ʻ F3 Dʻ : * NYʻ Y 34O =3$4ʻ $ʻ , H4 NF

F3' C$ D' @ O' $ED' &H4' F3' C$ D' @H-E O' H&' E , 7 ,% ' 43C13N 3 O' CF$ '
Q3' $11H E 3D' $ED' 3 3N- 3D' $ ' $ED' 1' F3' C$ D' @ O' H&' E , F ')' $ED'
@H-E O' H&' F3' P D' @ O' $ED' $ ' $ED' E' F3' C$ D' ?F 43D5H-C3' $ ' F3'
@$C 3' H&' E , F ') ' * N3' E' 3 34O' =3$4' ^ F$ ' C' H' C$O _' $ 'D4' $QH-
<<-' 3 E L ? ' 2' 3E W E O/ O 5
$EO' @$ ' ? $ - 3' #C$23' P $ 34' H4' * F E2' H' F3' NHE 4$4O' EH FR
C $ED E2

6H4' FH D E2' ' I4H D3D' $ $OC' $ED' ' C' F343QO' 3E$N 3D' $ED' D3N $43D' * F$ ' &' $ '
@H4H J CC(HEC' $EO' * "3' F343$& @*' F3' C$ D' @ O' H&' $ED' @H-E O' H&' F3' C$ D
N 9 3E 3 4' @ O' H4' D 3' C$ D' ?F 43 FH#C3' $ ' F3' @$C 3' H&' E , 6 , ') ' CF$ ' Q3' FH O'
H' F3' @ O' H&' FH D E2' CC e3C' F343 'QO' NN D3E 'H&' 6 43' H4' QO' J 3$EC' H&' $EO
,H4 NF' NHE H-C' H*' 31 D3 J N$ 'G C 3 J 134 'H4' QO' 43$CHE']&' $EO' @ ' * - J - C
H4' G CH4D34' H4' F3' G$E234' H4' 43$CHE$Q 3' I 143F3EC HE' F343H&' H4' QO'
43$CHE' H&' $EO' H F34' -E&H43C33E' @$-C3' H4' 6 E23ENO' F3' C$ J 3' H4' $EO'
H&' F3' $&H43C$ D' P $ 34C' H' Q3' J $D3' H' $113$4' Q3&H43' F3' >H4D' G 2F'
@F$FN3 <&' H&' >Q D' %33134' H4' >H4DC' @H J J CC HE34C' &H4' +331 E2' F3'
M43$ ' ?3$ ' &H4' 43' ' * J 3' Q3 E2' F$ ' F3E' C J D' E' C-NF' @$C3C' HE O' '
CF$ ' $ED' J $O' Q3' $ &- ' H' $ED' &H4' F3' C$ D' >H4D' 8 2F' @F$EN3 H4' H4'
H4D' % 3 34' H4' >H4DC' @H J J CC HE34C' &H4' +331 E2' F3' M43$ ' ?3$ ' &H4'
F3' * J 3' Q3 E2' F' F3' D N3' H&' F3' 5-C N3C' H&' CC T3' &4H J' * J 3'
H' * J 3' E' $ED' D-4 E2' F3' @HE E-$EN3' H&' C-NF' 43C13N 3' ; 23EN 3C'
HE O $ED&H4$ED$ EHH F34 * J 3H4' * J 3C' H$11H E CH J 3' NHE 3E 3E '
* $N3' F E' F3' C$ D' @H-E O' H&' E , ,% ' &H4' FH D E2' F3' C$ D' CC T3C '
$ED' 3$NF' H4' 3 F34' H&' F3 J ' EC 3$D' H&' F3' C$ D' @ O' H&' E , F ')' &'
@H-E O' H&' F3' C$ D' @ O' H4' F3' C$ D' ?F 43 FH-C3' $ ' F3' @$C 3' H&'
' E , F ') ' $EO' F E2' E' F C' 143C3E' N ' NHE $ E3D' H' F3' NHE 4$4O'
EH FC $ED 2

@< , G< , ' I4 E 3D' QO' # + . (/ +' &(+' $ED') * (+ , ' O1 . 223% , . . * + '
I4 E 34C' H' F3' % E2 C' JHC' ; N3 3E ' P$(3C O' ZSU

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MG> ; >P ʹ ʹ ' ; M ?

@ʹ ʹ I ʹ W>

Eʹ N ʹ Hʹ 432- $ 3ʹ F3ʹ <&& N3ʹ H&ʹ @ 34+ʹ H&ʹ F3ʹ @4H Eʹ
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IUSDʹ 2 ʹ ZSU m

/8 ; ' ; ?ʹ F3ʹ @H J J CC HE34Cʹ $11H E 3Dʹ Hʹ EX- 43ʹ E Hʹ F3ʹ G- 3C ʹ ?$ $4 3C ʹ $EDʹ ; J H - J 3E Cʹ H&ʹ F3ʹ < & N34Cʹ Eʹ F3ʹ C3 34$ ʹ @H-4 Cʹ Eʹ $!% #& ʹ F$ 3ʹ J $D3ʹ $ʹ ' 31H4 ʹ 43NH J R J 3ED E2ʹ N34 $ Eʹ 34$ HECʹ Eʹ F3ʹ <&& N3ʹ H&ʹ @ 34+ʹ H&ʹ F3ʹ @4H Eʹ Eʹ F3ʹ @H-4 ʹ H&ʹ % E2 Cʹ B3ENFʹ Eʹ $!% #& ʹ $EDʹ F3ʹ C$ Dʹ <&& N3ʹ Q3N$ J 3ʹ NE ʹ QOʹ F3ʹ G3$ Fʹ H&ʹ F3ʹ ? -4 H4ʹ H&ʹ F3ʹ * Hʹ I 34CHECʹ Eʹ FH J ʹ F3ʹ C$ J 3ʹ $Cʹ $ 3 Oʹ 3C 3Dʹ QOʹ I $ 3E ʹ $EDʹ ʹ Cʹ 3 13D 3E ʹ Hʹ 432- $ 3ʹ F3ʹ C$ Dʹ <&& N3 ʹ 1-4C-$E ʹ Hʹ F3ʹ ' 3NH J J 3ED$ HEʹ H&ʹ F3ʹ C$ Dʹ @H J J CR C HE34C ʹ Eʹ J $EE34ʹ F343 E $& 34ʹ 14H D3D: B3ʹ ʹ F343&H43ʹ 3E$N 3Dʹ QOʹ F3ʹ % E2 Cʹ J HC ʹ ; N3 3E ʹ P $(3C O ʹ QOʹ $EDʹ Fʹ F3ʹ D N3ʹ $EDʹ @HEC3E ʹ H&ʹ F3ʹ >H4DCʹ ?1 4 -$ ʹ $EDʹ * 3 J 1H4$ ʹ $EDʹ @H J J HEC ʹ Eʹ F Cʹ 143C3E ʹ I $4 $ J 3E ʹ $CC3 J Q 3D ʹ $EDʹ QOʹ F3ʹ - FH4 Oʹ H&ʹ F3ʹ C$ J 3 ʹ * F$ ʹ&4H J ʹ $EDʹ $& 34 ʹ F3ʹ @H J J 3EN3 J 3E ʹ H&ʹ F Cʹ N ʹ F343ʹ CF$ ʹ Q3ʹ <E3ʹ @ 34+ʹ H&ʹ F3ʹ @4H Eʹ H&ʹ F3ʹ @H-4 ʹ H&ʹ % E2 Cʹ B3ENFʹ Eʹ $!% #& ʹ FHʹ CF$ ʹ Q3ʹ $11H E 3Dʹ QOʹ 8 Cʹ P $(3C O ʹ 8 Cʹ 8 3 4Cʹ $EDʹ ? -NN3CCH4C ʹ QOʹ >3 34Cʹ I $ 3E ʹ -ED34ʹ F3ʹ M43$ ʹ ?3$ ʹ Eʹ $!% #& ʹ $EDʹ FHʹ CF$ ʹ FH Dʹ F Cʹ C$ Dʹ <&& N3ʹ D-4 E2ʹ 2HHDʹ B3F$ H-4 ʹ $EDʹ FHʹ CF$ ʹ Q3ʹ D33 J 3Dʹ F3ʹ 14 EN 1$ ʹ <&& N34ʹ 3 J 1 HO3Dʹ HEʹ F3ʹ @4H Eʹ ? D3 ʹ H&ʹ F3ʹ C$ Dʹ @H-4 ʹ H&ʹ % E2 Cʹ B3ENF ʹ $EDʹ FHʹ CF$ ʹ 43N3 3ʹ $Eʹ $EE-$ ʹ ?$ $4Oʹ H&ʹ , E3ʹ F-ER D43Dʹ I H-EDC ʹ 1$ Dʹ $EDʹ 1$O$Q 3ʹ Eʹ J $EE34ʹ F343 E $& 34ʹ J 3E HE3D ʹ Eʹ 3-ʹ H&ʹ $ ʹ H F34ʹ 633Cʹ $EDʹ ; J H - J 3E Cʹ F$ CH3 34

* F343ʹ CF$ ʹ Q3ʹ <E3ʹ @ 34+ʹ H&ʹ F3ʹ @4H Eʹ H&ʹ F3ʹ @H-4 ʹ H&ʹ % E2 Cʹ B3ENF ʹ FHʹ CF$ ʹ Q3ʹ 1$ Dʹ QOʹ $ & 3Dʹ ?$ $40

9ʹ ʹ ʹ ED

633C 1$0$Q 3' $' F3' @4H E' <&& N3' I' Q3' $NNH4D E2' H' F3' ?NF3D-3' $EE3 3D' H' F C' N

' D' Q3' ' &-4 F34' 3E$N 3D' *F$' &4H J' $ED' $& 34' F3' @H&& E' J3EN3 J3E ' H&' F C' N ' F3' C3 34$' 633C' C13N & 3D' E' F3' ?NF3D-3' H' F C' N '$EE3 3D' ^$ED' F NF' ?NF3D-3' CF$ ' Q3' D33 J 3D' $ED' $+3E' H' Q3' I $4 ' H&' F C' N _' CF$ ' Q3' 1$ D' $ED' 1$0$Q 3' E' 3-' H&' $ ' $ED' 3 340' F3' 633C' F343 H&H43' N $ J3D' H4' 1$0$Q 3' -ED34' H4' QO' 4 -3' H&' $EO' ; - 3' H4' <4D34' H&' @H-4 ' >$ ' ? $ - 3' #C$23 ' H4' H F34 C3' FH CHR 3 34' &H4' H4' QO' 43$CHE' H&' $ ' $ED' 3 340' F3' G- 3C' $ED' ?34 N3C' 134&H J3D' QO' H4' E' $EO C3' $1134 $ E E2' H' F3' <&& N3' H&' @ 34+' H&' F3' @4H E' H&' F3' C$ D' @H-4 ' H&' % E2 C' B3ENF' E' $!% #& ' $ED' F$ ' EH' &-4 F34' EH4' H F34' 633' H4' ; J H - J3E ' F$ CH3 34' CF$ ' Q3' 1$ D' H4' 1$0$Q 3' &H4' H4' QO' 43$CHE' H&' H4' -ED34' 143 3 ' H&' $EO' N ' P$ 34' H4' *F E2' DHE3' H4' H' Q3' DHE3' QO' F3' C$ D' @ 34+' H&' F3' @4H E' E' F C' C$ D' <& N3' H4' E' $EO C3' $1134 $ E E2' H' F3' B-C E3CC' F343H&

633C' J$O' Q3' $ 343D' H4' E3 ' 633C' $ H 3D' QO' F3' @H-4 ' H&' % E2 CB3ENF

' I4H D3D' $ C' $ED' Q3' ' 3E$N 3D' *F$ ' ' CF$ ' $ED' J$O' Q3' $ &-' &H4' F3' C$ D' @H-4 ' H&' % E2 C' B3ENF' &4H J' * J3' H' * J3' H' EN43$C3' H4' D J E CF' H4' $4O' H4' $QH CF' $EO' H&' F3' C$ D' 633C ' $ED' $ CH' H' $- FH4 T3' $ED' J 1HC3' F3' I $0 J3E ' H&' $EO' E3 ' H4' $DD HE$ ' 633' ' $ED' $ ' C-NF' 633C' F3' J H-E ' F343H&' CF$ ' Q3' CH' $4 3D' $ED' $ ' C-NF' E3 ' $ED' $DD HE$ ' 633C' F NF' CF$ ' Q3' CH' J$D3' 1$0$Q 3' $ED' $ CH' $EO' <4D34' &H4' F3' QH HE' H&' $EO' 633 ' CF$ ' Q3' C13N & 3D' $ED' C3 ' &H4 F' E' $' *$Q 3' H4' *$Q 3C' H' Q3' J$D3' QO' <4D34' H&' F3' C$ D' @H-4 ' H&' % E2 CB3ENF ' $ED' C 2E3D' QO' $ ' 3$C ' * H' 5-D23C' $a' $&H43C$ D' $ED' C-NF' <4D34' CF$ ' C13N &O' F3' M4H-EDC' $ED' ' 3$CHEC' -1HE' F NF' C-NF' 633C' CF$ ' F$ 3' Q33E' $ 343D' $QH CF3D' H4' J$D3' 1$0$Q 3' 43C13N 3 O' $ED' $' @H1O' H&' 3 340' C-NF' <4D34' C 2E3D' $C' $&H43C$ D' CF$ ' F3' 4$EC J 3D' H' F3' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MHR 34EH4' H4' MH 34EH4C' H&' $!% #& ' FH' CF$ ' N$-C3' @H1 3C' H&' F3' C$ J3' H' Q3' $ D' Q3&H43' QH F' 8H-C3C' H&' I $4 $ J3E ' J J3D $ 3 O' $& 34' F3' @H J J3EN3 J3E ' H&' F3' F3E' E3 ' ?3CC HE' H&' I $4 $ J3E ' $ED' F343-1HE' 3 340' C-NF' 633' CF$ ' Q3' D33 J 3D' $ED' $+3E' H' Q3' $' 32$ ' 633 ' $NNH4DR E2' H' F3' *34 J C' H&' C-NF' <4D34 ' $ED' 1$0$Q 3' $ED' 43N3 $Q 3' $C' C-NF ' &4H J' $ED' $& 34' F3' $C ' G$O' H&' C-NF' ?3CC HE' H&' I $4 $ J3E ' $C' &' F3' C$ 3' F$D' Q33E' EN -D3D' E' F3' *$Q 3' H&' 633C' $EE3 3D' H' F C' N

I 3E$ O']E' @ 34+' H&' F3 Z 6 3 3 C N H E 3 ' <&

' ED' F3' ' &-4 F34' 3E$N 3D' *F$ ' &' $EO' I 34CHE' FH' CF$ ' FH D' F3' C$ D' <&& N3' H&' @ 34+' H&' F3' @4H E' CF$ ' F J C3 &' &- O H4' $NN31 ' H4' &' $E (' C ? C $E ' H4' H F34' I 34CHE' 3 J 1 HO3D' QO' F J' E' C$ D' <&& N3' CF$ ' F' F C' I 4 O' $ED' @HEC3E ' $C+' H4' 43N3 3' D 43N O' H4' ED 43N O' &H4' H4' QO' 43$CHE' H4' -ED34' 143 3 ' H&' $EO' ?34 N3' E' $EO' $O' NHEN34E E2' H4' 43 $ E2' H' F3' B-C E3CC' H&' F3' C$ D' <&& N3 ' $EO' I 33' H4' ' 3 $4D' H F34' F$E' J$O' &4H1$ * J3' H' * J3' Q3' $ &-' -ED34' F3' I 4H C HEC' H&' F C' N ' 3 340' C-NF' I 34CHE' FH D E2' ' C-NF' <&& N3' H&' @ 34+' H&' F3' @4H E' CF$ ' &H4' 3 340' C-NF' <&&3EN3 ' NH J R J 3D' QO' F J C3 &' H4' F' F C' I 4 O' H4' @HEC3E ' $C' $&H43C$ D' &H4&3 ' $ED' HC3' F3' ?-J' H&' <E3' F-ED43D' I H-EDC ' $ED' CF$ ' F343-1HE' $ CH' &H4&3 ' F C' C$ D' <&& N3

I 3E$ O' HE' $EO' G31F O' H4' @ 34+' $+R E2' $EO' 633C' NHE 4$4O' H' F C' N (<<

O ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' &' $EO' CC C $E ' < 34+' J4 H F34' I 34CHE' F$ 3 34' 3 J 1 HO3D' E' F3' C$ D' <&& N3' CF$ ' $ ' $EO' * J3' $& 34' F3' @H J J3EN3 J3E ' H&' F C' N ' $C+' H4' 43N3 3' &H4' H4' QO' 43$CHE' H4' -ED34' 143 3 ' H&' $EO' ?34 N3' DHE3' QO' F3' C$ D' @ 34+' H&' F3' @4H E' E' H4' E' $EO C3' 43 $ E2' H' F3' B-C E3CC' H&' F C' <&& N3' $EO

U M # > ; > P ' ' @$1 Z

633' H4' ' 3 $4D' HE' $NNH-E ' H&' F3' C$ D' @ 34+' H&' F3' @4H E' H F34' F$E' J $O' &4H J' * J 3' H' * J 3' Q3' $ &- ' -ED34' F3' I 4H C HEC' H&' F C' N ' H4' &' $EO' C-NF' CC C $E ' @ 34+' H4' H F34' I 34CHE' CF$ ' $C+' H4' 43N3 3' &H4' F C' H E' 14 $ 3' ; J H - J 3E ' &4H J' $EO' I $4 O' H4E3O ' H4' H F34' I 34CHE' FH J CH3 34' C$ 3' $ED' 3 N31 ' HE O' &4H J' F3' C$ D' @ 34+' H&' F3' @4H E' QO' $ED' -ED34' FH J' $EO' C-NF' CC C $E ' @ 34+' H4' H F34' I 34CHE' CF$ ' Q3' 3 J 1 HO3D' $EO' 633' H4' ' 3 $4D' F$ CH3 34' &H4' H4' QO' 43$CHE' H4' -ED34' 143 3 ' H&' $EO' ?34 N3' H&' F C' H4' F3 4' H E' H4' &' $EO' I 34CHE' H4' I 34CHEC' 3 J 1 HO3D' QO' H4' -ED34' F J' H4' F3 J' 43C13NR 3 O' E' F3' C$ D' @4H E' <&& N3' 3 34O' CC C $E ' @ 34+' H4' H F34' I 34CHE' CH' H&&3ED E2' CF$ ' &H4' 3 34O' C-NF' <&&3EN3' &H4&3 ' $ED' HC3' F3' ?- J' H&' <E3' F-ED43D' I H-EDC

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' 3 34O' I 34CHE' FH' CF$ ' Q3' $11H E 3D' H' F3' C$ D' <&& N3' H&' @ 34+' H&' F3' @4H E' CF$ ' F E' 6H-4 33E' G$OC' $& 34' F C' 11H E J 3E ' $&& ' H4' N$-C3' H' Q3' $&& 3D' H4' F-E2' -1' E' F C' C$ D' <&& N3 ' $ED' J $ E $ E' F343 E ' $' * $Q 3 ' &$ 4 O' 14 E 3D' H4' 4 3E ' $ED' &4$ J 3D' $ED' 2 $T3D' C3 E2' &H4 F' $ ' C-NF' 633C' $C' ' CF$ ' F3E' Q3' $ &- ' H' 43N3 3' E' 43C13N ' H&' F3' B-C E3CC' F343H&' ! $ED' &' $ ' $EO' * J 3' $EO' C-NF' 633C' CF$ ' Q3' $ 343D' H4' $QH CF3D' H4' $EO' E3 ' 633' H4' 633C' $- FH4 T3D' $ED' J 1HC3D' QO' 4 -3' H&' F3' I 4H C HE' E' F$ ' B3F$ &' F343 E' NHE $ E3D' F3E' $ED' E' 3 34O' C-NF' @$C3' C-NF' <&& N34' CF$ ' F E' <E3' 9 33+' &4H J' F3' * J 3' H&' C-NF' @F$E23' $ 34' $ED' $ J 3ED' C-NF' * $Q 3' $NNH4D E2 O' ($ED' C-NF' @ 34+' H&' F3' @4H E' CF$ ' &H4' 3 34O' G$O' HE' F NF' C-NF' * $Q 3' CF$ ' EH ' Q3' CH' +31 ' $ED' J $ E $ E3D' $C' $&H43C$ D' E' C-NF' <&& N3' &H4&3 ' F3' ?- J' H&' * 3E O' I H-EDC

@' 34+C' H&' @4H E' CF$ ' $&& ' * $Q 3C' H&' 633C' E' F3 4' <&& N3C

I 3E$ O' &H4' & % ! A' ' @ ' 2

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' &4H J' $ED' $& 34' F3' @H J ' J 3EN3 J 3E ' H&' F C' N ' F343' CF$ ' Q3' +31 ' E' F3' C$ D' <&& N3' H&' F3' @ 34+' H&' F3' @4H E' H&' F3' @H-4 ' H&' % E2 C' B3ENF' E' $!% #&' <E3' H4' J H43' BHH+' H4' BHH+C' F343 E' 3 34O' 633' H4' ?- J' H&' P HE3O' F NF' CF$ ' Q3' 43N3 3D' E' F3' C$ D' <&& N3' &H4' F3' I 34&H4 J $EN3' H&' $EO' G- O' H' Q3' DHE3' $ED' 134&H4 J 3D' QO' C-NF' @ 34+' H&' F3' @4H E' H4' H F34' I 34R CHE' E' 43C13N ' H&' F3' B-C E3CC' H&' C-NF' <&& N3' CF$ ' Q3' D- O' $ED' C31$4$ 3 O' 3E 343D' $ ' F3' * J 3' H&' F3' ' 3N3 1 ' F343H&' $ED' 3 34O' C-NF' BHH+' CF$ ' Q3' 14HD-N3D' $ED' 34 & 3D' QO' F3' C$ D' @ 34+' H&' F3' @4H E' F3E3 34' F3' C$ J 3' CF$ ' Q3' 43X- 43D' QO' $EO' I 34CHE' E 343C 3D' E' C-NF' I 4HD-N HE ' H4' QO' $EO' <4D34' H&' $EO' H&' 8 C' P $(3C O C' ?-134 H4' @H-4 C' E' 234% #' H4' H&' $EO' 5-D23' H&' $EO' C-NF' @H-4 C' H4' H&' F3' >H4D' 8 2F' * 43$C-434' H4' @H J J CC HE34C' H&' 8 C' P $(3C O C' * 43$C-4O' H4' $EO' * F433' H4' J H43' H&' F3 J

QHH+C' H&' $ ' 43N3 3D' 14HD-N3D' F3E43 ' X- 43D

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' &4H J' $ED' $& 34' F3' @H J ' J 3EN3 J 3E ' H&' F C' N ' F343' CF$ ' Q3' CC-3D' $ED' 1$ D' E' J $EE34' F343 E $& 34' J 3E HE3D' H- ' H&' F3' I 4HD-N3' H&' F3' @HECH D$ 3D 6-ED' H&' F3' # E 3D' % E2DH J' H&' ! ' " #' $ED' $!% #&' 1W !J -EDC-&& ' 1$O E2 ' $ED' 43N3 E2' C-&& N 3E ' H' 1$O ' $ ' C-NF' ?- J' $ED' ?- J C' H&' D3E ' H' J$+3 P HE3O' $C' J $O' F$ 3' Q33E' NF$423D' F343-1HE' QO' $EO' &H4 J 34' N ' H4' ` I' N C' H&' I $4 $ J 3E ' H' F3' C$ D' @ 34+' H&' F3' @4H E' H&' F3' @H-4 ' H&' &' =3$E ' % E2 C' B3ENF' C-NF' ?- J' $ED' ?- J C' H&' P HE3O' $C' H23 F34' F' F3' 633C' 43N3 3D' $ED' 1$ D' H' F3' C$ D' @ 34+' H&' F3' @4H E' E' 1-4C-$EN3' H&' F C' N ' CF$ ' Q3' C-&& N 3E ' H' J $+3' F3' O3$4 O' ?$ $4O' $ED' ; J H -R J 3E C

@ 34+' H&' 3' @4H E' CF$ '

[$ M#> ;>P ʻ ʻ @$1 Z

J3$ C H& F3 C$ D @ 34+ H& F3 @4H E $JH-E ʻ H F3 ?-J ʻ H& , E3 F-ED43D IH-EDC ʻ N 3$4 H& $ ʻ G3D-N HEC F$ CH3 34 ʻ NHJ J3EN E2 F3 G$ 3 H& Q C 11H E J3E

< 34+H& F3 @4H E CF$ ʻ D3 34 NR NH-E C H& JH-E ʻ H& 633C43@3 3N>

W ʻ ED Q3 ʻ &-4 F34 3E$N 3D ʻ *F$ ʻ F3 @ 34+ H& F3 @4H E H& F3 @H-4 ʻ H& % E2 C B3ENF CF$ ʻ F E 6H-4 33E G$0C E3 ʻ $& 34 F3 6 && ʻ H& ?3) ʻ <E3 FH-C$ED 3 2F ʻ F-ED43D $ED F 4 0 H D3 34 H F3 C$ D @H-4 ʻ H& % E2 C B3ENF <E3 H4 E$H43 NNH-E ʻ H4 NNH-E C ʻ C 2E3 D F F C , $J 3 $ED 8$ED ʻ F343 E CF$ ʻ Q3 C3 ʻ H- ʻ $ ʻ $ED 3 340 ?-J C $ED ?-J ʻ H& P HE30 43N3 3D Q0 F J ʻ H4 Q0 F C CC C $E ʻ H4 $E0 @ 34+ H4 H F34 I34CHE &H4 F C #C3 H4 Q0 H4 -ED34 F C - FH4 0 H4 F F C I4 0 ʻ &H4 H4 HE $NNH-E ʻ H4 Q0 43$CHE H& F3 633C H4 13N-E $&0 I4H& C H& ʻ H4 Q0 H4 -ED34 NH H-4 H& ʻ F3 C$ D <&& N3 H& @ 34+ H& F3 @4H E H& F3 C$ D @H-4 ʻ H& % E2 C B3ENF ʻ $ED $ CH $ ʻ $ED 3 340 F3 ?-J C &4H J ʻ * J 3 H * J 3 1$ D Q0 F J ʻ F343H- ʻ H @H10 E2 @ 34+C $ED &H4 H F34 H&& N $ ʻ ; 13EN3C ʻ &4H J ʻ $ED $& 34 F3 11H E J3E ʻ H& C-NF @ 34+ H& F3 @4H E -1 H F3 C$ D 6 & F G$0 H4 ?3% ʻ E F3 =3$4 <E3 FH-C$ED 3 2F ʻ F-ED43D $ED F 4 0 H ($ED F$ ʻ F E 6H-4R 33E G$0C $& 34 F3 *3E F G$0 H& 6 ' ,4! ʻ E F3 =3$4 <E3 FH-C$ED 3 2F ʻ F-ED43D $ED F 4 0 H ʻ $ED E +3 P $EE34 F E 6H-4 33E G$0C E3 ʻ $& 34 F3 6 & F G$0 , ʻ ? #3 ʻ F3 6 & F G$0 H& / 5 % ʻ F3 6 & F G$0 H& ?3% ʻ $ED F3 *3E F G$0 H& 6 ' ,4! ʻ E 3$NF $ED 3 340 =3$4 ʻ C-NF @ 34+ H& F3 @4H E &H4 F3 * J 3 Q3 E2 CF$ ʻ D3 34 H F3 C$ D @H-4 ʻ H& % E2 C B3ENF $ +3 NNH-E ʻ H& $ ʻ $ED 3 340 C-NF ?-J ʻ $ED ?-J C H& P HE30 CH 43N3 3D $ED CH 1$ D H- ʻ $C $&H43R C$ D E F3 \ -$4 34 H& $ =3$4 3ED E2 HE F3 C$ D G$0C 43C13N 3 0 ʻ

5-C N3C H& % E2 C B3ENF CF$ ʻ 3 $J E3 C-NF 3 ʻ NDEE ? ʻ $ED N34 &0 H N3 *43$R C-434 F ʻ ʻ EH#& 43 ʻ N3 3D $ED ʻ 1 ʻ Q0 @ 34+ H& F3 @4H E

$ED F3 5-C N3C H& F3 C$ D @H-4 ʻ H4 $E0 * H H& F3 J ʻ CF$ ʻ 3 $R J E3 F3 C$ D NNH-E C ʻ $ED CF$ ʻ N34 &0 H F3 N3 *43$C-434 H& $!% #& &H4 F3 * J 3 Q3 E2 F3 JH-E ʻ H& F3 C3 34$ ʻ ?1 J C H& P HE30 F NF CF$ ʻ Q3 $CN34 $ E3D H F$ 3 Q33E CH 43N3 3D $ED CH 1$ D H- ʻ -1HE F3 ; $J E$ HE H& F3 C$ D @ 34+ H& F3 @4H E ʻ $ED H& C-NF CC C $E ʻ @ 34+ H4 @H10 E2 @ 34+C ʻ H4 H F34 I34CHEC ʻ $C F3 C$ D 5-C N3C CF$ ʻ F E+ & ʻ H 3 $J E3 H-NF E2 F3 C$ J 3 ʻ $ED C-NF 5-C N3C $43 F343Q0 $- FH4 T3D $ED 3 J 1H 343D ʻ & F30 CF$ ʻ F E+ & ʻ -ʻ3 $J E3 -1HE <$ F H& && 4J$ HE F3 C$ D @ 34+ H& F3 @4H E ʻ CC C $E ʻ @ 34+ ʻ @H10 E2 @ 34+C ʻ <4 H F34 I34CHE ʻ H-NF E2 F3 C$ D NNH-E C ʻ H4 $E0 P$ 34 NHEE3N 3D F343 F

9F$ 3 34 F3 ʻ 3N3 1 C H& @ 34+ H& F3 @4H E CF$ ʻ &3 ʻ CFH4 ʻ H& ?$ $40 ʻ NH JR 1- 3D $ ʻ V[[& ʻ $ =3$4 ʻ &4H J 11H E J3E ʻ H ! F 5-0 ZSU ʻ CF$ ʻ Q3 F3E 1$ D H F J ʻ H- ʻ H& F3 @HECH R D$ 3D 6-ED ʻ $ED $& 34R $4DC C-NF ?$ $40 CF$ ʻ Q3 1$ D E

W ʻ ED Q3 ʻ &-4 F34 3E$N 3D ʻ *F$ ʻ E F$ 3 34 ?-J ʻ F3 FH 3 JH-E ʻ F NF CF$ ʻ F$ 3 Q33E 43N3 3D &$0 H4 1$0$Q 3 H F3 C$ D @ 34+ H& F3 @4H E E 43C13N ʻ H& F C C$ D <&& N3 ʻ Q3 33E F3 G$0 H& F C 11H E J3E ʻ F343 H $ED F3 C$ D 6 & F G$0 H& ?3% ʻ <E3 FH-C$ED 3 2F ʻ F-ED43D $ED F 4 0 H ʻ ^$& 34 D3D-N E2 F343H- ʻ F3 ?-J C 1$ D H @H10 E2 @ 34+C ʻ $ED &H4 H F34 F3 E3N3CC$40 H&& N $ ʻ ; 13EN3C ʻ $C $&H43C$ D _ CF$ ʻ &3 ʻ CF P4 ʻ H& F3 I4H1H4 HE H& B$ $40 $NN4- E2 D-3 H F3 C$ D @ 34+ H& F3 @4H E ʻ C-NF ?$ $40 Q3 E2 NH J 1- 3D $ ʻ F3 $&H43C$ D B$ 3 H& , E3 F-ED43D 6H-EDC $ =3$4 ʻ F3 C$ J 3 CF$ ʻ Q3 F3 ?-J ʻ H Q3 CC-3D $ED 1$ D H F J ʻ H- ʻ H& F3 C$ D @HECH D$ 3D 6-ED ʻ 7 &H4 F3 I34 HD Q3 33E F3 * J 3 H& F C 11H E J3E ʻ $ED ʻ F3 C$ D 6 & F G$0 H& ?3 ʻ <E3 FH-C$ED 3 2F ʻ F-ED43D $ED F 4 0 H ʻ $ED F$ ʻ & H J ʻ $ED $& 34 F3 C$ D 6 & F G$0 , ʻ ?3% ʻ <E3 FH-C$ED 3 2F ʻ F-ED43D $ED F 4 0 H ʻ E F$ 3 34 ?-J ʻ F3 FH 3 JH-E ʻ F NF CF$ ʻ F$ 3 Q33E CH 43N3 3D H4 CF$ ʻ F$ 3 Q33E 1$0$Q 3 H F3 C$ D @ 34+

@ 34+' H&' F3' M4H E' E' 43C13N ' H&' F C' C$ D' <&& N3' F E' F3' \ -$4 34' H&' $' =3$4' 3ED E2' HE' F3' *3E F' G$0' H&' 6 ' ,4! ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H ' H4' F E' $E0' C-QC3X-3E ' \ -$4 34' H&' $' =3$4' NH J 14 C3D' E' $E0' C-NF' NNH-E ' ^$& 34' D3D-N E2' F343H- ' F3' ?- J C' 1$ D' H' @H10 E2' @ 34+C ' $ED' &H4' H F34' E3N3CC$40' H&& N $' ; 13EN3C ' $C' $&H43C$ D _' CF$ ' Q3' 3CC' F$E' F3' ?- J' H&' * H' F-ED43D' $ED' 3E 0 ' & 3' I H-EDC ' F3' C$ J 3' CF$ ' Q3' F3' ?- J' H' Q3' CC-3D' &H4' F3' \ -$4 34' &H4' F NF' C-NF' NNH-E ' CF$ ' Q3' D3 343D ' $ED' CF$ ' Q3' NH J 1- 3D' $ED' $CN34 $ E3D' CH' $C' H' J $+3' -1' F3' E3 ' ?$ $40' $ED' 13N-E $40' I 4H& C' H&' F3' C$ D' @ 34+' H&' F3' @4H E' H' F3' X-$4 34 0' ?- J' H&' * H' F-ED43D' $ED' 3E 0 & 3' I H-EDC' ' $ED' 3 340' C-NF' @34 & N$ 3' H&' F3' C$ D' 5-D23C' CF$ ' Q3' 14HD-N3D' H' $ED' 3E 343D' $' F3' <&& N3' H&' F3' N3' *43$C-434' H&' $!% #&' =' $ED' F3' ?- J C' 1$0$Q 3' -ED34' H4' Q0' 4 -3' H&' ?-NF' @34 & N$ 3' CF$ ' Q3' CC-3D' $ED' 1$ D' H- ' H&' F3' C$ D' @HER CH D$ 3D' 6-ED' $C' &' F3' ?- J C' CH' H' Q3' $CN34 $ E3D' F$D' Q33E' C13N $ 0' J 3E HE3D' $ED' C3 ' &H4 F' E' F C' N

C$J3' : ' X-$4 34 0'

W ' I 4H D3D' $ $0C ' $ED' Q3' ' 3E$N 3D ' *F$ ' F3E3 34' $ED' H& 3E' $C' ' CF$ ' $113$4' Q0' $E0' NNH-E ' H' Q3' D3 343D' $C' $&H43C$ D' -ED34' F3' I 4H C HEC' H&' F C' N ' $ED' Q0' F3' @34 & N$ 3' H&' & 3' 5-C N3C' H&' F3' C$ D' @H-4 ' H&' % E2 C' B3ENF ' H4' $E0' * H' H&' F3 J ' H' Q3' J $D3' E' 1-4C-$EN3' H&' F C' N ' F$ ' F3' ?- J C' 43N3 3D' Q0' H4' 1$0R $Q 3' H' $E0' C-NF' @ 34+' H&' F3' @4H E' E' $E0' \ -$4 34' H&' $' =3$4' 3ED E2' HE' C-NF' G$0C' $C' $&H43C$ D' ^$& 34' D3D-N E2' F343H- ' F3' ?- J C' 1$ D' H' @H10 E2' @ 34+C ' $ED' &H4' E3N3CC$40' H&& N $' ; 13EN3C ' $C' $&H43R C$ D _' CF$ ' 3 N33D' F3' C$ D' N 3$4' ?- J' H&' * H' F-ED43D' $ED' 3E 0 ' & 3' I H-EDC ' F3' @ 34+' H&' F3' @4H E' FH' CF$ ' D3 34' E' C-NF' NNH-E ' $C' $&H43C$ D' CF$ ' F E' ?3 3E' G$0C' E3 ' $& 34' F3' G$ 3' H&' C-NF' @34 & N$ 3' 1$0' H4' N$-C3' H' Q3' 1$ D' E H' F3' ' 3N3 1 ' H&' F3' ; NF -34' E' $!% #&' F3' J H-E ' H&' $ ' C-NF' ?- J' $ED' ?- J C' H&' P HE30' 43N3 3D' Q0' H4' 1$0$Q 3' H' F J ' 3 N33D E2' C-NF' ?- J' H&' * H' F-ED43D' $ED' 3E 0 & 3' I H-EDC' ' $ED' C-NF' ?- J C' CH' H' Q3' 1$ D' CF$ ' Q3' N$44 3D' H' $ED' J $D3' I $4 ' H&' F3' C$ D' @HECH D$ 3D' 6-ED ' I 4HR D3D' $ CH ' F$ ' E' N$C3' F3' ?- J C' 43N3 3D' Q0' H4' 1$0$Q 3' H' $E0' @ 34+' H&' F3' @4H E' ^$& 34' J $+ E2' F3' G3D-N HE' $&H43C$ D' &H4' @H10R E2' @ 34+C' $ED' H&& N $' ; 13EN3C _' &H4' $ED' D-4 E2' F3' I 34 HD' F NF' J $0' 3 $1C3' Q3 33E' F3' * J 3' H&' F C' 11H E J 3E ' H' F3' C$ D' <&& N3' $ED' F3 ' \ -$4 34' G$0' E3 ' C-NN33D E2' CF$ ' 3 N33D' F3' 4$ 3$Q 3' I 4H1H4 HE' H&' F3' C$ D' 03$4 0' ?$ $40' H&' , E3' F-ED43D' I H-EDC' D-3' H' C-NF' @ 34+' &H4' C-NF' I 34 HD ' F3' J H-E ' H&' C-NF' ?- J C' ^C-Q(3N ' H' C-NF' G3D-N HE _' 3 N33D E2' C-NF' I 4H1H4 HE' H&' F3' C$ D' ?$ $40' CF$ ' Q3' 1$ D' $ED' N$44 3D' H' F3' C$ D' @HECH D$ 3D' 6-ED ' E' +3' P $EE34 ' $ED' C-Q(3N ' H' F3' +3' ' 32- $ HEC' $ED' I 4H C HEC ' $C' Q3&H43' 14HR D3D' E' N$C3' H&' H F34' ?-41 -C' H4' ; N3CC' $ ' $E0' * J 3' $4 C E2

CHE0 ; N3CC' $QH 3' UU! ' X-$4 34 0' CF$ ' Q3' 1$ D' Q0' @ 34+' H&' F3' @4H E' E H' F3' ; R NF3X-34 ' $ED' N$44 3D' H' @HECH D$ 3D' 6-ED

; N3CC' $NR N4- E2 ' & 4C ' \ -$4 34' 0& 34' 1R 1H E J 3E ' H' Q3' 1$ D' H 34' E' C$ J 3' P $EE34

' W ' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' E' N$C3' F3' C$ D' @ 34+' H&' F3' @4H E' CF$ ' $ ' $E0' * J 3' E32 3N ' H4' J $+3' G3&$- ' E' D3 34 E2' E' C-NF' NNH-E ' $C' F343 E Q3&H43' D 43N 3D' H' F3' C$ D' @H-4 ' H&' % E2 C' B3ENF' F E' F3' I 34 HDC' $&H43C$ D' 43C13N 3 0' C13N & 3D' &H4' F$ ' I -41HC3 ' H4' E' 1$0 E2' E H' F3' ' 3N3 1 ' H&' F3' ; NF3X-34' E' $!% #&' ?-NF' B$ $EN3' H4' ?-41 -C' $C' $&H43C$ D' &H4' F3' ?1$N3' H&' ?3 3E' G$0C' $& 34' F3' G$ 3' H&' C$ D' @34 & N$ 3 ' F3E' $ED' E' 3 340' C NF' @$C3' C-NF' ' @ 34+' H&' F3' @4H E' CF$ ' 1$0' E H' F3' C$ D' ; NF3X-34 ' H23 F34' 9 F !' %' C-NF

(! ;' +?#J(' !+L ' AJ& ' '&B' L (#B' ' (!' (#' D #(! (A#) ' H&A(' +?' (* (H#) ' <( )2(!) *' HH+G #A1' +!' $(&B' +?' '&BD) *' & & H(

E H' ; NF3R X-34

C-NF' B$ $EN3' $C' $&H43C$ D' E 343C' &H4' F3' C$ J 3' $' F3' '$ 3' H&' * 3E O' I H-EDC' 5! ' I !# 3 '5! ' /##3 ' &4H J' F3' ; 1 4$ HE' H&' F3' C$ D' I 34 HD' H&' +!0!#' G$OC' -E ' 1$ D' $C' $&H43C$ D' $ED' C-NF' @ 34+' H&' F3' @4H E' CF$ ' Q3' QO' F3' C$ D' @H-4' C-C13ED3D' &4H J' F C' <&& N3' $ED' F3' ; J H - J 3E C' F343H&' -E ' C-NF' ?- J' $ED' E 343C' CF$ ' F3' 1$ D' H4' C-NF' @ 34+' CF$ ' Q3' 43 J H 3D' &4H J' F C' C$ D' <&& N3' $' F3' G CN43 HE' H&' F3' C$ D' @H-4

NX- $EN3C' &H4' I $0 J 3E' E H' ; NF3R X-34' CF$ ' Q3' 14HD-N3D' H' (-D23C' QO' @ 34+' H&' F3' @4H E

W ' ED' H' F3' 3ED' F$ ' F3' I $0 J 3E' H&' C-NF' B$ $EN3' J $0' Q3' $CN34 $ E3D' Q3' ' &-4 F34' 3E$N 3D' * F$ ' -1HE' I $0 J 3E' H&' C-NF' B$ $EN3' $E' NX- $EN3' H4' G CNF$423' &H4' F3' C$ J 3' CF$ ' Q3' C 2E3D' QO' F3' 14H134' <&& N34' E' F3' C$ D' ; NF3X-34' $ED' 14HD-N3D' $ED' 3 F Q 3D' QO' F3' C$ D' @ 34+' H&' F3' @4H E' H' F3' ?$ D' @H-4' H&' % E2 C' B3ENF' F' F3' E3 '3EC- E2' \ -$4 34C' NNH-E '($ED' F3' C$ D' @H 4' $43' F343QO' 43X- 43D' H' D3 J $ED' $ED' F$ 3' F3' C$ J 3' CH' 14HD-N3D' H' F3 J' Q3&H43' F30' CF$ ' N34 &O' $EO' C-QC3X-3E' NNH-E' &H4' C-NF' @ 34+' H&' F3' @4H E' E' J $EE34' F343 E Q3&H43' D 43N 3D

@ 34+' H&' F3' @4H E' H' 3 J 1 HO' $E' CC C $E' @ 34+' F' $ '?$ $40' H&' '<&0' 1$0$Q 3' H- ' H&' @HER CH D$ 3D' 6-ED

W ' ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' F3' C$ D' @ 34+' H&' F3' @4H E' H&' F3' C$ D' @H-4' H&' % E2 C' B3ENF' CF$ ' 3 J 1 HO' <E3' @F 3&' H4' CC C $E' @ 34+' 43 J H $Q 3' $' F C' I 3$C-43' H' ?-134 E 3ED' F3' 143R 1$4 E2' H&' $ ' <&& N3' @H1 3C '$ED' H F34 C3' H' $ D' E' F3' G CNF$423' H&' F3' G- 3C' H&' F3' C$ D' <&& N3' ($ED' &4H J' $ED' $& 34' F3' 6 & F' G$0' H&' ?3% ' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 H' F343' CF$ ' Q3' CC-3D' $ED' 1$ D' H-' H&' F3' C$4D' @HECH D$ 3D' 6-44D' QO' C-NF' X-$4 34 O' I $0 J 3E C' $C' $&H43C$ D' H' C-NF' CC C $E' @ 34+' H&' F3' @4H E' F3' $EE-$' ?- J' H&' <E3' F-ED43D' I H-EDC' N 3$4' H&' $ ' G3D-N HEC' $C' $ED' &H4' F3' ?$ $40' $ED' ' 3 J -E34$ HE' H&' C-NF' @F 3&' H4' CC C $E' @ 34+

@ 34F' H&' F3' @4H E' EH' H' $NN31' H&' $EO' F E2' &H4' F3' 11H E E$3E' H&' CC C $E' @ 34+

W ' ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' ' CF$ ' EH' Q3' $ &-' &H4' $EO' @ 34+' H&' F3' @4H E' E' F3' C$ D' @H-4' H&' % E2 C' B3ENF' H' $NN31' H&' $EO' ?- J' H&' P HE30' H4' ?3N-4 O' &H4' P HE30' H4' H' C 1- $ 3' &H4' H4' &3N3 3' $EO' ?F$43' H4' I 4H1H4 &HE' H&' F3' I 4H& C' H&' F3' C$ D' <&& N3' H&' CC C $E' @ 34+' H4' 43N3 3' $EO' H F34' $ -$Q 3' @HEC D34$ HE' F$ R CH3 34' $C' $ED' &H4' $' @HEC D34$ HE' &H4' F3' 11H E J 3E' H&' $EO' I 34CHE' F$ CH3 34' H' F3' C$ D' <&& N3' $ED' &' $EO' @ 34+' H&' F3' @4H E' CF$ ' F343 E' H&&3ED' NHE 4$40' H' F3' I 4H C HEC' H&' F C' N ' F3' CF$ ' &H4' $EO' C-NF' <&&3EN3' &H4&3 ' F3' ?- J' H&' <E3' F-ED43D' I H-EDC' $ED' CF$ ' $ CH' &H4&3 ' F C' C$ D' <&& N3

, 3 F34' F3' @ 34+' H&' F3' @4H E' EH4' F C' CC C $E' H' FH D' $EO' H F34' <&& N3' EH4' H' 14$NR C3' $C' $E' H4E30

W ' ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' ' CF$ EH' Q3' $ &-' &H4' F3' @ 34+' H&' F3' @4H E' EH4' &H4' F C' CC C $E' H' Q3' $11H E 3D' -ED34' F3' I 4H C HEC' H&' F C' N ' H' FH D' H4' 3 34N C3' F3' G- 3C' H&' $EO' H F34' <&& N3' H4' I $N3' F$ CH3 34 'EH4' H' 14$N C3' $C' $E' H4E30' H4' ?H N H4' E' $EO' @H-4' H&' ; $ ' H4' ; X- O' E' $!% #& ' !) ! ' C31$4$ 3 O' H4' E' I $4 E34CF 1' F' $EO' H F34' I 34CHE' -ED34' 1$ E' H&' &H4&3 E2' F3' C$ D' <&& N3' H&' @ 34+' H&' F3' M4H E' H4' F3' C$ D' <&& N3' H&' CC C $E' H' C-NF' @ 34+' $C' F3' @$C3' J $0' Q3

E' <$C3C' H&' <&& N34' DO E2' KN ; 3@ H4C 3E 3D' H' I 4H1H4 HE

W ' ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' &' F3' C$ D' @ 34+' H&' F3' @4H E' H4' F C' CC C $E' CF$ ' D 3' E' F3' NH-4C3' H&' $EO' \ -$4 34' H4' CF$#' F$ 3' F3 D' F C' <&& N3' H4' ? -$ HE' D-4 E2' I $4 'HE O' H&' $EO' \ -$4 34' C-NF' @ 34+' H&' F3' @4H E' H4' CC C $E ' H4' F $' ; 3N- H4C' H4' D J E C

9' 4$ H4C

U' M # > ; > P ' ' @$1 Z [

4$ H4C ' CF$ ' Q3' 3E 3D' H' 43N3 3' $' 4$ 3$Q 3' I 4H1H4 HE' H&' F3' ?$ $40' H&' \ -$4 34 C' H&' C-NF' <&& N3' &H4' F3' I $4 ' H&' C-NF' \ -$4 34' D-4 E2' F NF' C-NF' <&& N34' ?$ $40' F3 D' C-NF' < && N3.' I 4H D3D' $ $0C' F$ ' F3' C$ D' @H-4 ' H&' % E2 C' B3ENF' CF&& ' E' N$C3' H&' F3' G3$ F' H&' F3' @ 34+' H&' F3' @4H E' $C' $&H43' R C$ D' $CN34 $ E' Q0' EC13N HE' H&' F3' BHH+C' F343 E Q3&H43' D 43N 3D' H' Q3' +31 ' E' F3' <&& N3' H&' F3' C$ D' @ 34+' H&' F3' @4H E' F3' J H-E ' H&' F3' C3 34$' ?-J C' $ED' ?-J' H&' P HE30 ' C-Q(3N ' H' F3' G3D-N HE' $&H43R J 3E HE3D' &H4' @H10 E2' @ 34+C' $ED' H&& N $' ; 13EN3C' F NF' J $0' F$ 3' Q33E' 43N3 3D' Q0' H4' Q3' 1$0$Q 3' H' C-NF' D3N3$C3D' @ 34+' H&' F3' @4H E' $ED' F343-1HE' N34 &O ' E' J $EE34' F343 E Q3&H43' D 43N 3D ' -1HE' ; $R J E$ HE' H&' F3' X-$4 34 0' NNH-E C' H' Q3' 43ED343D' Q0' F3' @ 34+' H&' F3' @4H E' F3' J H-E ' 14H134' H' Q3' CC-3D' H' J $+3' -1' F3' I 4H1H4 HE' H&' ?$ $40' F NF' J $0' F$ 3' $NN4-3D' D-3' H' F3' C$ D' D3N3$C3D' @ 34+' H&' F3' @4H E' -ED34' F3' I 4H C HEC' H&'' F C' N ' &H4' F3' I H4 HE' H&' F3' N-4R 43E ' \ -$4 34' 3 $1C3D' 143 H-C' H' F3' I 34 HD' H&' F C' G3N3$C3 ' $ED' F3' ?-NN3CCH4' H&' C-NF' @ 34+' H&' F3' @4H E' CH' DO E2' CF$ ' Q3' 3E 3D' H' &F3' ' 3C D-3' H&' F3' ?$ $40' H&' F3' C$ D' <&& N3' $NN4- E2' D-3' &4H J' F3' I 34 HD' H&' F C' 11H E J 3E ' $C' C-NF' ?-NN3CCH4 ' $ED' F3' J H-E ' F343H&' CF$ ' Q3' $CN34 $ E3D' $ED' N34 & 3D' E' +3' P $EE34' $C' F343 ER Q3&H43' 14H D3D' E' F3' @$C3' H&' F3' @ 34+' H&' F3' @4H E' FH' J $0' Q3' & 4C ' $11H E 3D' -ED34' F3' I 4H C HEC' H&' F C' N '143 H-C' H' F3' 6 & F' 'G$0' H&' ?3% ' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H

W ' ED' Q3' '&-4 F34' 3E$N 3D ' * F$ ' F3' @ 34+' H&' F3' @4H E' H&' F3' C$ D' @H-4 ' H&' % E2 C' B3ENF' CF$ ' 3 3N- 3' F3' G- 0' H&' F C' C$ D' <&& N3' E' 134CHE' .' I 4H D3D' E3 34 F3 3CC' F$ ' E' N$C3' H&' ? N+E3CC' H4' H F34' -E$ H D$Q 3' QC3EN3' ' CF$ ' $ED' J $0' Q3' $ &- ' H' $ED' &H4' C-NF' @ 34+' H&' F3' @4H E' Q0' G31- $ HE' E' 9 4 E2' -ED34' F C' 8 $ED' $ED' ?3$ ' C-Q(3N ' H' $ED' F' F3' @HEC3E ' $ED' 114HQ$ HE' H&' F3' @F 3&' 5-C N3' H&' F3' C$ D' @H-4 ' C 2E & 3D' Q0' $E' EDH4C3 J 3E ' E' 9 4 E2' -ED34' F3' 8 $ED' H&' C-NF' @F 3&' 5-C N3' H' $11H E ' CH J 3' D CN433 ' $ED' 14H134' I 34CHE' $114H 3D' H&' Q0' F3' C$ D' @F 3&' 5-C N3' H' 3 3N- 3' F3' G- 3C' H&' C-NF' <&& N3' D-4 E2' F3' I 34 HD' H&' C-NF ? N+E3CC' H4' -E$ H DR $Q 3' QC3EN3 ' $ED' EH' HE234

W W ' ED' Q3' '&-4 F34' 3E$N 3D ' * F$ ' E' N$C3' F3' C$ D' @ 34+' H&' F3' @4H E' CF$ ' Q0' 43$CHE' H&' NN D3E ' H4' E& 4 J 0' Q3' -E$Q 3' H' &3 3N- 3' C-NF' G31- $ HE' E' 9 4 E2' $C' $&H43C$ D' H4' F3E3 34' F3' C$ D' <&& N3' H&' @ 34+' H&' F3' @4H E' E' F3' C$ D' @H-4 ' H&' % E2 C' B3ENF' CF$ ' Q3NH J 3' NE ' Q0' ' 3 J H $' H4' ?-C13EC HE' H&' C-NF' <&& N34 ' H4' FH CH3 34' H F34 C3 ' F3E' $ED' E' 3 340' C-NF' @$C3' ' CF$ ' $ED' J $0' Q3' $ &- ' &H4' F3' @F 3&' 5-C N3' H&' F3' C$ D' @H-4 ' H' $11H E ' CH J 3' & ' $ED' 14H134' I 34CHE' H' 3 3N- 3' F3' G- 0' H&' C-NF' <&& N3' &' # ! ' H4' -F D' $' E3 ' <&& N34' CF$ ' Q3' $11H E 3D' -ED34' F3' I 4H C HEC' H&' F C' N ' ! $ED' 3 340' C-NF' I 34CHE' CH' $11H E 3D' CF$ ' Q3' H' $ ' E 3E C' $ED' I -41HC3C' $' NH J 1 3 3' <&& N34 ' $NNH4D E2' H' F3' * 34 J C' H&' C-NF' 11H E J 3E .' I 4H D3D' $ $0C' F$ ' C-NF' 11H E 33' CF$ ' EH ' Q3 ' 3E 3D' H' $E0' 243$ 34' I 4H1H4 HE' H&' F3' ?$ $40' H4' ; J H - J 3E C' H&' C-NF' <&& N3' F$E' CF$ ' Q3 C13N & 3D' E' F3' < 4D34' -ED34' F NF' F3' J $0' Q3' $11H E 3D ' $ED' F NF' I 4H1H4 HE' F3' C$ D' @F 3&' 5-C N3' C' 43X- 43D' H' & ' $ED' C13N &0' F343 E

H&- 3C' H&' <&& N3' CF$ ' Q3' 3 3N- 3D' $' 134CHE' Q0' @ 34+' H&' @4H E' H4' E' N$C3H&' E3CC' KN Q0' G31-R $ HE' $1R 1H E 3D' F' @HEC3E ' H&' @F 3&' 5-C N3

E' N$C3' H&' EN$1$N 0' <&' I 4 EN 1$' H' $11H E @F 3&' 5-C N3' J $0' $11H E ' $' I 34CHE' H' 3 R 3N- 3' <&& N3' ; NEN0' C' C-11 3D

@H-4' J$O' 43JH 3' H4' & E3' <&& N34C' &H4' P CNHER D-N

WW' ED' Q3' '&-4 F34' 3E$N 3D' *F$' 'CF$ '$ED' J$O' Q3' $ &-' H' $ED' &H4' F3' C$D' @H-4 'H&'% E2 C' B3ENF' -1HE' @HJ1$E' J$D3' QO' PH HE' H' EX-43' C-JJ$4 O' E H' F3' P$ 34' <&' C-&F' @HJ1$E' 3 F34' QO' 0F&' 0,'!' ; $J E$ HE' H4' -1HE' && D$ ' H4' H F34 C3' $C' ' CF$ 'D33J'& E2' $ED' H C-C13ED' H4' $QCH - 3 O' 43JH 3' $EO' @ 34+' H&' F3' @4H E' H4' F3' CC C $E' H&' $EO' C-NF' @ 34+' 43C13N 3 O' &H4' $EO' P$ 34C$ HE' H&'G- O' H4' P CNHED-N' E' F3' C$D' <&& N3' $ED' F343-1HE' C-NF' <&& N34' CF$ ' N3$C3' H' FH D' H4' Q3' 3E 3D' H' C-NF' <&& N3' $C' &' E' F3' @$C3' H&' $EO' @ 34+' H&' F3' @4H E' CH' 43JH 3D' F3' >3 34C' I$ 3E' $11H E E2' C-NF' <&& N34' F$D' Q33E' 43 H+3D' ' $ED' F3' C$D' @H-4' CF$ ' $CH' F$ 3' IH 34' $ED' - FH4 O' -1HE' C-JJ$4O@HJ1$E' $ED' EX-4O' $C' $&H43C$D' FH-' 43JH E2' C-NF' <&& N34' H' E& N' -1HE' C-NF' <&& N34' &H4' $EO' J EH4' <&&3EN3' C-NF' I-E CFJ3E' QO' $O' <&'6 E3' $C' H' F3' C$D' @H-4' CF$ ' C33J' 3 13D 3E

?- H4C' KN' ' @H1 3C H&' b 83$4DC' KN'

WW' ED' Q3' '&-4 F34' 3E$N 3D' *F$' EH' ?- H4' E' F3' C$D' @H-4 H F34' I34CHE' CF$ ' E' $EO' @$C3' Q3' 43X- 43D' H' $+3' H-' $EO @H1O' H&' $EO' '3NH4D' I 3$D E2' E&H4J$ HE' ED N J3E' 94 ' '3 -4E' G31HC HE' && D$ ' H4' H F34' GHN-J3E' H4' I4HN33D E2' F$ CH3 34' $ED' F3' $+ E2' H4' EH' $+ E2' $EO' @H1O' F$ CH3 34' CF$ ' Q3' 3E 43 O' H1 HE$ '

@ 34+' H&' @4H E' CF$ ' +331' 94 E2' @ 34+C' E' F C' <&& N3' $ED' 1$O' F3J' AD ' 134' '<&& N3' ?F33

WW' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' C$D' @ 34+' H&' F3' @4H E' CF$ ' $C' F3' C$J3' CF$ ' Q3' E3N3CC$4O' 3J1 HO' E' F3' C$D' @4H E' <&& N3' H&' F3' @H-4' H&'% E2 C' B3ENF' $' C-&& N 3E' , -JQ34' H&' 94 E2' @ 34+C' H' J$+3' @H1 3C' H&' E&H4J$ HEC' ED N J3E C' 94 C' '3 -4EC' G31HC HEC' $ED' H F34' *F E2C' Q3 HE2 E2' H' F3' C$D' <&& N3' $ED' 43X- 43D' QO' $ED' HE' Q3F$ &' H&' F3' ?- H4C' H&' F3' C$D' @H-4 ' $ED' H&' $ ' H F34' I34CHEC' $EO C3' NHEN34E3D' E' I4HN33D E2C' Q3&H43' F3' C$J3' $ED' H' DH' $ED' 134&H4J' $ ' H F34' B-C E3CC' 43X- C 3' H' Q3' DHE3' $ED' 134R &H4J3D' E' C-NF' <&& N3' CH' F$' F3' B-C E3CC' H&' $EO' C-NF' ?- H4' H4' I34CHE' CF$ ' EH' Q3' -EE3N3CC$4 O' D3 $O3D' F343 E' $ED' C-NF' @ 34+' H&' F3' @4H E' CF$ '1$O' H' 3 34O' C-NF' 94 E2' @ 34+' $& 34' F3' '$ 3' H&' EH' 3CC' F$E' <E3' I3EEO' 8$ &13EEO' &H4' 3 34O' <&& N3' ?F33' NHEC C E2' H&' ?3 3E O H' 9H4DC' H&' 3 34O' C-NF' @H1O' J$D3' QO' C-NF' @ 34+' $ED' &H4' $' I$4' H4' IH4 HE' H&' $EO' <&& N3' ?F33 ' $ED' 'CF$ ' EH' Q3' $ &-' &H4' $EO' C-NF' @ 34+' H&' F3' @4H E' H' N$-C3' D4' D 43N' H4' +EH E2 O' 134J ' $EO' C-NF' @H1O' H4' $EO' I$4' F343H&' H' Q3' J$D3' E' $EO' H F34' I $N3' H4' QO' $EO' H F34' I34CHE' F$E' E' F3' 14H134' <&& N3' H&' C-NF' @ 34+' H&' F3' @4H E' E' F3' C$D' @H-4' H&' % E C' B3ENF' C$ 3' $C' F343 E $& 34' 3 N31 3D' $ED' QO' $' 94 E2' @ 34+' 3J1 HO3D' E' C-NF' <&& N3' $ED' 1$D' 3 N -C 3 O' QO' C-NF' @ 34+' H&' F3' @4H E' $& 34' F3' '$ 3' $&H43C$D' $' F3' 3$C ' $ED' 3 34O' C-NF' @ 34+' H&' F3' @4H E' CF$ ' Q3' 43C1HEC Q 3' &H4' F3' NN-4$NO' H&' 3 34O' @H1O' CH' J$D3' E' F C' <&& N3' $ED' &H4' F3' C$J3' Q3 E2' D- O' NHJ1$43D' F' F3' <4 2 E$' &4HJ' FNF' 'CF$ ' Q3' J$D3' $ED' 3 34O' C-NF' @ 34+' H&' F3' @4H E' FH' CF$ ' N$-C3' H4' D 43N' H4' +EH E2 O' 134J ' $EO' @H1O' H' Q3' J$D3' NHE 4$4O' H' F C' N ' H4' FH' CF$ ' EH' 1$O' F3' 94 E2' @ 34+' &H4' 4 E2' F3' C$J3' $NNH4D E2' H' F3' '$ 3' QO' F C' N ' D 43N 3D' $' F3' 3$C ' CF$ ' &H4' 3 34O' C-NF' <&&3EN3' &H4&3 ' F3' ?- J' H&' * 3E O' IH-EDC

@ 34+' H&' @4H E' CF$ ' EH' 134J ' @H1 3C' H' Q3' J$D3' 3 C3' g F343' F$E' E' F C' <&& N3' QO' C-NF' @H1O E2' @ 34+C

I3E$ O' U[

WW ʿ I4H D3D$ $OC ʿ $EDʿQ3ʿ ʿ 3E$N 3D ʿ * F$ ʿ &ʿ$ ʿ $EOʿ * J 3ʿ ʿ Eʿ N$C3ʿ H&ʿ
CF$ ʿ Q3ʿ $CN34 $ E3D ʿ QOʿ && D$ ʿ H4ʿ H F34 C3 ʿ Hʿ F3ʿ ?$ C&$N HEʿ H&ʿ 9$E ʿ H&ʿ
F3ʿ @H-4 ʿ H&ʿ % E2 Cʿ B3ENF ʿ F$ ʿ C-NFʿ @ 34+ʿ H&ʿ F3ʿ @4H Eʿ F$ Fʿ EH ʿ
Eʿ F Cʿ <&& N3ʿ C-&& N 3E ʿ ' HH J ʿ &H4ʿ F3ʿ 43CHEQ 3ʿ NNH J J HD$ HEʿ H&ʿ @H1 3Cʿ
F J C3 &ʿ $EDʿ F Cʿ CC C $E ʿ $EDʿ $ʿ C-&& N 3E ʿ , - J Q34ʿ H&ʿ @H10 E2ʿ HʿQ3ʿ J $D3ʿ
@ 34+C ʿ Hʿ DHʿ $EDʿ 134&H4 J ʿ F3ʿ B-C E3CCʿ CHʿ 43X- 43Dʿ Hʿ Q3ʿ DHE3ʿ Eʿ H- ʿ H&ʿ <&& N3 ʿ
C-NFʿ <&& N3ʿ $Cʿ $&H43C$ D ʿ F3Eʿ Eʿ 3 34Oʿ C-NFʿ @$C3ʿ ʿ CF$ ʿ $EDʿ J $Oʿ Q3ʿ
$ &- ʿ Hʿ $EDʿ &H4ʿ C-NFʿ @H-4 ʿ Hʿ J $+3ʿ $Eʿ <4D34ʿ D3N $4 E2ʿ F$ ʿ F3ʿ
C$ J 3ʿ F$Cʿ Q33Eʿ CHʿ 14H 3D ʿ $EDʿ F$ ʿ ʿ CF$ ʿ Q3ʿ $ &- ʿ &H4ʿ C-NFʿ <&& N34ʿ
Hʿ N$-C3ʿ H4ʿ D 43N ʿ H4ʿ 134 J ʿ $EOʿ C-NFʿ @H10 ʿ H4ʿ $EOʿ I $4 ʿ F343H& ʿ Hʿ
Q3ʿ J $D3ʿ Eʿ $EOʿ I $N3ʿ F$ CH3 34ʿ H4ʿ QOʿ $EOʿ I 34CHEʿ FH J CH3 34 ʿ
$EDʿ 3 34Oʿ ! -NFʿ <4D34ʿ CF$ ʿ Q3ʿ 2HHDʿ $EDʿ $ D ʿ $EDʿ CF$ ʿ Q3ʿ $ʿ C-&& N 3E ʿ
5-C & N$ HEʿ Eʿ $ ʿ 43C13N Cʿ Hʿ $EOʿ I 34CHEʿ $N E2ʿ Eʿ 1-4C-$EN3ʿ F343H& ʿ
&H4ʿ <E3ʿ =3$4ʿ &4H J ʿ F3ʿ G$ 3ʿ F343H& ʿ -E 3CCʿ CHHE34ʿ 43CN ED3D ʿ $EDʿ
C-NFʿ <4D34ʿ CF$ ʿ $EDʿ J $Oʿ Q3ʿ 43E3 3Dʿ &4H J ʿ * J 3ʿ Hʿ * J 3 ʿ -E ʿ QOʿ
43$CHEʿ H&ʿ E3 ʿ B- D E2Cʿ H4ʿ E3 ʿ 44$E23 J 3E C ʿ H4ʿ H F34 C3 ʿ C-&& R
N 3E ʿ ' HH J ʿ CF$ ʿ F$ 3ʿ Q33Eʿ HQ $ E3Dʿ &H4ʿ F3ʿ I -41HC3Cʿ Eʿ F$ ʿ B3F$ &ʿ
$&H43C$ D

WW ʿ EDʿ Q3ʿ ʿ &-4 F34ʿ 3E$N 3D ʿ * F$ ʿ Eʿ 3 34Oʿ @H1Oʿ H&ʿ ; E4H ʿ <&& N3ʿ ?F33 Cʿ
J 3E ʿ H&ʿ $EOʿ I 3$D E2 ʿ ' 3NH4D ʿ P$ 34 ʿ H4ʿ I 4HN33D E2ʿ F NFʿ CF$ ʿ CC-3ʿ ?3 3E O NHE $ E Hʿ
&4H J ʿ F3ʿ C$ Dʿ <&& N3 ʿ F343ʿ CF$ ʿ Eʿ 3$NFʿ <&& N3ʿ ?F33 ʿ F343H&ʿ Q3ʿ 9 H4DC
?3 3E O Hʿ 9 H4DC ʿ $EDʿ EHʿ J H43 ʿ C$ 3ʿ HE Oʿ $EDʿ 3 N31 ʿ F3Eʿ F343ʿ
CF$ ʿ Q3ʿ Q- ʿ <E3ʿ <&& N3ʿ ?F33 ʿ Eʿ C-NFʿ @H1Oʿ H4ʿ ; E4H J 3E ʿ H4ʿ &ʿ F343ʿ
CF$ ʿ Q3ʿ J H43ʿ F$Eʿ <E3 ʿ F3Eʿ C$ 3ʿ $EDʿ 3 N31 ʿ Eʿ F3ʿ $C ʿ ?F33 ʿ
F343H&ʿ($EDʿ Eʿ $EOʿ H&ʿ F3ʿ C$ Dʿ @$C3Cʿ C-NFʿ C E2 3ʿ H4ʿ $C ʿ ?F33 ʿ J $Oʿ
NHE $ Eʿ $EOʿ , - J Q34ʿ H&ʿ 9 H4DCʿ EH ʿ 3 N33D E2ʿ ?3 3E O Hʿ 9 H4DC ʿ
$EDʿ CF$ ʿ $EDʿ J $Oʿ Q3ʿ NF$423Dʿ &H4ʿ $Cʿ $Eʿ 3E 43ʿ ?F33

WW ʿ EDʿ Q3ʿ ʿ &-4 F34ʿ 3E$N 3D ʿ * F$ ʿ 3 34Oʿ ' H ʿ F Eʿ F3ʿ ' H ʿ CF$ ʿ
P 3$E E2ʿ H&ʿ F Cʿ N ʿ CF$ ʿ NHEC C ʿ H&ʿ ?3 3Eʿ F-ED43Dʿ $EDʿ 3E Oʿ NHE $ Eʿ U[ʿ
9 H4DC ʿ $EDʿ F$ ʿ F343ʿ CF$ ʿ EH ʿ Eʿ $EOʿ ; E4H J 3E ʿ Q3ʿ J H43ʿ F$Eʿ <E3ʿ
&4$N HE$ ʿ I $4 ʿ H&ʿ $ʿ ' H ʿ F NFʿ &4$N HE$ ʿ I $4 ʿ CF$ ʿ Q3ʿ 3 F34ʿ F3ʿ H4DCʿ $
@HEN -C HEʿ H4ʿ F3ʿ ; E 43ʿ H&ʿ C-NFʿ ; E4H J 3E ʿ $EDʿ &ʿ C-NFʿ &4$N HE$ ʿ 8$ &ʿ ' H ʿ
I $4 ʿ CF$ ʿ NHE $ Eʿ * F433ʿ F-ED43Dʿ $EDʿ C Oʿ 9 H4DCʿ H4ʿ J H43 ʿ F3ʿ C$ J 3ʿ
CF$ ʿ Q3ʿ D33 J 3Dʿ $EDʿ $+3Eʿ HʿQ3ʿ $ʿ ' H ʿ $EDʿ NF$423Dʿ &H4ʿ $NNH4D E2 O ʿ
$EDʿ &ʿ F3ʿ C$ J 3ʿ CF$ ʿ EH ʿ NHE $ Eʿ * F433ʿ F-ED43Dʿ $EDʿ C Oʿ 9 H4DC ʿ
F3ʿ C$ J 3ʿ CF$ ʿ Q3ʿ D33 J 3Dʿ $EDʿ $+3Eʿ HʿQ3ʿ $ʿ 8 $ &ʿ ' H ʿ $EDʿ NF$423Dʿ
&H4ʿ $NNH4D E2 O

WW ʿ EDʿ Q3ʿ ʿ &-4 F34ʿ 3E$N 3D ʿ * F$ ʿ Eʿ 3 34Oʿ @H1Oʿ F$ CH3 34ʿ Eʿ $ ʿ @H1 3C ʿ
F NFʿ CF$ ʿ CC-3ʿ &4H J ʿ F3ʿ C$ Dʿ <&& N3 ʿ F3ʿ @F$423ʿ H4ʿ 633ʿ F343-1HEʿ ?- J C ʿ G$ 3C ʿ
Cʿ H4ʿ $43ʿ H4ʿ CF$ ʿ H4ʿ J $Oʿ Q3ʿ $ &- Oʿ NH J 1- 3Dʿ $NNH4D E2ʿ Hʿ F3ʿ $ED , - J Q34C ʿ
@HE 3E C ʿ $ ʿ ?- J Cʿ H&ʿ P HE3O ʿ $EDʿ G$ 3Cʿ H&ʿ F3ʿ =3$4ʿ $EDʿ G$OCʿ H&ʿ F3ʿ CF$ ʿ Q3ʿ 3 R
P HE F ʿ $EDʿ , - J Q34C ʿ CF$ ʿ Q3ʿ 3 143CC3Dʿ Eʿ 6 2-43C ʿ $EDʿ CF$ ʿ Q3ʿ 143CC3Dʿ Eʿ
NF$423Dʿ $Cʿ &ʿ F3ʿ C$ J 3ʿ 343ʿ 3 143CC3Dʿ Eʿ 6 2-43Cʿ $EDʿ EH ʿ Eʿ 9 H4DC ʿ 6 2-43C ʿ $EDʿ
Eʿ J $EE34ʿ $EDʿ $NNH4D E2ʿ Hʿ F3ʿ G 43N HECʿ &H H E2 ʿ ^ F$ ʿ Cʿ Hʿ NF$423Dʿ $Cʿ
C$O _ ʿ <E3ʿ I H-ED ʿ H4ʿ $EOʿ , - J Q34ʿ H&ʿ I H-EDC ʿ CF$ ʿ Q3ʿ NF$423Dʿ $Cʿ C-NF
<E3ʿ 9 H4D ʿ <E3ʿ ?F E2 ʿ H4ʿ $EOʿ , - J Q34ʿ H&ʿ ?F E2C ʿ CF$ ʿ Q3ʿ
NF$423Dʿ $Cʿ <E3ʿ 9 H4D ʿ <E3ʿ H4ʿ J H43ʿ I 3EEOʿ H4ʿ I 3EN3 ʿ F3 F34ʿ
Fʿ H4ʿ FH- ʿ $EOʿ 64$N HEʿ H&ʿ $ʿ I 3EEO ʿ CF$ ʿ Q3ʿ NF$423Dʿ $Cʿ <E3ʿ
9 H4D ʿ F3 F34ʿ F3ʿ C$ J 3ʿ CF$ ʿ HNN-4ʿ C E2 Oʿ H4ʿ CF$ ʿ Q3ʿ NH J Q E3Dʿ Eʿ

$EOʻ PHD3ʻ H4ʻ 6H4&$ʻ F$ CH3 3 ʻ $EDʻ $EOʻ D3& E 3ʻ , - J Q34ʻ F$ 3 34ʻ CF$ ʻQ3ʻ NF$423Dʻ $fʻ < E3ʻ 9 H4D ʻ $EDʻ EHʻ J H43

@F$423ʻ H&ʻ 633Cʻ CF$ ʻQ3ʻ 3EDH4C3Dʻ HEʻ $5 @H1 3C & ED GHN- J 3E C

WW ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$X 3D ʻ *F$ ʻ -1HEʻ F3ʻ B$N+ʻ H&ʻ $ ʻ @H1 3C ʻ E24HCC J 3E C ʻ ; 3 J 1 & N$ HEC ʻ $EDʻ 9 4 E2Cʻ F NFʻ CF$ ʻ Q3ʻ CC-3Dʻ &4H J ʻ F3ʻ C$ Dʻ <&& N3ʻ H&ʻ F3ʻ C$ Dʻ @H-4 ʻ F343ʻ CF$ ʻQ3ʻ 3EDH4C3Dʻ $EDʻ 4 3Eʻ QOʻ F3ʻ C$ Dʻ @ 34+ʻ H&ʻ F3ʻ @4H E ʻ H4ʻ F Cʻ 14 EN 1$ ʻ CC C $E ʻ @ 34+ʻ F3ʻ &- ʻ J H-E ʻ H&ʻ $ ʻ <&& N3ʻ 633Cʻ NF$423Dʻ HEʻ C-NFʻ @H1O ʻ E24HCC J 3E ʻ ; 3 J 1 & N$ HE ʻ H4ʻ 9 4 E2ʻ 43C13N 3 O ʻ $EDʻ F3ʻ ʻ $ 3ʻ H&ʻ C-NFʻ 633C ʻ $ED F3ʻ PHD3ʻ H&ʻ @F$423ʻ $NNH4D E2ʻ Hʻ F NFʻ C-NFʻ 633Cʻ CFD ʻ Q3ʻ NH J 1- 3D ʻ $EDʻ F3ʻ , - J Q34ʻ H&ʻ ?F33 Cʻ H4ʻ ʻH Cʻ HEʻ F NFʻ C-NFʻ 633Cʻ CF$ ʻQ3ʻ NF$423Dʻ H4ʻ N$ N- $ 3D ʻ $EDʻ -1HEʻ $EOʻ *$ $ HEʻ H&ʻ @HC Cʻ Q3 33Eʻ I $4 Oʻ $EDʻ I $4 O ʻ H4ʻ Q3 33Eʻ H4E3Oʻ $EDʻ @ 3E ʻ C-NFʻ @H1O ʻ E24HCC J 3E ʻ ; 3 J 1 & N$ HE ʻ H4ʻ 9 4 E2ʻ CF$ ʻ Q3ʻ 14HR D-N3Dʻ Q3&H43ʻ F3ʻ $ E2ʻ <&& N34 ʻ Eʻ $#ʻ @$C3Cʻ F343ʻ ʻCF$ ʻ $113$4ʻ Hʻ F J ʻ 14$N N$Q 3 ʻ $EDʻ ʻ CF$ ʻ EH Q3ʻ $ &- ʻ&H4ʻ F3ʻ $ E2ʻ <&& N34ʻ Hʻ D H ʻ$EOʻ @F$423ʻ H&ʻ $EOʻ ?H N H4ʻ H4ʻ H4E3Oʻ Fʻ 43C13N ʻ Hʻ $EOʻ C-NFʻ DN- J 3E ʻ C< 14HD-N3Dʻ -1HEʻ F NFʻ F3ʻ J H-E ʻ $EDʻ ʻ $ 3ʻ H&ʻ 633Cʻ CF$ ʻ EH ʻ Q3ʻ CHʻ 3EDH4C3D ʻ Q- ʻ F$ ʻ $ ʻ $EDʻ 3 34Oʻ C-NFʻ @F$423ʻ CF P ʻ Q3ʻ C 4-N+ʻ H- ʻ H&ʻ F3ʻ B Cʻ H&ʻ C-NFʻ ?H N H4ʻ H4ʻ H4E3Oʻ QOʻ C-NFʻ $ E2ʻ <&& N34

@F$423ʻ H&ʻ GHN- J 3E C ʻ EH ʻ CHʻ 3ER DH4C3Dʻ CF$ ʻ EH ʻQ3ʻ $ H R 3Dʻ HEʻ *$ $R HEʻ H&ʻ @HC C

WW ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3D ʻ *F$ ʻ HEʻ $EOʻ NNH-E ʻ H4ʻ E ʻ - 4Oʻ H4ʻ H F34ʻ P$ 34ʻ F$ CH3 34 ʻ F NFʻ CF$#ʻ Q3ʻ 43&3443Dʻ Hʻ <4 CF$ ʻ Q3ʻ D313ED E2ʻ Q3&H43ʻ C$ Dʻ @ 34+ʻ H&ʻ F3ʻ @4H E ʻ H4ʻ F NFʻ C$ Dʻ @ 34+ʻ H&ʻ F3ʻ @4H Eʻ CF$ ʻ F$ 3ʻ - FH4 Oʻ H4ʻ I H 34ʻ Hʻ 14HN33Dʻ Eʻ H4ʻ Hʻ D3 34R J E3ʻ H4ʻ 431H4 ʻ -1HE ʻ $EDʻ &H4 ʻ -1HE ʻ H4ʻ 43 $ 3ʻ Hʻ F NFʻ ʻ CF$ ʻ Q3ʻ E3N3CC$4Oʻ H4ʻ 14H134ʻ Hʻ C- J J HEʻ $EOʻ I $4 Oʻ H4ʻ I $4 3Cʻ H4ʻ I 34CHEʻ H4ʻ I 34CHECʻ FH J CH3 34 ʻ C-NFʻ @ 34+ʻ H&ʻ F3ʻ @4H Eʻ CF$ ʻ 14HN33Dʻ 1343 J 1R H4 Oʻ HEʻ F3ʻ & 4C ʻ ?- J J HECʻ F NFʻ CF$ ʻ $113$4ʻ Hʻ F J ʻ Hʻ Q$ 3ʻ Q33Eʻ D- Oʻ C34 3D ʻ $EDʻ CF$ ʻ $ ʻ F3ʻ * J 3ʻ $EDʻ I $N3ʻ $11H E 3Dʻ Eʻ C-NFʻ ?- J J HEC ʻ F3$4ʻ F3ʻ I $4 3Cʻ &ʻ F3Oʻ CF$ ʻ $ 3ED ʻ $EDʻ &ʻ HE Oʻ HE3ʻ I $4 Oʻ CF$ ʻ$ D ʻ $EDʻ F3ʻ H F34ʻ I $4 Oʻ CF$ ʻ J $+3ʻ G3&$- ʻ $EDʻ EHʻ C-&& N 3E ʻ ; N-C3ʻ &H4ʻ C-NFʻ G3&$- ʻ CF$ ʻ Q3ʻ $ Dʻ Q3&H43ʻ C-NFʻ @ 34+ʻ H&ʻ F3ʻ @4H E ʻ F3ʻ CF$ ʻ F3Eʻ 14HN33Dʻ !Jʻ 5 ! ʻ Eʻ +3ʻ P$EE34ʻ $Cʻ C-NFʻ @ 34+ʻ H&ʻ @4H Eʻ H- D ʻ $NNH4D E2ʻ Hʻ F3ʻ I 4$N N3ʻ F343 H&H43ʻ -C3D ʻ F$O3ʻ 14HN33D3Dʻ HEʻ $ʻ F 4Dʻ H4ʻ 1343 J 1 H4Oʻ ?- J J HEC ʻ $EDʻ F3ʻ I 4HN33D E2 ʻ ʻ31H4 ʻ H4ʻ G3N C HEʻ H&ʻ C-NFʻ <&& N34ʻ -1HEʻ C-NFʻ NNH-E ʻ EX- 4O ʻ H4ʻ H F34ʻ P$ 34ʻ F$ CH3 34 ʻ CF$ ʻ Q3ʻ C-Q(3N ʻ Hʻ F3ʻ <4D34 ʻ G 43N HE ʻ $EDʻ @HE 4H- ʻ H&ʻ F3ʻ C$ Dʻ @H-4 ʻ H&ʻ W E2 Cʻ B3ENFʻ Eʻ $ ʻ 43C13N Cʻ $Cʻ F343 H&H43

@ Y4+ʻ H&ʻ F3ʻ @4H Eʻ CF$_ʻ 14HN33Dʻ Eʻ NNH-E Cʻ EX- 4 3C ʻ KNʻ 1343 J 1 H4 Oʻ HEʻ & 4C ʻ ?- J R J HEC

WW W ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3D ʻ *F$ ʻ ʻCF$ ʻ $EDʻ J $Oʻ Q3ʻ $ &- ʻ&H4 F3ʻ C$ Dʻ @ 34+ʻ H&ʻ F3ʻ @4H E ʻ $EDʻ F3ʻ Cʻ F343QOʻ $- FH4 T3Dʻ $EDʻ D 43N 3D ʻ F3E3 34ʻ F3ʻ CF$ ʻ Q3ʻ F343-E Hʻ 43 (- 43D ʻ n3 N31 ʻ HEʻ +3#& 1ʻ , &ʻ R & ʻ$EDʻ I) 1 1ʻ 2 ʻ Hʻ $+3ʻ ʻ 3NH2E T$EN3Cʻ Hʻ 14HC3N- 3 ʻ H4ʻ HEʻ @34 H4$4 ʻ H4ʻ HEʻ 4 N 3Cʻ H&ʻ F3ʻ I 3$N3 ʻ H4ʻ HEʻ $NF J 3E Cʻ &H4ʻ @HE ʻ 3 J 1 C ʻ $EDʻ $ CHʻ Hʻ $+3ʻ $EDʻ $D J E C 34ʻ && D$ Cʻ H4ʻ && 4 J $ HECʻ Eʻ $ ʻ P$ 34Cʻ 43 $ E2ʻ Hʻ F3ʻ B-C E3CCʻ H&ʻ F3ʻ @4H Eʻ ? D3ʻ H&ʻ F3ʻ C$ Dʻ @H-4 ʻ H&ʻ % E2 Cʻ B3ENF ʻ $EDʻ Hʻ $D J E C 34ʻ F3ʻ E3N3CC$4Oʻ < $ FCʻ H4ʻ && 4 J $ HECʻ &H4ʻ F$ ʻ I J 1 3ʻ ($EDʻ $ ʻ C-NFʻ ʻ 3NH2E T$EN3C ʻ < $ FC ʻ && D$ C ʻ $EDʻ && 4 J $ HECʻ CF$ ʻQ3ʻ H&ʻ F3ʻ C$ J 3ʻ 6H4N3 ʻ $ D O ʻ $EDʻ ; &&3N ʻ $EDʻ CF$ ʻ $EDʻ J $Oʻ Q3ʻ 3C 43$ 3D ʻ 14HN33D3Dʻ -1HE ʻ $EDʻ D3$ ʻ F

F(E' $ ' 43C13N C' $ED' H' $ ' E 3E C' $ED' I -41HC3C' $C' & F3 C$ J 3F$D'
Q33E' $+3E' J $D3' H4' $D J E C 343D' QO' H4' Q3&H43' F3' C$ D' @H-4 ' H4' $EO'
H&' F3' 5-C N3C' F343H&' $ED' $EO' I 34CHE' FH' CF$ ' &- O' H4' NH44-1 O'
C 3$4' H4' $&& 4 J' $EO' F E2' &$ C3' E' $EO' C-NF' && D$ C' H4' && 4 J $ HEC'
CH' $+3E' H4' $D J E C 343D' QO' F3' C$ D' @ 34+' H&' F3' @4H E' CF$ ' Q3'
C-Q(3N ' H' $ ' I $ EC' I 3E$ 3C' I -E CF J 3E C' $ED' G C$Q 3C' &H4' &- '
$ED' NH44-1 ' I 34(-4O' E' +3' P $EE34' E' $ ' 43C13N C' $C' &' C-NF'
&& D$ C' H4' && 4 J $ HEC' F$D' Q33E' J $D3' H4' $+3E' QO' H4' E' F3' C$ D'
@H-4 ' H&' % E2 C' B3ENF' H4' QO' H4' Q3&H43' $EO' H&' F3' 5-D23C' F343H&'
$ED' F$' ' CF$ ' EH ' Q3' NHEC D343D' $' I $4 ' H&' F3' G- O' H&' F3' 5-D23C'
H&' F3' C$ D' @H-4 ' H' $+3' C-NF' ' 3NH2E T$EN3C' H4' $EO' && D$ ' H4'
&& 4 J $ HE' H-NF E2' H4' NHEN34E E2' F3' B-C E3CC' H&' F3' @4H E' ? D3'
H&' C-NF' @H-4 ' 3 N31 ' HE' F3 4' @ 4N- C' H4' E' @$C3C' F343' F3O' H4'
$EO' H&' F3 J' CF$ ' F E+' & ' $ED' 14H134' CH' H' DH

WWW ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' E' $ E2' $ ' C-NF' B C' H&' @34+' H&' F3'
@HC C' $C' F3' C$ D' @ 34+' H&' F3' @4H E' H' Q3' $11H E 3D' -ED34' F C' N ' @4H E' H' HQ'
J $O' QO' 4 -3' H&' $EO' <4D34' H&' ' 3&343EN3' H&' F3' C$ D' @H-4 ' H&' '32- $ HEC'
% E C' B3ENF' H4' $EO' H F34' @H-4 ' H4' H F34 C3' FH CH3 34' E' F3' E' J E2' B C'
G CNF$423' H&' F3' G- 3C' H&' C-NF' <&& N3' F$ 3' I H 34' $ED' - FH4 O' H&' @HC C'
H' Q3' $ &- O' 43X- 43D' H' $ ' F3' CF$ ' Q3&H43' $ H E2' $EO' C-NF'
B# ' H&' @HC C' $EO' 633' H4' I $O J 3E ' H' $EO' @H-EC3 ' H4' <&& N34' H&'
F3' @H-4 ' 43X- 43' H' C33' F3' GHN- J 3E C' E3N3CC$4O' H' $CN34 $ E'
^ F3E' F3' C$ J 3' N$E' Q3' NHE 3E 3E O' 14HD-N3D_' F$' C-NF' @H-EC3 '
F$C' Q33E' $N -$ O' 3 J 1 HO3D' 43N3 3D' C-NF' 633 ' $ED' F$' F3' 633'
H4' I $O J 3E ' H' $EO' C-NF' <&& N34' F$C' Q33E' F3' ' 2F ' $ED' 14H134'
633' $ED' F$C' Q33E' $N -$ O' 1$ D' $ED' &' ' CF$ ' $113$4' F$' $EO'
<E3' @F$423' 3 F34' &H4' @H-EC3 ' H4E3O' <&& N34' H4' H F34' G CR
Q-4C3 J 3E ' F$ F' Q33E' -E 3D' F' $EO' H F34' @F$423' E' <E3' ?- J ' F3E'
C-NF' -E 3D' @F$423C' CF$ ' Q3' $ H23 F34' D C$ H 3D' $ED' ' CF$ ' Q3' F3'
QH-ED3E' G- O' H&' C NF' @ 34+' H&' F3' @4H E' E' $ ' C-NF' * $ $ HEC' H&'
B C' H&' @HC C' H' 3 $ J E3' $ED' $CN34 $ E' QO' $ ' 43CHEQ 3' P 3 FHDC' $ED'
&' E3N3CC$4O' QO' ; $ J E$ HE' HE' <$ F' ^ F NF' F3' C' &H4' F$' I -41HC3'
$- FH4 T3D' H' $D J E C 34_' F3' @H443N E3CC' $ED' ' 3$CHE$Q 3E3CC' H&' 3$NF'
$ED' 3 34O' @F$423' F3 F34' HQ(3N 3D' H' H4' EH ' $ED' H' D3 34 J E3' -1HE'
$ ' @F$423C' J $D3' QO' $EO' <&& N34' H&' F3' @H-4 ' $ED' H' $ H ' HE O' C-NF'
$C' J $O' H' C-NF' @ 34+' H&' F3' @4H E' $113$4' H' Q3' F3' ' 2F ' H&' 3 34O'
C-NF' <&& N34' $ED' $ CH' H' D3 34 J E3' F3 F34' $EO' 3ED$EN3 ' H4' H F34'
B-C E3CC' P $ 34' H4' * F E2&H4' F NF' $EO' @F$423' CF$ ' Q3' J $D3' $N -$ O'
HH+' 1 $N3' H4' $C' $N -$ O' 134&H4 J 3D' $ED' F3 F34' F3' C$ J 3' $C' -ED34'
F3' @ 4N- J C $EN3C' 14H134' $ED' E3N3CC$4O' ' $ED' FH' 3 J ' H4' ?- J ' CF$ '
Q3' $ H 3D' &H4' 23ENO ' $ED' Q3&H43' I 4HN33D E2' -1HE' $EO' * $ $ HE' H&'
@HC C' F3' C$ D' @ 34+' H&' F3' @4H E' CF$ ' C$ 3' F343' C-NF' @HC C' $43'
1OQ 3' QO' F3' @4H E' CC-3' ?- J J HEC3C' H' $ ' I $4 3C' NHEN34E3D'
F343 E' $ED' CF$ ' E' D3&$- ' H&' 3ED$EN3' H&' F3' I $4 O' H4' I $4 3C'
C- J J HE3D' 14HN33D' 1$4&3' HE' F3' & 4C' ?- J J HEC' F3' ?34 N3'
F343H&' Q3& 2' D- O' 14H 3D' $ED' EH' C-&& N 3E ' M4H-EDC' Q3 E2' && H E'
&H4' 1HC 1HE E2' C-NF' I 4HN33D E2 ' $ED' $' @H1O' H&' 3 34O' B ' H&' @HC C'
E 3ED3D' H' Q3' $ 3D' CF$ ' Q3' D3 343D' H' F3' $D 34C3' I $4 O' * F433'
G$OC' $' F3' 3$C ' @+3#& 1' 3 N31 3D_' Q3&H43' F3' CC- E2' H&' $EO' ?- J '
FHEC' &H4' $ E2' F3' C$ J 3' ' $ED' 3 34O' ?- J J HEC' H' $ 3ED' F3' * $ $ HE'
H&' C-NF' B ' CF$ ' Q3' C34 3D' HE' F3' I $4 O' 43X- 43D' H' $ 3ED' $' 3$C '
* 3E O &H-4' 8H-4C' Q3&H43' F3' * J 3' & 3D' &H4' $ 3ED E2 ' $ED' F3
C$ D

C$ D' @ 34+ʽ H&' F3' @4H E ʽCF$ ʽ +331' $' BHH+ ʽ E' F NF' F3' CF$ ʽ 3E 34' $E' NNH-E ʽ H&' $ ʽ B C' H&' @HC C' $ 3D' QO' F ʽ C13N &O E2' F343 E' F3' 3C' , $ J 3C ʽ F3' G$ 3' H&' * $ $ HE ʽ F3' @F$423' &H4' * $ $R HE ʽ F3' J H-E ʽ H&' F3' B ʽ D3 343D ʽ $ED' F3' J H-E ʽ H&' @HC C' $ H 3D' $ED' N34 & 3D' HE' F3' * $ $ HE ʽ $ED' F3' CF$ ʽ 3EDH4C3' HE' 3$NF' B ʽ H&' @HC C' CH' $ 3D' F3' @F$423' H4' 633' QO' F J ʽ J $D3' &H4' C-NF' * $ $ HE

I3E$ 3C'

NH 343' HE' E

?H134 H4'

@H-4 C' $ʽ

G-Q E

WWW ʽ ED' Q3' ʽ &-4 F34' 3E$N 3D ʽ * F$ ʽ $ ʽ $ED' 3 340' I3E$ 3C' $ED' I3E$ O' H' Q3' EN-443D' $ED' &H4&3 3D' E' 1-4C-$EN3' H4' QO' 4 -3' H&' $ 34C' F343 E' NHE $ E3D ʽ CF$ ʽ $ED' J $O' Q3 C-3D' &H4' $ED' 43NH 343D ʽ QO' $EO' I34CHE' FH' ʽ C-3' &H4' F3' C$ J 3ʽ QO' N HE' H&' G3Q ʽ B ʽ I $ E ʽ H4' E&H4 J $ HE' E' $EO' H& ʽ 8 C' P $(3C O C' @H-4 C' H&' ' 3NH4D' $ ʽ F3' 6H-4' @H-4 C ʽ 234% # ʽ $ED' EH ʽ 3 C3 F343 ʽ E' F NF' EH' ; CCH 2E ʽ I4H 3N HE ʽ H4' 9 $234' H&' >$ ʽ EH4' J H43' F$E' <E3 ʽ J 1$4 $EN3 ʽ CF$ ʽ Q3' $ H 3D ʽ $ED' F$ ʽ HE3' P H 3 O' H&' 3 340' C-NF' I3E$ O' CF$ ʽ Q3' &H4' F3' # C3' H&' 8 C' P $(3C O ʽ 8 C' 8 3 4C' $ED' ?-NN3CCH4C ʽ $ED' F3' H F34' P H 3 O' F343H&' H' F3' # C3' H&' F3' I34CHE' H4' I34CHEC' FH' CF$ ʽ ?-3' &H4' F3' C$ J 3

I3E$ O' H&'

I3X-40' H4'

&$ a3' <$ F

WWW ʽ ED' Q3' ʽ &-4 F34' 3E$N 3D ʽ * F$ ʽ &' E' $EO' <$ F' H4' && 4 J $R HE' $+3E' E' $EO' I4HN33D E2' -ED34' - FH4 O' H&' F C' 1 ʽ <443X- 43D' F343QO ʽ H4' QO' 4 -3' H&' $EO' - FH4 O' D34 3D' F343&4H J ʽ $EO' I34CHE' CF$ ʽ C 3$4' H4' $&& 4 J ʽ &$ C3 O ʽ C-NF' I34CHE' CF$ ʽ <E' @HE N HE' F343H&' Q3' $D(-D23D' 2- O' H&' &- ʽ $ED' NH44-1 ʽ I34(-40 ʽ $ED' CF$ ʽ Q3' 1-E CF3D' $NNH4D E2 O

N' EH ʽ H'

Q$4 ' 3 J 3D 3C'

D-N ʽ E'

<&& N34C

WWW >ʽ I4H D3D' $ $OC ʽ $ED' Q3' ʽ &-4 F34' 3E$N 3D ʽ * F$ ʽ EH F E2' (E' F C' N ʽ @HE $ E3D' CF$ ʽ 3 3ED' H4' Q3' NHEC 4-3D' H' 3 3ED' H' J ʽ 4 D23 ʽ Q$4 ʽ 143(-D N3 ʽ J ʽ D3&3$ ʽ $EO' N HE' H4' ED N J 3E ʽ H4' $EO' ' 3 J 3DO' H4' I4HN33D E2' F$ CH3 34 ʽ F NF' F3E3 H&$ J ʽ J 2F ʽ F$ 3' Q33E' Q4H-2F ʽ &H-ED ʽ F$D ʽ H4' $+3E' 2 EC ʽ $EO' <&& N34 ʽ G31- O ʽ H4' @ 34+' E' F3' C$ D' <&& N3' &' @ 34+' H&' F3' @4H E' H&' F3' @H-4 ʽ H&' % E2 C' B3ENF' E' $!% #& ʽ &H4' H4' E' 43C13N ʽ H&' $EO' P CNHED-N ʽ E' <&& N3' F NF' J $O' F$ 3' HNN-443D' H4' $+3E' 1 $N3 ʽ H4' F NF' J $O' F343$& 34' $+3' 1 $N3' $ ʽ $EO' * J 3' ʽ Q- ʽ F$ ʽ $ ʽ C-NF' N HEC ʽ ED N J 3E C' ʽ ' 3 J 3D 3C ʽ $ED' I4HN33D E2C' &H4' $EO' C-NF' P CNHED-N ʽ J $O' Q3' Q4H-2F ʽ &H-ED ʽ F$D ʽ H4' $+3E' $C' &' F C' N ʽ F$D' E3 34' Q33E' J $D3

N C' 1Y4 ʽ

&H4 J 3D' QO'

* ʽ BH-4E3'

; CX- 43' E'

3 3N- HE' H&'

G- 3C' H&' F3'

H&' @ 34+'

H&' @4H E' H'

Q3' $ D' &4H J ʽ

G3$ F' H&' ?-4R

H4' H&' $ 3'

I$ 3E 33C' H'

F3' 11H E R

J 3E ʽ 3&' $

I34CHE H' C$ D'

<&& N3' -ED34'

F C' N

WWW ʽ ED' F343$C' F3' G- 3C' H&' F3' C$ D' <&& N3' H&' @ 34+' H&' F3' @4H E ʽ C EN3' F3' G3$ F' H&' F3' ?-4 H4' H&' F3' * H' I34CHEC' E' FH J ʽ F3' C$ J 3' $C' 3C 3D' QO' I$ 3E ʽ $C' $&H43C$ D ʽ F$ 3' NHE E-3D' H' Q3' 3 34N C3D' QO' % ! ʽ " , 3 #! ʽ ; CX- 43 ʽ F3' $ 3' G31- O' H&' F3' C$ D' ?-4R H4 ʽ $ED' ʽ C' E3N3CC$40' H' 14H D3' &H4' C-NF' 3E 1H4$40' G CNF$423' H&' F3' G- 3C' H&' F3' C$ D' <&& N3 -ED34' F3' @ 4N- J C $EN3C' $&H43C$ D ʽ Q3' ʽ F343&H43' 3E$N 3D ʽ * F$ ʽ $ ʽ N C ʽ P $ 34C ʽ $ED' * F E2C' DHE3' H4' H' Q3' DHE3 ʽ $ED' $ ʽ I H 34C' $ED' - FH4 3C' -C3D' $ED' 3 34N C3D' H F NF' CF$ ʽ Q3' -C3D' $ED' 3 34N C3D ʽ QO' F3' C$ D' % ! ʽ " , 3 #! ʽ ; CX- 43 ʽ H4' &H4' F J ʽ $ED' HE' F C' B3F$ &' QO' F C' @ 34+C' H4' CC C $E C ʽ E' F3' ; 3N- HE' H&' F3' G- 3C' H&' F3' C$ D' <&& N3 ʽ &4H J ʽ F3' * J 3' H&' F3' G3N3$C3' H&' F3' ?-4R H4' H&' F3' * H' I34CHEC' E' FH J ʽ C-NF' <&& N3' $C' 3C 3D' -1' H' F3' * J 3' F3E' $ I34CHE' CF$ ʽ Q3' $11H E 3D' H' F3' C$ J 3' -ED34' F3' I4H CHEC ʽ H&' F C' N ʽ $ED' F NF' N C ʽ P $ 34C ʽ H4' * F E2C ʽ IH 34C

$ED

$ED' - FH4 3C' 9H-D' &' F3' C$D' ?-4 H' 343' C ' E2' F$ 3' Q33E' H4' Q3' $ D' 32$ '$ED' 3&&3N -$ 'CF$ 'Q3' $ED' F3' C$ J 3' $43' F343QO' NHE& 4 J 3D' $ED' D3N $43D' H' Q3' $ED' F3' C$ J 3' CF$ ' Q3' D33 J 3D' H' F$ 3' Q33E' $ED' H' Q3' -E 'C-NF' E3 ' 11H E J 3E' H' Q3' J $D3' $C' $&H43R C$ D' $C' 2HHD' $ D' 32$ ' $ED' 3&&3N -$ ' H' $ ' E 3E C' $ED' I -41HC3C' F$ 3 34' $C' &' F3' C$ D' 11H E J 3E' H&' F3' C$ D' % ! ' ",3 #!e' $C' ?-NF' G31- O' $C' $&H43C$ D' F$D' EH' Q3NH J 3' H D' QO' F3' G3$ F' H&' F3' C$ D' ?-4 H4' Q- ' F$D' 43 J $ E3D' E' &- ' 6H4N3' $ED' ; &&3N ' $ED' F$' F3' C$ D' % ! ' ",3 #!' ; CX- 43' F C' @ 34+C' $ED' CC C $E C' CF$ ' Q3' D33 J 3D' $ED' $+3E' H' F$ 3' F$D' $ED' H' F$ 3' C-&& N 3E' - FH4 O' H' 3 3N- 3' F3' G- 3C' H&' F3' C$ D' <&& N3' H&' @ 34+' H&' F3' @4H E' $ED' CF$ ' EH ' Q3' $Q 3' H' $EO' I 3E$ O' N HE' ?- ' H4' I 4HC3N- HE' F$ CH3 34' &H4' H4' HE' $NNH-E' H&' $EO' N ' H4' N C' DHE3' H4' H' Q3' DHE3' QO' F J ' F3 J ' <4 $EO' H&' F3 J ' E' F3' P $EE34' $&H43C$ D' E' F3' D-3' ; 34N C3' $ED' ; 3N- H1' H&' F3' G- 3C' H&' F3' C$ D' <&& N3' &4H J' F3' * J 3' H&' F3' G3N3$C3' H&' F3' C$ D' ?-4 H4' J' H' F3' * J 3' F3E' $' I 34CHE' CF$ ' Q3' $11H E 3D' H' & ' F3' C$ D' <&& N3' -ED34' F3' I 4H C HEC' H&' F C' N ' $ED' EH' HE234'

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P HE3O$4 C E2ʻ &4H Jʻ ?$ $4 3C ʻ KNʻ H&ʻ <&& N3Cʻ $QH CF3Dʻ Hʻ Q3ʻ N$44 3Dʻ Hʻ $EDʻ J $D3ʻ I $4 ʻ H&ʻ @HER CH D$ 3Dʻ I -ED

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9 ʿ8 ; ' ; ? ʿ Cʿ 3 13D 3E ʿ Hʿ C-C13EDʿ &H4ʿ $ʿ &-4 F34 I34 HDʿ F3ʿ J$+ E2ʿ H&ʿ> C Cʿ $EDʿ F3ʿ B$ H Cʿ $EDʿ ; E4H J3E Cʿ &H4ʿ F3 ʿ *ʿ P $ʿ H&ʿ F3ʿ #E 3Dʿ % E2DHJ ʿ ʿ Q3ʿ ʿ F343&H43ʿ 3E$N 3Dʿ ʿ QOʿ F3ʿ % E2 Cʿ JHC ʿ ; N3 3E ʿ P$(3C O ʿ QOʿ $EDʿ Fʿ F3ʿ D N3ʿ $EDʿ @HEC3E ʿ H&ʿ F3ʿ >H4DCʿ ?1 4 -$ ʿ $EDʿ *3J1H4$ ʿ $EDʿ @HJ JHEC ʿ Eʿ F Cʿ 143C3E ʿ I$4 $J3E ʿ $CC3JQ 3D ʿ $EDʿ QOʿ F3ʿ - FH4 Oʿ H&ʿ F3 ʿ C$J3 *F$ ʿ $ ʿ M3E34$ ʿ $EDʿ ?-QD CHEʿ P33 E2Cʿ 43$ E2ʿ Hʿ F3ʿ P $ʿ H&ʿ F3ʿ #E 3Dʿ % E2DHJ ʿ $EDʿ $ ʿ I4HN33D E2Cʿ 43$ E2ʿ Hʿ F3ʿ 14HN-4 E2ʿ ʿ $EOʿ ' 3 -4ECʿ H4ʿ 1431$4 E2ʿ H4ʿ J$+ E2ʿ H- ʿ > C Cʿ &H4ʿ C-NFʿ P $ ʿ H4ʿ $EOʿ I$4 Cʿ F343H& ʿ H4ʿ 43$ E2ʿ Hʿ F3ʿ Q$ H E2ʿ &H4ʿ H4ʿ 3E4H E2ʿ $EOʿ P $ʿ P3Eʿ H4ʿ ?-QC - 3C ʿ H4ʿ C-11 0 E2ʿ $EOʿ NEN 3Cʿ Eʿ C-NFʿ P $ ʿ CF$ ʿ N3$C3ʿ $EDʿ 43E $Eʿ C-C13ED3Dʿ -E ʿ F3ʿ ; EDʿ H&ʿ F3ʿ E3 ʿ ?3CC HEʿ H&ʿ I$4 $J3E ʿ $EOʿ F E2ʿ Eʿ $EOʿ N ʿ H4ʿ N Cʿ Hʿ F3ʿ NHE 4$4Oʿ EH FR C $ED E2 ʿ

M3E34$ ʿ $EDʿ ?-QD CHEʿ P33 E2Cʿ 43 ʿ 13ED3D ʿ

ʿ I4H D3D ʿ $ $OC ʿ $EDʿ Q3ʿ ʿ 3E$N 3D ʿ *F$ ʿ ʿ CF$ ʿ Q3ʿ $ &- ʿ &H4ʿ 8 Cʿ P$(3C O ʿ QOʿ $EOʿ <4D34ʿ Eʿ @H-EN ʿ Hʿ D 43N ʿ F$ ʿ $EOʿ I4HN33D E2Cʿ CF$ ʿ Q3ʿ F$Dʿ $ ʿ $EOʿ * J3ʿ Q3&H43ʿ F3ʿ ; 1 4$ HEʿ H& ʿ C-NFʿ I34 HDʿ $Cʿ $&H43C$ D ʿ 3 F34ʿ &H4ʿ F3ʿ 2 E2ʿ H&ʿ , H N3Cʿ $EDʿ J$+ E2ʿ ' 3 -4ECʿ $EDʿ 1431$4 E2ʿ > C C ʿ $EDʿ $ CHʿ &H4ʿ F3ʿ 14HN33D E2ʿ Hʿ Q$ H ʿ $EDʿ 3E4H ʿ P3Eʿ !ʿ [ʿ &H4ʿ

I4HN33D E2Cʿ J$Oʿ Q3ʿ Q$D ʿ D-4 E2ʿ C-NFʿ cb 4D34L ʿ NH-EN ʿ ʿ

&H4' F3'& E2'-1' NEN 3C' E' F3' P $' H&' F3' #E 3D' % E2DH J ' H4' $EO' I $4 ' F343H&' $C' 8 C' P $(3C O' CF$ ' D33 J ' 3 13D 3E ' $ED' -1HE' F3' CC- E2' H&' $EO' C-NF' <4D34' $&' C-NF' I 4HN33D E2C' CF$ ' Q3' F$D' &H4' N$44O E2' E H' 3 3N- HE' $ ' F3' I 4H C HEC' H&' F3' N C' E' &H4N3' E' 8#(% #&' +', % #&' $ED' $!% #&' 43C13N 3 O' 43 $ E2' H' F3' 2 E2' , H N3C' &H4' $ED' ' 3 -4EC' H&' > C C' $ED' &H4' F3' Q$ H E2' $ED' 3E4H E2' H&' P 3E' H' C-11 O' $EO' NEN 3C' E' F3' P $' $ED' FH D E2' <3E34$ ' $ED' ?-QD C HE' P 33 E2C' &H4' C-NF' I -41HC3' $' C#NF' * J 3' 43C13N 3 O' $C' CF$ ' Q]' 3 143CC3D' E' $EO' C-NF' <4D34' E' @H-EN ' H4' QO' $EO' G 43NR HEC' 2 3E' E' 1-4C-$EN3' F343H&' H' F3 >H4D' > 3- 3E$E ' H4' G31- O' > 3- 3E$E C' $N E2' &H4' >H4D' > 3- 3E$E C' H&' F3' C3 34$' @H-E 3C' ?F 43C' ' D E2C' @ 3C' $ED' I $N3C' E' ! ' " #' H4' H' F3' MH 34EH4C' $ED' G31- O' MH 34EH4C' H&' @H-E 3C' $ED' I $N3C' E' $!% #&' H4' H' F3' 9 $4D3E' $ED' ?13N $' G31- O' 9 $4D3EC' H&' F3' ? EE4 3CO' $ED' $ ' F3' I 4H C HEC' H&' F3' C3 34$' N C' E' &H4N3' E' 8#(% #&' +', % #&' $ED' >43&HED' 43C13N 3 O' 3 $ E2 H' F3' P $' $ED' @H41C' H&' P E34C' , I , 1 %%' $ED' 2 !0, #' CF$ ' -1HE' $EO' C-NF' <4D34' $ED' G 43N HE' 2 3E' E' 1-4C-$EN3' F343H&' Q3NH J 3' $ED' Q3' E' &- ' 6H4N3' $ED' Q3' N$44 3D' E H' 3 3N- HE' $ ' F3' I 34 HD' C13N & 3D' E' C-NF' <4D34' H4' G 43N HE' $C' $&H43C$ D' F' $ ' C-NF' I 3E$ 3C' $ED' 6H4&3 -43C' &H4' $EO' , 32 3N ' F343H&' $C' &- O' $C' &' C-NF' I 34 HDC' F$D' Q33E' & 3D' E' F3' N C' 43 $ E2' H' C-NF' P , $' $ED' ' P E34C ' ' '

N ' H' 3 3ED' H' F3' ? $ER E$4 3C

' ED' Q3' ' 3E$N 3D' * F$ ' F C' N ' $ED' $ ' F3' @ $-C3C' I &H ' C HFC' G 43N HEC' $ED' - FH4 3C' F343 E' NHE $ E3D' CF$ ' Q3' NHER C 4-3D' H' 3 3ED' H' F3' 9 $4D3E' $ED' ?13N $' G31- O' 9 $4D3EC' H&' F3' ? EE4 3C' $ED' @H41C' H&' P E34C' H&' I , %% &' 2 !0, #' $C' &- O' $C' &' F3O 343' 43C13N 3 O' $ED' C3 34$ O' 4313$ 3D' E' 3 34O' C-NF' @ $-C3' I 4H C HE' G 43N HE' $ED' - FH4 O

> < , G < , :' I 4 E 3D' QO' M; <B< :' &++' $ED') * (+ , ' O1 . 223% , . . * @ ' I 4 E 34C' H' F3' ' E2 C' J HC' ; N3 3E' P $(3C O' ZSU

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GH-Q Cʿ $Cʿ Hʿ F3 4ʿ 5-4 CD N HE

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9 8 ; ' ; ?ʿ ʿ Cʿ 3 13D 3E ʿ F$ʿ I4H C HEʿ CFH- Dʿ Q3ʿ J $D3ʿ &H4ʿ F3ʿ '32- $ HEʿ H&ʿ F3ʿ I4$N N3ʿ Hʿ F3ʿ HQC34 3Dʿ Eʿ F3ʿ ?- Cʿ $EDʿ I4HN33D E2Cʿ Eʿ F3ʿ @H-4 Cʿ H&ʿ N3ʿ DJ 4$ Oʿ Eʿ 8 Cʿ P$(3C O Cʿ IHCC3CC HECʿ Q4H$Dʿ $EDʿ &H4ʿ F3ʿ ;C $Q CF J 3E ʿ H&ʿ 633Cʿ Hʿ Q3ʿ $ H 3Dʿ $EDʿ $ N3Eʿ Eʿ F3ʿ C$ Dʿ @H-4 Cʿ QOʿ F3ʿ 43C13N 3ʿ 5-D23C ʿ <&& N34C ʿ $EDʿ I4$N HE34Cʿ F343 Eʿ .ʿ B3ʿ ʿ F343&H43ʿ 3E$N 3Dʿ QOʿ F3ʿ % E2 Cʿ J HC ʿ ; N3 3E ʿ P$(3C O ʿ QOʿ $EDʿ Fʿ F3ʿ D N3ʿ $EDʿ @HEC3E ʿ H&ʿ F3ʿ >H4DCʿ ?1 4 -$ʿ $EDʿ *3J 1H4$ ʿ $EDʿ @H J J HEC ʿ Eʿ F Cʿ 143C3E ʿ I$4 $J 3E ʿ $CC3 J Q 3Dʿ $EDʿ QOʿ F3ʿ - FH4 Oʿ <&ʿ F3ʿ C$ J 3ʿ *F$ʿ ʿ CF$ ʿ Q3ʿ $ &- ʿ &H4ʿ 8 Cʿ P$(3C O ʿ Fʿ F3ʿ D N3ʿ H&ʿ 8 Cʿ I4 Oʿ @H-EN ʿ &4H J ʿ * J 3ʿ Hʿ * J 3ʿ Hʿ J $+3ʿ $EDʿ H4D$ Eʿ C-NFʿ ' - 3Cʿ $EDʿ '32- $ HECʿ $Cʿ CF$ ʿ Q3ʿ D33 J 3Dʿ 3 13D 3E ʿ H-NF E2ʿ F3ʿ I4$N N3ʿ Hʿ Q3ʿ HQC34 3Dʿ Eʿ ?- Cʿ $EDʿ I4HN33D E2Cʿ Eʿ F3ʿ C3 34$ʿ @H-4 Cʿ H&ʿ N3ʿ DJ 4$ Oʿ $ʿ 143C3E ʿ H4ʿ F343$& 34ʿ Hʿ Q3ʿ 3C $Q CF3Dʿ Eʿ $EOʿ 1&ʿ 8 Cʿ P$(3C O Cʿ IHCC3CC HECʿ Q4H$Dʿ $EDʿ +3 C3ʿ &4H J ʿ * J 3ʿ Hʿ * J 3ʿ Hʿ J $+3ʿ H4D$ Eʿ $EDʿ 3C $Q CFʿ *$Q 3Cʿ H&ʿ 633Cʿ Hʿ Q3ʿ $+3Eʿ H4ʿ 43N3 3Dʿ QOʿ F3ʿ 5-D23C ʿ <&& N34C ʿ $EDʿ I4$NR HE34Cʿ Eʿ F3ʿ C$ Dʿ @H-4 C ʿ &H4ʿ $ ʿ N Cʿ Hʿ Q3ʿ DHE3ʿ F343 E ʿ $EDʿ $ CHʿ &4H J ʿ * J 3ʿ Hʿ * J 3 ʿ $Cʿ CF$ ʿ Q3ʿ &H-EDʿ 3 13D 3E ʿ Hʿ $ 34ʿ $EOʿ C-NFʿ ' - 3C ʿ '32- $ HEC ʿ $EDʿ 633C ʿ $EDʿ Hʿ J $+3ʿ $EOʿ E3 ʿ '32- $ HECʿ $EDʿ

8 Cʿ P$(3C O 3J 1H 343Dʿ Hʿ J $+3ʿ '32- $R HECʿ $EDʿ 3C $Q CFʿ 633Cʿ Eʿ F3ʿ N3ʿ DJ 4$ Oʿ @H-4 C Q4H$D

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'32- $ HEC' $ED6333C HQ3' F 3C 3N 3'

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? Q3&H43' F3' 8H-C3' H&' @HJ JHEC'

' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' $' @H1O' H&' 3 34O' *$Q 3' H&' 63 * J 3' H' * J 3' J $D3' $ED' 3C $Q CF3D' H4' $ 343D' CF$&' Q3 $ D' Q3&H43' F3' 8H-C3' H&' @HJ JHEC' F E' *F433' @$ 3ED$4' P HE FC' E3 '$& 34' F3' J $+ E2' $ED' ; C $Q CF J 3E 'H4' 34$ HE' F343H&' 3C13@ ' 3 O' &' I $4 $ J 3E ' CF$ 'Q3' F3E' C E2' $ED' &' EH ' F3E' F E' < E3' @$ 3ED$4' P HE F' E3 '$& 34' F3' C-QC3X-3E ' P 33 E2' H&' I $4 $ J 3E

633CCH3C $Q' F3' $ ' &-'633C' ' '

' 8 ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' F3' C3 34$' 633C' CH' < Q3' 3C $Q ' H F34' CF$ ' &4H J' $ED' $& 34' F3' J $+ E2' $ED' BC $Q CF J 3E ' F343H&' $ED' F3' ; E 4O' $ED' E4H J 3E ' F343H&' $C' $&H43C$ D' Q3' D33 J 3D' $ED' $+3E' H' Q3' F3' $ &-'633C' H&' F3' C3 34$' 5-D23C' <&& N34C P E C 34C' $ED' I 4$N HE34C' H&' F3' C$ D' 43C13N 3' @H-4 Cd $-D' C N 4' ' 633C' HE O' CF$ ' $ED' J $O' Q3' D3 J $ED3D' 43N3 3D' $ED' $+3E' $NNH4DR E2 O

@H1 3C' H&' F3' $ED' *$9 3 H&' 633C' H' Q3' F-E2' -1' E' 3$NF' @H-4

ED' H' F3' E 3E ' F$'$ ' C-NF' '32- $ HEC' $ED' 633C' J $O' Q3 14H J - 2$ 3D' $ED' 1-Q N O' J $D3' +EH E' Q3' '&-4 F34' 3E$N 3D' *F$ ' F3' 5-D23' $ED' '32 C 4$4' H&' 3 34O' C-NF' @H-4 'CF$ 'N$-C3' H' Q3' +31 'NHE ' C $E O' F-E2' -1' $ED' 143C34 3D' E' CH J 3' NHEC1 N-H-C' I $4 ' H&' 3 34O' C-NF' @H-4 ' $ED' E' F3' <&& N3' H&' F3' '32 C 4$4' $' @H1O' H&' F3' *$Q 3' H&' 633C' CH' H' Q3' &4H J' * J 3' H' * J 3' H4D&& E3D' $ED' 3C $Q CF3D' E' C-NF' @H-4 C' 43C13N 3 O' CH' F$ ' F3' C$ D' *$Q 3' J $O' Q3' C33E' $ED' 43$D' QO' $ ' I 34CHEC' F$ E2' $EO' B-$E3CC' E' $EO' C-NF' @H-4 ' $ED' <&& N3' 43C13N 3 O)' $ED' F$ ' F3' BHH+C' H4' '3NH4DC' NHE $ E E2' F3' ; E 4 3C' H&' F3' C$ D' '32- $ HEC' $ED' *$Q 3C' H&' 633C' $C' F3' C$ J 3' CF$ 'Q3' E' &H4N3' CF$ 'Q3' $'$ ' C3CHEQ 3' * J 3C' H13E' H' F3' EC13N HE' H&' F3' I 4$N HE34C' $ED' ?- H4C' E' 3 34O' C-NF' @H-4

113$' H' F3' 8 2F' @H-4' H&' DJ 4$ O' E' @$C3C' H&' @HC C

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N3' DJ R 4$ O' @H-4 C' H' F$ 3' 5-4 CR D N HE' E' N34R $ E' P$4 J 3' @$-C3C

' ED' F343$C' E' N34 $ E' @$C3C' GH-Q C' J $O' $4 C3' $C' H' F3' 5-4 C' D N HE' H&' N3' DJ 4$ O' @H-4 C' E' 8 C' P $(3C O C' 1n C3CC 3EC' Q4H$D ' F' 43C13N ' H' ?- C' &H4' ?3$ J 3E C' 9 $23C' I H $23' B E4O G$ J $23' H' $' ?F 1' QO' @H C HE' @HE 3 J 1 ' E' B43$NF' H&' F3' '32- $ HEC' $ED' EC 4-N HEC' 43 $ E2' H' 8 C' P $(3C O C' ?34 N3' $' ?3$' ?$ $23' $ED' G4H C' H&' DJ 4$ O' Q3' ' F343&H43' 3E$N 3D' *F$ ' E' $&' @$C3C' F343' $' ?F 1' H4' 3CC3 ' H4' F3' P $C 34' F343H&' CF$ 'NH J]' F E' F3' HN$

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> J CʻH&ʻ$EOʻ N3ʻ D J 4$ Oʻ@H-4 ʻ ʻCF$ ʻQ3ʻ $ &-ʻ&H4ʻ$EOʻ I 34CHEʻ Hʻ NH J J 3EN3ʻ I 4HN33D E2Cʻ Eʻ $EOʻH&ʻ F3ʻ ?- Cʻ F343 E Q3&H43ʻ J 3E HE3Dʻ Eʻ C-NFʻ N3ʻ D J 4$ Oʻ @H-4 ʻ EH FC $ED E2ʻ F3ʻ @$-C3ʻ 1&ʻ N HEʻ F$ <ʻ $ C<Bʻ H- ʻH&ʻ F3ʻ HN$ʻ > J Cʻ H&ʻ C-NFʻ @H-4 ʻ$EDʻ Hʻ N$44Oʻ HEʻ F3ʻ C$ J 3ʻ Eʻ F3ʻ C$ J 3ʻ P $EE34ʻ $Cʻ &ʻ F3ʻ @$-C3ʻ H&ʻ N HEʻ F$Dʻ $4 C3Eʻ F Eʻ F3ʻ C$ Dʻ > J C

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> 8 ; ' ; ?ʼ 8 Cʼ P$(3C Oʼ Eʼ 4 2Fʼ H&ʼ 8 Cʼ @4H Eʼ Cʼ C3 C3Dʼ H&ʼ $ʼ *4$Nʼ H&ʼ PH-E $ Eʼ >$EDʼ N$ 3Dʼ F3ʼ >$EDCʼ H&ʼ *,44%!ʼ @ !! !ʼ C -$ 3Dʼ Eʼ F3ʼ ,H4 F 3C 34Eʼ \ -$4 34ʼ H&ʼ F3ʼ B$4HEOʼ , ʼ 23 %%,Fʼ Eʼ F3ʼ @H-E Oʼ H&ʼ I , ʼ $EDʼ O E2ʼ E3$4 Oʼ Eʼ F3ʼ @3E 43ʼ H&ʼ $ʼ G C 4 Nʼ F NFʼ 3 3EDCʼ H 34ʼ I$4 Cʼ H&ʼ F3ʼ C3 34$ʼ @H-E 3Cʼ H&ʼ < ! ' ʼ I , ʼ $EDʼ ! ʼ $EDʼ NHE $ ECʼ $QH- ʼ * Hʼ F-ED43Dʼ CX-$43ʼ P 3Cʼ H&ʼ >$EDʼ &H4ʼ F3ʼ JHCʼ I$4ʼ -E EN HC3Dʼ $EDʼ -ED4$ E3Dʼ $ FH-2Fʼ F3ʼ C$J3ʼ Q3ʼ N$1$Q 3ʼ H&ʼ 14H& $Q 3ʼ @- $ HE.ʼ EDʼ F343$Cʼ F3ʼ EF$Q $E Cʼ H&ʼ F3ʼ C$ Dʼ G C 4 N ʼ &4HJʼ 9 $Eʼ H&ʼ $Eʼ $D3X-$ 3ʼ G3J $EDʼ &H4ʼ F3 4ʼ >$QH-4ʼ 3ʼ Eʼ $ʼ ? $ 3ʼ H&ʼ 243$ʼ P C34Oʼ $EDʼ G3Cʼ - HE.ʼ EDʼ F343$Cʼ ʼ F$ Fʼ Q33Eʼ 43NH J J3ED3Dʼ F$ʼ F3ʼ C$ Dʼ >$EDCʼ H&ʼ *,44%!ʼ 6 !! !ʼ CFH- Dʼ Q3ʼ D4$ E3Dʼ EN HC3Dʼ &3EN3Dʼ $EDʼ D D3Dʼ E Hʼ CJ$ ʼ 6$4JCʼ $EDʼ C- $Q 3ʼ B- D E2Cʼ $EDʼ H F34ʼ E3N3CC$4Oʼ 9 H4+Cʼ 343N 3Dʼ F343HEʼ -ED34ʼ F3ʼ J J3D $ 3ʼ G 43N HEʼ $EDʼ P E23R J3Eʼ H&ʼ F3ʼ @HJ J CC HE34Cʼ H&ʼ 8 Cʼ P$(3C O Cʼ 9 HHDCʼ 6H43C ʼ >$EDʼ ' 3 3E-3Cʼ 9 H4+Cʼ $EDʼ B- D E2Cʼ &H4ʼ F3ʼ I -41HC3ʼ H&ʼ 3ENH-4$2 E2ʼ F3ʼ -ED34 $+ E2ʼ H&ʼ C J $4ʼ J14H 3J3E Cʼ HEʼ F3ʼ >$EDCʼ H&ʼ H F34ʼ

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I4H14 3 H4C H&' F3' C$ D' I C 4 3 ' F343QO' 43 J -E34$ 3' B J 1 HO J 3E '
J $O' Q3' 14H D3D' &H4' F3' E- J 34H-C' 1HH4' EF$Q $E C' F343H&' $4 D' $'
134 J $E3E ' J 3 H4$ HE' H&' F3 4' @HED HE' 3&&3N 3D' (ED' F343$C'
F3' 243$ ' B$4' H' F3' 4$$F E2' H&' C-NF' J 14H 3 J 3E C' F' I 4H& ' C'
HNN$C HE3D' QO' F3' 9 $E ' H&' @$44 $23' ' H$DC' F4H-2F' F3' C$ D' I C '
N ' $ED' NHE 3E 3E ' P 3$EC' H&' @H J J -E N$ HE' F' F3' C-44H-ED E2'
@H-E 4O' ! $ED' F3' EF$Q $E C' H&' F3' G C 4 N ' &4 J E' F3 4' 3 43 J 3'
I H 34 O ' $43' -E$Q 3' H' 14H D3' C-& ?N 3 ' 6-EDC' H' D3&4$O' F3'
; 13EN3' H&' H13E E2' C-NF' @H J E$-E N$ HEC.' ED' F343$C' H' 3E$Q 3'
F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' 9 HHDC' 6H43C C' >$ED' ' 3R
3E-3C' 9 H4+C' $ED' B- D E2C' &H4 F F' H' -ED34 $+3' $ED' 14HC3N- 3'
F3' 14H1HC3D' J 14H 3 J 3E C' HE' F3' C$ D' >$EDC' H&' *,))%!' 6 !! !'
$ED' H' 14H J H 3' F3' $ E J 3E ' H&' F3' H F34' Q3E3& N $' <Q(3N C'
Q3&H43' J 3E HE3D' ' C' 3 13D 3E ' F$' F3' ' H$DC' B4 D23C' $ED'
H F34' 9 H4+C' F343 E $& 34' J 3E HE3D' CFH- D' F3' J $D3' $ED' NHER
C 4-N 3D' -ED34' F3' G 3N HE' H&' F3' C$ D' @H J J CC HE34C' $ED' F$'
$'?- J' H&' P HE3O' CFH- D' Q3' 24$E 3D' H- ' H&' F3' I 4HD-N3' H&' F3' I HCR
C3CC HEC' $ED' >$ED' ' 3 3E-3C' H&' F3' @4H E' E' $!% #&' E' $ D' H&' H F34'
?- J C' H' Q3' 14H D3D' H 9 C-DC' D3&4$O+ 2' F3' @HC C' H&' FHC3' a34 N3C'
QO' F3' 43C13N 3' M4$ED' 5-4 3C' H&' F3' @H-E 3C' H&' I , ' #&' ! '
E' F3' P $EE34' $ED' -ED34' F3' ' 32- $ HEC' F343 E $& 34' J 3E HE3D'
3HEN34$ E2' F3' C$ J 3' Q3' ' F 3&Q43' 3E$N 3D' QO' F3' % E2 C' J HC'
; N3 3E ' P $(3C O ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3'
>H4DC' '?1 4 -$' $ED' *3 J 1H4$ ' $ED' @H J J HEC' E' F C' 143C3E ' I $4'
%$ J 3E ' $CC3 J Q 3D' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3' $ ' ' CF$ '
$ED' J $O' Q3' $ &-' H' $ED' &H4' F3' 43C13N 3' M4$ED' 5-4 3C' H&' F3'
@H-E 3C' H&' I , ' $ED' ! ' HE' 11 N$ HE' Q3 E2' J $D3' H' F3 J' E'
9 4 E2' QO' F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' 9 HHDC' 6H43C C'
>$EDA ' 3 3E-3C' 9 H4+C' $ED' B- D E2C' $ ' $EO' CC T3C' H' 143C3E ' $EO'
?- J (D4 '?- J C' H&' P HE3O' H' Q3' 4$ C3D' &H4' F3' I -41HC3C' H&' F C' N '
$ED' H D 433 ' E' C-NF' I 43C3E J 3E C' F$ ' C-NF' ?- J' H4' ?- J C' H&' P HE3O'
CF$ ' Q3' 4$ C3D' $ED' 3 3D ' 3 F34' QO' <E3' 3E 43' CC3CC J 3E ' H4' QO'
F$ & O3$4 O' EC $ J 3E C' H&' EH ' 3CC' F$E' ? 33E' I H-EDC' * F 4 33E'
?F E2C' $ED' 6H#4 13EN3' HE' 3 34O' 8 -ED43D' I H-EDC' CH' 143C3E 3D '
$ED' H' C3 ' &H4 F' E' C-NF' I 43C3E J 3E C' F$' I $4 ' F343H&' CF$ ' Q3'
4$ C3D' -1HE' $EO' B$4HEO' H4' B$4HE 3C' H4' 8 $ &' B$4HEO' H4' 8 $ &' B$4HE 3C'
H4' I $4 CF' H4' I $4 CF3C' E' F3' C$ D' @H-E 3C' H4' HE' F3' C$ D' @H-E 3C'
$ ' $423' 43C13N 3 O ' $ED' F$ ' F3' 43C13N 3' * 43$C-434C' H&' F3' C$ D'
@H-E 3C' CF$ ' $ED' F3O' $4N' F34DQO' $- FH4 T3D' $ED' 43 43D ' &4H J'
* J 3' H' * J 3' FH- ' &-4 F34' - FH4 O' H4' I 43C3E J 3E ' E' F$'
B3F$ &' H' EC34 ' E' F3 4' 9 44E C' $' 3$NF' 3EC- E2' CC T3C' C-NF'
EC $ J 3E ' H4' EC $ J 3E C' H&' F3' FD3' ?- J C' CH' 143C3E 3D ' E 4'
F3' C$ J 3' CF$ ' Q3' &-#O' 4$ C3D' $ED' 3 3D ' $ED' F$ ' F3' ?- J C' EC34 3D'
E' C-NF' 9 44E C' CF$ ' 4$ C3D' $ED' 3 3D' &4H J' $ED' H&&' F3' B$4HE 3C&'
8 $ &' B$4HE 3C H4' I $4 CF3C' E$ J 3D' E' C-NF' I 43C3E J 3E C' $ED' 9 44E C'
43C13N 3 O ' H47HE' F3' @H-E 3C' $' $423' 43C13N 3 O ' E' +3' P $EE34
' &4H J' * J 3' H' * J 3' $ED' F' +3' ' 3 J 3DO' E' N$C3' H&' , HE1$O J 3E '
$C' $ ' H F34' P HE3O' D 43N 3D' QO' $EO' 9 44E ' H&' C-NF' * 43$C- 3&?' (
43C13N 3 O' C' QO' >$ ' H' Q3' H4' J $O' Q3' 3 3D

D $EN3C' H' >' ED' Q3' ' 3E$N 3D' ' * F$ ' F3' 43C13N 3' * 43$C-434C' H&' F3' C$ D'
' @)LFE 3C' H&' I , ' $ED' ! ' CF$ ' 1$O' H4' N$-C3' H' Q3' 1$ D' $ ' C-NF'
43 PDO f' ?F J' H4' ?- J C' H&' P HE3O' H' Q3' NH8 3N 3D' QO' H4' -ED34' F3' - FH4 O' H&

M4$ED' 5-4 3C' H&' @H-E 3C' H&' @H4+' $ED' %344O' J $O' J $+3' I 43R C3E J 3E C' &H4' I -41EK3C' H&' F C' N

3 340' C-NF' I43C3E J3E ' $&H43C$D ' F3E' $ED' $C' F3' C$J3' CF$ ' Q3' 43N3 3D ' E H' F3' B$E+' H&' $!% #&' H' F3' @43D ' H&' F3' NNH-E ' F343 E $& 34' D 43N 3D' H' Q3' H13E3D

' ED' Q3' ' 3E$N 3D ' *F$ ' E' 43C13N ' H&' $EO' ?- J' H&' PHE3O' 1$D' E H' F3' C$D' B$E+' H&' $!% #&' QO' F3' *43$C-434C' H&' F3' @H-E 3C' H&' I , ' $ED' ! ' 43C13N 3 O ' E' 1-4C-$EN3' H&' F C' N ' $' @34 & N$ 3' H&' F3' I$0J3E ' $ED' ' 3N3 1 ' H&' C-NF' ?-4$' H4' ?- J C ' C 2E3D' QO' $EO' <E3' H&' F3' @$CF 34C' H&' F3' C$D' B$E+' ^ F NF' @34 & N$ 3' C' F343QO' 43X- 43D' H' Q3' 2 3E' FH- ' 633' H4' ' 3 $4D _' CF$ ' Q3' $E' 3&&3N -$ ' G CNF$423' &H4' F3' PHE3O' F343 E' 3 143CC3D' H' Q3' 43N3 3D' H' F3' *43$C-434' H&' F3' @H-E O' HE' FHC3' B3F$ &' H4' E' FHC3' , $J3') !' J E3' CF$ ' F$ 3' Q33E' CH' 1$ D

B$E+' @34 R & N$ 3C' H&' ' 3N3 1 ' H&' PHE 3C' 1$D' QO' *43$C-R 434C' H&' @H-ER 3C' H' D CR NF$423' F3J' &4HJ' &-4 F34' NNH-E

' I4H D3D' $ $OC ' $ED' Q3' ' 3E$N 3D ' *F$ ' EH' *4$ 34C3' H' $EO' C-NF' I43C3E J3E ' $&H43C$D' CF$ ' Q3' $ H 3D' H4' 43N3 3D ' $ED' F$ ' $& 34' $EO' C-NF' I43C3E J3E ' CF$ ' F$ 3' Q33E J$D3' $ED' & $ 3D ' F3' C$J3' CF$ ' &H4 F F' Q3' N34 & 3D' H' F3' @HJ J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC ' 6H43C C ' >$ED' ' 3 3E-3C ' 9 H4+C ' $ED' B- D E2C' QO F3' $N E2' @ 34+' H&' F3' @4H E ' $ED' ' CF$ ' EH ' Q3' $ &- ' &H4' $EO' M4$ED' 5-4O' H' 43C 4$ E' F3' I431$4$ HE' $ED' CC-3' H&' F3' 9 44E C' F NF' F3' *43$C-434' H&' C-NF' M4$ED' 5E4O' H-2F ' &4HJ' * J3' H' * J3' H' 1431$43' $ED' CC-3' NHE&H4 J$Q O' F' F3' I4H C HEC' H&' F C' N

I43C3E J3E b' H Q3 4$ 34C3D'

' ED' Q3' ' 3E$N 3D ' *F$ ' F3' MH 34EH4C' $ED' G 43N H4C' H&' F3' B$E+' H&' $!% #&' CF$ ' $ED' F3O' $43' F343QO' 43X- 43D' H' H13E' $' E3 ' NNH-E ' E' F3 4' BHH+C' F' F3' @HJ J CC HE34C' H&' 8 C' P$(3C O C' ' 9 HHDC ' 6H43C C ' >$ED' ' 3 3E-3C ' 9 H4+C ' $ED' B- D E2C ' H' Q3' D C ' E2- CF3D' $C' `' *F3' NNH-E ' H&' F3' C$D' @HJ J CC HE34C' E' F3' P$ 34' H&' F3' E3 ' I , ' $ED' ! ' ' H$DC c' $ED' CF$ ' N$44O' H' F3' @43D ' H&' C-NF' NNH-E ' $ ' F3' PHE 3C' QO' F C' N ' D 43N 3D' H' Q3 1$D' E' H' F3' @43D ' F343H&' $ED' CF$ ' J$+3' I$0J3E C ' H' F3' G3Q ' H&' C-NF' NNH-E ' H&' C-NF' ?- J' H4' ?- J C' H&' PHE3O' $C' CF$ ' &4HJ' * J3' H' * J3' Q3' 43X- 43D' QO' <4D34' -ED34' F3' 8$EDC' H&' F3' C$D' @HJ J CC HE34C

B$E+' H&' 43 $ED' H' H13E b NJ-J C C HE' 34C' H&' 9 HHDC KN' &H4' F3

' ED' Q3' ' 3E$N 3D ' *F$ ' ' CF$ ' Q3' $ &- ' &H4' F3' @HJ J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC ' 6H43C C ' >$ED' ' 3 3E-3C ' 9 H4+C ' $ED' B- D E2C' H' N$-C3' C-NF' ?-4 3OC ' I $EC ' ?13N & N$ HEC ' $ED' ;C J$ 3C' H' Q3' J$D3 ' $ED' H' -C3' H4' NHEC- ' $EO' ?-4 3OC ' I $EC ' ?13N & N$ HEC ' H4' ;C J$ 3C' $ 43$DO' J$D3 ' $ED' H' F NF' F3O' F$ 3' NN3CC ' $C' CF$ ' 3E$Q 3' F3J' H' (-D23' H&' F3' JHC ' $D $E $23H-C' $ED' NHE 3E 3E ' PHD3' H&' H13E E2' F3' &H H E2' > E3C' H&' @HJ J -E N$ HE' ' ^ F$ ' C' H' C$O _' $' @$44 $23' ' H$D' NHJ J3EN E2' $ ' H4' E3$4' H' I 1 %!' $1% #&' E' F3' @H-E O' H&' ! ' $ED' 3$D E2' &4HJ' F3EN3' H' H4' H' CHJ3' I H E ' E3$4' H' L ,1 !!#' " &(!' ,0! ' F3' ' 34' "% ' F !' E' F3' @H-E O' H&' I , =' HE3' H F34' @$44 $23' ' H$D' NHJ J3EN E2' $ ' H4' ' E3$4' H' +) #,3()' I ,11' HE' F3' 8 2F' ' H$D' &4HJ' %% #! ' H' I , ' $ED' 3$D E2' &4HJ' F3EN3' H' CQJ3' I H E ' F343' F3' C$J3' CF$ ' 4-E' E H' $ED' (H E' F3' C$D' E 3ED3D' ' H$D' &4HJ' I 1 %!' $1% #&' H' L ,1 !!#' " &(!' =' $ED' HE3' H F34' @$44 $23' ' H$D' E' NHE E-$ HE' H&' F3' 143R C3E ' ' H$D' E3$4' ,3# ' $ ' E' F3' @H-E O' H&' I , ' $ED' 3$D E2' &4HJ' F3EN3' H' H4' H' CHJ3' I H E ' HE' F3' > E3' H&' F3' & 4C J3ER HE3D

*C F433' E3 ' ' H$DC $ED' H F34' 9 H4+C' H' Q3' NHER C 4-N 3D ' -ED34' G 43NR HE' H&' F3' @HJ J C4' C HE34? H&' 9 HHDC ' KN

HE3D' E 3ED3D' @$44 $23' 'H$D' F343' F3' C$ D' & 4C J 3E HE3D' @$44 $23' 'H$D' CF$ ' E 34C3N' F3' $&H43C$ D' >$EDC' H&' * ,44%!' 6 !! !' = $ED' H&' NHEC 4-N E2' $ED' NH J 1 3 E2' C-NF' B4 D23C' M- 3 C' $ED' H F34' EN D3E $' 9 H4+C' $C' CF$ ' Q3' E3N3CC$4O' &H4' J $+ E2' F3' C$ D' 'H$DC' $ $ $Q 3' &H4' F3' I -41HC3C' H&' *4$EC ' $ED' @H J J -E N$ HE' $ED' H & ' -1HE' C-NF' @H-4C3' H4' > E3' &H4' F3' C$ D' 'H$DC' 43C13N 3 O' $C' CF$ ' C33 J' JHC' 3 2 Q 3' ' $ED' H' 3E 34' E H' $EO' @HE 4$N ' H4' @HE 4$N C' &H4' F3' E $+ E2' NHEC 4-N E2' $ED' NH J 1 3 E2' F3' C$ D' C3 34$' > E3C' H&' 'H$D' $ED' F3' B4 D23C' M- 3 C' $ED' H F34' EN D3E $' 9 H4+C' H4' $EO' H&' F3 J ' H4' $EO' I $4' H4' I $4 C' F343H&' ' C-NF' @ ' ; E2 E334C' H4' H F34' I 34CHEC' E2' H' Q3NH J 3' @HE 4$N H ?' $ED' F' F3 4' ?-43 3C' &H4' F3' D-3' ; 3N- HE' H&' C-NF' @HE 4$N C' $ED' H' EC34 ' C-NF' I 4H R C HEC' $ED' ? 1- $ HEC' E' C-NF' @HE 4$N C' $C' H' F3' C$ D' @H J J CC HE34C' CF$ ' C33 J' $D C$Q 3' ' H4' $' F3 4' G CN43 HE' H' $11H E' $ED' 3 J 1 HO' ; E2 E334C' ?-4 3OH4C' $ED' H F34' I 34CHEC' H' J $+3' NHEC 4-N ' $ED' NH J R 1 3 3' F3' C$ D' 'H$DC' B4 D23C' $ED' H F34' EN D3E $' 9 H4+C' H4' $EO' H&' F3 J ' #ED34' F3' J J 3D $ 3' G 43N HE' H&' F3' C$ D' @H J J CC HE34C

@H J J CC HE' 34C &' 9 HHDC' KN ' J$O' $1R 1 O' <<&' Y- ' H&' &H3 I 4HD-N3' H&' F3' ! A)' 5$ED' ' 3 ' 3 ' &H4' F3' I -41HC3C' H&' F C' N&

ʻ ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' ' CF$ ' $ED' J $O' Q3' $ &-' &H4' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' >$ED' ' 3 3Q-3C' 9 H4+C' $ED' B- D E2C' F' F3' @HEC3E ' $ED' 114HQ$ HE' E' 9 4 E2' H&' F3' >H4D' 8 2F' * 43$C-434' H&' F3' # E 3D' % E2DH J' H&' ! ' " # $ED' $!% #&' H4' H&' F3' @H J J CC HE34C' &H4' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F' * 43$C-434' H4' $EO' * F433' H4' J H43' H&' F3 J ' &4HE' * J 3' H' * J 3' $C' <NN$C HE' CF$ ' 43X &3' QO' $ED' H- ' H&' F3' $EE-$' ENH J 3' H&' F3' I HCC3CC HEC' $ED' >$ED' ' 3 3E-3C' H&' F3' @4H E' E' $!% #&' H4' QO' $ED' H- ' H&' F3' P HE 3C' $4 C E2' QO' $EO' ?$ 3' H4' ?$ 3C' ; NF$E23' <4 ; NF$E23C' H&' $EO' I $4' H4' I $4 C' F343H&' H4' $EO' H F34' P HE 3C' E $EO C3' $4 C E2' &4H J' F3' I HCC3CC HEC' $ED' >$ED' ' 3 3E-3C' H&' F3' @4H E' E' $!% #&' H' 1$O' E H' F3' B$E+' H&' $!% #&' H' F3' @43D ' H&' F3' NNH-E ' F343 E Q3&H43' D 43N 3D' H' Q3' H13E3D' $ O' ?- J C' H&' P HE3O' EH ' 3 N33D E2' E' F3' FH 3' F3 ?- J' H&' ?3 3E 33E' FH-C$ED' I H-EDC' H' Q3' $11 3D' H' F3' I -41HC3C' H&' F C' N

11%3$ HE' H&' P HE 3C' $- FH4 T3D' ' H' Q3' 4$ C3D' $ED' 24$"_ 3D

ʻ ED' F3' ' &-4 F34' 3E$N 3D' * F$ ' F3' P HE3O' F NF' CF$ ' &4H J * J 3' H' * J 3' Q3' 1 D' H' F3' @43D ' H&' F3' NNH-E ' H' Q3' H13E3D' $C' F343 E Q3&H43' C' D 43N 3D' CF$ ' Q3' &4H J' * J 3' H' * J 3' $11 3D' QO' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' >$ED' ' 3 3E-3C' 9 H4+C' $ED' B- D E2C' E' 1$O E2' F3' ; 13EN3' H&' ?-4 3OC' I $EC ' $ED' ; C J $ 3C' $ED' F3' J H-E ' H&' @HE $N C' &H4' F3' J $+ E2' $ED' NH1C 4-N E2' F3' 'H$DC' B4 D23C' M- 3 C' $ED' H F34' EN D3E $' 9 H4+C' F343 E Q3&H43' $- FH4 T3D' H' Q3' J $D3' H4' $EO' H&' F3 J ' H4' E 1$O E2' &H4' F3' J $+ E2' $ED' NHEC 4-N E2' F3' C$ J 3' H4' $EO' H&' F3 J' H F34' C3' F$E' QO' @HE 4$N ' $ED' E' 1$O E2' $EO' H F34' ?- J C' H&' P HE3 ' H4' ; 13EN3C' F NF' CF$ ' Q3NH J 3' 1OQ 3' &H4' F3' I -41HC3C' H&' F C' N ' H4' $EO' H&' F3 J '

W' 14H D3D' $ $OC' $ED' Q3' ' 3E$N 3D' * F$ ' ' CF$ ' EH ' Q3' $ &-' &H4' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C -D' ' 3 3E-3C' 9 H4+C' $ED' B- D E2C' H' 3E 34' E H' $EO' @HE ' &H4' F3' @HEC 4-N HE' H&' F3' 'H$DC' B4 D23C' M- 3 C' $ED' H F34' 9 H4+C' F343 E Q3&H43' $- FH4 T3D' H' Q3' NHEC 4-N 3D' H4 H F34 C3' H' 14HN33D' F' F3' ; 3N- HE' H&' F3' C$ D' 9 H4+C' H4' $EO' I $4' F343H&' ' H4' H 3 13ED

9 H4+C' H' H' Q3' NH J R J 3EN3D' -E [[' Q3' 14H D3D' QO' @H4+' $ED' U S[[' QO' %344

3 13EDʻ H4ʻ$11 Oʻ$EOʻH&ʻ F3ʻ ?- J Cʻ H&ʻ P HE3Oʻ F NFʻ CF$ ʻH4ʻ J $OʻQ3ʻ 1 $N3Dʻ Hʻ F3ʻ @43D ʻ H&ʻ F3ʻ NNH-E ʻ F343 E Q3&H43ʻ D 43N 3Dʻ Hʻ Q3ʻ H13E3Dʻ "ʻ F3ʻ BHH+Cʻ H&ʻ F3ʻB$E+ʻH&ʻ$!% #&ʻ -E ʻ F343ʻ CF$ ʻF$ 3ʻ Q33Eʻ I 43C3E J 3E Cʻ J $D3ʻ QOʻ M4$EDʻ5-4 3Cʻ H&ʻ F3ʻ @H-E 3Cʻ H&ʻ I , ʻ $EDʻ ! ʻ &H4ʻ F3ʻ I -41HC3Cʻ H&ʻ F Cʻ N ʻ H&ʻ F3ʻ C3 34$ʻ ?- J Cʻ &H H E2ʻ $ʻ F3ʻ 3$C ʻ F$ʻ Cʻ Hʻ C$Oʻ F3ʻ ?- Jʻ H&ʻ 6H-4ʻ FH-C$EDʻ C3 3Eʻ F-ED43Dʻ I H-EDCʻ QOʻ <4 HEʻ Q3F$ &ʻ H&ʻ F3ʻ @H-E Oʻ H&ʻ I , ʻ $EDʻ F3ʻ ?- Jʻ H&ʻ * Hʻ FH-C$EDʻ F433ʻ F-ED43Dʻ I H-EDCʻ QOʻ H4ʻ HEʻ Q3F$ &ʻ H&ʻ F3ʻ @H J Oʻ H&ʻ ! ʻ= F NFʻ C$ Dʻ C3 34$ʻ ?- J Cʻ H&ʻ 6H-4ʻ FH-C$EDʻ C3 3Eʻ F-ED43Dʻ I H-EDCʻ $EDʻ * Hʻ FH-C$EDʻ F433ʻ F-ED43Dʻ I H-EDCʻ ʻ Cʻ F343QOʻ E 3ED3Dʻ $EDʻ 43X- 43Dʻ CF$ ʻ Q3ʻ 14H D3Dʻ QOʻ F3ʻ C$ Dʻ @H-E 3Cʻ $Cʻ F3 4ʻ 43C13N 3ʻ \ -H $Cʻ H $4DCʻ D3&4$O E2ʻ F3ʻ @HC Cʻ H&ʻ NHEC 4-N E2ʻ F3ʻ C$ Dʻ ʻH$DCʻ B4 D23Cʻ M- 3 Cʻ $EDʻ H F34ʻ 9 H4+Cʻ $EDʻ 3 N -C 3ʻ H&ʻ $EOʻ H F34ʻ ?- J Cʻ F NFʻ F3ʻ C$ Dʻ @H-E 3Cʻ CF$ ʻ H4ʻ J $OʻQ3ʻ 43X- 43Dʻ 43C13N 3 Oʻ Hʻ 14H D3ʻ Eʻ C$ C&$N HEʻ H&ʻ F3ʻ J H-E ʻ H&ʻ $EOʻ I 43C3E J 3E ʻH4ʻ I 43C3E J 3E Cʻ HʻQ3ʻ J $D3ʻ$Cʻ F343 E $& 34ʻ14H D3D ʻ -ED34ʻ $EOʻ *4$ 34C3ʻ &H4ʻ G$ J $23Cʻ H4ʻ @H J 13EC$ HEʻ Eʻ 43C13N ʻH&ʻ $EOʻ >$EDʻ H4ʻ M4H-EDʻ F NFʻ CF$ ʻ Q3ʻ $+3E ʻ -C3D ʻ H4ʻ 43X- 43Dʻ &H4ʻ F3ʻ I -41HC3Cʻ H&ʻ F Cʻ N

W ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ F3Eʻ $EDʻ $Cʻ CHHEʻ $Cʻ $EOʻ ʻH$Dʻ H4ʻ B4 D23ʻ F343QOʻ $- FH4 T3Dʻ HʻQ3ʻ J $D3ʻ H4ʻ NHEC 4-N 3D ʻH4ʻ $EOʻ I $4 ʻ H&ʻ C-NFʻ ʻH$D ʻ CF$ ʻ Q3ʻ NH J 1 3 3D ʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ F3ʻ @H J J CC HE34Cʻ E&ʻ 8 Cʻ P $(3C O Cʻ 9 HHDC ʻ 6H43C C ʻ >$EDʻ ʻ3 3E -3C 9 H4+C ʻ $EDʻ B- D E2C ʻ $EDʻ F3Oʻ $43ʻ F343QOʻ 43X- 43D ʻ QOʻ $ʻ @34 & N$ 3ʻ -ED34ʻ F3 4ʻ 8 $EDC ʻ $ ʻ F3ʻ E3 ʻH4ʻ CH J 3ʻ C-QC3X-3E ʻ CC T3C ʻ Hʻ EH &Oʻ Hʻ F3ʻ M4$EDʻ 5-4Oʻ H4ʻ 43C13N 3ʻ M4$EDʻ 5-4 3Cʻ H&ʻ F3ʻ @H-E Oʻ H4ʻ 43C13N 3ʻ @H-E 3Cʻ F Eʻ F NFʻ C-NFʻ ʻH$Dʻ H4ʻ B4 D23 ʻ H4ʻ F3ʻ I $4 ʻ H&ʻ C-NFʻ ʻH$Dʻ F NFʻ CF$ ʻ Q3ʻ NH J 1 3 3D ʻ CF$ ʻ Q3ʻ C -$ 3D ʻ F$ ʻ F3ʻ C$ J 3ʻ Cʻ NH J 1 3 3D ʻ ʻ $EDʻ &4H Jʻ $EDʻ $& 34ʻ C-NFʻ , H & N$ HEʻ C-NFʻ ʻH$Dʻ H4ʻ B4 D23 ʻ H4ʻ F3ʻ I $4 ʻ H&ʻ C-NFʻ ʻH$Dʻ F3ʻ @H J 1 3 HEʻ F343H&ʻ CF$ ʻ Q3ʻ CHʻ EH & 3D ʻ CF$ ʻ Q3ʻ +31 ʻ Eʻ 431$ 4ʻ $EDʻ J $ E $ E3Dʻ $ ʻ F3ʻ ; 13EN3ʻ H&ʻ F3ʻ @H-E Oʻ F ʻ F NFʻ F3ʻ C$ J 3ʻ 43C13N 3 Oʻ CF$ ʻ Q3 ʻ Eʻ +3ʻ P $EE34ʻ $Cʻ 1-Q Nʻ ʻH$DCʻ Eʻ $!% #&ʻ J $D3ʻ 3 F34ʻ FH Oʻ H4ʻ Eʻ 1$4 ʻ $ ʻ F3ʻ 1-Q Nʻ ; 13EN3 ʻ $43ʻ EH ʻ +31 ʻ Eʻ 431$ 4ʻ $EDʻ J $ E $ E3D

9 F3Eʻ ʻH$DC $EDʻ B4 D23C N34 & 3Dʻ HʻQ3 NH J 1 3 3D ʻ F3ʻ C$ J 3ʻ H Q3ʻ +31 ʻ Eʻ 431$ 4ʻ $ ʻ F3ʻ ; 13EN3ʻ H&ʻ F3ʻ 43C13N 3ʻ @H-E 3C

W ʻ I 4H D3Dʻ $ $OC ʻ $EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ F3Eʻ $EOʻ B4 D23ʻ J $D3ʻ H4ʻ NHEC 4-N 3Dʻ -ED34ʻ F3ʻ - FH4 Oʻ H&ʻ F Cʻ N ʻ CF$ ʻ Q3ʻ C -$ 3Dʻ 1$4 Oʻ Eʻ HE3ʻ @H-E Oʻ $EDʻ 1$4 Oʻ Eʻ $EH F34 ʻ F3ʻ ; 13EN3ʻ H&ʻ N - J > Hʻ 431$ 4 E2ʻ $EDʻ J $ E $ E E2ʻ C-NFʻ B4 D23 ʻ $& 34ʻ C-NFʻ , H & N$ HEʻ $Cʻ Q3 I+! (ʻ $&H43C$ Dʻ H&ʻ F3ʻ @H J 1 3 HEʻ H&ʻ F3ʻ 43C13N 3ʻ I $4 Cʻ F343H&ʻ Hʻ F3ʻ 3X-$ Oʻ M4$EDʻ 5-4 3Cʻ H&ʻ C-NFʻ @H-E 3C ʻ CF$ ʻ Q3ʻ D3&4$O3Dʻ QOʻ C-NFʻ @H-E 3C 43C13N 3 Oʻ Eʻ 3X-$ ʻ P H 3 3C

; 13EN3ʻ H&ʻ B4 D23C Q3ʻ

W ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ F3ʻ I H 34ʻ H D 2ʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ 9 HHDC ʻ 6H43C C ʻ >$EDʻ ʻ3 3E -3C ʻ &H4ʻ P $ 34 $ Cʻ 9 H4+C ʻ $EDʻ B- D E2C ʻ F3 4ʻ @HE 4$N H4C ʻ 23E C ʻ ?-4 3OH4C ʻ H4+ ʻ 5 cb\ ʻ / J3E ʻ $EDʻ $ ʻH F34ʻ I 34CHECʻ QOʻ F3 Jʻ 3 J 1 HO3Dʻ $EDʻ $- FH4 T3D ʻ Hʻ N- ʻ G$J$23C ʻ D 2 ʻ $+3 ʻ $EDʻ N$44Oʻ $ $O ʻ H4ʻ N$-C3ʻ HʻQ3ʻ N- ʻ D-2 ʻ $+3E ʻ H4ʻ N$44 3D $ $O ʻ $EOʻ \ -$E Oʻ H&ʻ ? HE3 ʻ M4$ 3 ʻ ; $4 F ʻ H4ʻ H F34ʻ P $ 34 $ Cʻ 14H134ʻ &H4ʻ F3ʻ I -41HC3ʻ H&ʻ J $+ E2ʻ $EOʻ H&ʻ F3ʻ ʻH$DCʻ H4ʻ B4 D23Cʻ QOʻ F Cʻ N ʻ $- FH4 T3Dʻ Hʻ Q3ʻ J $D3 ʻ Eʻ -1HE ʻ H- ʻ H&ʻ H4ʻ &4H Jʻ $EOʻ >$EDCʻ H4ʻ M4H-EDCʻ H&ʻ $EOʻ I 34CHEʻ H4ʻ I 34CHECʻ FH J CH3 34ʻ F343ʻ F3ʻ C$ J 3ʻ N$Eʻ Q3
ʻ !ʻ ʻʻ

&33ʻ &H 8 Dʻ $EDʻ F$ ʻC-NFʻ 43CHEQ 3ʻ ?$ C&$N HEʻ CQ$8ʻ Q3ʻ J$D3ʻ Hʻ F3ʻ
< E34ʻ H4ʻ < E34Cʻ <NN-1 34ʻ H4ʻ <NN-1 34Cʻ H&ʻ C-NFʻ >$EDCʻ &H4ʻ F3ʻ
GED23?ʻ F NFʻ J$0ʻ Q3ʻ DHE3ʻ F34DQOʻ $Cʻ CF$ ʻ Q3ʻ $CN34 $ E3Dʻ $EDʻ
D3 34 1 E3Dʻ QOʻ *4$ 34C3ʻ F3$4Dʻ Q3&H43ʻ F3ʻ 5-C N3Cʻ $CC3 J Q 3Dʻ $ʻ F3ʻ
M3ED4$ʻ \ -$4 34ʻ ?3CC HECʻ H&ʻ F3ʻ I 3$N3ʻ C-NFʻ *4$ 34C3ʻ Hʻ Q3ʻ J$D3ʻ $ʻ
F3ʻ EDD ʻ \ -$4 34ʻ ?3CC HECʻ Eʻ FHʻ B$4HEOʻ Eʻ F NFʻ F3ʻ 9 H4+ʻ J$0ʻ Q3ʻ
C -$ 3Dʻ D-3ʻ , H N3ʻ F$ E2ʻ Q33Eʻ 2 3Eʻ QOʻ F3ʻ < 34C334Cʻ H&ʻ F3ʻ 9 H4+ʻ
$ʻ 3(3ʻ * 3E O HE3ʻ G$OCʻ 143 H-C Oʻ Hʻ C-NFʻ \ -$4 34ʻ ?3CC HECʻ F$ ʻEHʻ
J H43ʻ ; $4 Fʻ ? HE3Cʻ M4$ 3 ʻ H4ʻ H F34ʻ P$ 34 $ Cʻ ʻ Q3ʻ 43X- 43Dʻ &4H Jʻ
F3ʻ I $N3ʻ 43C13N E2ʻ F NFʻ F3ʻ *4$ 34C3ʻ CF$ ʻF3ʻ J$D3ʻ (F3ʻ J H-E ʻ
$ $4D3Dʻ QOʻ F3ʻ 5-4Oʻ $ʻ F3ʻ \ -$4 34ʻ ?3CC HECʻ Hʻ Q3ʻ 3 3Dʻ H&&ʻ F3ʻ
B$4H Oʻ Eʻ F NFʻ F3ʻ ' H$Dʻ Cʻ C -$ 3Dʻ $EDʻ $ʻ ' 3 -4Eʻ H&ʻ F3ʻ C$ J 3ʻ Hʻ
Q3ʻ J $-3ʻ Hʻ F3ʻ @ 34+ʻ H&ʻ F3ʻ I 3$N3

, Hʻ Hʻ D 2ʻ &H4ʻ P$ 34 $ Cʻ ʻ-E ʻ$& 34ʻ , H N3ʻ 2 3Eʻ Hʻ < E34 [&ʻ I 43 J C3Cʻ Eʻ $113$4ʻ Q3&H43ʻ * Hʻ 5-C N3C

W ʻ ʻ I 4H D3Dʻ $ $OCʻ $EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ * F$ ʻ ʻCF$ ʻEHʻ
Q3ʻ $ &-ʻ &H4ʻ $EOʻ ; E2 E334ʻ ?-4 3OH4ʻ < 34C334Cʻ H4ʻ H F34ʻ I 34CHEʻ H4ʻ I 34R
CHECʻ $N E2ʻ -ED34ʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P$(3C O Cʻ
9 HHDCʻ 6H43C Cʻ >$EDʻ ' 3 3E-3C 9 H4+Cʻ $EDʻ B- D E2Cʻ Hʻ D 2ʻ 2$ F34ʻ
23 ʻ $+3ʻ H4ʻ N$44Oʻ $ $Oʻ $EOʻ ? HE3ʻ M4$ 3 ʻ ; $4 Fʻ H4ʻ H F34ʻ P$ 34 $ Cʻ
&H4ʻ J $+ E2ʻ 14H 3N E2ʻ $EDʻ 143C34 E2ʻ F3ʻ C$ Dʻ ' H$DCʻ H4ʻ B4 D23Cʻ H&ʻ
H F34ʻ 9 H4+Cʻ QOʻ F Cʻ N ʻ$- FH4 T3Dʻ Hʻ Q3ʻ J $D3ʻ H4ʻ NHEC 4-N 3Dʻ H4ʻ
&H4ʻ C-NFʻ H F34ʻ I -41HC3ʻ H4ʻ I -41HC3Cʻ $Cʻ $&H43C$ Dʻ H- ʻ H&ʻ H4ʻ &4H Jʻ $EOʻ
EN HC3Dʻ >$EDʻ H4ʻ M4H-EDʻ -E ʻ?3 3Eʻ G$OCʻ , H N3ʻ Eʻ 9 4 E2ʻ CF$ ʻ
F$ 3ʻ Q33Eʻ 143 H-C Oʻ 2 3Eʻ Hʻ F3ʻ < E34ʻ H4ʻ < E34Cʻ H&ʻ F3ʻ I 43 J C3Cʻ
&4H Jʻ F NFʻ C-NFʻ ? HE3ʻ M4$ 3 ʻ ; $4 Fʻ H4ʻ H F34ʻ P$ 34 $ Cʻ $43ʻ
E 3ED3Dʻ Hʻ Q3ʻ $+3Eʻ H4ʻ Hʻ F Cʻ H4ʻ F34ʻ +EH Eʻ 23E ʻ <4ʻ Hʻ F3ʻ
<NN-1 34ʻ H4ʻ <NN-1 34Cʻ H&ʻ F3ʻ I 43 J C3Cʻ &4H Jʻ F NFʻ C-NFʻ P$ 34 $ Cʻ
$43ʻ E 3ED3Dʻ Hʻ Q3ʻ $+3Eʻ H4ʻ 3&ʻ $ʻ F3ʻ 8 H-C3ʻ H4ʻ $Cʻ #C-$ʻ I $N3ʻ H&ʻ
QHD3ʻ H&ʻ C-NFʻ < E34ʻ H4ʻ <NN-1 34ʻ Hʻ $113$4ʻ Q3&H43ʻ $EOʻ * Hʻ H4ʻ
J H43ʻ 5-C N3Cʻ H&ʻ F3ʻ I 3$N3ʻ $N E2ʻ &H4ʻ F3ʻ @H-E Oʻ H4ʻ I $N3ʻ &4H Jʻ
F3EN3ʻ C-NFʻ P$ 34 $ Cʻ E 3ED3Dʻ Hʻ Q3ʻ $+3Eʻ CF$ ʻ 3ʻ Hʻ CFH ʻ@$-C3ʻ
FOʻ C-NFʻ ? HE3ʻ M4$ 3 ʻ ; $4 Fʻ H4ʻ H F34ʻ P$ 34 $ Cʻ CF$ ʻEHʻ F3ʻ $+3Eʻ
F343&4H Jʻ $EDʻ Eʻ N$C3ʻ C-NFʻ < E34ʻ 23E ʻ H4ʻ <NN-1 34ʻ CF$ ʻ$ 3EDʻ
1-4C-$E ʻ Hʻ C-NFʻ , H N3ʻ Q- ʻ CF$ ʻ EHʻ CFH ʻ C-&& N 3Eʻ @$-C3ʻ Hʻ F3ʻ
NHE 4$4Oʻ C-NFʻ 5-C N3Cʻ CF$ ʻ &ʻ F3Oʻ F E+ʻ 14H134ʻ $- FH4 T3ʻ C-NFʻ
; E2 E334ʻ ?-4 3OH4ʻ H4ʻ H F34ʻ I 34CHEʻ H4ʻ I 34CHECʻ CHʻ 3 J 1 HO3Dʻ $Cʻ
$&H43C$ Dʻ Hʻ D 2ʻ 23 ʻ2$ F34ʻ $+3ʻ $EDʻ N$44Oʻ $ $Oʻ C-N ʻ? HE3ʻ M4$ 3 ʻ
; $4 Fʻ H4ʻ H F34ʻ P$ 34 $ Cʻ $ʻ C-NFʻ * J 3ʻ H4ʻ * J 3Cʻ $Cʻ C-NFʻ 5-C N3Cʻ
CF$ ʻ D33 Jʻ 14H134ʻ ($EDʻ &ʻ C-NFʻ < E34ʻ 23E ʻ H4ʻ <NN-1 34ʻ CF$ ʻ
E32 3N ʻH4ʻ 43&-C3ʻ Hʻ $113$4ʻ QOʻ F J C3 &ʻ H4ʻ F34C3 &ʻ H4ʻ F Cʻ H4ʻ F34ʻ 23E ʻ
F3ʻ C$ Dʻ 5-C N3Cʻ CF$ ʻ $EDʻ J $Oʻ ^-1-Eʻ I 4HH&ʻ HEʻ <$ Fʻ H&ʻ F3ʻ ?34 N3ʻ
H&ʻ C-NFʻ , H N3ʻ $EDʻ F NFʻ <$ Fʻ F3Oʻ $43ʻ F343QOʻ 3 J 1H 343Dʻ Hʻ
$D J E C 34 _ J $+3ʻ C-NFʻ <4D34ʻ F J 3 Eʻ $Cʻ F3Oʻ CF$ ʻ F E+ʻ & ʻ$Cʻ Oʻ
$EDʻ 3&&3N -$ Oʻ Hʻ $ ʻ E 3E Cʻ $EDʻ I -41HC3Cʻ $Cʻ &ʻ C-NFʻ < E34ʻ H4ʻ
<NN-1 34ʻ H4ʻ 4% H4ʻ F34ʻ 23E Cʻ F$Dʻ $ 3ED3Dʻ

< E34ʻ EHʻ ' ' %B ʻ C ! ʻ! ʻ 5 ' . ʻ -'! <4D34ʻ F3Oʻ ! .ʻ$!

W ʻ I 4H D3Dʻ $ $OCʻ $EDʻ F3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ * F$ ʻ EH F E2ʻ
F343 E Q3&H43ʻ NHE $ E3Dʻ CF$ ʻ Q3ʻ NHEC 4-3Dʻ Hʻ 3E 3ʻ $EOʻ < E34Cʻ
<NN-1 34Cʻ H4ʻ H F34ʻ I 34CHECʻ Hʻ @H J 13EC$ HEʻ &H4ʻ G$ J $23ʻ QOʻ F3ʻ
D 22 E2ʻ $EDʻ $+ E2ʻ ? HE3ʻ M4$ 3 ʻ ; $4 Fʻ H4ʻ H F34ʻ P$ 34 J Cʻ Eʻ $EDʻ
&4H Jʻ $EOʻ 9 $C 3Cʻ PH-E $ ECʻ H4ʻ -E EN HC3Dʻ >$EDʻ H4ʻ M4H-EDʻ &H4ʻ F3ʻ
1-41HC3ʻ H&ʻ J $+ E2ʻ F3ʻ ' H$DCʻ H4ʻ B4 D23Cʻ QOʻ PCʻ N ʻ$- FH4 T3Dʻ H

, Hʻ @H J R 13EC$ HEʻ Hʻ Q3ʻ J $D3ʻ &H4ʻ D 22 E2ʻ P$ 34 $ Cʻ &4H Jʻ 9 $C 3Cʻ PH-E $ EC H4ʻ QE EN HC3Dʻ >$EDC

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' @HJJ CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' >$ED' '3 3E-3C' 9 H4+C' $ED' B- D E2C' $ '$ED' J$O' $ED' F3 4' 23E C' ?-4 3OH4C' 9 H4+J 3E' $ED' $ 'H F34' I 34CHEC' QO' F3 J' 3 J 1 HO3D' $ED' $- FH4 T3D' $ 3' F3 3QO' 3 J 1H 343D' $' $ 'C-NF' * J 3C' $C' H' F3' C$ J 3' @HJJ CC HE34C' J $O' C33 J' & '$ED' NHE ' ' 3E 3E ' H' 3E 34' E H' $ED' -1HE' $EO' >$EDC' H4' M4H-EDC' F$ CH3 34' F NF' ' J $O' Q3' D33 J 3D' 14H134' H4' E3N3CC$4O' H' C-4 3O' &H4' F3' I-4R 1HC3' H&' J $+ E2' $EO' 'H$D' H4' B4 D23' -ED34' F3' I 4H C HEC' H&' F C' 3 (' J CD' F$' F3' C$ D' @HJJ CC HE34C' $ED' F3 4' 23E C' ?-4 3OH4C' $ED' 9 H4+J 3E' CF$ ' F$ 3' I H 34' $ED' - FH4 O' H' C $+3' H- ' $+3' 1HCC3CC HE' H&' $ED' $NX- 43' $ 'C-NF' M4H-ED' $C' J $O' Q3' E3N3CC$4O' &H4' J $+ E2' F3' C$ D' 'H$DC' $ED' 343N E2' F3' C$ D' B4 D23C' $ED' $& 34' F3' >$1D' H4' M4H-ED' CF$ ' F$ 3' Q33E' CH' C $+3D' H- ' $ED' $+3E' 1HCR C3CC HE' H&' QO' F3' C$ D' @HJJ CC HE34C' H4' F3 4' 23E C' ?-4 3OH4C' H4' 9 H4+J 3E' $C' $&H43C$ D' 'CF$ ' Q3' $ &-' H' $ED' &H4' F3' < E34C' $ED' <NN-1 34C' H&' C-NF' >$ED' H4' M4H-ED' 43C13N 3 O' H' 14HN33D' $' F3' CC T3C' F NF' CF$ ' Q3' F3 D' &H4' F3' @H-E O' E' F NF' C-NF' >$ED' H4' M4H-ED' CF$ ' Q3' C -$ 3D' E3 '$& 34' F3' C$ J 3' CF$ ' Q3' CH' C $+3D' H- ' $ED' D 3E' 1HCC3CC HE' H&' $C' $&H43C$ D' H' 4$ 34C3' &H4' G$ J $23C' &H4' F3' C$ J 3' $ED' 3$NF' C-NF' *4$ 34C3' CF$ ' Q3' 4 3D' $' F3' C$ J 3' H4' F3' E3 '3EC- E2' CC T3C' E' $ED' &H4' C-NF' @H-E O' $ED' F3' 5-4O' F NF' CF$ ' 4O' C-NF' *4$ 34C3' H4' *4$ 34C3C' CF$ ' 4-3' 34D N' 2 3' F3 F34' $EO' $ED' F$ 'G$ J $23C' '$NN4$3' F343QO' H' F3' *4$ 34C34' H4' *4$R 34C34C' ' $ED' C-NF' ?-J' H4' ?-J C' H&' P HE3O' ^ &' $EO_' F NF' CF$ ' Q3' CH' &H-ED' &H4' G$ J $23C' ' CF$ ' $ED' J $O' Q3' $ &-' H' $ED' &H4' $EO' M4$ED' 5-4O' H&' C-NF' @H-E O' $ED' F3O' $ 3' F343QO' 43X- 43D' $' F3' C$ J 3' H4' F3' F3E' E3 '3EC- E2' CC T3C' H' 143C3E ' H' Q3' 4$ C3D' HE' F3' @H-E O' B$4HEO' H4' 8 $ &' B$4HEO' 43C13N 3 O' E' F NF' F3' *4$ 34C34' H4' *4$R 34C34C' CF$ ' F$ 3' J $D3' '$113$4' F$ 'F3' CF3' H4' F3O' C-C $ E3D' F3' G$ J $23' H' F NF' I 43C3E J 3E' EH' *4$ 34C3' CF$ ' Q3' $ H 3D' H4' 43N3 3D' $ED' F3' ?-J' H4' ?-J C' H&' P HE3O' CH' &H-ED' $ED' 143R C3E 3D' F3E' 4$ C3D' $ED' 3 3D' CF$ ' Q3' 1$ D' $ED' 1$O$Q 3' H' F3' 43C13N 3' *4$ 34C34C' QO' F3' *43$C-434C' H&' F3' C$ J 3' @H-E 3C' 43C13N 3 O

I H 34' H' C-4 3O' >$EDC' $ED' $+3' F3' C$ J 3' &H4' J $+ E2' E3 ' 'H$DC' $ED' B4 D23C

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' E' N$C3' $ '?-J' H&' P HE3O' CF$ ' Q3' 1$ D' QO' F3' @HJJ CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' >$ED' '3 3E-3C' 9 H4+C' $ED' B- D E2C' H4' QO' F3' 43C13N 3' *43$C-434C' H&' F3' @H-E 3C' H&' I , '$ED' ! ' H' F3' @43D 'H&' F3' NNH-E ' H' Q3' H13E3D' $C' $&H43C$ D' F NF' CF$ ' EH ' Q3' 43X- 43D' &H4' F3' I-41HC3C' H&' F C' N ' 3 F34' Q3N$-C3' F3' 9 H4+C' E 3ED3D' H' Q3' N$44 3D' E H' 3&&3N' -ED34' F3' - FH4 O' H&' F C' N ' CF$ ' Q3' NH J R 1 3 3D' H4' Q3N$-C3' ' CF$ ' EH ' Q3' FH-2F ' & ' H' 14HN33D' &-4 F34' F343 E' F3E' $ED' E' $EO' C-NF' @$C3' F3' P HE3O' CH' 1$ D' E' QO' F3' C$ D' @HJJ CC HE34C' $ED' F NF' CF$ ' EH ' Q3' $E 3D' $C' $&H43C$ D' CF$ ' Q3' 4$EC&3443D' $ED' 1 $N3D' QO' F3 J' H' F3' @43D 'H&' F3' NNH-E 'H&' F3' 77 9 HHDC' $ED' 6H43C C' 6-EDc' E' F3' B$E+' H&' $!% #&=' $ED' F3' P HE3O' B< 1$ D' E' QO' F3' C$ D' 43C13N 3' *43$C-434C' H&' F3' C$ D' @H-E 3C' H&' I , '$ED' ! ' $ED' F NF' CF$ ' EH ' Q3' $E 3D' $C' $&H43C$ D' CF$ ' Q3' D4$ E' H- 'QO' F3' C$ D' @HJJ CC HE34C' $ED' 1$ D' H' F3' C$ D' *43$C-434C' 43C13N 3 O' HE' $NNH-E ' H&' F3' C$ D' @H-E 3C' 43C13N 3 O

I H 34' H' 43 4$EC&34' $EO' P HE 3C' ?-1R 1 3D' $ED' EH ' $114H14 $ 3D H' F3' < * 1HC3C' H&' F C' N

ʻ U/M#> ;>P ʻ ʻ @$1 !U

NNH-E C H
Q3 $-D 3D ʻ
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W ʻ ED Q3 ʻ&-4 F34 3E$N 3D ʻ *F$ ʻ F3 NNH-E C H& F3 @H E ʻ E CC HE34C H& 8 C P$(3C O C 9 HHDC ʻ 6H43C C ʻ >$ED ʻ 3 3E-3C ʻ 9 H4+C ʻ B- D E2C ʻ H& F3 ; 13ED -43 $ED G C1HC$ ʻ H& F3 P HE3O F NF ʻ CF$ ʻ Q3 D4$ E QO F3 J ʻ &4H J ʻ F3 NNH-E ʻ H Q3 H13E3D -ED34 F3 - FH4 O H& F C H ʻ $C $&H43C$ D ʻ CF$ ʻ Q3 3 $J E3D ʻ 4 3D ʻ $ED (3D ʻ &4H J ʻ * J 3 H * J 3 ʻ QO F3 @H J J CC HE34C $11H E 3D -ED34 F3 - FH4 O H& F3 ʻ H& F3 * 3E O & & F =3$4 H& F3 ʻ 3 2E H& 8 C $ 3 P$(3C O #(ʻ !, (! F3 *F 4D ʻ E - 3D / ʻ ʻ , ʻ4! ! ʻ !J ##(#& 3& #( )! *34% ʻ / ʻ ʻ ,3# 1 , ʻ)! #(&,

4143
E2 E(-4 3C
$ED <QC 4-NR
HEC H F3
ʻ H$DC $QD
ʻ 4 DA3C

W ʻ ED Q3 ʻ &-4 F34 3E$N 3D ʻ *F$ ʻ E N$C3 $EO ; E2 E334 ʻ ?-4 3OH4 ʻ < 34C334 ʻ H4 H F34 <& N34 3 J 1 HO3D -ED34 F3 - FH4 O H& F C N ʻ QO F3 @H J J CC HE34C H& 8 C P$(3C O C 9 HHDC ʻ 6H43C C ʻ >$ED ʻ 3 3E-3C ʻ 9 H4+C ʻ $ED B- D E2C ʻ CF$ ʻ HQC34 3 $EO , - C$EN3C H4 ; EN4H$NF J 3E C ʻ <QC 4-N HEC H& G NF3C ʻ G4$ EC ʻ M- 34C ʻ H4 9 $ 34NH-4C3C ʻ H4 $EO H F34 EEHO$EN3C F$ CH3 34 ʻ J $D3 ʻ NH J R J 3D ʻ H4 134 J 3D E H4 -1HE H4 H F3 I 43(-D N3 H& $EO ʻ H$DC H4 B4 D23C J $D3 H4 H Q3 J $D3 H4 343N 3D -ED34 F3 I 4H C HEC H& F C N ʻ H4 CF$ ʻ HQC34 3 $EO * J Q34 ʻ ? HE3 ʻ > J 3 ʻ I 3$ ʻ G-E2 ʻ ?H ʻ @H J 1HC ʻ H4 CF3C D31HC 3D H4 43 J $ E E2 F343HE ʻ H4 & $EO I 34CHE CF$ ʻ -4E H4 D$ J $EO 9 $ 34 F343HE ʻ H4 & $EO I 4H14 3 H4 H4 <NN-1 34 CF$ ʻ E32 3N ʻ $ ʻ $ ʻ 14H134 * J 3C H N 3$EC3 H4 CNH-4 $EO G NF3C H4 9 $ 34NH-4C3C $&&3N E2 C-NF ʻ H$DC H4 B4 D23C ʻ C-NF. ; E2 E334 ʻ ?-4 3OH4 ʻ < 34C334 ʻ H4 H F34 I 34CHE $11H E 3D QO F3 C$ D @H J J CC HE34C CF$ ʻ 2 3 H4 N$-C3 H Q3 2 3E H $EO I 34CHE H4 I 34CHEC DH E2 ʻ NH J J E2 ʻ H4 134 J E2 F3 C$ J 3 ʻ 3 F34 134CHE$ ʻ , H N3 ʻ H4 , H N3 E 9 4 E2 H Q3 3& ʻ $ ʻ F C ʻ F34 ʻ H4 F3 4 -C-$ ʻ I $N3 H4 I $N3C H& QHD3 ʻ C13N &O E2 F3 I $4 N- $4C F343 E C-NF , - C$EN3C ʻ ; EN4H$NF J 3E C ʻ <QC 4-N HEC ʻ H4 EEHO$EN3C NHEC C ʻ $ED & F3 C$ J 3 CF$ ʻ EH ʻ Q3 43 J H 3D $ED 43 J 3D 3D ʻ $ED F3 G NF3C ʻ G4$ EC ʻ M- 34C ʻ $ED 9 $ 34NH-4C3C 3&&3N -$ O N 3$EC3D $ED H13E3D ʻ F E *F433 G$OC E3 ʻ $& 34 C-NF , H N3 CF$ ʻ F$ 3 Q33E 2 3E $C $&H43C$ D ʻ ʻ CF$ ʻ Q3 $ &- ʻ &H4 C-NF ; E2 E334 ʻ ?-4 3OH4 ʻ < 34C334 ʻ H4 H F34 I 34CHE $11H E 3D QO F3 C$ D @H J J CC HE34C ʻ $ED F3 $ED F3O C $ED $43 F343QO $- FH4 T3D $ED 3 J 1H 343D ʻ &H4 F F H 43 J H 3 C-NF , - C$EN3C ʻ <QC 4-N HEC ʻ $ED EEHO$EN3C ʻ $ED H H13E ʻ N 3$EC3 ʻ $4 D CNH-4 C-NF G NF3C ʻ G4$ EC ʻ M- 34C ʻ $ED 9 $ 34NH-4C3C ʻ $4 D F3 I 34CHE H4 I 34CHEC E32 3N E2 H HQC34 3 $ED HQ3O F3 $QH 3 ʻ J 3E HE3D , H N3 CF$ ʻ 1$O H C-NF ; E2 E334 ʻ ?-4 3OH4 ʻ < 34C334 ʻ H4 H F34 I 34CHE 3 J 1 HO3D QO F3 C$ D @H J J CC HE34C ʻ C-NF @F$423C $C CF$ ʻ Q3 $D(-D23D H Q3 43$CHE$Q 3 QO $EO * H 5-C N3C H& F3 I 3$N3 H& F3 C$ J 3 @H-E O F343 E C-NF <&&34 N3 H4 , - C$EN3 J $O F$ 3 Q33E NH J J 3D H4 3 C ʻ $ED CF$ ʻ $ CH &H4&3 ʻ $ ʻ F3 G CN43 HE H& C-NF 5-C N3C ʻ $EO ?- J ʻ EH ʻ 3 N33D E2 * 3E O I H-EDC ! $ED E D3&$- ʻ H& I $O J 3E ʻ H& C-NF @F$423C $4 D I 3E$ O F3 C$ J 3 CF$ ʻ Q3 3 3D $ED 43NH 343D ʻ F $ ʻ @HC C $ 3ED E2 F3 3 O E2 H& F3 C$ J 3 ʻ QO G C 43CC $ED ?$ 3 H& F3 <&&3ED34 C MHHDC ʻ QO 9 44E ʻ -ED34 F3 8 $EDC $ED ?3$ C H& F3 C$ D * H 5-C H3C ʻ $ED E N$C3 EH C-&& N 3E ʻ G C 43CC N$E Q3 F$D ʻ C-NF 5-C N3C $43 F343QO $- FH4 T3D $ED 43X- 43D ʻ QO 9 44E ʻ -ED34 F3 4 8 $EDC $4 D ?3$ C ʻ H NH J J ʻ C-NF <&&3ED34 H F3 M$H ʻ H4 8 H-C3 H& @H443N HE &H4 F3 @H-E O H4 I $N3 E F NF C-NF <&&3EN3 CF$ ʻ F$ 3 Q33E NH J J 3D ʻ &H4 $4 O *34 J ʻ EH ʻ 3 N33D E2 * H @$ 3ED$4 P HE FC

W W ' ED' Q3' '3E$N 3D' *F$' &'$EO' I34CHE' H4' I34CHEC' CF$ ' $+3' 43JH 3' H4' N$440' $ $O' $EO' *-4&' ;$4 F' ?$ED' M4$ 3 ' ? HE3C' H4' H F34' P$ 34 $' &H4 J E2' I$4 ' H&' $EO' 'H$D' B4 D23' M- 3 ' H4' 9 H4+' H' Q3' J$D3' H4' NHEC 4-N 3D' -ED34' F3' I4H C HEC' H&' F C' N ' H4' $EO' P$ 34 $ C' F NF' CF$ ' F$ 3' Q33E' 2H 3E ' N- ' D-2' H4' 2$ F343D' &H4' F3' J$+ E2' C-NF' 'H$DC' B4 D23C' $ED' H F34' 9 H4+C' H4' F 3' F3' C$J3' CF$ ' Q3' E' 14H243CC' H&' @HEC 4-N HE' CF$ ' $+3' H4' N$440' $ $O' 6H4' 143 3E R E2' -E$- FHR 4 T3D' '3R JH $' H&' P$ 34 $ C' E 3ED3D' H' Q3' -C3D' &H4' 'H$DC' $ED' B4 D23C

FH- ' I34J CC HE' E' 9 4 E2' H&' F3' ;E2 E334' H4' ?-4 3OH4' 3J1 HO3D' E' F3' @HEC 4-N HE' F343H&' $EO' P$ 34 $ C' H- ' H&' $EO' I ' H4' \-$440' F NF' CF$ ' F$ 3' Q33E' J$D3' D-2' H4' H13E3D' &H4' F3' I-41HC3' H&' 23 E2' P$ 34 $ C' &H4' F3' C$ D' 9 H4+C' $EO' I34CHE' CH' H&&3ED E2' CF$ ' &H4' 3 340' C-NF' <&&3EN3' &H4&3 '$ED' 1$O' $EO' ?- J ' EH ' 3 N33D E2' *3E' IH-EDC' $C' CF$ ' Q3' $D(-D23D' QO' $EO' * H' 5-C N3C' H&' F3' I3$N3' H&' F3' @H-E O' F343 E ' F3' <&&3EN3' CF$ ' F$ 3' Q33E' NH J J 3D' $ED' E' D3&$- ' H&' J J 3D $ 3' I$O J 3E ' H&' C-NF' I3E$ O' C-NF' 5-C N3C' $43' F343QO' $- FH4 T3D' $ED' 43X- 43D' QO' 9 44E ' -ED34' F3 4' 8 $EDC' $ED' ?3$ C' H' NH J J ' C-NF' <&&3ED34' H' F3' M$H ' H4' 8 H-C3' H&' @H443N HE' &H4' F3' @H-E O' H4' I $N3' E' F NF' C-NF' <&&3EN3' CF$ ' F$ 3' Q33E' NH J J 3D' &H4' $EO' *34J' EH ' 3 N33D E2' <E3' @$ 3ED$4' P HE F

WW ' ED' Q3' '3E$N 3D' *F$' F3' P HE 3C' $4 C E2' QO' F3' 6H4&3 -43C' H4' I3E$ 3C' H' Q3' 1$ D' H4' 3 3D' QO' 4 -3' H&' $EO' C-NF' I4HN33D E2C' $C' $&H43C$ D' CF$ ' Q3' 1$ D' H' F3' ;E2 E334' H4' ?-4 3OH4' H4' H F34 I34CHE' $11H E 3D' QO' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC 6H43C C' >$ED' '3 3E-3C ' 9 H4+C' $ED' B- D E2C' H' 43N3 3' F3' C$J3' $ED' Q3' QO' F3J' $11 3D' &H4' F3' I-41HC3C' H&' F C' N '($ED' 3 340' <4D34' H&' D(-D N$ HE' H&' $EO' C-NF' 5-C N3C' H&' F3' I3$N3' $C' $&H43C$ D' CF$ ' Q3' & E$' $ED' NHEN -C 3' H' $ ' E 3E C' $ED' I-41HC3C' F$ CH3 34 11 N$ HE' I3E$ 3C'

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' EH' N HE' H4' ?- ' CF$ ' Q3' I4HN33D E2C' NH J J 3EN3D' 2 EC ' $EO' I34CHE' H4' I34CHEC' &H4' $EO' F E2' DHE3' QO' 4 -3' H&' H4' E' 1-4C-$EN3' H&' F C' N ' -E ' * 3E O' G$OC' , H N3' F343H&' E' 9 4 E2' CF$ ' F$ 3' Q33E' 2 3E' H' F3' ?3N43 $40' &H4' F3' * J 3' Q3 E2' H&' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C >$ED' '3 3E-3C' 9 H4+C' $ED' B- D E2C' EH4' $& 34' $' C-&& N 3E ' ?$ CR &$N HE' H4' $' *3ED34' F343H&' F$ F' Q33E' J$D3' H' F3' I$4 O' H4' I$4 3C' $224 3 3D' EH4' $& 34' ? ' P HE FC' E3 ' $& 34' F3' 6$N ' NH J J 3D' ' $ED' C-NF' N HE' CF$ ' Q3' Q4H-2F ' E' 8 C' P$(3C O C' @H-4 ' H&' ; NF3X-34' E' $!% #&' $ED' CF$ ' Q3' $ D' E' F3' @ O' H&' 234% #' $ED' EH '3 C3 F343 ' $ED' F3' G3&3ED$E ' H4' G3&3ED$E C' E' C-NF' N HE' H4' ?- ' CF$ ' $ED' J$O' 1 3$D' F3' M3E34$' CC-3 ' $ED' 2 3' F C' N ' $ED' F3' C13N $' P$ 34' E' ; D3EN3' $' $EO' *4 $' H' Q3' F$D' F343HE ' $ED' F$' F3' C$J3' $C' DHE3' E' 1-4C-$EN3' $ED' QO' F3' - FH4 O' H&' F C' N ' $ED' &' F3' C$J3' CF$ ' $113$4' H' Q3' CH' DHE3 ' H4' &' C-NF' N HE' H4' ?- ' CF$ ' Q3' Q4H-2F ' $& 34' F3' * J 3' F343 E Q3&H43' J 3D' &H4' Q4 E2 E2' F3' C$J3' H4' CF$ ' Q3' Q4H-2F ' FH- ' * 3E O' G$OC' , H N3' F343H& ' H4' CF$ ' Q3' Q4H-2F ' E' $EO' H F34' @H-4 ' H4' $ D' E' $EO' H F34' I $N3 ' H4' $& 34' $' C-&& N 3E ' ?$ C&$N HE' J$D3' H4' 3ED343D' $C' $&H43C$ D ' F$ ' F3E' F3' 5-40' CF$ ' & ED' &H4' F3' G3&3ED$E ' H4' G3&3ED$E C' ' H4' &' F3' I $ E && H4' I $ E &&C' CF$ ' Q3NH J 3' EHEC- 3D' H4' C-&&34' $' G CNHER E-$EN3' H&' F C' F34' H4' F3 4' N HE' H4' N HEC' H4' &' $' 34D N ' CF$ ' I4HN33D E2C' N HEC' 2 EC ' @H JR J CC HE34C

1$CCʻ$2$ ECʻ F3ʻ I $ E &&ʻ H4ʻ I $ E && ʻ F3ʻ G3&3ED$E ʻ H4ʻ G3&3ED$E Cʻ CF$ ʻF$ 3ʻ*43Q 3ʻ @HC Cʻ $EDʻ CF$ ʻF$ 3ʻ C-NFʻ '3 J 3DOʻ &H4ʻ 43NH 34 E2ʻ F3ʻ C$J 3ʻ$Cʻ $EOʻ G3&3ED$E ʻ H4ʻ G3&3ED$E Cʻ F$ Fʻ H4ʻ F$ 3ʻ &H4ʻ @HC Cʻ H&ʻ ?- ʻ Eʻ $EOʻ H F34ʻ @$C3Cʻ QOʻ >$

, H N3ʻ H&ʻ ; O D3EN3

WW ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ EHʻ ; D3EN3ʻ CF$ ʻ Q3ʻ 134 J 3Dʻ Hʻ Q3ʻ 2 3Eʻ QOʻ F3ʻ I $ E &&ʻ HEʻ *4 $ʻ H&ʻ $EOʻ C-NFʻ N HEʻ $Cʻ $&H43C$ D ʻ H&ʻ $EOʻ @$-C3ʻ H&ʻ N HEʻ 3 N31 ʻ C-NFʻ $Cʻ CF$ ʻ Q3ʻ NHE $ E3Dʻ Eʻ F3ʻ , H N3ʻ F343QOʻ D 43N 3Dʻ Hʻ Q3ʻ 2 3E

@HJ1E CC HEʻ 34Cʻ J$Oʻ C-3ʻ $EDʻ Q3ʻ C-3Dʻ Eʻ F3ʻ , $J3ʻ H&ʻ F3(4ʻ ?3R N43 $40ʻ $EDʻ ?- Cʻ EHʻ Hʻ Q 3ʻ QOʻ F Cʻ '3JH $ʻ KN

WW ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ ʻ CF$ ʻ Q3ʻ $ &-ʻ &H4ʻ F3ʻ @HJ J CC HE34Cʻ H&ʻ 8 Cʻ P 3C _ Cʻ 9 HHDCʻ 6H43C Cʻ >$EDʻ '3 3E-3C ʻ 9 H4+Cʻ $EDʻ B- D E2C ʻ Eʻ 3 34Oʻ @$C3ʻ Eʻ F NFʻ ʻ J$Oʻ Q3NH J 3ʻ E3N3CR C$4O ʻ Hʻ C-3ʻ $EDʻ Q3ʻ C-3Dʻ Eʻ F3ʻ , $J 3ʻ H&ʻ F3 4ʻ ?3N43 $4Oʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2 ʻ $EDʻ F$ ʻEHʻ N HEʻ H4ʻ ?- ʻ Eʻ >$ ʻH4ʻ ; X- Oʻ Hʻ Q3ʻ Q4H-2F ʻ H4ʻ NH J J 3EN3Dʻ QOʻ H4ʻ 2 EC ʻ F3ʻ C$ Dʻ @HJ J CC HE34Cʻ H4ʻ $EOʻ H&ʻ F3J ʻ HEʻ $NNH-E ʻ H&ʻ F Cʻ N ʻ Eʻ F3ʻ , $J 3ʻ H&ʻ F3 4ʻ ?3N43 $4Oʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2ʻ CF$ ʻ Q 3ʻ H4ʻ Q3ʻ D CNHE E-3Dʻ QOʻ F3ʻ G3$ Fʻ H4ʻ '3JH $ʻ H&ʻ C-NFʻ ?3N43 $4Oʻ H4ʻ QOʻ F3ʻ N ʻ H&ʻ C-NFʻ ?3N43 $4Oʻ FH- ʻ F3ʻ @HEC3E ʻ H&ʻ F3ʻ C$ Dʻ @HJ J CC HE34C ʻ Q- ʻ F3ʻ ?3N43 $4Oʻ H&ʻ F3ʻ C$ Dʻ @H1$J Cʻ C HE34Cʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2ʻ CF$ ʻ $ $OCʻ Q3ʻ D33J 3Dʻ F3ʻ I $ E &&ʻ H4ʻ G3&3ED$E ʻ Eʻ C-NFʻ N HEʻ H4ʻ ?- ʻ $Cʻ F3ʻ @$C3ʻ J $Oʻ Q3 ʻ $EDʻ EHʻ N HEʻ H4ʻ ?- ʻ CF$ ʻ Q3ʻ Q4H-2F ʻ 2 EC ʻ F3ʻ C$ Dʻ @HJ J CC HE34Cʻ NH 3N 3 Oʻ H4ʻ ED D-$ Oʻ H4ʻ 2 EC ʻ F3 4ʻ ?3N43 $4O ʻ 3 N31 ʻ Eʻ 8 Cʻ P $(3C Oʻ @H-4 ʻ H&ʻ ; NF3X-34ʻ Eʻ $!% #& ʻ $EDʻ Fʻ F3ʻ >3$ 3ʻ H&ʻ C-NFʻ @H-4 ʻ & 4C ʻ F$Dʻ $EDʻ HQ $ E3D ʻ $EDʻ -1HEʻ C-NFʻ *34 J Cʻ $EDʻ @HED HECʻ $Cʻ F3ʻ C$ Dʻ @H-4 ʻ CF$ ʻD 43N

I 4HN33D E2Cʻ H&ʻ @HJ J CR C HE34bʻ 3J1 3 ʻ&4H-ʻ ? $J1ʻ G- 3C

WW ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ EHʻ @HE 4$N ʻ 2433 J 3E ʻ H4ʻ H F34ʻ EC 4- J 3E ʻ J$D3ʻ H4ʻ $+3Eʻ -ED34ʻ H4ʻ Eʻ 1-&C-$EN3ʻ H&ʻ F Cʻ N ʻ Fʻ H4ʻ QOʻ F3ʻ @HJ J CC HE34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ 9 HHDC ʻ 6H43C C ʻ >$EDʻ '3 3E-3C ʻ 9 H4+C ʻ $EDʻ B- D E2C ʻ EH4ʻ $EOʻ @34 & N$ 3ʻ <4D34 ʻ H4ʻ '3N3 1 ʻ -ED34ʻ H4ʻ Eʻ 1-4C-$EN3ʻ H&ʻ F Cʻ N ʻ CF$ ʻ Q3ʻ $Q 3ʻ Hʻ $EOʻ ? $J 1ʻ G- Oʻ F$ CH3 34

Bʻ L+ʻ +?ʻ F3ʻ NH J J CR C HE3Dʻ J J$O

WW ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ $ ʻ N C ʻ P$ 34C ʻ $EDʻ *F E2Cʻ F NFʻ F3ʻ @HJ J CC HE34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ 9 HHDC ʻ 6H43C C ʻ >$EDʻ '3 3E-3C ʻ 9 H4+C ʻ $EDʻ B- D E2Cʻ $43ʻ QOʻ F Cʻ N ʻ 43X- 43Dʻ H4ʻ $- FH4 T3Dʻ Hʻ DHʻ H4ʻ 3 3N- 3ʻ CF$ ʻ $EDʻ J $Oʻ Q3ʻ DHE3ʻ QOʻ $EOʻ * Hʻ H&ʻ C-NFʻ @HJ J CC HE34Cʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2

H##?B5M & #(!MK/

WW ʻ & Dʻ Q3ʻ ʻ & 4 F34ʻ 3E$N 3D ʻ *F$ ʻ F Cʻ N ʻ H4ʻ $EOʻ H&ʻ F3ʻ I &H C HECʻ F343H&ʻ J $Oʻ Q3ʻ $ 343Dʻ H4ʻ 4313$ 3Dʻ QOʻ $EOʻ N ʻ H4ʻ N Cʻ Hʻ Q3ʻ 1$CC3Dʻ Eʻ F Cʻ 143C3E ʻ ?3CC HEʻ H&ʻ I $4 $ J 3E

)) . ʿ %+ >) * .

M # > > ; > P ʿ 4 ʿ % ; W! ?

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□ * 1ʿ ʿ ʿ % - ʿ ʿ $□ - ʿ %□ Z ʿ
4 ʿ ?3#!ʿ 5

8 ; ' ;ʿ ?ʿ ʿ Cʿ 3 13D 3E ʿ Hʿ NHECH D$ 3ʿ $EDʿ Q4 E2ʿ E Hʿ < E3ʿ
N ʿ $ ʿ F3ʿ 14H C HECʿ H&ʿ F3ʿ C3 34$ʿ N Cʿ EH ʿ Eʿ &H4N3ʿ ʿ
43 $ E2ʿ Hʿ 4 J Oʿ I 4 T3ʿ P HE3O ʿ $EDʿ Hʿ $ 34ʿ $EDʿ $ J 3EDʿ
C3 34$ʿ H&ʿ F3ʿ I 4H C HECʿ F343H&ʿ(Q3ʿ ʿ F343&H43ʿ 3E$N 3Dʿ QOʿ F3ʿ
% E2 Cʿ J HC ʿ ; N3 3E ʿ P $(3C O ʿ QOʿ $EDʿ Fʿ F3ʿ D N3ʿ $EDʿ @HEC3E ʿ
H&ʿ F3ʿ >H4DCʿ ?1 4 -$ʿ $EDʿ * 3 J 1H4$ ʿ $EDʿ @H J J HEC ʿ Eʿ F Cʿ 143C3E ʿ
I $4 $ J 3E ʿ $CC3 J Q 3D ʿ $EDʿ QOʿ F3ʿ - FH4 Oʿ H&ʿ F3ʿ C$ J 3 ʿ * F$ ʿ $Eʿ N Cʿ $ED
N ʿ 1$CC3Dʿ Eʿ F3ʿ 6 & O &H-4 Fʿ =3$4ʿ H&ʿ F3ʿ ' 3 2Eʿ H&ʿ 8 Cʿ P $(3C Oʿ I $4 Cʿ H&ʿ N Cʿ
% E ʿ ! , (!ʿ F3ʿ * F 4D ʿ E - 3Dʿ / #ʿ / ' ʿ , ʿ ! (3% #(ʿ) !ʿ R 4# ʿ 4313$ 3D ʿ Tʿ
, ʿ/ ʿ * !ʿ , #! ʿ #&ʿ , ʿ 5 , 0 & !ʿ , ʿ) !ʿ * ! # ʿ, ʿ 3#'% !&ʿ ʿ ʿ Nʿ
#&ʿ , ! ! &ʿ +) ! 1ʿ , ʿ @F3 C3$ʿ , 15 %=ʿ $EDʿ $ CHʿ $Eʿ N ʿ 1$CC3Dʿ Eʿ
F3ʿ 6 & O C3 3E Fʿ =3$4ʿ H&ʿ F3ʿ ' 3 2Eʿ H&ʿ 8 Cʿ $ 3ʿ P $(3C Oʿ % E2ʿ ! , (!ʿ
F3ʿ * F 4D ʿ E - 3Dʿ H4ʿ ! J ! #& #(ʿ) !ʿ * , 0 1 , #1ʿ , ʿ # / ' ʿ 9P ^ ' PP
, ʿ) !ʿ R ʿ , 3)ʿ H! ʿ , ʿ 1ʿ 5 ! 1 ! # ʿ U!1 ʿ , ʿ ! (3% #(ʿ) !ʿ
* ! # ʿ, ʿ/ ʿ * !ʿ , #! ʿ=ʿ #& , ʿ 3) , #(ʿ) !ʿ I , 11 , #! 1ʿ
, ʿ @F3 C3$ʿ , 15 %ʿ , ʿ 1315! #&ʿ) !ʿ * ! #1 , #ʿ , ʿ13')ʿ * ! 1 , #1ʿ 1ʿ 1) %%ʿ
) !ʿ (3 % ʿ @ ʿR 3&1ʿ #ʿ ! 15! ' ʿ , ʿ* !ʿ , #! ʿ , ʿ * ! #1 , #1ʿ=ʿ $EDʿ $ CHʿ
CHʿ J -NFʿ H&ʿ $Eʿ N ʿ 1$CC3Dʿ Eʿ F3ʿ 6 & O 3 2F Fʿ =3$4ʿ H&ʿ F3ʿ ' 3 2Eʿ H&ʿ
8 Cʿ $ 3ʿ P $(3C Oʿ % E2ʿ ! , (!ʿ F3ʿ * F 4D ʿ E - 3Dʿ / #ʿ / ' ʿ , ʿ < : ! * A B C'
! (3% : (ʿ) !ʿ * ! # ʿ, ʿL ! (! # %ʿ 2 ! 4 1ʿ #&ʿ) !ʿ 2 1 43 , #ʿ @ ʿ
) !ʿ R ' 1ʿ , ʿ6 ' ! 1ʿ #&ʿ +, %& ! 1ʿ & #(ʿ #ʿ + ! 0 ' ! ʿ #&ʿ) !ʿ L ! ' ! 5 ʿ ʿ
+3 1ʿ &3!ʿ , ʿ + , %& ! 1 ʿ $Cʿ 3E$N C ʿ F$ ʿ &4H J ʿ $EDʿ $& 3 ʿ F3ʿ * 3E O &H-4 F
!ʿ * ʿ G$0

G$0' H&' ?#% ' < E3' H-C$ED' 3 2F ' F-ED43D' $ED' 3 2F 33E' ' CF$ ' EH ' Q3'
$ &- ' &H4' $EO' 23E ' H4' 23E C' $11H E 3D' &H4' F3' G C 4 Q- HE' H&'
4 J O' I 4 T3' H4' BH-E O' P HE30 ' M4$E ' H4' H F34' H $EN3C' H&' P HE30 '
E' F3' , $ -43' F343H&' ' H4' &H4' F3' * 43$C-434' H&' I) !%1! ' 8 HC1 $ ' H' 1$O'
F3' ?F$43' H&' $EO' , HE NH J J CC HE3D' <&& N34' H4' ?H D 34' H' $EO' I 34CHE'
H4' I 34CHEC' F$ CH3 34' H F34' F$E' F3' , HE NH J J CC HE3D' <&& N34' H4'
?H D 34' 3E 3D' H' F3' C$ J 3' ' H4' H' F3' E3 ' H&' % E' H4' ; 3N- H4' H4' D '
J E C 4$ H4' H&' C-NF' , HE NH J J CC HE3D' <&& N34' H4' ?H D 34 ' H4' H' F3'
23E ' H&' $EO' ' 32 E(3E ' B$ $ HE ' H4' @H41C' H&' 8 C' P $(3C O C' 4 J O' H4'
P $ ' D- O' $- FH4 T3D' QO' F3' I $4 O' 3E 3D' F343 H' H' 43N3 3' F3'
C$ J 3' _ $ED' $ CH' CH' J -NF' H&' F3' C$ D' N ' $C' 3E$N C ' F$ ' ' CF$ ' EH ' Q3'
$ &-&&H4' F3' 23E ' $11H E 3D' &H4' F3' G C 4 Q- HE' H&' 4 J O' I 4 T3' H4'
BH-E O' P HE30 ' M4$E C' H4' H F34' H $EN3C' H&' P HE30' E' F3' , $ -43'
F343H&' H4' &H4' F3' * 43$C-434' H&' I) !%1! ' 8 HC1 $ ' H' 1$O' H' $EO' @43D H4'
$+ E2' H- ' >3 34C' H&' D J E C 4$ HE' H' $' D3N3$C3D' , HE NH J J CC H13D'
<&& N34' H4' ?H D 34 ' H- ' H&' F3' ?F$43' H&' C-NF' D3N3$C3D' , HE NH J J CC HE3D'
<&& N34' H4' ?H D 34 ' $EO' &-4 F34' H4' 243$ 34' ?- J' F$E' CF$ ' $113$4' QO'
&& D$ ' H' Q3' J $D3' QO' F3' I 34CHE' $+ E2' H- ' >3 34C' H&' D J E C 4$R
HE ' H' Q3' D-3' H' F J' $' F3' * J 3' H&' $+ E2' H- ' C-NF' >3 34C' H&'
D J E C 4$ HE' ' $ED' $ CH' $E' N ' 1$CC3D' E' F3' ; 4C ' =3$4' H&' F3'

'M '@Z ' 3 2E' H&' 8 C' $ 3' P $(3C O' K #(' ! , (!' F3' 6H-4 F ' E - 3D' / #' / ' '
,' ! (3% !') !' * ! # ' , ' / ' * !' , # ! =' $ED' $ CH' $E' N '
1$CC3D' E' F3' 6H-4 F' =3$4' H&' F3' ' 3 2 ' H&' 8 C' $ 3' P $(3C O' % E2'

' 'M' 'N' Y! ! , (!' F3' 6H-4 F ' E - 3D' / #' / ' ' ,' ! J ! #&' 7F ,' / ' 1' V ' 1' % !'
! !1 ' U4 ' 2 1 43 , #' , ' 5 !' , # ! ' ,' %%' I 1!1' 6 ' I 5 3 !') '
) !' 4! !#' &!' 4 ' R, ! (#' +) 51' , ' < #&' R, ' !1' #' ' , #U3#' , #' F)'
1' U!1 1' +) 51' , ' < #&' R, ' !1' ' $ED' $ CH' $E' N ' 1$CC3D' E' F3'

!M @ [6 & F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O ' E - 3D' / #' / ! ' ,'
5 !0!# ') !' %%!(%' 5 F# #(' , ' I %,) !1' #&' + , !1' 4!%, #(#(' ,' @F3 C3$'
, 15 %=' ,' (0!' 3) ! ' * , F! 1' ,') !' 7 ! 13 ! ' #&' 2 !53 ' 7 ! [
13 ! ' , ' @F3 C3$' ` &' M433E NF' , 15 %1' , ' 53# 1)' * ! 1, #1' 3&3[
%!# % ' ! ' ! 0 #(' * !' , # ! ' , ' * !#1 , #1' _ #&' ,' !# 4%!') !' I , [
11 , #! 1' @F3 C3$' , 15 %' ,') , %&' < #&1' 53 ') 1!&' 3#&! ') !' %%'
, ' I , %, #!% 2 0 , %! ' CF$ ' Q3' $ED' F3' C$ J 3' C' $ED' $43' F343QO' 4313$ 3D'

3 N31 ' $C' H' @$1 -43C KN' J $D3' Q3&H43' F C' N ' $ED' $C' H' <&&3EN3C' 2 EC ' 43R N 3D' N C

3 N31 ' $C' H' $ ' @$1 -43C' $ED' M4$E C' F NF' CF$ ' F$ 3' Q33E' J $D3' 1 3'
H#C O' H' F3' 1$CC E2' H&' F C' N ' F NF' CF$ ' Q3' 432- $ 3D' $ED' D CR
4 Q- 3D' -ED34' F3' I 4H C HEC' H&' F3' C$ D' F343 1 Q3&H43' 43N 3D' 3 C '
$ED' 3 N31 ' $C' H' $ ' C-NF' * F E2C' $C' F$ 3' Q33E' DHE3' 143 H-C O' H' F3'
1$CC E2' H&' F C' N ' E' 1-4C-$EN3' H&' $EO' H&' F3' C$ D' D C' F343QO'
4313$ 3D' F NF' CF$ ' Q3' $C' 3&&3N -$ ' $C' &' F3' C$ D' N C' C ' NHE E-3D'
E' &H4N3 ' $ED' $ CH' 3 N31 ' $C' H' $ ' <&&3EN3C' NH J J 3D' 2 EC ' $EO' H&'
F3' I 4H C HEC' H&' $EO' H&' F3' C$ D' N C' F34 3QO' 4313$ 3D' PNF' CF$ '

' 313$ ' H&' 43N 3D' N C' EH ' H' 43 3' N C' QO' F3 J' 4313$ 3D

3H1 E-3' 1-E CF$Q 3' $C' &' F3' C$ J 3' F$D' Q33E' NH J J 3D' $& 34' 3'
1$CC E2' H&' F C' N ' $ED' 2 EC ' F3' I 4H C HEC' F3431&.' I 4H D3D ' F$ '
EH F E2' E' F C' N ' CF$ ' 43 3' H4' 2 3' $EO' ; &&3N ' H' $ I O' N ' <4 N C'
4313$ 3D' QO' $EO' H&' F3' C$ D' 43N 3D' N C

' @$1 -43C' F343$& 34' J $D3' QO' F3' 4 J O ' CF$ ' Q3' D CR 1HC3D' H&' $C' 8 C' P $(3C O' CF$ ' D 43N

* ' ED' B3' ' &-4 F34' 3E$N 3D ' * F$ ' &4H J' $ED' $& 34' F3 1$CC E2'
H&' F C' N ' E' $ ' @$1 -43C' F NF' CF$ ' F3' J $D3' QO' 8 C' P 3C O C'
4 J O ' ' HO$ ' 4 34O ' I 4H EN $ ' B $N+ ' $ED' $& ' H F34' * 4HH1C' E' F3'
I $O' H4' ?34 N3' H&' 8 C' P $(3C O ' H4' Q3 HE2 E2' H' 8 C' P $(3C O' Q- ' E'
F3' I $O' H&' F3' #E 3D' @H J 1$EO' H&' P 34NF$E C' 4$D E2' H' F3' ; $C:'
$#& !1 ' H4' FH CH3 34' H F34 C3' 1$ D ' H&' $EO' 6H4 43CC' H4' I HCC3CC HE' H&'

8 C' P$(3C O C ; E3 J 3C' H4' H&' $EO' ?F 1' H4' 3CC3' E' $EO' 'H$D' ' 34 8$ 3E' H4' @433+' Q3 HE2 E2' H' C-NF' 6H4 43CC' H4' I HCC3CC HE' $ED' E' $' @$1 -43C' ; 13D HEC' H4' N HEC' &4HJ' F NF' I 4 T3' P HE30' BH-E O' P HE30' H4' M4$E' CF$ '$4 C3' F3' @HJ J $ED34C' $ED' H F34' <& N34C' $ED ?H D 34C' 3E2$23D' F343 E' CF$ ' F$ 3' C-NF' ' 2F' $ED' E 343C' $C' 8 C' P$(3C O' CF$ ' F E+' & ' H' H4D34' E' $ ' F3' 4 J C' J J -E HE' ? H43C' H&' 9$4' MHHDC' P 34NF$ED T3' BHH O' I 4 T3' $ED' *43$C-43' Q3 HE2 E2' H' F3' ? $ 3' H4' H' $EO' 1-Q N' *4$D E2' @HJ 1$EO' H&' C-NF' ; E3 J 3C' F NF' CF$ 'Q3' &H-ED' E' C-NF' 6H4 43CC' H4' I HCC3CC HE' H4' N$1 -43D' E' H4' 24$E 3D' &H4' $EO' C-NF' ; 13D HE' H4' N HE' H' Q3' D D3D' E' C-NF' I 4H1H4 HEC' $ED' $NNH4D E2' H' CENF' 23E34$' ' - 3' H&' G C 4 Q- HE' &H4' F3' 4 J O' $C' CF$ ' Q3' 3C $Q CF3D' QO' 8 C' P$(3C O' H4' E' D3&$- ' F343H&' E' C-NF' P$EE34' $C' 8 C' P$(3C O' CF$ ' -ED34' 8 C' ? 2E' P$E-$' Q3' 1 3$C3D' H' D 43N

' I 4H D3D' $ $OC' $ED' Q3' ' &-4 F34' 3E$N 3D' *F$' EH' <&& N34' , HE NH J J CC HE3D' <&& N34' H4' ?H D 34' H4' H F34' I 34CHE' FH' CF$ ' Q3' 3E 3D' H' CF$43' E' $EO' I 4 T3' H4' @$1 -43' $+3E' &4HJ' $EO' H&' 8 C' P$(3C O C' ; E3 J 3C' H4' E' $EO' M4$E' HE' $NNH-E' H&' ?34 N3C' $ED' FH' CF$ ' D3C34' H4' -E $ &- O' FD4$ '&4HJ' 8 C' P$(3C O C' ?34 N3' CF$ ' F$ 3' $EO' * 3' H' H4' B3E3& '&4HJ' $EO' I $4' H&' C-NF' I 4 T3' @$1 -43' H4' M4$E' F NF' $' F3' * J 3' H&' C-NF' G3C34 HE' CF$ ' 43 J $ E' -E1$ D' Q- ' F3' ?F$43' H4' ?F$43C' H&' 3 34O' C-NF' <&& N3 ' , HE NH J J CC HE3D' <&& N34' H4' ?&& D 34' H4' H F34' I 34CHE' CH' D3C34 E2' H4' C-NF' I $4' F343H&' $C' $' F3' * J 3' H&' F C' H4' F3 4' G3C34 HE' CF$ ' 43 J $ E' -E1$ D' $ED' $ CH' F3' ?F$43C' H&' $ ' <&& N34C' , HE NH J J CC HE3D' <&& N34C' $ED' ?H D 34C' F NF' CF$ ' EH' Q3' 32$ O' D3 J $ED3D' F E' ? ' =3$4C' $& 34' F3' C$ J 3' CF$ ' F$ 3' Q33E' 1$ D' H' F3' *43$C-434' H&' @ 3KN$' 8 HC1 $' $C' F343 E $& 34' J 3E HE3D' CF$ ' Q3' &H4&3 3D' H' F3' *43$C-434' H&' I) !%1! ' 8 HC1 $ ' $ED' $11 3D' E' J $EE34' F343 E $& 34' J 3E HE3D' -E 3CC' C-NF' <&& N34C' , HE NH J J CC HE3D' <&& N34C' H4' ?H D 34C' $C' CF$ ' F$ 3' D3C34 3D' CF$ ' Q3' 43C H43D' QO' 8 C' P$(3C O C' I 4HN $ J $ HE' H4' H F34 C3' 1$4DHE3D' $ED' -E 3CC' F' 43C13N' H' C-NF' ?F$43C' H&' <&& N34C' , HE NH J J CC HE3D' <&& N34C' $ED' ?H D 34C' $C' CF$ ' EH' Q3' N $ J 3D' F E' F3' * J 3' $QH 3' J 3D' E' F$' B3F$ &' 43CHEQ 3' @$-C3' CF$ 'Q3' CFH E' H' $ED' $ H 3D' QO' F3' @HJ J CC HE34C' H&' F3' C$ D' ' HO$' 8 HC1 $' $' I) !%1! ' &H4' F3' * J 3' Q3 E2' H4' $EO' *F433' H4' J H43' H&' F3 J ' FO' C-NF' $C J 3E HE3D' ?F$43C' 343' EH' N $ J 3D' E' D-3' * J 3

G3C34 34C' CF$ ' EH' 3 3E 3 .' H' I 4 T3' P HE3

? $43C' EH' N $ J 3D' F E' ? ' =3$4C' $& 34' Q3H@*' 1$ D' H' F3' *43$C-434' H&' @F3 C3$' 8 HC1 $' H' Q3' &H4&3 3D' -E 3CC' -1HE' 2HHD' @$-C3' CFH E' $ED' $ H 3D

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' E' $' C-NF' @$1 -43C' ; 13' D HEC' H4' N HEC' $C' $&H43C$ D' F3' 43N3 E2' $ED' NH 3N E2' H&' BHH O' $ED' $' 114$ C3 J 3E C' $ED' ?$ 3C' H&' $EO' 4 J C' J J -E HE' + , !1' , ' 9$4' MHHDC' P 34NF$ED T3' $ED' *43$C-43' F NF' CF$ 'Q3' &H-ED' E' $EO' C-NF' 6H4 43CC' H4' I HCC3CC HE' $C' $&H43C$ D' $ED' ,' F NF' F3' @HJ ' J $ED34C' $ED' H F34' <&& N34C' $4 D' ?H D 34C' CF$ ' Q3' 3E 3D' CF$ ' Q3' J $D3' QO' 23E C' $11H E 3D' QO' F3' @HJ J $ED34C' $ED' H F34' <&& N34C' 3E 3D' F343 H ' ^ F$' C' H' C$O _' F3' @HJ J $ED34C E @F 3&' $ED' 6 3 D' <&& N34C' $N E2' HE' F3' ; 13D HE' E' F NF' C-NF' 6H4 43CC' H4' I HCC3CR C HE' $C' N$1 -43D' CF$ ' $11H E' $E' 23E ' $ED' F3' H F34' @HJ J CR C HE3D' <&& N34C' 3E 3D' F343 H' H4' F3' P$(H4 O' H&' F3 J ' &' J H43' F$E <E3' J $O' $11H E' $EH F34' 23E ' H' $N' &H4' F3 J ' C-NF' 11H E J 3E' Q3 E2' J $D3' QO' >3 34' H4' >3 34C' H&' H4E3O' D- O' 3 3N- 3D' &H4' F$' I -41HC3' @H1 3C' H&' F NF' CF$ ' Q3' 4$EC J 3D' $C' F343 E $& 34' J 3E '

114$ C3' J3E C' $ED E0$D3 / (!# 1' $1' 1H E 3D' QO' @H4E'

1E3D

U / M # > ; > P W ' @$1 !S

HE3D ' $ED' EH' I34CHE' H4' I34CHEC' 3 N31 ' F3' I34CHE' H4' I34CHEC' CH' H' Q3' EH J E$ 3D' $ED' $11H E 3D' 23E ' H4' 23E C ' $ED' FH' CF$ ' F$ 3' 2 3E' ?3N-4 O' $C' 43X- 43D' QO' F C' N ' $ED' FH' CF$ ' $N -$ O' D CNF$423' F3' G- 3C' H&' 23E ' CF$ ' -ED34' $EO' I43 3EN3' 43N3 3' $EO' I$4 ' H4' ?F$43' H&' $EO' @H J J CC HE' H4' I34 N3E $23' E' 43C13N ' H&' C-NF' 23ENO ' H&' $EO' B3E3& ' H- ' H&' $EO' C-NF' @H J J CC HE' H4' I34 N3E $23' $ED' 3 340' I34CHE' CH' EH J E$ 3D' $ED' $11H E 3D' 23E ' FH' CF$ ' 2 3' H' H4' $ H ' H' Q3' $+3E' QO' $EO' H F34' I34CHE ' $ED' 3 340' I34CHE' FH' CF$ ' $+3 ' $NN31 ' H4' 43N3 3 ' 3 F34' F J C3 &' H4' QO' $EO' H F34' I34CHE' HE' F C' B3F$ & ' H4' &H4' F C' # C3' H4' D $E $23' ' H4' &H4' F3' # C3' H4' D $ER $23' H&' $EO' I$4 ' H&' F C' 6$J O ' $EO' I$4 ' H4' ?F$43' H&' $EO' C-NF' @H JR J CC HE ' H4' $EO' ; J H - J 3E ' H4' B3E3& ' F343H- ' CF$ ' &H4' 3 340' C-NF' <&&3EN3' &H4&3 ' $ED' 1$O' F3' ?- J' H&' <E3' F-ED43D' I H-EDC ' $ED' $ CH' GH-Q 3' F3' J H-E ' H4' $ -3' H&' F$ ' CF$ ' F$ 3' Q33E' CH' 2 3E' H4' $ H 3D' H' Q3' $+3E ' H4' CF$ ' F$ 3' Q33E' CH' $+3E' $ED' 43N3 3D' $C' $&H43C$ D' ' C-NF' I3E$ O' $ED' J H-E ' H' Q3' 43NH 343D' $C' F343 E $& 34' J 3E HE3D

I344$ O' HE' 23E C' 134R J E2' H F34C' H' CF$43' E' F3' @H JH CC HE' H4' ; J H -R J3E ' E' 43C13N ' H&' 23ENO

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' Q3&H43' $EO' I34CHE' CH' $1R 1H E 3D' CF$ ' $N ' $C' 23E ' &H4' 4 J O' I4 T3' H4' @$1 -43 ' F3' CF$ ' 2 3' ?3N-4 O ' F' * H' C-&& N 3E ' ?-43 3C ' QO' $'(H E ' $ED' C3 34$ ' BHED E' F3' ?- J' H&' * H' FH-C$ED' I H-EDC ' H' F3' * 43$C-434' $ED' G31- O' * 43$C-434' H&' I) !%1! ' 8 HC1 $ ' &H4' F3' * J 3' Q3 X2 ' &H4' D- O' $ED' &$ FR &- O' 3 3N- E2' F C' C$ D' * 4-C ' $ED' $NNH-E E2' &H4' $ED' 1$O H2' H 34' $ ' ?- J C' H&' P HE3O' F NF' CF$ ' NH J 3' H' F C' 8 $EDC' QO' 43$CHE' H&' F C' C$ D' / (! # ' ' F NF' C$ D' BHED ' H23 F34' F' * F433' $ 3C 3D' @H1 3C' F343H&' $ED' $ CH' * F433' @H1 3C' H&' F3' >3 34' H4' >3 34C' H&' H4E3O' $11H E E2' C-NF' I34CHE' 23E ' CF$ ' Q3' D3 343D' QO' C-NF' 23E ' H' F3' @H J J $ED34 E @F 3&' $N E2' HE' F$ ' ; 13D HE ' $ED' CF$ ' Q3' E' F3' 6H4 J ' H4' H' F3' ; &&3N ' C3 ' &H4 F' E' F3' ?NF3D- 3' J $4+3D' ^ _' F343R -E H' $EE3 3D

23E C' CF$ ' 2 3' ?3N-4 O' Q ' BHED

' ED' Q3' ' &-4 F34' 3 N 3D ' * F$ ' F3' @H J J $ED34 E @F 3&' H' FH J ' C-NF' BHED' $ED' $ 3C 3D' @H1 3C' CF$ ' Q3' CH' D3 343D' CF$ ' QO' F3' & 4C ' @HE 3O$EN3' 4$EC J ' F3' C$ D' BHED ' $ED' <E3' $ 3C 3D' @H1O' H&' F3' C$ D' >3 34' H&' H4E3O ' H' F3' * 43$C-434' H&' I) !%1! ' 8 HC1 $ ' $ED' <E3' H&' F3' @H1 3C' H&' F3' C$ D' BHED' H' F3' @H J J $ED34 E @F 3&' $ ' Q3' , 1!' 3 &1 ' $ED' QO' 3' E3 ' @HE 3O$EN3' CF$ ' 4$EC J ' <E3' H F34' C-NF' @H1O' H&' F3' BHED' $ED' >3 34' H&' H4E3O' H' 3' C$ D' * 43$C-434' H&' I) !%1! ' 8 HC1 $ ' $ED' @H J J $ED34 E @F 3& C' <&& N3' 43C13N 3 O ' $ED' F3' >3 343' H&' H4E3O' ^H4' F3' @H1 3C' F343H&' E' N$C3' F3' <4 2 E$ ' C' HC _' 4$EC J 3D' QO' F3' C$ D' @H J J $ED34 E ' @F 3&' CF$ ' Q3' 2HHD' $ED' C-&& N 3E ' ; D3EN3' H&' F3' 23ENO' H&' F3' I34CHE' H4' I34CHEC' H' FH J ' C-NF' >3 34' H&' H4E3O' CF$ ' F$ 3' Q33E ' J $D3 ' $ED' CF$ ' Q3' 43N3 3D' $ED' $D J 3D ' FH- ' &-4 F34' H4' H F34 ' I4HH&' F343H&' H' Q3' 32$ ' ; D3EN3' E' $ ' 8 C' P $(3C O C' @H-4 C' H&' ' 3NH4D ' H&' >$ ' H4' ; X- O ' $EO' >$ ' @-C H J ' H4' 7 # C$23' H' F3' NHE 4$4O' F343H&' EH FC $ED E2' $ED' &' F3' H4 2 E$ ' BH D' 2 3E' QO' $EO' 23E ' CF$ ' Q3' HC ' H4' CF$ ' EH ' F$ 3' Q33E' 43N3 3D' QO' F3' * 43$C-434' H&' I) !%1! ' 8 HC1 $ ' E' 1-4C-$EN3' H&' F3' I4H C HEC' H&' F C' N ' F3E' $' @H1O' H&' F3' C$ D' BHED ' 4$EC J 3D' QO' F3' @H J J $ED E2' <&& N34 ' CF$ ' Q3' $D J 3D' $C' ; D3EN3' H&' C-NF' $' BHED' F$ E2' Q33E' 2 3E' $ED' 3E 343D' E H ' $ED' F3' I $ E &&' E' $EO' N HE' H' 43NH 34 F3

BHED' $ED' @H1 3C' H&' >3 34' H&' R H4E3O' H' Q3' 4$EC J 3D' H' * 43$C-434' H&' @F3 C3$' 8 HC1 $ ' $ED' H' @H J R J $ED34 E ' @F 3&' $ ' F3' H423' M-$4DC ' >3 34C' H&' H4E3O' CF$ ' Q3' > D3' N3' H&' 23ENO ' $ED' @H1 3C' H&' BHEDC' J $O' Q3' $DR J 3D' $C' ; D3EN3

U`M#> ;>P ' ' @$1 !S !

F3' I3E$ O' H&' F3' C$J3' CF$ ' EH ' Q3' EHEC- 3D' H4' F$ 3' $' 34D N' 2 EC'F J '&H4' 9$E 'H&'H4' 6$ -43' E' 14HD-N E2' F3'H4 2 E$' BHED

' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' -1HE' F3' , HE134&H4 J$EN3' H&' BHED' H' Q3' $EO' @HED HE' H&' F3' C$ D' BHED' F3' *43$C-434' H4' G31- O' *43$C-434' I-' E' ?- ' H&' I)!%1! ' 8HC1 $'CF$ ' EC - 3' C-NF' N HE' $ED' N HEC' ?- '$ED' ?- C' $C' J$O' Q3' 3 13D 3E '&H4' F3' '3NH 340' H&' F3' I3E$ O' F343H&' F3' @HE' $ED' F3' C$J3' F3E' 43NH 343D' CF$ ' Q3' 1$ D' H' F3' C$ D' *43$CF434' H4' D HEC' G31- O' *43$C-434' H&' I)!%1! ' 8HC1 $' H' $ED' &H4' F3' #C3' H&' F3' C$ D' 'HO$' 8HC1 $' H4' H&' F3' @$1 H4C' FH' CF$ 'F$ 3' C-&&343D' >HCC' QO' F3' , H E134&Q4 J$EN3' H&' F3' @HED HEC' F343H&

' ED' Q3' '&-4 F34' 3E$N 3D' *F$ '$C' CHHE' $C' CF$ 'Q3' 14$N N$Q 3' 'N34 B3D' $& 34' $EO' I4 T3' H4' @$1 -43' CF$ ' Q3' J$D3' H4' ; E2$23 J3E 'CF$ 'F$ 3' > C'H&' F3' $+3E' 1 $N3' F3' @H J J$ED E2' <&& N34' H&' 3 340' '32 J3E ' H4' @H41C' I34CHEC' 3ER 3E 3D' H' CF$43' E' F3' I4HN33DC' H&' F3' C$ D' @$1 -43' H4' &4H J' $EO' 3D' H' C $43' M4$E' E' NHEC3X-3EN3' H&' C-NF' ; E2$23 J3E ' CF$ ' 4$EC J ' H' F3' E' F3' @$1R *43$C-434' H&' F3' 'HO$' 8HC1 $']' I)!%1! ' $' > C ' $NNH4D E2' H' F3' -43' H' Q3' 6H4 J' $ED' NHE $ E E2' F3' I$4 N- $4C' C3 '&H4 F' E' ?NF3D- 3'^B _' H' F C' D3 343D' H4 N '$EE3 3D' H&' F3' I34CHEC' E' F3' '32 J3E ' H4' @H41C' -ED34' F C' 4$EC J 3D' @H J J$ED' 3E 3D' H' CF$43' F343 E' F NF' > C 'CF$ 'Q3' C 2E3D' QO' F3' H' @F3 C3$ C$ D' @H J J$ED E2' <&& N34' F3' , $J 3C' Q3 E2' 44E23D' E' F3' C$J3' 8HC1 $ <4D34' E' F NF' F30' C $ED' E' F3' P-C 34' 'H C' H&' C-NF' '32 J3E C' H4' @H41C' $ED' F3' C$J3' CF$ ' Q3' 3 $J E3D' F' $ED' NH443N 3D' QO' F3' P-C 34' 'H C' $ED' E' N$C3' &4H J' $EO' -423E ' @$-C3' EH' C-NF' I4 T3' > C ' $C' $&H43C$ D' CF$ ' Q3' C3E ' H' F3' *43$C-434' H&' F3' C$ D' 'HO$' 6 HC1 $' F3' C$ D' *43$C-434' H4' F C' G31- O' CF$ ' $11 O' H' F3' @H JR J$ED E2' <&& N34' H4' 14H134' <&& N34' H4' <&& N3' &H4' > C C' H&' F3' I34CHEC' 3E 3D' H' CF$43' E' C-NF' @$1 -43' $ED' C-NF' > C C' CF$ ' F343-1HE' Q3' J$D3' H-'&4H J' F3' H&& N $' '3 -4EC' $ED' F3' 14H134' <&& N34' H' FH J' C-NF' 11 N$ HE' CF$ 'Q3' J$D3' CF$ 'N$-C3' F3' C$J3' H' Q3' J$D3' H- ' $ED' N34 &O' F3' *4- F' F343H&' -ED34' F C' 8$ED ' $ED' $EO' I34CHE' H4' I34CHEC' FH' CF$ '$ 34' F3' , $J3' H4' '$E+' H&' $EO' I34CHE' H4' I34CHEC' E' $EO' > C ' F NF' CF$ ' F$ 3' Q33E' CH' N34 & 3D' $C' $&H43C$ D' H4' 34$C3' H4' $+3' $ $O' $EO' , $J3' F343&4H J' H4' $DD' $EO' , $J3' F343 H' $& 34' F3' C$J3' CF$ ' F$ 3' Q33E' CH' N34 & 3D' $C' $&H43C$ D' F' E 3E ' H' D3&4$-D' $EO' I34CHE' H4' I34CHEC' H4' @H41H4$ HE' F$ CH3 34' CF$ ' &H4&3 ' F3' ?- J' H&' 6 3' F-ED43D' IH-EDC' H' Q3' 43NH 343D' E' J$E 34' F343 E' $& 34' J3E HE3D

W' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' J J3D $ 3 O' $& 34' F3' 23E C' CF$ ' 11H E J3E 'H&' $EO' I34CHE' H4' I34CHEC' H' Q3' F3' 23E ' H4' 23E C' &H4' NH 3N' $ED' $EO' C-NF' I4 T3' H4' @$1 -43' C-NF' 23E ' H4' 23E C' CF$ ' 14HN33D' H' NHE 34' E H' NH 3N' $ED' NHE 34' E H' PHE3O' F3' FH 3' I4HN33DC' H&' C-NF' I4 T3' H4' PHE3O' F3' @$1 -43' CH' &$4' $C' F3' C$J3' 43 $ 3C' H' F3' 4J O' $ED' CF$ ' F E' <E3' I4HN33DC' H&' PHE F' $& 34' 43N3 E2' F3' PHE3O' $4 C E2' F343&4H J ' H4' $EO' I$4' I4 T3' $ED' F343H&' E H' F C' H4' F3 4' 8$EDC' H4' Q3NH J E2' 3E 3D' H' 43N3 3' $ED @$1 -43' $ED' 'N$1$Q 3' H&' 43N3 E2' F3' C$J3' 1$O' H4' QO' C$&3' @HE 30$EN3' 43J ' -E H' F E' <E3' F3' *43$C-434' H4' G31- O' *43$C- 34' H&' I)!%1! ' 8HC1 $' F3' PHE3O' PHE F' 43J ' $4 C E2' &4H J' C-NF' I4 T3' H4' @$1 -43' H4' &4H J' F3' I4HN33DC' F343H& F3' C$J3

W' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' 3 340' I4 T3' 23E ' CF$ ' NNH-E-' H&' J J3D $ 3 O' $& 34' F3' ?$ 3' H&' F3' I4HN33DC' H&' $EO' @$1 -43' J$D3' QO F3' 4J O' C' NH J 1 3 3D' 4$EC J ' H' F3' *43$C-434' H&' F3' C$ D' 'HO$' C3E '$ 3C 3D' !' #' ' 8HC1 $' -1HE' <$ F

8HC1 $'$' I)!%1! '$E $ 3C 3D' @H10' H&' F3' D3 $ 3D' NNH-E C' H&' F3' ?$ 3C' H&' C-NF' I4 T3' D- 0' 34 & 3D' -1HE' <$ F' H23 F34' F' $ 3C 3D' @H1 3C' H&'$ ' H-NF34C' 43 $ E2' F343 H' $ED' 3 340' C-NF' 23E ' FH' CF$ 'E32 3N 'H4' 43&-C3' H' 4$FC J ' H' 3' C$ D' *43$C-434' C-NF' $ 3C 3D' @H1 3C' H&' NNH-E C' $ED' H-NF34C' CF$ '&H4&3 '$ED' 1$0' F3' ?-J' H&' <E3' F-ED43D' I H-EDC

23E C' H4' ' H F34' I34' ' CHEC' &- 0' D3 $0 E2' Q3' I$0 J3E' H' @F3 C3$' 8HC1 $' CF$ '1$0' E 343C' $& 34' F3' '$ 3' H&' 6' 134' @3E' ' -4E' 134' PHE F

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' $E0' 23E ' $11H E 3D' $C' $&H43C$ D' H4' $E0' I34CHE' 3 J 1 HO3D' Q0' F J' H' C3 ' F3' 4 J C' J J-R E HE' ? H43C' H&' 9 $4' MHHDC' P 34NF$ED T3' H4' H F34' *F E2C' $+3E' $C' I4 T3' FH' CF$ ' 43 $ E' E' F C' 8$EDC' F3' P HE30' $4 C E2' &4H J' C-NF ?$ 3' &H4' J H43' F$E' <E3' P HE F' $& 34' F3' C$ J 3' CF$ 'F$ 3' NH J 3' E H' F C' 8$EDC' CH' F$' $E0' &-'H4' -EE3N3CC$40' G3 $0' CF$ 'F$113E' E' F3' C$ D' P HE30' Q3 E2' 1$ D' H 34' H' I)!%1! '8HC1 $ 'CF$ '1$0' E 343C' F343HE' $& 34' F3' '$ 3' H&' <E3' I H - E D I!# 3 ' ! ' P HE F' &H4' C-NF' * J 3' $C' F3' C$ J 3' CF$ '43 J $ E' E' F C' 8$EDC' H4' @-C HDO' C-NF' E 343C' H' Q3' CF$43D' $ J HE2C' F3' @$1 H4C' 3E 3D' H' C-NF' I4 T3' $ED' CF$ ' &H4&3 ' H' I)!%1! '8HC1 $' F3' ?-J' H&' 6 3' F-ED43D' I H-EDC' &H4' F3' ' -ED-3' FFH D E2' H&' I4 T3' P HE30

23ENO' I34R N3E $23' EH' H' 3 N33D' 'f' 134' M3E '3 R N -C 3' H&' '4H+34$23' $ED' $ 'H F34' @F$423C

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' I34 N3E $23' &H4' 23ENO' ^3 N -C 3' H&' B4H+34$23' $ED' $N -$' E3N3CC$40' I$0 J 3E C' &H4' F NF' H-NF34C' CF$ 'Q3' 14HD-N3D_' &H4' $E0' I4 T3' M4$E ' H4' @$1 -43' CF$ ' E' EH' @$C3' 3 N33D' E' F3' FH 3' F3' ?-J' H&' <E3' $ED' $' 8 $ &'5! ' I!# ' H' Q3' NF$423D' -1HE' F3' E3 ' P HE30' 1$ D' H' F3' *43$C-434' H&' I)!%1! ' 8HC1 $' H4' G C 4 Q- HE' '$ED' C NF' I34 N3E $23' CF$ 'EH 'Q3' D3D-N 3D' &4H J' F3' ?-J' H' Q3' 1$ D' Q0' F3' C$ D' 23E ' H' F3' *43$C-434' H&' I)!%1! ' 8HC1 $ 'Q- 'CF$ 'Q3' 431$ D' Q0' F3' C$ D' *43$C-434' $' F3' * J 3' J 3ER HE3D' E' F C' N ' $ED' EH' 23E ' H4' 23E C' CF$ 'Q3' 3E 3D' H' 43N3 3' $E0' I$4 'H&' F3' I34 N3E $23' H-'H&' $E0' M4$E 'H4' @$1 -43' Q0' F C' N 'D 43N 3D' H' Q3' $ H 3D' H' F J' H4' F3 J' -E ' * H' P HE FC' $& 34' G C 4 Q- HE' CF$ ' F$ 3' Q33E' NH J J 3EN3D' Q0' F3' *43$C-434' H&' I)!%1! ' 8HC1 $ ' -E 3CC' F3' @H J J CC HE34C' H&' I)!%1! ' 8HC1 $' CF$ ' D 43N '?-NF' I34 @3E $23' H4' $E0' I$4 ' F343H&' H' Q3' 3$4 34' 1$ D' H' F3' 23E '3E 3D' F343 H

23E C' CF$ ' EH '43N3 3' $E0' I$4 'H&' F3' I34 N3E ' $23' -E ' * H' P HE FC' $& 34' G C 4 R Q- HE

! ' 134' @3ER -4$ H' Q3' D3D-N 3D' &4H J' I4 T3' P H130' &H4' F3' I-41HC3C' Q343 E $& 34' J 3E HE3D

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' &4H J' $ED' $& 34' F3' 1$CC E2 H&' F C' N ' F3' ?-J' H&' 6 3' I H-EDC' 5! ' I!# 3 ' CF$ ' Q3' D3D-N 3D' $ED' 43 $ E3D' Q0' F3' *43$C-434' H4' G31- 0' *43$C-434' H&' I)!%1! ' 8HCR 1 $' &4H J' $ED' H-' H&' F3' E3 ' I4HN33DC' H&' $ ' I4 T3' P HE30' BH-E 0' P HE30' M4$E ' H4' H F34' H $EN3' H&' P HE30' E' F3' ,$ -43' H&' I4 T3' H4' M4$E ' F NF' CF$ 'NH J 3' E H' H4' Q3' E' F3' 8$EDC' H&' C-NF' *43$C-434' <4 G31- 0' *43$C-434' &H4' G C 4 Q- HE ' $ED' F3' C$ D' *43 $C-434' H4' G31- 0' *43$C-434' C $ '&4H J' * J 3' H' * J 3' 1$0' H 34' H4' E 3C ' F3' ?-J C' CH' 43 $ E3D' $ED' D3D-N 3D' E' F3' *F433' @HECH D$ 3D' B$E+ EE- 3C ' E' +3' P $EE34' $C' F3' B$ $EN3' H&' &H4&3 3D' $ED' -EN $ J 3D' ?F$43D' H&' I4 T3' P HE30' $43' EH ' E 3C 3D ' $ D' &H4' F3' I-41HC3C' F343 ER $& 34' J 3E HE3D

6- -43' M4$ -C' &H4' Q4 3NO 3D' Q0' *43$C-434' H&' @F3 C3$' 8HC1 $

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' $#' M4$E C' F343$& 34' H' Q3 J $D3' Q0' 8 C' P $(3C 0' H4' Q0' I$4 $ J 3E ' H4' H F34 C3' H' F3' <&& N34C' *4HH1C' H&' $E0' G C HE' H&' F3' 4 J 0' 3 J 1 H03D' -1HE' H4' 3E2$23D' E' 9 0' @$1 -43' H4' ; 13D HE' CF$ (' -E 3CC' Q0' F3' M4$E 'H F34 C3' 3 ' 143CC 0' D 43N 3D' Q3' 43N3 3D' HE' Q3F$ &' H&' F3' 4 J 0' Q0' F3' *43$C-434 H&

U M#> ;>P ' ' @$1 !S

H&' I)!%1! ' 8HC1 $' H4' F C' G31- O' H' Q3' D C 4 Q- 3D' H' F3' I34CHEC'
3E 3D' F3 3 H' $NNH4D E2' H' F3 4' 43C13N 3' I4H1H4 HEC' -ED34' F3'
I4H C HEC' H&' F C' N

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ 'CH' CHHE' $C' $EO' P HE3O' $4 C E2' 23E C' F3E'
&4H J' @$1 -43' H4' M4$E 'CF$ 'F$ 3' Q33E' 1$ D' H' F3' *43$C-434' H&' I)!%1! '
8HC1 $' H4' F C' G31- O' &H4' G C 4 Q- HE' F3' 23E 'H4' 23E C' $1'
1H E 3D' $C' F343 E Q3&H43' J 3E HE3D' $ED' $EO' I34CHE' H4' I34CHEC' $N E2' C-434' E
H4' 3 J 1 HO3D' $C' C-NF' CF$ ' F3E' N$ 3D' -1HE' QO' ,H N3' E' 9 4 E2' J$+ E2' H-'
C 2E3D' QO' F3' C$ D' *43$C-434' H4' G31- O' *43$C-434' &H4' F$' I-41HC3'
$ D' $ED' $CC C' F3' C$ D' *43$C-434' H4' G31- O' *43$C-434' E' J $+ E2' H-'
F3' ?N$ 3' $ED' > C C' H&' G C 4 Q- HE' $ED' E' NH J 1 3 E2' $ ' P$ 34C'
43 $ E2' H' C-NF' G C 4 Q- HE'

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' &' $EO' 23E 'CF$ '43&-C3' H4' &' 23E C' 43R
E32 3N' H' D3 34' F3' > C C' 43X- 43D' H' Q3' D3 343D' H' F3' *43$C-434
H&' I)!%1! ' 8HC1 $' H4' H' NH J 1 O' F' $EO' H&' F3' I4H C HEC' H&' F C' 10 F343 -'
N 'CH' &$4' $C' F3' C$ J 3' 43 $ 3' H' C-NF' 23E 'H4' 23E C' 'CF$ 'Q3' F3' *43$C-434
$ &-' &H4' F3' C$ D' *43$C-434' H' FFH D' F3' I$O J 3E 'H&' F3' 9 FH 3' J$O' FR
34' $EO' I$4' H&' F3' I34 N3E $23' H F34 C3' 1$O$Q 3' H' F3' C$ D' 23E '
H4' 23E C' -E ' C-NF' * J 3' $C' F3' H4' F3O' CF$ ' F$ 3' 134&H4 J 3D'
F3' G- 3C' $ED' NH J 1 3D' F' $ ' F3' I4H C HEC' E' F3' C$ D' N'
NHE $ E3D

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' *43$C-434' H&' I)!%1! ' *F3' *43$C-'
' 8HC1 $' CF$ '$' F3' ; ED' H&' *F433' P HE FC' &4H J' F3' * J 3' F3E' F3
I4HN33DC' H&' $EO' I4 T3' P HE3O' H4' P HE3O' $4 C E2' &4H J' $EO' M4$E ' 343' P HE FC' &4H J'
1$ 'H 34' H' F J' $C' $&H43C$ D' H4' $C' CHHE' $& 34' $C' CF$ 'Q3' 14$N N$Q 3' '3N3 1 'H&'
2 3' 1-Q N' ,H & N$ HE' E' F3' <,#&,#' ! !' $ED' E' * H' <,#&,#' I ET3 P HE3O'
P H4E E2' ,3 C1$134C' F$' F3' I$O J 3E 'H&' F3' ?F$43C' H' F3' @$1 H4C' H & HE'
' $+3' 1 $N3' $' F3' ; ED' H&' <E3' P HE F' &4H J' F3' EC34 HE' H&' F3' H&G C 4 Q-'
C$ D' ,H & N$ HE' $ED' $' F3' C$ J 3' * J 3' CF$ ' EH &O' F3' J H-E 'H&' HE'
F3' ?F$43' H&' $E' ED D-$' E' 3$NF' @ $CC' $ED' CF$ ' NHE E-3' H' 1-QR
CF' C-NF' ,H & N$ HEC' E' 3 34O' C-NN33D E2' M$T3 3' $ED' * N3' $'
9 33+' E' F3' C$ D' * H' <,#&,#' P H4E E2' ,3 C1$134C' -E ' F3' ; ED' H&'
F3' C$ D' P HE F' F3E' G C 4 Q- HE' F343H&' CF$ 'Q3' J $D3' H' F3' @$1'
H4C' E' +3' P $EE34' $C' G C 4 Q- HE' C' EH ' J $D3' QO' F3' C$ D' *43$C-434'
H&' I)!%1! ' 8HC1 $' H&' -EN $ J 3D' ?F$43C' $ED' B$ $EN3C' QO' 4 -3' H&'
$EO' N 'EH ' E' &H4N3' H4' E' C-NF' H F34' P $EE34' $C' F3' @H J J CC HE34C'
H&' F3' C$ D' 8HC1 $' H4' $EO' *F433' H4' J H43' H&' F3 J ' CF$ ' D 43N

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' *43$C-434' H&' I)!%1! ' CF$ '+331'
8HC1 $' H4' F C' G31- O' CF$ ' +331' $E' <&& N3' H13E' &4H J' *3E' H&' F3' H13E' <&& N3'
@ HN+' E' F3' P H4E E2' H' 6H-4' H&' F3' @ HN+' E' F3' & 34EHHE' H&' 3 34O' N $ J4&H4c'
G$O' E' F3' 9 33+' G+3#& 1' 3 N31 3D_' &H4' F3' I-41HC3' H&' 43N3 E2' CF$43C'
@ $ J C' &H4' ?F$43C' $ED' CF$ '1$O' C-NF' ?F$43C' F3E' D3 J $ED3D' $NNH4DR
E2' H' F3' '32- $ HEC' E' F C' N 'NHE $ E3D

W W' ED' Q3' '3E$N 3D' *F$ '$' ?F$43C' H&' I4 T3' P HE3O' D-3' H4' H' 8H ' I4 T3'
Q3NH J 3' D-3' H' ,HE NH J J CC HE3D' <&& N34C' H4' ?H D 34C' F3 F34' E' 8 C'
P $(3C O C' ?34 N3' $' F3' * J 3' H&' J $+ E2' 11 N$ HE 'H4' 143 H-C O' ,HE J'
D CNF$423D' F343&4H J ' $ED' H&' $ 'M4$E C' $ 43$DO' J $D3' H4' F343$& 34' H' J CC HE3D'
Q3' J $D3' QO' 8 C' P $(3C O 'H4' I$4 $ J 3E ' H4' H F34 C3' F NF' QO' 4 -3' <&& N34C' $ED'
H&' F C' N 'CF$ 'Q3' H4' Q3NH J 3' 1OQ 3' QO' F3' *43$C-434' H4' G31- O' ?H D 34C
*43$C-434

*43$C-434' H&' I) !%1! ' 8HC1 $ ' CF$ ' Q3' 1$ D' QO' F3' C$ D' *43$C-434' H4'
7 G31- O' *43$C-434' E' J $EE34' F343 E $& 34' J 3E HE3D ' $ED' E' EH' H F34'
P $EE34' (^ F$ ' C' H' C$O _' H' C-NF' , HE NH J J CC HE3D' <&& N34C' $ED'
?H D 34C ' -1HE' F3 4' 134CHE$ ' 11 N$ HE ' $ED' E' D3&$- ' H &' 134CHE$ '
11 N$ HE' F3E' F3' ?F$43' H&'$EO' , HE NH J J CC HE34 ' <&& N34' H4' ?H D 34'
J $O' Q3' 1$ D' H' $EO' I 34CHE' C $ED E2' E' F3' ' 3 $ HECF 1' H&' 9 &3' H4'
@F D ' 6$ F34' H4' P H F34 ' H4' B4H F34' H4' ? C 34 ' H4' H' F3' ' 32 J 3E $ '
23E ' H&' F3' ' 32 J 3E ' H' F NF' C-NF' , HE NH J J CC HE3D' <&& N34' H&'
' ?H D 34' 3E 3D' F343 H' Q3 HE2C ' H4' D D' Q3 HE2' $ ' F3' * J 3' H&' C-N (
I 4 T3' P HE3O' Q3NH J E2' D-3 ' H4' H' $EO' H F34' ' 32 J 3E $ ' 23E ' E'
N$C3' F343' CF$ ' Q3' EH' ' 32 J 3E $ ' 23E ' H&' F3' @H41C' H' F NF' C-NF'
, HE NH J J CC HE3D' <&& N34' H4' ?H D 34' Q3 HE2C' H4' D D' Q3 HE2' H' FH J '
F3' C$ J 3' N$E' Q3' 1$ D' HE' F C' B3F$ &' QO' $E' <4D34' E' F3' 6H4 J ' C3 ' &H4 F'
E' F3' ?NF3D- 3' H' F C' N ' $EE3 3D' J $4+3D' ^@ _' ' $ED' F3' I 34CHE'
J $+ E2' C-NF' <4D34' CF$ ' $ CH' 14HN-43' $ED' 4$EC J ' $' @34 & N$ 3' E'
F3' 6H4 J ' H4' H' 3' ; &&3N ' C3 ' &H4 F' E' F3' ?NF3D- 3' $EE3 3D' J $4+3D'
^G _' F NF' @34 & N$ 3' CF$ ' Q3' C 2E3D' QO' F3' @H J J $ED E2 ' <&& N34 '
D(- $E ' $ED' I $O J $C 34' H&' F3' ' 32 J 3E ' E' F NF' C-NF' I 34CHE' CF$ '
Q3' C34 E2 ' 14H D3D' F3' ? 2 4$ #43C' H&' ?-NF' <&& N34C' N$E' Q3' HQ $ E3D '
$ED' E' N$C3' F3' ? 2E$ -43C' H&' $ ' H4' $EO' H&' C-NF' 43C13N 3' <&& N34C'
N$EEH ' Q3' HQ $ E3D ' QO' 43$CHE' H&' F3' ' 32 J 3E ' Q3 E2' HE' G3 $NF J 3E '
H4' H F34' -E$ H D$Q 3' @$-C3 ' F3E' C-NF' @34 & N$ 3' CF$ ' Q3' C 2E3D' QO'
C-NF' H&' F3' C$ D' <&& N34C' $C' J $O' Q3' 143C3E ' F343' F3' , HE NH J J CR
C HE3D' <&& N34' H4' ?H D 34' C' C34 E2 ' $ED' QO' $EO' H 34' @H J J CC HE3D'
<&& N34' H&' F3' ' 32 J 3E ' H4' @H41C' F3E' 143C3E ' CH' F$ ' F343' CF$ '
EH ' Q3' 3CC' F$E' F3' ? 2E$ -43C' <&' * F433' @H J J CC HE3D' <&& N34C' H'
C-NF' @34 & N$ 3 ' H4' E' N$C3' C-NF' , HE NH J J CC HE3D' <&& N34' H4' ?H D 34'
CF$ ' Q3' D3 $NF3D' &4H J ' F C' ' 32 J 3E ' H4' Q3' E' $EO' 8HC1 $ ' H4' ? N+'
\ -$4 34C ' CH' F$ ' F3' N$EEH ' 14HN-43' C-NF' @34 & N$ 3' H&' F C' <&& N34C'
$C' $QH 3' J 3E HE3D ' F3' C$ J 3' CF$ ' Q3' C $ 3D' 1$4 N- $4 O' HE' F3'
<4D34 ' $ED' F3' @34 & N$ 3' CF$ ' Q3' C 2E3D' QO' F3' * F433' C3E H4'
<&& N34C' Q3 HE2 E2' H' C-NF' G3 $NF J 3E ' H4' QO' F3' ?-423HE' H4' 14 ER
N 1$ ' P 3D N$ ' <&& N34' Q3 HE2 E2' H' C-NF' 8HC1 $ ' H4' ? N+' \ -$4 34C'
^$C' F3' @$C3' J $O' 43X- 43_' $ED' QO' * H' H F34' 14 EN 1$ ' P $4O' H4'
@ ' <&& N34C' Q3 HE2 E2' H' C-NF' 8HC1 $ ' H4' 43C D E2' $ ' ? N+' \ -$4 3 C
' H4' E' N$C3' C-NF' , HE NH J J CC HE3D' <&& N34' H4' ?H D 34' CF$ ' F$ 3' Q33E'
D CNF$423D' &4H J ' F3' ?34 N3 ' &F3E' F3' CF$ ' □ F C' <4D34' E' F3'
6H4 J ' $&H43C$ D ' $ED' CF$ ' 14HN-43' $ED' 4$EC J ' $' @34 & N$ 3' E' F3'
6H4 J ' H4' H' F3' ; & &3N ' C3 ' &H4 F' E' F3' ?NF3D- 3' F343-E H' $EE3 3D'
J $4+3D' ^ ; _' $ED' F NF' CF$ ' Q3' C 2E3D' QO' F3' P E C 34' $ED' <E3' H&'
F3' @F-4NF $4D3EC' H4' < 34C334C ' H4' ^ &' E' + ' , % #&A' QO' F3' P E C 34'
$ED' <E3' , ' F3' ; D34C ' E' F3' I $4 CF' H4' I $N3' E' J NF' C-NF' D CR
NF$423D' , HE NH J J CC HE3D' <&& N34' H4' ?H D 34' J $O' F3E' 43C D3 ' H4'
&' C-NF' , HE NH J J CC HE3D' <&& N34' H4' ?H D 34' CF$ ' Q3' D3$D ' F3E' F3'
I 34CHE' 3E 3D' H' 43N3 3' F C' ?F$43' H&' C-NF' I 4 T3' H4' BH-E O' P HE3O'
CF$ ' J $+3' $E' <4D34' E' F3' 6H4 J ' C3 ' &H4 F' E' F3' ?NF3D- 3' H' F C' N '
J $4+3D' ^6 _' $ED' CF$ ' 14HN J N' $ED' 4$EC J ' $' @34 & N$ 3' E' F3' 6H4 J '
H4' H' F3' ; &&3N ' C3 ' &H4 F' E' F3' ?NF3D- 3' F343-E H' $EE3 3D' J $4+3D'
^6 6 _' F NF' @34 & N$ 3' CF$ ' Q3' C 2E3D' QO' F3' P E C 34' $ED' <E3' H&'
F3' @F-4NF $4D3EC' 6 ' < 3 ?334C ' H4' ^ &' E' + ' , % #&A' QO' F3' P E C 34'
$ED' <E3' H&' F3' ; D34C ' H&' F3' I $4 CF' H4' I $N3' E' F NF' C-NF' I 34CHE'
CF$ ' F3E' 43C D3 ' F NF' C$ D' C3 34$ ' @34 & N$ 3C' CF$ ' Q3' 14 E 3D'
-ED34' F3' <4D34C' H' F NF' F3O' 43C13N 3 O' Q3 HE2

WW' ED' Q3' ' 3E$N 3D' *F$' E' $ '@$C3C' E' F NF' , HE NH J J CR C HE3D' <&& N34C' H4' ?H D 34C' CF$ ' 143 H-C O' H' F3' 1$CC E2' H&' F C' N ' F$ 3' J$D3' F3 4' I4 T3' <4D34C' E' &$ H-4' H&' H F34' I34CHEC' F$E' '32 ' $3E $' 23E C' 3 F34' &4H J' F3' @ 4N- J C $EN3' H&' F343' F$ E2' Q33E' EH' 23$' &H4' F3' '32 J3E 'B$ $ HE' H4' @H41C' H' F NF' C-NF' , HER NH J J CC HE3D' <&& N34C' H4' ?H D 34C' Q3 HE23D' H4' 343' $ $NF3D' $' F3' G$ 3' H4' J$+ E2' H&' C-NF' I4 T3' <4D34C' 43C13N 3 O' H4' &4H J' $EO' H F34' @$-C3' F NF' CF$ ' C33 J' 43CHEQ 3' $ED' C-&& N 3E' H' F3' @H J J CR C HE34C' H&' I)!%1! ' 8HC1 $ ' $ED' E' $ '@$C3C' E' F NF' , HE NH J J CR C HE3D' <&& N34C' H4' ?H D 34C' CF$ ' F343$& 34' J$+3' F3 4' I4 T3' <4D34C' E' &$ H-4' H&' H F34' I34CHEC' F$E' '32 J3E $' 23E C' &4H J' F3' @ 4N- J C $EN3' H&' F343' Q3 E2' EH' 23E '$11H E 3D' &H4' F3' '32 J3E ' B$ $ HE' H4' @H41C' H' F NF' C-NF' , HE NH J J CC HE3D' <&& N34C' $ED' ?H D 34C' 43C13N 3 O' Q3 HE2' H4' $43' $ $NF3D' $' F3' * J3' H&' J$+ E2' F3 4' I4 T3' <4D34C' ' CF$ ' Q3' $ &-' &H4' F3' @H J J CC HE34C' H&' F3' 'HO$' 8HC1 $' $' I)!%1! ' $ED' F3O' $43' F343QO' $- FH4 T3D' $ED' 3J1H 343D' H' D 43N' I$O J3E ' H' B3' J$D3' -1HE' C-NF' <4D34C' QO' F3' *43$C-434' H4' G31- O' *43$C-434' H&' F3' C$ D' 'HO$' 8HC1 $' H' F3' I34CHEC' E$ J3D' $C' F3' I$O33' F343 E' H4' H' F3' 32$' '3143C3E $ 3' H&' C-NF' I$O33

I-' E' N34R $ E' @$C3C' @H J J CC HER 34C' H&' @F3 C3$ 8HC1 $' J$O D 43N' I$OR J3E 'H&' I4 T3' <4D34C' J$D3' E' &$ H-4 H&' H F34' I34CHEC' $E' '32 ' E 3H $' 23& C

WW>' ED' Q3' '&-4 F34' 3E$N 3D' *F$' -1HE' 3 34O' <4D34' J$D3' E' 8#(% #&' , ' F3' I$O J3E 'H&' I4 T3' H4' BH-E O' P HE3O' H4' P HE3O' -1HE' M4$E C' ^3 N31 ' F343' F3' ?- J' H' Q3' 1$ D' CF$ ' EH '$ J H-E ' H' 6H4 O' ?F E2C' F NF' C' F343QO' 3 3J1 3D' &4H J' G- O _' $' ? $J1' G- O' H&' <E3' ?F E2' $ED' EH' JH43' CF$ ' Q3' 1OQ 3' H' 8 C' P $(3C O' $ED' F$' EH' <4D34' 1-41H4 E2' H' $- FH4 T3' F3' '3N3 1 'H&' ?F$43C' D-3' H' JH43' F$E' <E3' I34CHE' CF$ 'Q3' D33 J3D' $ D' Q- ' F$' F3' C$ J3' CF$ ' Q3' H D' $ED' H&' EH' ;&&3N ' EH4' CF$ ' $EO' <4D34' Q3' $ D' &' J$D3' H4' N34 & 3D' F E' 6 3' P 3C' H&' I)!%1! ' 8HC1 $

? $J1' G- O' #1HE' <4D34C' 3 N31' &H4 I$O J3E C' #ED34 [' <4D34C' &H4 3$NF' I34CHE C ?F$43' H' Q3' ?31$4$ 3

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' EH' I34CHE' 1$O E2' $EO' ?F$43' H4' B$ $EN3' H&' 4J O' I4 T3' P HE3O' CF$ ' 43N3 3' H4' 43 $ E' $EO' 633' M4$ - O' H4' '3 $4D' HE' $NNH-E 'H&' $EO' N ' H4' *F E2' DHE3' 43 $ E2' H' F3' 14HN-4 E2' H4' 1$O E2' F3' C$ J3' -ED34' $EO' I43 3EN3' F$ CH3 34 HE' 1$ E' H&' &H4&3 E2' &H4' 3 34O' C-NF' <&&3EN3' <E3' F-ED43D' IH-EDC

, H' 633' H Q3' $+3E' HE' 1$O' -2$EO' ?F$43'

WW ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' EH' I34CHE' 3J1 HO3D' QO' F3' @H J J CC HE34C' H4' $EO' <&& N34' H&' I)!%1! ' 8HC1 $' E' 3 3N- E2' F3' '32- $ HEC' H&' F C' N ' CF$ ' $N ' $C' $E' 23E '&H4' I4 T3C' H4' Q3' NHE' N34E3D' D 43N O' H4' ED 43N O' E' F3' B-C E3CC' F343H&' -ED34' F3' I3E$ O' H&' 6 3' F-ED43D' IH-EDC' H' Q3' 43NH 343D' $C' F343 E $& 34' J3ER HE3D

I34CHEC' 3J ' HO3DQO F3' H$N $C1c T3' 23E C'

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' EH' CC 2E J3E ' B42 E' ?$ 3' H4' @HE 4$N ' J$D3' H4' 2 3E' QO' $EO' @H J J CC HE3D' <&& N34' &H4' H4' E' 43C13N' H&' $EO' I4 T3' H4' H F34' P HE3O' 1$ D' E H' I)!%1! ' 8HC1 $ ' CF$ ' Q3' $ D ' -E 3CC' 'Q3' F343 E' 3 143CC3D' F$' $C' F3' @HEC D34$ HE' P HE3O' $N -$ O' 1$ D' QO' F3' I34CHE' H4' I34CHEC' E' FHC3' 6$ H-4' C-NF' CC 2E J3E ' B42 E' ?$ 3' H4' @HE 4$N ' C' J$D3' H' F3' I34CHE' J$+ E2' $ED' 3 3N- E2' F3' C$ J3' ' $ED' -1HE' 3 34O' C-NF' CC 2E J3E ' B42 E' ?$ 3' H4' @HE 4$N ' F3' *43$C-434' H4' G31- O' *43$C-434' H&' I)!%1! ' 8HC1 $' CF$ 'HE O' 1$O' H' F3' I34CHE' H4' I34CHEC' N $ J E2' -ED34' H4' QO' 4 -3' F343H&' CH' J -NF' P HE3O' $C' CF$ ' 113 ' H' F$ 3' Q33E' $D $EN3D'

CC 2ER J3E C' CF$ ' 3 143CC' F3' 4-3' @HEC R D34$ HE' P HR E3O' 1$ D' HE' F3' C$ D' CC 2E J3E C' Q3 E2' J$D3

' ' ' ' .' '7 !' W' $ED

$ED' 1$ D' $C' C-NF' @HEC D34$ HE' PHE3O' $C' $ &H43C$ D' H23 F34' F' E 343C '&H4' F3' C$ J 3' $& 34' F3' ' $ 3' H&' 6 3' I H-EDC' 5! ' I !# 3 '5! ' /##3 ' F343' ' CF$ ' $113$4' -1HE' C-NF' CC 2E J 3E ' B42 E ' ?$ 3' H4' @HE 4$N ' F$ ' E 343C ' $C' E 3ED3D' H' Q3' 1$ D' F343HE

*F3' @H J J CR C HE34C' H&' @F3 C3$' 8 HCR 1 $' J$O' $- FH4 T3' F3 I $O J 3E ' H&' ?F$43C' EH ' 3 N33D E2' ' H' E3 ' H&' % E' KN' FH- ' DR J E C 4$ HE

WW ' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' ' CF$ ' Q3' $ &- ' &H4' F3' @H J J CC HE34C' H&' F3' C$ D' ' HO$ ' 8 HC1 $ ' $ ' I) !%1! ' H' $- FH4 T3' F3 4' *43$C-434' H4' G31- O' *43$C-434' H' 1$O' H' $EO' I 34CHE' H4' I 34CHEC' FH' CF$ ' 14H 3' F J ' F34' H4' F3 J C3 3C' H' F3' ?$ C&$N HE' H&' C-NF' @H J R J CC HE34C' H4' H&' F3' C$ D' *43$C-434' H4' G31- O' *43$C-434' H' Q3' F3' E3 ' H&' % E' H4' 32$ ' ' 3143C3E $ 3' H4' H F34 C3' 3E 3D' H' $EO' ?F$43' H&' I 4 T3' P HE3O' Q3 HE2 E2' H' $EO' D3N3$C3D' <&& N34' ?H D 34' H4' H F34' I 34CHE' $EO' C-NF' ?F$43' EH ' 3 N33D E2' 6 & O' I H-EDC' $ FH-2F' C-NF' I 34CHE' CF$ ' EH ' F$ 3' 432- $4 O' $+3E' H- ' >3 34C' H&' D J E CR 4$ HE' H' H4' F$ 3' 14HN-43D' F3' I 4HQ$ 3' H&' $EO' 9 ' H&' F3' I $4 O' H4 2 E$ O' 3E 3D' F343 H ' H' 3E$Q 3' F J ' 32$ O' H' D3 J $ED' C-NF' ?F$43' H&' I 4 T3' P HE3O

@$ J' H&' I 4 T3' P HE3O' QO' F3' E3 ' H&' % E' H&' 6HR 43 2E34C' H' Q3' 1$ D' FH- ' >3 34C' H&' D J E C 4$R HE ' KN

WW ' ED' Q3' ' &-4 F34' 3E$N 3D *F$ ' E' $ ' @$C3C' H&' @ $ J' &H4' I 4 T3' P HE3O' J $D3' QO' F3' E3 ' H&' % E' H&' 6H43 2E34C' FH' CF$ ' F$ 3' Q33E' E' F3' I $O' H&' 8 C' P $(3C O' $C' , HE NH J J CC HE3D' <&& N34C' H4' ?H D 34C ' $ED' FH' CF$ ' F$ 3' D 3D' E 3C $ 3' ' CF$ ' Q3' $ &- ' F3E' C-NF' E3 ' H&' % E' CF$ ' 43C D3' H- ' H&' 8 C' P $(3C O C' GH J E HEC ' &H4' F3' *43$C-434' H4' G31- O' *43$C-434' H&' F3' C$ D' ' HO$ ' 8 HC1 $ ' &H4' F3' * J 3' Q3 E2' H' 1$O' $ED' D CNF$423' C-NF' @ $ J C' H' C-NF' E3 ' H&' % E ' H4' $EO' I 34CHE' H4' I 34CHEC' D- O' $- FH4 T3D' QO' C-NF' E3 ' H&' % E' H' 43N3 3' F3' C$ J 3' FH- ' 43X- 4 E2' F3' I 4HD-N HE' H&' >3 34C' H&' D J E C 4$ HE ' $ED' E' $ ' @$C3C' F343' C-NF' 6H43 2E' , HE N< J J CC HE3D' <&& N34C' H4' ?H R D 34C' CF$ ' F$ 3' J $D3' 9 C' ' CF$ ' Q3' $ &- ' &H4' F3' C$ D' *43$R C-434' H4' G31- O' *43$C-434' E' +3' P $EE34' H' 1$O' $ED' C$ C&O' C-NF' @ $ J C' H' F3' I 34CHE' H4' I 34CHEC' FH' QO' EC13N HE' H&' F3' H4 2 E$ ' 9 ' H4' $E' $- F3E N$ 3D' @H1O' F343H&' CF$ ' $113$4' H' Q3' 3E 3D' F343 H ' H4' H' C-NF' I 34CHE' H4' I 34CHEC' $C' F3 ' CF3 ' H4' F3O' CF$ ' D- O' $- FH4 T3' H' 43N3 3' F3' C$ J 3' FH- ' 43X- 4 E2' F3' I 4HD-N HE' H&' I 4HQ$ 3C' H&' C-NF' 9 C

' 32 J 3E $' G3Q C' H&' <&& N34C , HE ' NH J J CC HE ' 3D' <&& N34C ' H4' ?H D 34C ' J $O' Q3' 1$ D' H- ' H&' F3 4' I 4 T3' P HE3O

WW ' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' ' CF$ ' Q3' $ &- ' &H4' F3' ?3N43 $4O' $ ' 9 $4' &H4' F3' * J 3' Q3 E2' -1HE' I 4HH&' C$ C&$N H4 O' J $D3' H' F J ' F$ ' F343' $C' $EO' ' 32 J 3E $ ' H4' H F34' 1-Q N' G3Q ' D-3' &4H J ' $EO' <&& N34' , HE NH J J CC HE3D' <&& N34' H4' ?H D 34' $ ' F3' * J 3' H&' F C' G3$ F ' $ED' F$ ' C-NF' <&& N34' , HE NH J J CC HE3D' <&& N34' H4' ?H D 34' F$D' I 4 T3' P HE3O' D-3' H' F J ' $ ' F C' G3N3$C3 ' H' CC-3' H' F3' *43$C-43) /' H&' F3' C$ D' 8 HC1 $ ' H4' F C' G31- O' $' @34 & N$ 3' H&' F3' J H-E ' H&' C-NF' ' 32 J 3E $ ' G3Q C' ' H23 F34' F' $' ' 3X- C HE' F$ ' F3' C$ J 3' J $O' Q3' 1$ D' H- ' H&' F3' I 4 T3' P HE3O' H&' C-NF' <&& N34' , HER NH J J CC HE3D' <&& N34' H4' ?H D 34' ' $ED' F3' C$ D' *43$C-434' H4' G31- O' *43$C-434' H&' I) !%1! ' 8 HC1 $ ' CF$ ' F343-1HE' 43C34 3' H- ' H&' F3' C$ D' I 4 T3' P HE3O ' $ED' 1$O' H 34' H' F3' I 34CHE' E$ J 3D' E' C-NF' ' 3X- C HE ' F3' J H-E ' CH' D-3' &4H J ' F3' C$ D' <&& N34' , HE NH J J CC HE3D' <&& N34' H4' ?H D 34' Q3&H43' $EO' H F34' @ $ J' -1HE' F3' C$ D' I 4 T3' P HE3O' CF$ '' Q3' 1$ D ' $ED' F3' <4D34' H&' F3' ?$ D' ?3N43 $4O' $ ' 9 $4 ' $ED' F3' ' 3N3 1 ' H&' F3' I $O33' E' C-1F' ' 3X- C HE' E$ J 3D' CF$ ' Q3' F3' &- ' $ED' C-&& R N 3E ' H-NF34' $ED' G CNF$423' H' F3' C$ D' *43$C-434' H&' I) !%1! ' 8 HCR 1 $ ' &H4' F' J H-E ' CH' 1$ D

' WW ' ED

Y, M#> ;>P ' ' @$1'!S !

WW ' ED'Q3' '&-4 F34' 3E$N 3D' *F$' 'CF$ 'EH 'Q3' $ &-'&H4' @43D H4'
F3' *43$C-434' H&' I)!%1! ' 8HC1 $' H' 1$(' H' $E(' @43D H4' $+ E2' H-' $+ E2' H-'
>3 34C' H&' DJ E C 4$ 1E' H' $' D3N3$C3D' <&& N34' E,#', 11 ,#!&' 1 '
&& N34' H4' ?H D 34' $EO' &-4 F34' H4' 243$ 34' +3 ' ,3' , ')!' +) !' , '
C-NF' D3N3$C3D' <&& N34' WHE NHJ J CC HE3D' 6 +'! ' , ' +,%& ! ') #' '
CF$ ' $113$4' QO' && D$ ' H' Q3' J$D3' QO' F3' I34CHE' $+ E2' H-' >3 34C'
H&' D 1 E C 4$ HE' H4' H F34' C$ C&$N H4O' I4HH&' H' Q3' 2 3E' QO' F J ' H'
F$ 3' Q33E' D-3' H' F J' $' F3' * J3' H&' $+ E2' H-' C-NF' >3 34C' H&'
DJ E C 4$ HE

WW W' ED'Q3' '&-4 F34' 3E$N 3D' *F$' E' $ ' NHE(-EN ' ; 13D HEC' E' $ ' NHER
H&' 8 C' P$(3C O C' >$ED' $ED' , $ $' 6H4N3C' &4H J' $ED' $& 34' F3' D(-D N$R (-EN' ; 13'
HE' H&' $ ' $ED' 3 340' ?F 1' H4' 3CC3 ' F' F3 4' 4 J C' J J-E HE D QEC' $& 34'
*$N+ 3' 11$43 ' $bD' 6-4E -43m' $ED' $ ' F3' MHHDC' P34NF$ED T3' $ED' D(-D N$ HE'
H F34' E&3N C' HE' QH$4D' F3' C$ J3' $ED' H&' 3 340' H F34' P$ 34' H4' *F E2' QO' $ @H-4' H&'
C-Q(3N ' H' C-NF' D(-D N$ 1E' F NF' CF$ ' Q3' N$1 -43D' E' $EO' ' H$D DJ 4$ O'
8$ 3E' ' 34' H4' @433+' Q3 HE2 E2' H' C-NF' 6H4 43CC' H4' I HCC3CC HE' H4' F3' ?F$43C' H&'
H F34 C3' $C' $ &-' I4 T3' H' 8 C' P$(3C O' E' $EO' H&' 8 C' P$(3C O C' F3 4J O'
@H-4 C' H&' DJ 4$ O' H4' N3 DJ 4$ O' F NF' CF$ ' Q3' D- O' $- FHR $C' CHHE' $C'
4 T3D' H' $+3' NH2E T$EN3' H&' F3' C$ J3' $ED' F NF' @H-4 C' $43' F343QO' $CN34 $ E3D'
43X- 43D' H' 14HN33D' F343 E' H' $ &-' D(-D N$ HE' F3' ?F$43' $ED' H' Q3' 1$ D'
I4H1H4 HE' H&' 8 C' P$(3C O C' 4 J O' ' HO$' 4 340' I4H EN $ ' B $N+' H 34' H' F3'
$ED' H F34' *4HH1C' E' F3' I$O' H&' H4' Q3 HE2 E2' H' 8 C' P$(3C O' H4' E' *43$C-434' H&'
F3' I$O' H&' F3' #E 3D' @HJ 1$EO' H&' P34NF$E C' 4$D E2' H' F3' ?8 +' @F3 CQ$' 8HCR
$#& !1 ' CF$ ' $C' CHHE' $C' C-NF' ?F$43C' CF$ ' Q3' $CN34 $ E3D' Q3' 1$ D' H 34' 1 $
H' F3' *43$C-434' H&' I)!%1! ' 8HC1 $' E' H4D34' F$' F3' C$ J3' J$O' Q3'
D C 4 Q- 3D' C-Q(3N ' H' F3' I4H C HEC' I3E$ 3C' ' - 3C' ' 3 J 3D 3C'
$ED' ' 32- $ HEC' H&' F C' N

WWW' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' ' 32 C 4$4C' H&' F3' 8 2F' ' 32 C 4$4C' H&'
@H-4' H&' 113$ C' $ED' 8 2F' @H-4' H&' DJ 4$ O' 43C13N 3 O' CF$ ' HE' DJ 4$ O'
F3' 6 4C' G$O' H&' ? #3 ' F3' 6 4C' G$O' H&' / 5 %' F3' 6 4C' G$O' H&' ?3%
$ED' F3' 6 4C' G$O' H&' 6' ,4! ' E' 3 340' =3$4' 4$EC J ' H' F3' *43$C-434' X-$4 340' $
H&' F3' C$ D' ' HO$' 8HC1 $' H4' F C' G31- O' $' > C' H&' $ ' F3' I4 T3C' $+3E' > C' H&' F3'
E' $EO' NHE(-EN ' ; 13D HEC' F' F3' , $ O' $ED' 4 J O' F NF' CF$ ' I4 T3C' $D'
F$ 3' Q33E' $D(-D23D' E' F3 4' @H-4 C' 43C13N 3 O' E' F3' *F433' P HE FC'
143N3D E2' H23 F34' F' F3' , $ J 3C' H&' F3' N$1 -4 E2' ?F 1C' $ED' F3 4'
@H J J$ED34C' $ED' H&' F3' 23E C' &H4' F3' @$1 H4 C' $ED' F3' G$ 3C' H&'
F3' @$1 -43C' $ED' ?3E 3EN3C' 43C13N 3 O

WWW>' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' ' 32 C 4$4C' H&' 3 340' ' 32 C 4$4C' H&'
N3' DJ 4$ O' @H-4' CF$ ' HE' F3' 6 4C' G$O' H&' ? #3 ' F3' 6 4C' N3 DJ '
G$O' H&' / 5 %' F3' 6 4C' G$O' H&' ?3% ' $ED' F3' 6 4C' G$O' H&' 6' ,4! '
E' 3 340' =3$4' H4' CH' CHHE' $& 34' 3$NF' H&' C-NF' \ -$4 34' G$OC' 43C13N ' C$ J3'
3 O' $C' $EO' ?F 1' CF$ ' C$ ' &H4' 8#(% #&' 4$EC J ' H' F3' *43$C-434' H&'
F3' ' HO$' 8HC1 $' $' I)!%1! ' $' > C' H&' $ ' F3' I4 T3C' $+3E' E' $EO'
C-NF' NHJ-EN ' ; 13D HE' $C' $&H43C$ D' F NF' F$ 3' Q33E' $D(-D23D'
/ E' F3 4' @H-4 C' 43C13N 3 O' D-4 E2' F3' 143N3D E2' \ -$4 34' H&' $' =3$4'
H23 F34' F' F3' G$ 3C' H&' F3' C3 34$' @$1 -43C' $C' &$4' $C' F3' C$ J3'
J$O' $113$4' F3' , $ J 3C' H&' F3' N$1 -4 E2' ?F 1C' $ED' F3 4' @H J R
J$ED34C' F3' 23E C' H&' F3' @$1 H4C' $' @H1O' H&' F3' G3N43 $' I$4' H&'
F3' ?3E 3EN3C' -1HE' F3' C$ J3' $ED' $ ' F3' C$ J3' * J3' D3 34' H4' N$-C3'
H' Q3' D3 343D' $' G-1 N$ 3' H&' F3' C$ J3' H' F3' G31- O' H&' F3' C$ D'
*43$C-434' 43C D3E' $ ' F3' I $N3' F343' C-NF' @H-4 C' H&' N3' DJ 4$ O
$43'

$43' H4' CF$ 'Q3' 3C $Q CF3D ' H4' H' F NF' F3 4' 5-4 CD N HE' CF$ ' 3 3ED '
$ED' E' N$C3' $EO' C -NF' ' 32 C 4$4' H&/ $EO' N3' DJ 4$ O' @H-4 ' CF$ '
E32 3N ' H4' 43&-C3' H' 4$EC J ' C-NF' > C C ' H4' H' D3 34' G-1 N$ 3C'
F343H&' $ ' F3' * J 3C' $ED' E' F3' P $EE34' $&H43C$ D ' 3 34O' I 34CHE' CH'
H&&3ED E2' CF$ ' &H4' 3 34O' C-NF' <&&3EN3' &H4&3 ' $ED' 1$O' F3' ?- J' H&'
8 & O' I H-EDC

'32 C 4$4C' H' 4$EC J ' H' F3' *43$C-434' @H1 3C' H&' $ ' >3 34C' H&' H4E3O' D3R 343D' H' F3 J ' F' F3' I $4 N-R $4C' H& I 4 T3C

WWW ' ED' Q3' '&-4 F34' 3E$N 3D ' * F$ ' F3' ' 32 C 4$4' H4' ' 32 C 4$4C'
H&' 8 C' P $(3C O C' 8 2F' @H-4 ' H&' DJ 4$ O ' $ED' H&' $ ' H F34' @H-4 C' H&'
DJ 4$ O' H4' N3' DJ 4$ O' E' 8 C' P $(3C O C' GHJ E HEC ' CF$ ' HE'
F3' 6 4C ' G$O' H&' ? #3 ' F3' 6 4C ' G$O' H&' / 5 %' F3' 6 4C ' G$O'
?3% ' $ED' F3' 6 4C ' G$O' H&' 6 ' ,4! ' 0 ' 3 34O' =3$4 ' H4' F E' 6H-4 33E'
G$OC' $& 34' 3$NF' H&' C-NF' \ -$4 34' G$OC' 43C13N 3 O' CH' &$4' $C' 43 $ 3C'
H' F3' 8 2F' @H-4 ' H&' DJ 4$ O ' $ED' F' 43C13N ' H' @H-4 C' H&' N3'
DJ 4$ O' $C' CHHE' $& 34' 3$NF' C-NF' \ -$4 34' G$OC' $C' $EO' ?F 1' CF$ '
C$ ' &H4' ! ' " #' D3 34' H4' 4$EC J ' -E H' F3' *43$C-434' H&' F3'
C$ D' 8 HC1 $ ' H4' H' F3' G31- O' *43$C-434' &H4' F3' * J 3' Q3 E2 ' $' 4-3'
@H1O ' -ED34' F C' H4' F3 4' 8 $ED' H4' 8 $EDC ' H&' $ ' >3 34C' H&' H4E3O'
F$ ' CF$ ' Q3' 3 F Q 3D' H4' D3 343D' H' F3 J ' $& 34' F3' 1$CC E2' H&' F C'
N ' QO' $EO' 23E ' H4' 23E C' &H4' $EO' I 4 T3' H4' I 4 T3C' $+3E' H4' H' Q3'
$+3E' QO' $EO' H&' 8 C' P $(3C O C' ?F 1C' H4' 3CC3 C' H&' 9 $4 ' H4' F 43D' $4 J 3D'
?F 1C ' E' $EO' NHE(-EN ' ; 13D HE' F' 8 C' P $(3C O C' 4 J O ' H4' QO'
$EO' 23E ' H4' 23E C' &H4' F3' ' 3N3 1 ' $ED' G C 4 Q- HE' H&' $EO' BH-E O'
B ' H4' B C' E' F NF' F3' 4 J O' CF$ ' Q3' 3E 3D' H' CF$43 ' F NF'
@H1O' CF$ ' NHE $ E' F3' G$OC' H&' G3 34O' $ED' ; E 4O ' $.ED' F3' G$ 3C'
H&' F3' >3 34C' H&' H4E3O ' F3' , $ J 3C' $ED' I $N3C' H&' QHD3' H&' F3'
23E C ' F3' , $ J 3C' H&' F3' I 4 T3C' $+3E ' H4' H&' F3' ?F 1C' H&' 9 $4' H4'
I 4 $ 334C' H&' F3' ; E3 J O' $+3E ' Q-4E ' C-E+ ' <4 H F34 C3' D3C 4HO3D '
H23 F34' F' F3' , $ J 3C' H&' F3' ?F 1C' H4' 3CC3 C' QO' F NF' C-NF' I 4 T3C'
CF$ ' F$ 3' Q33E' $+3E ' H4' QO' F NF' C-NF' ?F 1C' H&' 9 $4' H4' I 4 $ 334C'
H&' F3' ; E3 J O' CF$ ' F$ 3' Q33E' $+3E ' Q-4E ' C-E+ ' H4' H F34 C3'
D3C 4HO3D ' H23 F34' F' F3' G$ 3' H&' F3' @HED3 J E$ HE' ^ &' $EO'
@HED3 J E$ HE' CF$ ' F$ 3' 1$CC3D' F343HE_' $ED' H&' F3' 113$ ' ^ &' $EO'
E 341HC3D_' H' F NF' @H1 3C' F3' 5-D23' $ED' 5-D23C' H&' F3' C$ D' @H-4 '
$ED' @H-4 C' CF$ ' $&& ' F C' $ED' F3 4' ?3$ ' H&' <&& N3 ' -ED' F3' C$ D'
@H1 3C ' F3E' 43N3 3D' QO' F3' C$ D' *43$C-434' H&' F3' C$ D' ' HO$ '
8 HC1 $ ' $ ' I) !%1! ' CF$ ' Q3' F343' 432 C 343D ' $ED' H13E' H' EC13NR
HE' QO' $EO' I 34CHE' (1=' F3' @F$423C' H&' F NF' @H1 3C ' $ED' $&& E2'
F3' ?3$ ' H4' ?3$ C' F343 H ' $ED' 4$EC J E2' F3' C$ J 3' H' F3' *43$C-434'
H&' F3' C$ D' 8 HC1 $ ' CF$ ' Q3' 1$ D' QO' F3' C$ D' 23E ' H4' 23E C' $ '
F3' * J 3' H&' 432 C 34 E2' F C' H4' F3 4' 43C13N 3' >3 34' H4' >3 34C' H&'
H4E3O ' $ED' E' N$C3' C-NF' ' 32 C 4$4' H4' ' 32 C 4$4C' CF$ ' E32 3N ' H4'
43&-C3' H' 4$ECN4 Q3' $ED' 4$ECE$ ' C-NF' @H1O' $ED' @H1 3C' H&' F3' C$ D'
3 34' $ED' >3 34C' H&' H4E3O' E' J $EE34' $&H43C$ D ' ?-NF' ' 32 C 4$4'
$ED' ' 32 C 4$4C' CH' E32 3N E2' H4' 43&-C E2' CF$ ' &H4&3 ' F3' ?- J' H&'
<E3' F-ED43D' I H-EDC ' H' Q3' 43NH 343D' $C' F343 E $& 34' J 3E HE3D

, H N3' H&' ' @HED3 J E$ ' A' # + *43$C-434 H&' @F3 C3$' 8 HC ' 1 $ '

WWW ' ED' Q3' '&-4 F34' 3E$N 3D ' * F$ ' 3 34O' 23E ' 43C D3E ' E''
F3' # E 3D' % E2DH J ' CF$ ' F E' < E3' P HE F' $& 34' $EO' @HED3 J E$ HE'
@H-4 ' H&' DJ 4$ O' H&' $EO' I 4 T3' $+3E' E' $EO' NHE(-EN '
; 13D HE' F' F3' 4 J O ' 4$EC J ' $' , H N3' H&' B-NF' @HED3 J E$ HE'
H' F3' *43$C-434' I) !%1! ' 8 HC1 $ ' H4' F C' G31- O ' H23 F34' F' $-'
NNH-E ' H&' F3' ? $ 3' H&' F3' I 4H134 O' NHED3 J E3D' ' $ ' F3' * J 3' H&
C-NF' *4$EC J CC HE ' $ED' CF$ ' &4H J ' * J 3' H' * J 3 ' &-4E CF' H' F3'
C$ D

V9 ? 6 ' : 6 '' '& ' #) ! ' !

C$ D *43$C-434 'H4 G31- O *43$C-434 C-NF H F34 I$4 N- $4C $C CF$ '
Q3 43X- 43D QO F J '&H4 F3 I- 1HC3C H& F C N ' H4 1$ E H&'&H4&3 E2
&H4 3 34O , 32 3N ' F3 ?- J ' H& <E3 F-ED43D I H-EDC ' -E 3CC $ 43$CHER
$Q 3 @$-C3 Q3 CFH E H $ED $114H 3D QO F3 @H-4 'H& D J 4$ O FO
C-NF E&H4 J $ HE $ED I$4 N- $4C F$ 3 EH 'Q33E &-4E CF3D $C $&H43C$ D

WWW ' ED Q3 ' &-4 F34 3E$N 3D ' *F$ '$ ' >3 34C H4 I$N+3 C >3 34C HE
$DD43CC3D H F3 C$ D *43$C-434 H4 G31- O *43$C-434 H& F3 C$ D F3 &&E 4CH&
'HO$ ' 8HC1 $ ' &H4 F3 * J 3 Q3 E2 ' -1HE $EO B-C E3CC H4 &&$ 4C @F3 C3$ 8HC '
43 $ 3 H I 4 T3 P $ 34C ' H4 -1HE $EO H F34 B-C E3CC H4 &&$ 4C H& c '
F3 C$ D 'HO$ ' 8HC1 $ 'CF$ 'Q3 &433D &4H J ' F3 G- O H& I HC $23 ' $ED I $23
F$ '$ ' >3 34C H4 I$N+3 C C3E 'QO F3 J ' H4 3 F34 H& F3 J ' -1HE C-NF
B-C E3CC H4 &&$ 4C CF$ 'Q3 C3E ' &433 &4H J ' F3 C$ D G- O H& I HC $23 (
$ED $ 'C-NF >3 34C $ED I$N+3 C CF$ 'Q3 -ED34 @H 34 ' F F3 9 H4DC
` ' 1-4C-$E ' H N ' H& I$4 $ J 3E ' %% 'T) ' I ' c
14 E 3D -1HE F3 @H 34 ' $ED F3 ? 2E$ -43 H& F3 C$ D *43$C-434
H4 F C G31- O CF$# Q3 4 3E -ED34 F3 C$ J 3 ' $ED 3$NF H&
F3 J ' C F34<QO C 4 N O 14HF Q 3D &4H J ' C3ED E2 -ED34 C-NF @H 34C 7
$EO 9 4 E2 ' I$134 ' H4 I$4N3 ' F$ CH3 34 ' 3 N31 E2 ' C-NF $C
43 $ 3 H F3 B-C E3CC H4 &&$ 4C H& F3 C$ D 'HO$ ' 8HC1 $ ' $ED &
3 F34 H& F3 C$ D I$4 3C ' H4 $EO H F34 I 34CHE ' CF$ ' C3ED H4 NHE 3O
-ED34 $EO H& F3 @H 34C $&H43C$ D $EO 9 4 E2 ' I$134 ' H4 I$4N3 '
H F34 F$E FHC3 43 $ E2 H F3 B-C E3CC H4 &&$ 4C H& F3 C$ D 'HO$ '
8HC1 $ ' F3 I 34CHE CH H&%F D E2 CF$ '&H4 3 34O C-NF <&&3EN3 &H4&3 '
$ED 1$O F3 ?- J ' H& <E3 F-ED43D I H-EDC ' H Q3 43NH 343D $C F343 ER
$& 34 J 3E HE3D

WWW ' ED Q3 ' 3E$N 3D ' *F$ ' ' CF$ 'Q3 $ &- '&H4 F3 @H J @H J J CC HER
J CC HE34C H& F3 C$ D 'HO$ ' 8HC1 $ '$ ' I) !%1! '&4H J ' * J 3 H * J 3 34C H& @F3 C3$
H CC-3 I 43N31 C -ED34 F3 4 8 $EDC ' H4 -ED34 F3 8 $EDC H& $EO 8HC1 $ ' J $O
*F433 H4 J H43 H& F3 J ' ^C-NF I 43N31 C H Q3 E F3 6H4 J ' C3 '&H4 F E CC-3 I 43R
F3 ?NF3D- 3 H F C N ' J $4+3D ^8 _' H C-NF I 34CHEC $C F3O J $O N31 C H C-NF
F$ 3 '3$CHE H Q3 3 3 F$ 3 43N3 3D P HE 3C 1OQ 3 H C-NF <&& N34C ' I 34CHEC $C7
?H D 34C ' H4 *4HH1C $C $&H43C$ D ' -ED34 $EO I H 34 H& H4E3O H4 F3O Q3 3 3
<4D34 F343 H&H43 H4 F343$& 34 H Q3 3 3N- 3D ' 43X- 4 E2 F3 J ' F E H F$ 3 43R
* H @$ 3ED$4 P HE FC E3 ' $& 34 F3 * J 3 $ ' F NF C-NF I 43N31 ' N3 3D ! # * <'
CF$ ' F$ 3 Q33E C34 3D ' E N$C3 F3 I 34CHE H4 I 34CHEC H FH J ' ' Q3 HE2 E2 H
CF$ 'Q3 D 43N 3D CF$ ' 43C D3 F E F3 #E 3D % E2DH J 'Q- ' & F3 &4HH1C ' H
H4 F3O CF$ '43C D3 E $EO H& 8 C P $(3C O C GH J E HEC Q4H$D ' F3E 43ED34 $4
QO F3 & 4C ' ?F 1 F NF CF$ ' C$ '&4H J ' F3 I H4 ' H4 I $N3 E3$43C ' , NNH-E ' H&
9 ' $ ' F NF C-NF I 34CHE H4 I 34CHEC CF$ ' 43C D3 E3 ' $& 34 F3 F3 C$ J 3
; 1 4$ HE H& * H @$ 3ED$4 P HE FC &4H J ' F3 * J 3 $ ' F NF C-NF F E $ '
I 43N31 'CF$ 'F$ 3 Q33E C34 3D $C $&H43C$ D ' H D3 34 H4 4$EC J ' -1HE J 34 ' * J 3
<$ F ^ F NF <$ F $EO 5-C N3 H& F3 I 3$N3 H4 P $2 C 4$ 3 ' H4 F3
*43$C-434 H4 G31- O *43$C-434 H& F3 C$ D 'HO$ ' 8HC1 $ '$ ' I) !%1! '
&H4 F3 * J 3 Q3 E2 ' C F343QO $- FH4 T3D H $D J E C 34 _' $E NNH-E '
H& $ ' P HE 3C F NF J $O F$ 3 Q33E 43N3 3D QO C-NF I 34CHE H4
I 34CHEC -ED34 C-NF I H 34C H4 <4D34C $C $&H43C$ D ($ED E N$C3 F3
C$ J 3 H4 $EO I$4 ' F343H& CF$ ' F$ 3 Q33E 1$ D H 34 ' F3E F3 C$ D
NNH-E 'CF$ 'C13N &O H FH J ' F3 C$ J 3 H4 $EO I$4 ' F343H& F$C Q33E CH
1$ D H 34 ' $ED F3 C$ D I$4 3C CF$ '$ ' F3 C$ J 3 * J 3 1$O H4 43 J ' H
F3 *43$C-434 H4 G31- O *43$C-434 H& I) !%1! '8HC1 $ 'C-NF I$4 'H& F3
C$ D P HE 3C $C CF$ '43 J $ E E F C H4 F3 4 8 $EDC -E1$ D H F3 I$4 3C
Q3E3& N $ O 3E 3D H ' H4 H F3 4 # C3 ' $ED E N$C3 C-NF P HE 3C
9 =' CF$

CF$ ' EH ' Q3' 1$ D' H 34' H4' 43 J 3D' H' F3' C$ D' * 43$C-434' H4' G31- O' * 43$C-434' F E' F3' * J 3' J 3D' QO' F C' N ' F3' C$ J 3' CF$ ' Q3' 43NH 34$Q 3' &4H J' F3' I 34CHE' D3 $ E E2' F3' C$ J 3 ' QO' N HE' &H4' P HE3O' F$D' $ED' 43N3 3D ' H4' H F34 C3 ' E' F3' , $ J 3' H&' C-NF' * 43$C-434' H4' G31- O' * 43$C-434' H&' F3' C$ D' ' HO$ ' 8 HC1 $ ' $ ' I) !%1! ' $ED' F3' C$ J 3 ' F3E' CH' 1$ D' E' H4' 43NH 343D ' CF$ ' Q3' &H4' F3' # C3' H&' F3' I $4 3C' Q3E3& N $ O' 3E 3D' F343 H ' H4' Q3' H F34 C3' $11 3D' $C' &H4R &3 3D' $ED' -EN $ J 3D' ? F$43C' H&' 4 J O' I 4 T3' $43' QO' F C' N ' D 43N 3D' H' Q3' $11 3D' ' $ED' E' N$C3' $EO' I 34CHE' H4' I 34CHEC' -1HE' FH J ' $EO' C-NF' I 43N31 ' CF$ ' Q3' C34 3D' $C' $&H43C$ D' CF$ ' E32 3N ' H4' 43&-C3' H' D3 34' H4' 4$EC J ' C-NF' NNH-E ' F E' F3' * J 3' J 3D' QO' F C' N ' F3' H4' F3O' CF$ ' &H4' 3 34O' C-NF' < &&3EN3' &H4&3 ' $ED' 1$O' H' F3' # C3' H&' F3' C$ D' ' HO$ ' 8 HC1 $ ' $ ' I) !%1! ' F3' ? - J ' H&' < E3' F-ED43D' I H-EDC ' H' Q3' 43NH 343D' $C' F343 E $& 34' J 3E HE3D

I 43N31 C' H' Q3' 4313$ 3D' -E ' NR NH-E C' 43ER D343D

WWW ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' E' N$C3' $EO' I 34CHE' H4' I 34CHEC' -1HE' FH J ' $EO' C-NF' I 43N31 ' H4' I 41N31 C' CF$ ' F$ 3' Q33E' C34 3D' CF$ ' E32 3N ' H4' 43&-C3' H' 1$O' < Q3D 3EN3' F343 H ' $ED' CF$ ' E' NHEC3X-3EN3' F343H&' 1$O' F3' ' I 3E$ O' EN-443D' QO' C-NF' G CHQ3R D 3EN3 ' ' CF$ ' E3 34 F3 3CC' Q3' $ &- ' &H4' F3' C$ D' @H J J CC HE34C' H&' F3' C$ D' ' HO$ ' 8 HC1 $ ' $ED' F3O' $43' F343QO' 3 J 1H 343D ' H' 4313$ ' C-NF' I 43N31 ' H4' I 43N31 C' -E D' F3' NNH-E C' F343QO' 43X- 43D' $ (' F$ 3' Q33E' D- O' 43ED343D' $ED' D3 343D ' $ED' C-NF' I 34CHE' $ED' I 34CHEC' $43' F343QO' D3N $43D' H' Q3' $Q 3' H' $' C31$4$ 3' I 3E$ O' H&' < E3' F-ED43D' I H-EDC' &H4' 3 34O' I 43N31 ' H' Q3' C34 3D' -1HE' F J ' H4' F3 J ' H' F NF' D-3' < Q3D 3EN3' CF$ ' EH ' Q3' 1$ D ' H' Q3' 43NH 343D' E' J $EE34' $&H43C$ D

* 43$C-434' H&' @F3 C3$' 8 HCR 1 $' H' F$43' NN3CC' H' BHH+C' KN' F3E' I 4 T3' P HE3O' H4' NNH-E C' $43' C-11HC3D' H' Q3' FF3 D' H4' J 134&3N R O' 43ED343D

WWW ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' ' CF$ ' Q3' $ &- ' &H4' F3' * 43$C-434' $ED' G31- O' * 43$C-434' H&' F3' C J D' ' ^ $ ' 8 1 $ ' $ ' I) !%1! ' F' 43C13N ' H' $ ' P HE 3C' F NF' F$ 3' Q33E' 43N3 3D' QO' C-NF' I 34CHE' H4' I 34CHEC' $C' $C ' $&H43C$ D ' # ED34' $EO' I H 34' H4' < 4D34' F$ ' CH3 34(' $ ' $ ' C3CHEQ 3' * J 3C' H' F$ 3' NN3CC' H' F3' B H C ' I $134C ' NNH-E C ' $ED' H-NF34C' H&' $EO' I 34CHE' E4' I 34CHEC' H' 9 FH J ' C-NF' I 43N31 C' CF$ ' Q3' D 43N 3D ' 43 $ 3' H' C-NF' * 4ECN HEC' H' F NF' C-NF' I 43N31 C' CF$ ' F$ 3' ' 3&343EN3 ' $ED' C-NF' I 34CHE' $ED' I 34CHEC' $43' F343QO' 43X- 43D' H' 14HD-N3' F3' C$ J 3' H' F3' C$ D' * 43$C-434' H4' G31- O' * 43$C-434' F3E3 34' F3' H4' F3O' CF$ ' Q3' 43X- 43D' CH' H' DH ' E' H4D34' F$ ' C-NF' * 43$C-434' H4' G31- O' * 43$C-434' J $O' 134-C3 ' 3 C J E3 ' $ED' $+3' ; 4$N C' H4' @H1 3C' H&' CH' J -NF' F343H&' $C' F3' J $O' F E+' 14H134 ' $ED' E' N$C3' $EO' C-NF' I 34CHE' H4' I 34CHEC' $C' $C ' $&H43C$ D' CF$ ' 43&-C3' H4' E32 3N ' H' 14HD-N3' $-NF' BHH+C ' I $134C ' $ED' NNH-E C ' H4' $EO' H4' 3 F34' H&' F3 J ' -1HE' * 3E' G$OC' , H N3' H' Q3' 2 3E' H' F J ' H4' F3 J ' &J4' F$ ' I -41 ' F3' H4' F3O' CF$ ' &H4&H ' $ED' 1$O' &H4' 3 34O' C-NF' < &&3EN3 ' H' F3' # C3' H&' F3' C$ D' ' HO$ ' 8 HC1 $ ' ' I) !%1! ' F3' ? - J ' H&' < E3' F-ED43D' I H-EDC ' H' Q3' 43NH 343D' $C' F343$& 34' J 3E HE3D

I 4 T3' P HE3O' E' F3' 8 $EDC' H&' I 34CHEC' -1HE' FH J ' I 43N31 C' $43' C34 3D' H' Q3' NHEC D343D' $C' Q3 HE2 E2' H' @F3 C3$' & HC ' 1 $F

WWW ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' & H J ' $ED' J J 3D $ 3 O' $& 34' F3' ? 34 N3' H&' $EO' C-NF' I 43N31 ' $C' $&H43C$ D' $ ' P HE 3C' 43N3 3D' -ED34' C-NF' I H 34C' H4' < 4D34C' $C' $&H43C$ D ' F+Q' CF$ ' $ ' F$ ' * J 3' Q3' E' F3' 8 $EDC' H&' F3' I 34CHE' H4' I 34CHEC' H' FH J ' ? -NF' I 43N31 ' CF$ ' Q3' D 43N 3D ' CF$8' Q3' D33 J 3D' $ED' NHEC D343D' H' Q3' F3' I 4H134 O' H&' F3' @H J J CC HE34C' H&' F3' ? $ D' ' HO$ ' 8 HC1 $ ' $ ' @&33K3$' H' Q3' $11 3D' QO' F3 J ' E' F3' P $EE34' QO' F C' N ' D 43N 3D ' $ED' F

'

43C13N ' H' F3' P HE 3C' F NF' J $0' F$ 3' Q33E' 43N3 3D' Q0' C-NF' I 34CHE'
H4' I 34CHEC' $C' $&H43C$ D ' -ED34' $E0' I H 34' H4' <4D34' F NF' CF$ ' F$ 3'
Q33E' J $D3' $ED' 3 3N- 3D' Q3&H43' F3' 1$CC E2' H&' F C' N ' E' N$C3' F3'
C$ D' * 43$C-434' H4' G31- 0' * 43$C-434' CF$ ' -1HE' EC13N HE' H&' F3'
H-NF34C' $ED' H F34' GHN- J 3E C' 43 $ E2' H' $E0' NNH-E ' F NF' CF$ '
Q3' 43ED343D' $ED' D3 343D' E' HQ3D 3EN3' H' $E0' C-NF' I 43N31 ' H4' I 43R
N31 C' $C' $&<*3C$ D' Q3' D CC$ C& 3D' F' C-NF' NNH-E ' $ED' F$ 3' ' 3$CHE' H' '
Q3 3 3' F$ ' F3' I $0 J 3E C' F343 E' C $ 3D' H' F$ 3' Q33E' J $D3 ' H4' $E0' H4'
3 F34' H&' F3 J ' F$ 3' EH ' Q33E' 43$ 0' $ED' 4- 0' J $D3 ' H4' F$ ' C-NF' NR
NH-E ' C' E' $E0' ,) Z ' 43C13N ' &4$-D- 3E ' H4' D3&3N 3 ' ' CF$ ' Q3' $ &- ' 9 F3E' 64$-DC'
&H4' C-NF' * 43$C-434' H4' G31- 0' * 43$C-434' H&' I) !%1! ' 8 HC1 $ ' $ED' F30' $43' D CNH 34'
$43' F343Q0' 43C13N 3 0' $- FH4 T3D' $ED' 3 J 1H 343D' H' & 3' $' B ' E' NH-E $B '
; X- 0' 2 EC ' C-NF' I 34CHE' H4' I 34CHEC ' E' H4D34' H' C-NF' NNH-E ' ;X- 0'
Q3 E2' 432- $4 0' $+3E' $ED' 3 $ J E3D ' $ED' H F34' I 4HN33D E2C' Q3 E2' J $0' Q3' & 3D'
F$D' 43 $ 3' F343 H ' $NNH4D E2' H' F3' -C-$ ' @H-4C3' H&' @H-4 C' H&'
; X- 0 ' C-NF' B C' H' Q3' & 3D' E' F3' , $ J 3' H&' F3' * 43$C-434' H4'
G31- 0' * 43$C-434' H&' F3' C$ D' ' HO$ ' 8 HC1 $ ' $ ' I) !%1! ' &H4' F3' * J 3'
Q3 E2 ' $ED' EH ' H' Q3' NHEC D343D' D3&3N 3' HE' $NNH-E ' H&' F3' I 34CHEC'
Q3E3& N $ 0' 3E 3D' H' F3' P HE 3C' F NF' CF$ ' Q3' F3' ?-Q(3N ' H&' F3 J'
EH ' Q3 E2' J $D3' I $4 3C' F343 H

WWW W ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' CF$ ' Q3' $ &- ' &H4' F3' * 43$C-434' H4'
C$ D' * 43$C-434' H4' G31- 0' * 43$C-434' &H4' F3' * J 3' Q3 E2' H&' F3' $&H43C$ D' G31- 0
8 H $ ' H4' F3 4' H4' 3 F34' N &' F3 4' G31- 0' H4' G31- 3C' H' Q3' Q0'
F3 J ' H4' 3 F34' H&' F3 J ' &H4' C-NF' I -41HC3C' EH J E$ 3D' H4' $11H E 3D' Q0' G3%C' D-3'
G33D' H4' 9 4 E2' -ED34' F3 4' H4' 3 F34' H&' F3 4' 8 $EDC' H4' 8 $ED ' &H4' H' F3' 8 QC '
$ED' HE' Q3F$ &' $ED' E' F3' , $ J 3' H4' , $ J 3C' H&' F3' C$ D' * 43$C-434' H4' '
G31- 0' * 43$C-434' &H4' F3' * J 3' Q3 E2 ' H4' 3 F34' H&' F3 J ' H4' &H4' $ED'
HE' Q3F$ &' $ED' E' F3' , $ J 3' H4' , $ J 3C' H&' F3' @H J J CC HE34C' &H4' F3'
* J 3' Q3 E2' H&' F3' C$ D' 8 HC1 $ ' H4' $E0' H&' F3 J ' H' $113$4' Q3&H43'
F3' @H J J CC HE34C ' H4' J $(H4' I $4 ' H&' F3' @H J J CC HE34C' E$ J 3D' H4' H'
Q3' E$ J 3D' E' $E0' @H J J CC HE' H4' @H J J CC HEC' H&' B$E+4-1 ' E' $E0'
1-Q N' H4' 14 $ 3' P 33 E2C' H&' C-NF' @H J J CC HE34C' -ED34' $E0' C-NF'
@H J J CC HE' H4' @H J J CC HEC' H&' B$E+4-1 ' $ED' H' 14H 3' F3' J H-E ' H&'
$ ' I 4 T3' H4' BH-E 0' P HE30 ' M4$E ' H4' P HE 3C ' H4' B$ $EN3C' H&' I 4 T3' H4'
BH-E 0' P HE30 ' M4$E ' H4' P HE 3C ' H4' H F34' H $EN3C' H&' P HE30'
E' F3' , $ -43' F343H&' E' F3' 8 $EDC ' @-C HDO ' H&' I H 34' H&' H4' -E1$ D'
Q0' C-NF' B$E+4-1 ' H4' B$E+4-1 C' 43C13N 3 0 ' $ ' F3' G$ 3' $ED'
CC- E2' H&' $E0' C-NF' @H J J CC HE' H&' B$E+4-1 ' E' H4' H' F NF' F3'
C$ D' 8 HC1 $ ' H4' F3' 4 J 0' 23E34$ 0 ' H4' $E0' G C HE' H&' G C HEC
B$ $ HE' H4' B$ $ HEC ' ' 32 J 3E ' H4' ' 32 J 3E C ' ED D-$ ' H4' ED '
-D-$ C' H&' F3' 4 J 0 ' CF$ ' Q3' E 343C 3D' H4' 3E 3D' -ED34' F3' C3 34$ '
N C' H&' I $4 $ J 3E ' $ 43$D0' 3E$N 3D' $ED' EH ' E' &H4N3 ' H4' $ ' $E0' * J 3'
F343$& 34' H' Q3' 3E$N 3D' H4' Q3NH J 3' E' &H4N3 ' $ED' H' J $+3' 3 340' C-NF'
I 4HH&' $ED' I 4HH&C' H&' G3Q ' -1HE' F3' <$ F' H4' & 4 J $ HE ' $C' F3' @$C3'
J $0' 43X- 43 ' H&' ?-NF' * 43$C J 34' H4' G31- 0' * 43$C-434' H&' F3' C$ D'
8 HC1 $ ' &H4' F3' * J @' Q3 E2 ' H4' H&' $E0' @ 34+' H4' @ 34+C' H4' H F34'
<&& N34' H4' <&& N34C' H&' F3' C$ D' 8 HC1 $ ' NHE 34C$E ' H4' $NX-$ E 3D'
F' F3' BHH+C' $ED' & &3 4C' H&' F3' C$ D' 8 HC1 $ ' FH' CF$ ' C 3$4' H4'
$& & 4 J ' $C' H' F3' J H-E ' H&' C-NF' I 4 T3 ' BH-E 0 ' M4$E ' H4' H F34'
P HE 3C ' H4' B$ $EN3C' H&' I 4 T3 ' BH-E 0 ' M4$E ' H4' H F34' P HE 3C ' H&'
F NF' C-NF' I 4HH&' CF$ ' Q3' CH' 3ED343D ' H' F3' Q3C ' H&' F C' H4' F3 4'
%EH 3D23' $ED' B3 3& ' $& 34' $E' ; $ J E$ HE' H&' F3' BHH+C' H&' F3'
C$ D' 8 HC1 $ ' 43 $ E2' F343 H ' H4' Q0' $' I 4HD-N HE' H&' F3' BHH+C' H&'
F3

F3' C$D' 8HC1 $' H4' QO' $' I4HD-N HE' H&' F3' @34 &N$ 3' H&' F3' ; $R J E34' H&' I4 T3' NNH-E C' H4' QO' $' I4HD-N HE' $ED' ; $J E$ HE' H&' F3' BHH+' H4' BHH+C' H&' C-NF' B$E+4-1' H4' B$E+4-1 C' H4' F3' 134CHE$' ; $J E$ HE' HE' <$ F' H&' C-NF' B$E+4-1' H4' B$E+4-1 C/' 43C13N 3 O' -ED34' C-NF' @HJ J CC HE' H4' @HJ J CC HEC' H&' B$E+4-1 ' $ED' F NF' I4HD-N HE' H4' ; $J E$ HE' H&' F3' B$E+4-1 C' BHH+C' $ED' NNH-E C' $ED' H&' C-NF' B$E+4-1' H4' B$E+4-1 C' F3J C3 3C' F3' C$D' *43$C-434' H4' G31- O' *43$C-434' H4' C-NF' H F34' I34CHE' H4' I34CHEC' $C' F3O' H4' 3 F34' H&' F3J' CF$ ' CH' $11H E' $C' $&H43C$ D' $43' F343QO' $- FH4 T3D' $ED' 3J 1H 343D' H' 43X- 43' H4' E' D3&$- ' H&' C-NF' ; D3EN3' F3E' QO' C-NF' H F34' ; D3EN3' $C' H' F3' C$D' @HJ J CC HE34C' E$J 3D' $ED' $- FHR 4 T3D' E' 3 34O' C-NF' @HJ J CC HE' H&' B$E+4-1 ' -ED34' F NF' C-NF' I4HH&' CF$ ' Q3' 3ED343D' H4' F3' J$(H4' I$4' H&' F3J' CF$ ' -ED34' F3' @ 4N- JR C $EN3C' C33 J' 43$CHE$Q 3' F3' J$+ E2' H&' 3 34O' C-NF' I4HH&' E3 34 F3 3CC' H' Q3' $Q 3' H' C-NF' <11HC HE' $ED' 3 34O' C-NF' I4HH&' F3E' J$D3' $Q 3' H' Q3' 3 1-E23D' E' F3' C$J 3' 9 $O' $ED' -1HE' F3' C$J 3' ; D3EN3' $C' $EO' H F34' I4HH&' H4' I4HH&C' H&' G3Q ' QO' $EO' H F34' I34CHE' H4' I34CHEC' N$ J E2' H' 14H 3' H4' F$ E2' 14H 3D' -ED34' C-NF' @HJ J CC HE' H4' @HJR J CC HEC' H&' B$E+4-1' 43C13N 3 O' ($ED' $ CH' H' 43N3 3' $ED' $+3' $ED' H' 2 3' 2HHD' $ED' 3&&3N -$' G CNF$423C' &H4' $ ' $ED' 3 34O' G D3ED' $ED' G D3EDC' 1$O$Q 3' H4' H' Q3NH J 3' 1$O$Q 3' QO' H4' H- ' H&' F3' ; C $ 3' $ED' ; &&3N C' f&' C-NF' B$E+4-1' H4' B$E+4-1 C' H4' $EO' I$4' F343H&' -1HE' F3' J H-E ' H&' $EO' $ED' 3 34O' C-NF' I4HH&' H&' G3Q ' -ED34' C-NF' @HJ J CC HE' $ED' $ CH' H' H 3' E' F3' @FH N3' H&' $EO' CC 2E33' H4' CC 2E33C' H&' F3' ; C $ 3' $ED' ; &&3N C' H&' 3 34O' C-NF' B$E+4-1' &H4' F3' FH 3' ?-4$' 14H 3D' $ED' $ CH' H' $CC3E' H' H4' D CC3E' &4H J' F3' C 2E E2' $ED' $ H E2' F3' @34 &N$ 3' H4' @34 &N$ 3C' H&' 3 34O' C-NF' B$E+4-1 ' $ED' &-4 F34' H' F$ 3' $ED' 3 34N C3' 3 34O' H F34' ' 2F ' - FH4 O' $ED' IH 34' F$ CH3 34' E' 43C13N ' H&' F3' ; C $ 3' $ED' ; &&3N C' H&' 3 34O' C-NF' B$E+4-1 ' H4' F3' ?$ 3' H4' G C1H4 HE' F343H&' $ED' H F34 J C3' H' $N' F343 E' H4' E' $EO' P$ 34' 43 $ E2' F343 H' E' F3' C$J 3' P$EE34' $ED' H' F3' C$J 3' ; 3E ' $C' $EO' H F34' @43D H4' H&' C-NF' B$E+4-1' 14H E2' $' G3Q ' H' $' +3' J H-E ' -ED34' C-NF' @HJ J CC HE' H4' @HJ J CC HEC' H&' B$E+4-1' 43C13N 3 O' J 2F ' H4' NH- D' DH' $ED' $ CH' H' NH J 3' E' $ED' 43N3 3' $ED' 2 3' 32$' $ED' 3&&3N -$' G CNF$423C' &H4' $EO' G D3ED' <4' G D3EDC' 1OQ 3' H4' H' Q3NH J 3' 1OQ 3' QO' H4' H- ' H&' F3' ; C $ 3' $ED' &&3N C' H&' $EO' ECH 3E ' G3Q H4' H4' G3Q H4C' FH' $' F3' * J 3' H&' F C' H4' F3 4' 143C3E E2' $EO' I3 HE' H4' I3 HEC' &H4' F C' H4' F3 4' G CNF$423' H4' G CNF$423C' &4H J' I4 CHE' -ED34' 3' C3 34$' N C' EH ' E' &H4N3' &H4' F3' ' 3 3&' H&' ECH 3E ' G3Q H4C' H4' F343$& 34' H' NH J 3' E' &H4N3' CF$ ' F$ 3' $EO' I4 T3' BH-E O' M4$E ' H4' H F34' P HE3O' H4' P HE 3C' H4' B$ $EN3C' H&' I4 T3' BH-E O' M4$E ' H4' H F34' P HE ' H4' P HE 3C' E' Q C' <&' F3 4' 43C13N 3' 8$EDC' E' H4' H' F NF' F3' 8HC1 $' H4' F3' 4J O' 23E34$ O' H4' $EO' G C HE' H4' G C HEC' B$ $ HE' H4' B$ $ HEC' ' 32 J 3E ' H4' ' 32 J 3E C' ED D-$' H4' ED D-$ C' H&' F3' 4J O' CF$ ' Q3' CH' E 343C 3D' H&' 3E 3D' $C' $&H43C$ D' $ED' $ CH' H' $113$4' -1HE' $ED' H11HC3' H4' NHEC3E ' H' $EO' C-NF' I3 HE' H&' G CNF$423' $ED' E' $ ' H F34' 43C13N C' H' F$ 3' $ED' 3 34N C3' 3 34O' ' 2F ' IH 34' $ED' - FH C' & O' E' F3' C$J 3' P$EE34' $ED' H' F3' C$J 3' ; 3E ' $C' $EO' @43R D H4' H4' @43D H4C' H&' C-NF' ECH 3E ' G3Q H4' H4' G3Q H4C' &H4' $' +3' J H-E '

$ED' H 2 3' G CNF$423C'

$ED' H' H 3' &H4' CC 2E33C

$ED' H' $CC3E ' H' F3' $ H R E2' H&' @34 R &N$ 3C

G31- O' *43$R C-434' $ CH' H' $N' HE' Q3F$ &' H&' F3' 8HC' A_ $' E' @$C3C' H& ECH 3ENO

NNH-E C' H Q3 $ D' $EE-' W> ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' ' CF$ ' Q3' $ &- ' &H4' F3' G31- O' *43$C-434' H&' F3' C$D' ' HO$' 8HC1 $' $' I)!%1! ' &H4' F3' * J 3 // ' Q3 E2

Q3 E2' $ED' F3' C' F343QO' 43X- 43D' H' $O' $EE-$ O' Q3&H43' QH F' 8H-C3C' $ O' Q3&H43'
H&' I$4 $J3E '$E' NNH-E ' E' F3' 6H4J'C3 '&H4 F' E' F3' ?NF3D- 3' H' I$4 $J3E '
F C' N '$EE3 3D' J$4+3D' ^% _' H4' E' CHJ3' H F34' 6H4J' D 43N 3D' H4'
114H 3D' QO' F3' @HJ J CC HE34C' H&' I)!%1! ' 8HC1 $ ' $ED' C-NF'
NNH-E C' CF ' Q3' J$D3' -1' H' F3' *F 4 0 & 4C 'G$O' H&' 2!'! 4! ' E'
3 34O' =3$4 ' F3' & 4C ' H&' F3J' H' NHJ J3EN3' &4HJ' F3' I34 HD' -1' H'
F NF' NNH-E C' F$ 3' Q33E' $ 43$DO' $ D' Q3&H43' I$4 $J3E

W> ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' F3' *43$C-434' H4' G31- O' * 3$C-434' H'
*43$C-434' H&' F3' C$ D' 'HO$' 8HC1 $' CF$ ' 43ED34' H' F3' @HJ J C' 43ED34' $E
?HE34C' H&' F3' C$ D' 8HC1 $' $' (-C ' $ED' 4-3' NNH-E ' H&' $ ' F3 4' NNH-E
'3N3 1 C' $ED' I$O J3E C' -ED34' F3' - FH4 O' H&' F C' N '6H-4' * J3C' X-$4 34 O
E' 3 34O' =3$4 '^ F$ ' C' 1' C$O _' H' F3' *F 4 0 & 4C 'G$O' H&' ')' F3'
*F 4 3 F' G$O' H&' ?3#!' F3' *F 4 3 F' G$O' H&' +!5 ! 4! ' $ED' F3'
*F 4 0 & 4C 'G$O' H&' 2!'! 4! ' E' 3$NF' =3$4' H4' $ 'C-NF' H F34' * J3C' $C'
F3' C$ D' @HJ J CC HE34C' CF$ ' 43X- 43' $ED' F3' C$ D' @HJ J CC HE34C '
H4' $EO' *F433' H4' JH43' H&' F3J ' $43' F343QO' $- FH4 T3D' $ED' 3J1H 343D'
H' 3 $J E3 ' $-D ' $ED' & E$ O' 1$CC' F3' C$ D' NNH-E C' ' $EO' IH 34C '
- FH4 3C' $ED' G 43N HEC' E' $EO' H F34' N ' H&' I$4 $J3E ' H' F3'
NHE 4$4O' E' $EO C3' EH FC $ED E2

W> ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' 'CF$ '$ED' J$O' Q3' $ &- '&H4' 6H4&3 3D' H4'
F3' @HJ J CC HE34C' H&' F3' C$ D' 'HO$' 8HC1 $' $' I)!%1! '$ '$ ' * J3C' -EN $ J3D'
F343$& 34' QO' 9 44E' -ED34' F3 4' 8 $EDC' H4' -ED34' F3' 8 $EDC' H&' $EO' ?F$43C' J$O'
*F433' H4' JH43' H&' F3J ' D 43N 3D' H' F3' *43$C-434' H4' G31- O' *43$R Q3' $11 3D' H'
C-434' H&' F3' C$ D' 8HC1 $ '&4HJ' * J3' H' * J3' H' $114H14 $ 3' C-NF' F3' & 3E34$'
?- J C' H&' P HE3O' &H4J E2' $' I$4 ' H&' F3' I 4 T3' P HE3O' $ 43$DO' &H4&3 3D' ?34 N3C' H&'
$ED' -EN $ J3D' H4' F343$& 34' H' Q3NHJ3' &H4&3 3D' $ED' -EN $ J3D' $ED' F3' 8HC1 $
$ CH' H&' F3' I34 N3E $23' F343$& 34' H' $4 C3' QO' 4 -3' H&' F C' N ' $C' F3O'
J$O' F E+' 3 13D 3E ' $ED' 14H134' H' F3' 23E34$' ?34 N3C' $ED' ; '
13EN3C' H&' F3' C$ D' 'HO$' 8HC1 $ ' H4' 43 $ E2' F343 H

W> 8 ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' 'CF$ 'Q3' $ &- '&H4' F3' C$ D' *43$C-434'
*43$C-434' H&' F3' C$ D' 'HO$' 8HC1 $' $' I)!%1! '&H4' F3' * J3' Q3 E2' J$O' $11H E'
H' EHJ E$ 3' $ED' $11H E ' C-NF' I34CHE' H4' I34CHEC' $C' F3' J$O' F E+' & '
H' Q3' F C' G31- O' H4' G31- 3C' &H4' F3' C13N & N' I-41HC3C' H&' 43N3 E2' 123C ć
11 N$ HEC' $ED' @ $ JC' &H4' I 4 T3' $ED' BH-E O' P HE 3C' H' F NF' F3'
4 J O' CF$ ' Q3' 3E 3D' $ED' &H4' C-NF' H F34' C13N & N' I-41HC3C 'H&' F C'
N ' $C' F3' J$O' D33J' $D C$Q 3' $ ' C-NF' IH4 C' H4' I $N3C' $C' F3' CF$ '
&4HJ' * J3' H' * J3' F E+' E3N3CC$4O

W> ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ '&4HJ' $ED' $& 34' F3' 1$CC E2' '3N3 1 C' 3 '
H&' F C' N '$ ' '3N3 1 C' 2 3E' H4' $+3E' &H4' I 4 T3' P HE3O' H4' B$ $EN3C' (@ '#(<' ?!+@'
1$ D' H4' 43N3 3D' QO' F3' *43$C-434' H4' G31- O' *43$C-434' H&' I)!%1! '
8HC1 $' CF$ 'Q3' 3 3J 1 '&4HJ' $EO' G- O' H&' ? $J 1C' F$ CH3 34' $EO'
>$ 'H4' ? $ - 3' H' F3' NHE 4$4O' F343H&' EH FC $ED E2

W> ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' &' $EO' I34CHE' H4' I34CHEC' I-ECFE2'
CF$ '&$ C3 O' J$+3' <$ F' H' $EO' H&' F3' P$ 34C' F343 E Q3&H43' 43X- 43D'
H' Q3' 34 & 3D' HE' <$ F' H4' C-QH4E' $EO' H F34' I34CHE' CH' H' DH' C-NF' H& QC '
I34CHE' H4' I34CHEC' CF$ ' C-&&34' F3' +3' I$ EC' $ED' I3E$ 3C' $C' $43'
EN-443D' QO' I34CHEC' NHJ J E2' &- ' $ED' NH44-1 ' I34(-4O

W> ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' F343' F3' <&&3EN3' H&' $+ E2' &&E2 &$ C3'
$' &$ C3' <$ F' H4' C-QH4E E2' $EO' I34CHE' CH' H' DH 'H4' $EO' H&' F3' <&&3EN3C' H$ Q' Q4H$D'
9' ^' QO

J$OʻQ3ʻ 43Dʻ QOʻ FCʻ Nʻ J$D3ʻ NH2E T$Q 3ʻ Eʻ $EOʻ H&ʻ 8 Cʻ P$(3C O Cʻ @H-4 Cʻ H&ʻ EʻPOʻ@H-E Oʻ '3NH4Dʻ Eʻ ! ʻ" #ʻCF$ ʻQ3ʻNH J J 3Dʻ H- ʻH&ʻ F Cʻ '3$ J ʻ F3ʻ Eʻ E2$Eʻ ʻ ((2ʻ$ 323Dʻ Hʻ Q3ʻNH J J 3Dʻ$EDʻ J$OʻQ3ʻ $ Dʻ EX- 43Dʻ H&(4 3Dʻ$EDʻD3 34 J E3Dʻ Eʻ$EOʻ@H-E Oʻ Eʻ8#(% #&ʻ #ʻ F3ʻC$J3ʻ P$EE34ʻ Hʻ$ʻ E 3E Cʻ$EDʻ I-41HC3Cʻ $Cʻ &ʻ F3ʻC$J3ʻF$Dʻ Q33Eʻ $N -$ Oʻ DHE3ʻ H4ʻ NH J J 3Dʻ F Eʻ F3ʻ BHDOʻ H&ʻC-NFʻ @H-E O

I3E$ 3Cʻ$EDʻ IH4&3 -43Cʻ FH ʻ HʻQ3ʻ 43NH 343D

W> ʻ EDʻQ3ʻ ʻ&-4 F34ʻ3E$N 3Dʻ *F$ʻ$ʻ I3E$ 3Cʻ$EDʻ6H4&3 -43Cʻ J1HC3Dʻ QOʻ F Cʻ Nʻ F343CH3 34ʻ F3ʻ C$J3ʻ CF$ ʻ $4 C3ʻ H4ʻ Q3NH J 3ʻ &H4&3 3Dʻ J$OʻQ3ʻ43NH 343DʻQOʻ N HEʻ B ʻ I $ E ʻ H4ʻ E&H4 J$ HEʻ Eʻ$EOʻH&ʻ8 Cʻ P$(3C O Cʻ @H-4 Cʻ H&ʻ '3NH4Dʻ Eʻ ! ʻ" #ʻ-E 3CCʻ Eʻ @$C3Cʻ F343ʻ $EOʻ H F34ʻ PHD3ʻ Cʻ QOʻ F Cʻ Nʻ1$4 N- $4 Oʻ D 43N 3Dʻ $EDʻ $ ʻ I3E$ 3Cʻ $EDʻ 6H4&3 -43Cʻ J1HC3DʻQOʻ F Cʻ Nʻ F NFʻ CF$ ʻ $4 C3ʻ H4ʻ Q3NH J 3ʻ &H4&3 3Dʻ Eʻ $EOʻ I$4ʻ H&ʻ 8 Cʻ P$(3C O Cʻ GH J 1 HECʻ Q4H$Dʻ J$OʻQ3ʻ 43NH 343Dʻ Eʻ$EOʻ@H-4ʻ H&ʻ '3NH4Dʻ H&ʻ 8 Cʻ P$(3C Oʻ Eʻ F3ʻ@H HEOʻ *344 H4Oʻ H4ʻ I $N3ʻ F343ʻ F3ʻC$J3ʻ CF$ ʻ$4 C3ʻH4ʻ $ 3ʻ Q3NH J 3ʻ&H4&3 3Dʻ H4ʻ Eʻ $EOʻH&ʻ8 Cʻ P$(3C O Cʻ N3ʻ D J 4$ Oʻ@H-4 Cʻ F$ E2ʻ5-4 CD N HEʻ F343

I3E$ 3Cʻ Hʻ 2Dʻ Hʻ@F3 C3$ʻ 8HC1 $ʻ

W> ʻ EDʻQ3ʻ ʻ&-4 F34ʻ3E$N 3Dʻ *F$ʻ$ʻ13N-E $4Oʻ I3E$ 3Cʻ $EDʻ 6H4&3 -43CʻQOʻ F Cʻ Nʻ J1HC3DʻH F34ʻ F$EʻC-NFʻ $Cʻ $43ʻ QOʻ F Cʻ ^(43N 3Dʻ HʻQ3ʻH F34 C3ʻ$11 3Dʻ$EDʻD C1HC3DʻH&ʻ CF$ ʻ2Hʻ$EDʻQ3 $11 3Dʻ Hʻ F3ʻ#C3ʻH&ʻ F3ʻ 'HO$ʻ 8HC1 $ʻ$ʻ I)!%1! ʻ$EDʻCF$ ʻQ3ʻC-3Dʻ &H4ʻ Eʻ F3ʻ ,$J3ʻH&ʻ F3ʻ@H J J CC HE34Cʻ F343H&

I-E CF J3Eʻ H&ʻ I34CHE$R HEʻ$EDʻ 6H42340

W> Wʻ EDʻQ3ʻ ʻ&-4 F34ʻ3E$N 3Dʻ *F$ʻ &ʻ$EOʻ I34CHEʻ CF$ ʻ+EH R E2 Oʻ$EDʻ E2 Oʻ134CHE$ 3ʻ H4ʻ&$ C3 Oʻ$CC- J3ʻ F3ʻ ,$J3ʻH4ʻ@F4N 34ʻ H4ʻ14HN-43ʻ$EOʻH F34ʻ I34CHEʻ Hʻ 134CHE$ 3ʻ H4ʻ&$ C3 Oʻ$CC- J3ʻ F3ʻ ,$J3ʻ H4ʻ@F4N 34ʻ H&ʻ$EOʻ < &N34ʻ ,HE NH J J CC HE3Dʻ <(N34ʻ ?H D 34ʻ <4 H F34ʻ I34CHEʻ 3E 3Dʻ H4ʻC-11HC3Dʻ HʻQ3ʻ3E 3Dʻ Hʻ$EOʻ I4 T3ʻ PHE30ʻ M4$E ʻBH-E Oʻ PHE30ʻ?F$43ʻH4ʻ H F34ʻ H $EN3ʻ H&ʻ PHE30ʻD-3ʻH4ʻ 1$0$Q 3ʻ H4ʻ C-11HC3Dʻ HʻQ3ʻ D-3ʻ H4ʻ 1$0$Q 3ʻ&H4ʻ H4ʻ HEʻ $NNH-Eʻ H&ʻ $EOʻ ?34 N3ʻ134&H4 J3DʻH4ʻC-11HC3Dʻ HʻF$ 3ʻQ33Eʻ134& J3DʻQOʻ$EOʻ< &N34ʻ ,HE NH J J CC HE3Dʻ <&&N34ʻ ?H D 34ʻ H4ʻ H F34ʻ I34CHEʻ FHʻ CF$ ʻ F$ 3ʻ ʻ43$ Oʻ C34 3DʻH4ʻQ3ʻC-11HC3Dʻ <ʻF$ 3ʻC34 3Dʻ Eʻ 8 Cʻ P$(3C O Cʻ 4 J Oʻ H4ʻ Eʻ$EOʻH F34ʻP $4Oʻ?34 N3 ʻH4ʻCF$ ʻ134CHE$ 3ʻH4ʻ&$ C3 Oʻ$CC- J3ʻH4ʻ$N ʻ $ Dʻ H4ʻ $CC Cʻ Eʻ 134CHE$ E2ʻH4ʻ&$ C3 Oʻ$CC- J E2ʻ F3 ,$J3ʻH4ʻ@F4N 34ʻ H4ʻ14HN-43ʻ$EOʻH F34ʻ I34CHEʻ Hʻ134CHE$ 3ʻH4ʻ&$ C3 Oʻ$CC- J3ʻ F3ʻ ,$J3ʻH4ʻ @F4N 34ʻH&ʻ F3ʻ ; 3N- H4ʻ H4ʻ D J E C 4$ H4ʻ 9 &3ʻ 9 DH ʻ E3 ʻ H&ʻ % Eʻ '3 $ HEʻ H4ʻ @43D H4ʻ H&ʻ$EOʻ ?-NFʻ < &N34ʻ ,HE NH J J CC HE3Dʻ < &N34ʻ ?H D 34ʻ H4ʻ H F34ʻ I34CHEʻ $Cʻ $&H43C$ Dʻ EʻH D34ʻ Hʻ 43N3 3ʻ H4ʻ Hʻ 3E$Q 3ʻ$EOʻH F34ʻ I34CHEʻ Hʻ 43N3 3ʻ$EOʻ I4 T3ʻ PH#30ʻ M4$E ʻBH-E Oʻ PHE30ʻ?F$43ʻH4ʻ H F34ʻ H $EN3ʻ H&ʻ PHE30ʻ D-3ʻ H4ʻ1$0$Q 3ʻH4ʻ C-1R 1HC3Dʻ Hʻ Q3ʻ D-3ʻ H4ʻ 1$0$Q 3ʻ &H4ʻ H4ʻ HEʻ $NNH-Eʻ H&ʻ $EOʻ ?34 N3ʻ 134&H4 J3DʻH4ʻC-11HC3Dʻ Hʻ F$ 3ʻ Q33Eʻ 134&H4 J3DʻQOʻ$EOʻC-NFʻ <&&N34ʻ ,HE NH J J CC HE3Dʻ <&&N34ʻ ?H D 34ʻ H4ʻ H F34ʻ I34CHEʻ $Cʻ $&H43C$ Dʻ H4ʻ &ʻ $EOʻ I34CHEʻ CF$ ʻ &H423ʻ H4ʻ NH-E 34&3 ʻ H4ʻ $ 34ʻ H4ʻ N$-C3ʻ H4ʻ 1 HN-43ʻ HʻQ3ʻ& 23DʻH4ʻ NH-E 34&3 3Dʻ H4ʻ $ 343Dʻ H4ʻ +EH E2 Oʻ$EDʻ E2 Oʻ $Nʻ H4ʻ$ Dʻ H4ʻ $CC Cʻ Eʻ &H42 E2ʻ H4ʻ NH-E 34&3 E2ʻ H4ʻ$ 34 E2ʻ F3ʻ ,$J3ʻH4ʻ8$ED 4 E2ʻH&ʻ $EOʻ <&&N34ʻ ,HE NH J J CC HE3Dʻ <&&N34ʻ ?H D 34ʻ H4ʻ H F34ʻ I34CHEʻ 3E 3Dʻ H4ʻ C-11HC3Dʻ Hʻ Q3ʻ 3E 3Dʻ Hʻ$EOʻ I4 T3ʻ PHE30ʻ M4$E ʻBH-E Oʻ PHE30ʻ ?F$ 3ʻ H4ʻ H F34ʻ H $EN3ʻ D&ʻ PHE30ʻD-3ʻ H4ʻ 1$0$Q 3ʻ H4ʻ C-11HC3Dʻ Hʻ Q3ʻ D-3ʻ H4ʻ 1$0$Q 3ʻ &H4ʻ H4ʻ HEʻ $NNH-Eʻ H&ʻ $EOʻ ?34 N3ʻ 134&H4 J3Dʻ H4ʻ C-11HC3Dʻ Hʻ F$ 3ʻ Q33Eʻ 134 ʻ &H4 J3D

6H4J3D'QO'$EO' <&&N34' ,HE NHJ J CC HE3D' <&&N34' ?H D 34' H4' H F34' I34CHE' FH'CF$ 'F$ 3' 43$ O'C34 3D' H4'Q3' C-11HC3D' H' F$ 3' C34 3D' E' 8 C' P$(3C O C' 4J O' H4' H F34' P $4O' ?34 N3' H4' F3' ,$J3'H4' 8$1D 4 E2' H&' $EO' <&&N34' H4' -ED34' <&&N34' @ 34+' H4' ?34 $E 'H&'H4' E' F3' ; J1 HO'H&' F3' @HJ J CC HE34C' H&' F3' C$D' ; HO$' 8HC1 $'$' I)!%1! 'H4' F3' ,$J3'H4' 8$ED 4 E2' H&' $EO' <&&N34' H4' I34CHE' E' $EO' $O' NHEN34E3D' E' F3' 1$O E2' H4' F3' H4D34 E2' D 43N E2' H4' N$-C E2' F3' I$OJ3E' H&' $EO' C-NF' I4T3' PHE30' M4$E ' BH-E O' PHE30' ?F$43' H4' H F34' H $EN3' H&' PHE30' D-3' H4' 1OQ 3' H4' C-11HC3D' H' Q3' D-3' H4' 1OQ 3' $C' $&H43C$ D' H4' CF$ ' &$ C3 O' J$+3' &H423' NH-ER 34&3 'H4' $ 34'H4' E2 O'$N '$D' H4' $CC C' E' F3' &$ C3' J$+ E2' &H42 E2'NH-E 34&3 E2'14HN-4 E2'H4'$ 34 E2'$EO' >3 34' H&' H4E30' B '* N+3 '<4D34 '@34 &N$ 3' H-NF34' '3N3 1 ' 9 'H4' $EO' H F34' IH 34' EC 4-J3E ' 9$44$E ' -FH4 O' GHN-J3E ' H4' 9 4 E2' F$ CH3 34'43 $ E2' H' H4' E' $EO C3' NHEN34E E2' F3' I$OJ3E'H&' H4' F3' HQ $ E E2' H4' N $ J E2' $EO' C-NF' I4T3' PHE30' M4$E ' BH-E O' PHE30' ?F$43' H4' H F34' H $EN3' H&' PHE30' D-3' H4' 1OQ 3' H4' C-11HC3D' H' Q3' D-3' H4' 1OQ 3' $C' $&H43C$ D' E' H4D34' H' 43N3 3' HQ $ E' H4' N $ J' $EO' C-NF' I4T3' PHE30' M4$E ' BH-E O' PHE30' ?F$43'H4' H F34' H $EN3' H&' PHE30' D-3' H4' 1OQ 3' H4' C-11HC3D' H' Q3' D-3' H4' 1OQ 3' $C' $&H43C$ D' H4' CF$ ' - 34' H4' 1-Q CF' $C' 4-3' H4' +EH E2 O'$ED' E2 O' $N 'H4' $ D' H4' $CC C' E' - 34 E2' H4' 1-Q CF E2' $C' 4-3' $EO' &$ C3 O' J$D3' H4' &H423D' H4' NH-E 34&3 3D' H4' $ 343D' >3 34' H&' H4E30'B '* N+3 '<4D34'@34 &N$ 3' H-NF34' '3N3 1 ' 9 ' H4' $EO' H F34' IH 34' EC 4-J3E ' 9$44$E ' -FH4 O' GHN-R J3E ' H4' 9 4 E2' F$ CH3 34' F' E 3E HE' H' 43N3 3' HQ $ E' H4' N $ J 'H4' H' 3E$Q 3' $EO' H F34' I34CHE' H' 43N3 3' HQ $ E' H4' N $ J' &4H J' F3' C$ D' @HJ J CC HE34C' H&' F3' C$ D' 'HO$' 8HC1 $ ' H4' &4H J' $EO' <&&N34' -ED34' <&&N34' @ 34+' H4' ?34 $E ' H&' F3' C$ D' @HJ J CC HE34C' H4' &4H J' $EO' I34CHE' F$ CH3 34' $- FH4 T3D' H4' C-11HC3D' H' Q3' $- FHR 4 T3D' H' 1$O' F3' C$J3' F3' I$OJ3E ' H&' $EO' C-NF' I4T3' PHE30' M4$E ' BH-E O' PHE30' ?F$43' H4' H F34' H $EN3' H&' PHE30' D-3' H4' 1OQ 3' H4' C-11HC3D' H' Q3' D-3' H4' 1OQ 3' $C' $&H43C$ D' F' E 3E HE' H' D3&4$-D' $EO' I34CHE' H4' I34CHEC' F$ CH3 34' H4' $EO' BHDO' H4' BHD 3C' IH N' H4' @H41H4$ 3' F$ CH3 34' H4' CF$ ' +EH E2 O' $+3' $' &$ C3' <$ F' E' H4D34' H' HQ $ E' >3 3&C' H&' DJ E C 4$ HE' H4' F3' I4HQ$ 3' H&' $EO' 9 ' E' H4D34' H' 43N3 3' HQ $ E' H4' N $ J ' H4' H' 3E$Q 3' $EO' H F34' I34CHE' H' 43N3 3' HQ $ E' H4' N $ J' $EO' I4T3' PHE30' M4$E ' BH-E O' PHE30' ?F$43' H4' H F34' H $EN3' H&' PHE30' D-3' H4' 1OQ 3' H4' C-1R 1HC3D' H' Q3' D-3' H4' 1OQ 3' &H4' H4' HE' $NNH-E ' H4' E' 43C13N ' H&' F3' ?34 N3' H&' $EO' <&&N34' ,HE NHJ J CC HE3D' <&&N34' ?H D 34' H4' H F34' I34CHE' $C' $&H43C$ D' FH' CF$ 'F$ 3' 43$ O'C34 3D' H4' Q3' C-11HC3D' H' F$ 3' C34 3D' E' 8 C' P$(3C O C' 4J O' H4' H F34' P $4O' ?34 N3' H4' CF$ ' D3J$ED' H4' 43N3 3' $EO' I4T3' PHE30' M4$E ' BH-E O' PHE30' ?F$43' H4' H F34' H $EN3' H&' PHE30' D-3' H4' 1OQ 3' H4' C-11HC3D' H' Q3' D-3' H4' 1OQ 3' $C' $&H43C$ D' -1HE' >3 3(C' H&' DJ E C 4$ HE' H4' $' I4HQ$ 3' H&' $' 9 ' +EH E2' F3' 9 'HE' F NF' C-NF' I4HQ$ 3' CF$ ' F$ 3' Q33E' HQ $ E3D' H' Q3' &$ C3' &H423D' H4' NH-E 34&3 3D' H4' +EH E2' C-NF' >3 34C' H&' DJ E C 4$ HE' H4' F3' I4HQ$ 3' H&' C-NF' 9 '$C' $C' $&H43C$ D' H' F$ 3' Q33E' HQ $ E3D' QO' J3$EC' H&' $EO' C-NF' &$ C3' <$ F' F' E 3E HE' H' D3&4$-D' $EO' I34CHE' H4' I34CHEC' F$ CH3 34' H4' $EO' BHDO' H4' BHD 3C' IH N' H4' @H41H4$ 3' F$ CH3 34' $ ' $ED' 3 34O' I34CHE' CH' H&&3ED E2' Q3 E2' F343H&' $ &- O' NHE N 3D' CF$ ' Q3' $ED $43

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> 8 ; ' ; ?ʻ QOʻ $Eʻ Nʻ 1$CC3Dʻ Eʻ F3ʻ ? Fʻ =3$4ʻ H&ʻ F3ʻ ' 3 2E H&ʻ \ -33Eʻ /##! ʻ E - 3Dʻ /#ʻ / ' ʻ , ʻ1! % #(ʻ #&ʻ !1 4% 1) #(ʻ Yʻ EE3ʻ N !Sʻ ʻ ʻ I ,3 ʻ , ʻ8J') !V3! ʻ #ʻ) !ʻ E ,)ʻ * ʻ H M43$ʻ B4 $ Eʻ ' %%! &ʻ ?NH $ED ʻ ʻ $Cʻ 3E$N 3D ʻ F$ʻ &4H Jʻ $EDʻ $& 34ʻ F3ʻ 6 & Fʻ G$Oʻ H&ʻ ʻ <E3ʻ FH-C$EDʻ C3 3Eʻ F-ED43Dʻ $EDʻ 3 2F ʻ $ʻ @H-4ʻ H&ʻ ; NF3X-34ʻ Eʻ +' , % #&ʻ CFH- Dʻ Q3ʻ $EDʻ QOʻ - FH4 Oʻ H&ʻ F$ʻ Nʻ $Cʻ F343QOʻ 343N 3D ʻ NHEC - 3D(ʻ $EDʻ 3C $Q CF3Dʻ Eʻ $EDʻ , ʻ+' , % #& ʻ $EDʻ F$ʻ C-NFʻ @H-4ʻ CFH- Dʻ Q3ʻ $EDʻ $Cʻ F343QOʻ 3E$N 3Dʻ Hʻ Q3ʻ $ʻ @H-4ʻ H&ʻ ' 3NH4D ʻ ' 3 3E-3ʻ $EDʻ 5-D N$ -43ʻ &H4ʻ $EDʻ F Eʻ +' , % #& ʻ $Cʻ F343 Fʻ J 3E HE3D.ʻ EDʻ F343$Cʻ QOʻ $Eʻ Nʻ 1$CC3Dʻ Eʻ F3ʻ 6H4 O 3 2F Fʻ =3$4ʻ H&ʻ 8 Cʻ P$(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ *F 4D ʻ E - 3Dʻ /#ʻ / ' ʻ , ʻ!# 4% #(ʻ ZM S N !ʻ 1ʻ U!1 ʻ ,ʻ (#ʻ /##3 !1ʻ ,ʻ) !ʻ ?3&(!1ʻ , ʻ) !ʻ I ,3 ʻ , ʻ+!11 ,# ?31 ' ʻ #&ʻ 8J') !V3! ʻ , ʻ?NH $ED ʻ 35,#ʻ) !ʻ L!1 (# ,#ʻ , ʻ) ! ʻ 6 '!1ʻ ʻ $Cʻ 3E$N 3Dʻ F$ʻ ʻ CFH- Dʻ Q3ʻ $ &- ʻ &H4ʻ 8 Cʻ P$(3C Oʻ Hʻ 24$Eʻ -E Hʻ $EOʻ I 34CHEʻ FHʻ CFH- Dʻ F$ 3ʻ 3E 343Dʻ F3ʻ <&& N3ʻ H&ʻ @F 3&ʻ B$4HEʻ H&ʻ F3ʻ C$ Dʻ @H-4ʻ H&ʻ ; NF3X-34ʻ Eʻ +' , % #& ʻ H4ʻ H&ʻ $ʻ B$4HEʻ H&ʻ F3ʻ C$ J 3ʻ @H-4 ʻ $EDʻ FHʻ CFH- Dʻ F$ 3ʻ 43C 2E3Dʻ $EOʻ C-NFʻ <&& N3 ʻ $Eʻ EE- Oʻ H4ʻ O3$4 Oʻ ?- Jʻ H&ʻ P HE3Oʻ EH ʻ 3 N33D E2ʻ *F433ʻ 6H-4 Fʻ I $4 Cʻ H&ʻ F3ʻ ?$ $4Oʻ $1134 $ E E2ʻ Hʻ C-NFʻ <&& N3ʻ $ʻ F3ʻ * J 3ʻ H&ʻ F3ʻ ' 3C 2R E$ HEʻ F343H&ʻ $EDʻ F$ʻ 3 34Oʻ C-NFʻ EE- Oʻ H4ʻ O3$4 Oʻ ?- Jʻ CFH- Dʻ NH J J 3EN3ʻ &4H Jʻ $EDʻ $& 34ʻ F3ʻ I 34 HDʻ F3Eʻ F3ʻ I 34CHEʻ Hʻ FH Jʻ $EOʻ

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9 'N'YV' 143C3E' P$(3C O' E - 3D' / ' ' , ' 3# #(')!' + ! # 1' , '?3 ' ' 7 %1' #' I 0 % I 31!1' F)')!' , & # '?3 1& ' ,#' , ')!' I ,3 ' , ' +!11 ,#' #&' , ' #(' '! #' ,)! ' / % ! ,#1' #&' L !&3' ,#1' #')!' ?3& ' % 81 4% 1) !# 1' #' ?NH $ED' ' $C' 3E$N 3D' F$ ' $C' NEN 3C' CFH- D' HNN-4' E' F3' <&& N3' H&' F3' B$4HE' H&' F3' C$ D' @H-4' H&' ; NF3R X-34' F3' C$ J3' CFH- D' EH 'Q3' & 3D' #1' -E ' F3' , - J Q34' H&' C-NF' B$4HEC' CFH- D' Q3' 43D-N3D' CH' F$ ' F3' C$ D' @H-4' CFH- D' NHEC C' H&' F3' >H4D' @F 3&' B$4HE' $ED' <E3' B$4HE' HE O ; ED' F343$C' F' $ 3 ' H' 43ED34' F3' D J E C 4$ HE' H&' 5-C N3' E' P$ 34C' H&' ' 3 3E-3' ' + ' , ' ' % #&' 3CC' 3 13EC 3' ' C' 3 13D 3E' F$ ' HE' F3' ' 3 43 J 3E' H4' G3N3$C3' H&' F3' C$ D' >H4D' @F 3&' B$4HE' H&' ; NF3X-34' H4' $EO' H&' F3' H F34' B$4HEC' H&' F3' C$ D' @H-4' EH' ?-NN3CCH4C' CFH- D' Q3' $11H E 3D' H' F3 4' 43C13N 3' <&& N3C' $ED' F$ ' & ' I4H C HEC' CFH- D' Q3' J$D3' &H47 F3' I34R &H4 J$EN3' H&' F3' G- 3C' H&' F3 4' 43C13N 3' <&& N3C' $ED' $ CH' &H4' &$N $ E2' F3' ' 3 43 J 3E' H&' F3' C$ D' >H4D' @F 3&' B$4HE' $ED' H F34' B$4HEC' H&' F3' C$ D' @H-4 ; B3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC' ; N3 3E ' P$(3C O' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC ?1 4 -$' $ED' * 3 J 1H4$ ' $ED' @H J JHEC' E' F C' 143C3E' I$4 $ J 3E' $CC3 J Q 3D' $ED' QO' F3' - FH4 O' H&' F3' C$ J3' * F$ ' &4H J' $ED' $& 34' F3' 1$CC E2' H&' F C N ' -1HE' F3' ' 3 43 J 3E' H4' G3N3$C3' H&' F3' 143C3E' >H4D' @F 3&' B$4HE' H4' $EO' H&' F3' 143C3E' B$ HEC' H&' F3' C$ D' @H-4 ' EH ?-NN3CCH4C' CF$ ' Q3' $11H E 3D' H' F3 4' 43C13N 3' <&& N3C' "

, H' ?-NN3CR CH4C' H' Q3' $11H E 3D' H' F3' 143C3E' B$4HEC

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' &4H J' $ED' $& 34' F3' ' 3 4 J E3E' H4' G3N3$C3' H&' $EO' H&' F3' 3 C E2' 5-D23C' H&' F3' C$ D' @H-4 ' H&' ; NF3' X 2(' $ ' F3' (-D N $' $ED' H F34' G- 3C' EH ' D CNF$423D' QO' F3' C$ D' @H-4 ' <4 QO' $EO' H&' F3' 5-D23C' F3 3H&' CF$ ' Q3' D CNF$423D' QO' F3' 43 J$ E E2' 5-D23C' H&' F$ ' @H-4 ' H4' F3' $C' 434H$+ E2' 5-D23' F343H&' $C' F3' @$C3' J $O' Q3

G CNF$423' <& G- 3C' H&' F3' @H-4 -1HE' 3 43 J 3E' H4' G3$ F' H&' F3' C3C & 4$' B$4HEC

' ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' &4H J' $ED' $& 34' F3' ' 3 43 J 3E' H4' G3N3$C3 H&' F3' $C ' 43 J$ E E2' B$4HE' H4' @F 3&' B$4HE' $ ' F3' G- 3C' $ED' I H 34C' F NF' $43' QO' F C' N ' D 43N 3D' H' Q3' D CNF$423D' $ED' 134R &H4 J 3D' QO' $ED' 3C 3D' E' C-NF' $C ' 43 J$ E E2' B$4HE' H4' @F 3&' B$4HE' CF$ ' Q3' 4$EC&3443D' H' D CNF$ J 3D' $ED' 134&H4 J 3D' QO' $ED' 3C 3D' E' C-NF' HE3' H&' F3' 5-D23C' H&' F3' @H-4' H&' ?3CC HE' ^C-NF' 5-D23' EH ' Q3 E2' HE3' H&' F3' 5-D23C' H&' F3' @H-4' H&' 5-C N $4O' $C' 8 C P$(3C O' CF$&' &4H J' * J3' H' * J3' Q3' 1 3$C3D' H' E$ J3' ($ED' C-NF' 5-D23' CF$ ' F$ 3' &- ' I H 34' $ED' - FH4 O' H' 4O' $ ' C-NF' ?- C' $ED' @$-C3C' E' F3' C$ D' @H-4' H&' ; NF3X-34' 3 F34' E' * 34 J' H4 J - ' H&' * 34 J ' $C' F3' CF$ ' $1' (HE ; I4H D3D' E3 34 F3 3CC' F$ ' EH F E2' E' F C' N ' NHE $ E3D' CF$ ' $Q4 D23' H4' $ 34' F3' 5-4 CD N HE' H4' I H 34C' H&' F3' C$ D' @H-4 ' H&' ; NF3X-34

& 34' ' 3R 43 J 3E' H4' G3$ F' H&' F3' $C ' B$4HE' G- 3C' H' Q3' D CNF$423D' QO' $' 5-D23' H&' F3' @HH4 ' H&' ?3CC HE

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43D-N3Dʻ H4 $& 34 F3 '3 43J3Eʻ H4 G3N3$C3 H& F3 $Cʻ 43J$E E2
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J$O F3 $ &- ʻD-4 E2 F3 ED C1HC HE H4 QC3EN3 H& F3 B$4HE $ED 4$Eʻ&H4
B$4HEC H& C-NF @H-4ʻ H F NF F3 C$J3 CF$ʻQ3 43D-N3Dʻ H4 H& F3 CC/12@H4Eʻ
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@$-C3C E F3 C$D @H-4ʻ $C F343 E Q3&H43 J3E HE3Dʻ H $ED &H4 F3
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B C &H4 F3 * J3 Q3 E2 H 24$Eʻ 9$44$Eʻ&H4 F3 CC- E2 H& $ʻ
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; 3E C$ED H F34 I4HN3CC CC-$Q 3 H-ʻ H& F3 C$D @H-4ʻH& ; NF3R
X-34ʻ$ED $ CH H 4@ C3 C-NF ? 2E$ -43C &H4 F3 24$E E2 H& @4H E
@F$4 34Cʻ$C J$O Q3 H& $F -423Eʻ , $ -43 $ED 43X- 43 G C1$ NFʻ E +3
P$EE34 $ED H $C &- ʻ 6H4N3 $ED ;&&3N ʻ$C F3 >H4D @F 3& B$4HE H4
H F34 B$4HEC H& F3 C$D @H-4ʻ $43 EH ʻQO >$ ʻ $- FH4 T3D H DHʻ
$EO >$ ʻ I4$N N3ʻ H4 @-C HJʻ H F3 NHE 4$4O F343H& E $EO C3
EH FC $ED E2

ʻ ED Q3 ʻ3E$N 3D *F$ʻ&4H Jʻ $ED $& 34 F3 1$CC E2 H& F C Nʻ C H 3
F3 C$D I H C HE E F3 C$D 43N 3D Nʻ H& F3 6H4 O 3 2F F =3$4 1& EE- 3C H
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H& PHE3O F343 E J3E HE3Dʻ CF$ʻ EHʻ 3 3ED H F3 143C3Eʻ>H4D
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$ED IH 34C H& F3 143C3Eʻ>H4D @F 3& B$4HE $ED B$4HEC H& ; NF3R @H-4ʻH&
X-34 $43 H Q3 4$EC&3443Dʻ ʻCF$ʻ Q3 $ &-ʻ&H4 8 C P$(3C O H 24$Eʻ ?3CC HE H
9$44$E C &H4 1$O E2 H F3 C$D 5-D23 $?$ $4O H4 O3$4 O ?- Jʻ H& Q3 $11H E 3D
PHE3O EHʻ3 N33D E2 F3 ?- Jʻ H& ? ʻ F-ED43D IH-EDCʻ F NF ?- Jʻ E 1 $N3 H&
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9 ;ʻ =H-4ʻ P$(3C O Cʻ JHC ʻ D- &-ʻ $EDʻ HO$ʻ ?-Q(3N C ʻ F3ʻ @HJ JHECʻ H&ʻ F3ʻ #E 3Dʻ % E2DH Jʻ H&ʻ ! ʻ " #ʻ $EDʻ $!% #& ʻ Eʻ I$4 $J3E ʻ $CC3 J 9 3Dʻ H $4DCʻ J$+ E2ʻ 2HHDʻ F3ʻ E3N3CC$4Oʻ ?-11 3Cʻ F NFʻ 3ʻ F$ 3ʻ NF334&- Oʻ 24$E 3Dʻ Hʻ =H-4ʻ P$(3C Oʻ Eʻ F Cʻ ?3CC HEʻ H&ʻ I$4 $J3E ʻ F$ 3ʻ 43CH 3Dʻ Hʻ 2 3ʻ $EDʻ 24$E ʻ -E Hʻ =H-4ʻ P$(3C Oʻ F3ʻ ?- Jʻ F343 E $& 34ʻ J3E HE3D ʻ $EDʻ DH F343&H43ʻ JHC ʻ F- JQ Oʻ Q3C33NFʻ =H-4ʻ P$(3C Oʻ F$ ʻ ʻ J$Oʻ Q3ʻ 3E$N 3Dʻ($EDʻ Q3ʻ ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ JHC ʻ ; N3 3E ʻ P$(3C O ʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3E ʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ ʻ $EDʻ *3 J1H4$ ʻ $EDʻ @HJ JHEC ʻ Eʻ F Cʻ 143C3E ʻ I$4 $J3E ʻ FCC3 EQ 3D ʻ $EDʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$4E3ʻ 7*F$ ʻ F343ʻ CF$ ʻ $EDʻ J$Oʻ Q3ʻ CC-3Dʻ $EDʻ $11 3D ʻ &H4ʻ H4ʻ H $4DCʻ J$+ E2ʻ 2HHDʻ F3 ?-11 Oʻ 24$E 3Dʻ H ʻ 8 Cʻ P$(3C Oʻ &H4ʻ F3ʻ ?34 N3ʻ H&ʻ F3ʻ =3$4ʻ <E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ F 4 O Hʻ F3ʻ ?- Jʻ H&ʻ 6H-4ʻ P HEC ʻ Q- ʻ ʻ H&ʻ F3ʻ @HECH D$ 3D 6-EDʻ H&ʻ F3ʻ #E 3Dʻ % E2DH Jʻ H&ʻ ! ʻ 8 #ʻ ʻ # ʻ $!% #&ʻ ʻ $EDʻ F3ʻ @HJ J CC HE34Cʻ H&ʻ 8 Cʻ P$(3C O Cʻ *43$C-4Oʻ H&ʻ F3ʻ #E 3Dʻ #(&, ʻ , ʻ ! ʻ " #ʻ $EDʻ $!% #& ʻ EH ʻ H4ʻ &H4ʻ F3ʻ * J3ʻ Q3 E2ʻ H4 ʻ $EOʻ *F&33 ʻ H4ʻ JH43ʻ H&ʻ F3 J ʻ H4ʻ F3ʻ >H4Dʻ 8 2Fʻ *43$C-434ʻ H&ʻ F3ʻ #E 3Dʻ #(&, ʻ , ʻ ! ʻ " #ʻ $EDʻ $!% #& ʻ &H4ʻ F3ʻ * J3ʻ Q3 E2ʻ $43ʻ H4ʻ Cʻ F343QOʻ $- FH4 T3Dʻ $EDʻ 3 J1H 343Dʻ Hʻ CC-3ʻ $EDʻ $11 Oʻ F3ʻ C$J3ʻ $NNH4D E2 O

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*F343ʻ CF$ ʻ Q3ʻ $11 3D ʻ &H4 F3?34ʻ =3$c ZSU [[[[[[ʻ H- ʻ H&ʻ F3ʻ @HECH D$ 3D &-ED

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ED Q3 &-4 F34 3E$N 3D *F$ CF$ $ED J$0 Q3 $ &- &H4 F3 @H J J CC HE34C H& 8 C P$(3C O C *43$C-40 H4 $EO *F433 H4 JH43 H& F3 J &H4 F3 * J3 Q3 E2 &4H J * J3 H * J3 QO 9$44$E -ED34 F3 4 8$EDC H N$-C3 H4 D 43N $EO , - JQ34 H& ; NF3X-34 B C H Q3 J$D3 H- $ F3 '3N3 1 H& 8 C P$(3C O C ; NF3X-34 $!1 #1 ! &H4 $EO ?- J H4 ?- JC H& PHE3O EH 3 N33D E2 E F3 FH 3 F3 ?- J H& 6H-4 P HEC $ED C-NF ; NF3X-34 B C CF$ Q3 J$D3 H- E F3 C$J3 H4 +3 P$EE34 6H4 J $ED <4D34 $ED $NNH4D E2 H F3 C$J3 H4 F3 +3 ' - 3C $ED G 43N HEC $C $43 D 43N 3D $ED 143CN4 Q3D E $ED QO $E N 1$CC3D E F3 6H4 O 3 2F F =3$4 H& F3 '3 2E H& 8 C P$(3C O % E2 !, (! F3 *F 4D E - 3D /# /' ' , !(3% #( )! 113 #(#& 5 #(, , 8J')!V3! " %%1

*F3 @ $-C3C KN E 43N 3D J F4 N

8 ED Q3 &-4 F34 3E$N 3D *F$ $ $ED 3 34O F3 @ $-C3C I4H CH3C IH 34C I4 323C D $E $23C I3E$ 3C 6H4&3 -43C $ED G C$Q 3C NHE $ E3D E F3 C$ D 43N 3D N 1$CC3D E F3 6H4 O 3 2F F =3$4 H& F3 '3 2E H& 8 C C$ D P$(3C O CF$ Q3 $11 3D $ED 3 3ED3D H F3 ; NF3X-34 B C H Q3 J$D3 H- E 1-4C-$EN3 H& F C N $C &- O $ED 3&&3N -$ O H $ E 3E C $ED I-41HC3C $C & F3 C$ D C3 34$ @ $-C3C $ED I4H CHEC F$D Q33E 1$4 N- $4 O 4313$ 3D $ED 43 3E$N 3D E F3 BHDO H& F C N

; NF3X-34 B C H Q3$4 E 343C .

ED Q3 &-4 F34 3E$N 3D *F$ F3 ; NF3X-34 B C H Q3 J$D3 H- E 1-4C-$EN3 H& F C N CF$ $ED J$0 Q3$4 $E E 343C EH 3 N33D E2 F3 '$ 3 H& *F433 13EN3 8$ &13EEO 5! I!# 3 5! 2 ! #5,# H4 E 43C13N H& F3 FH 3 H& F3 PHE 3C 43C13N 3 O NHE $ E3D F343 E

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ED Q3 &-4 F34 3E$N 3D *F$ F3 @H J J CC HE34C H& 8 C P$(3C O C *43$C-40 &H4 F3 * J3 Q3 E2 H4 $EO *F433 H4 JH43 H& F3 J CF$ $ED F3O $4 F343QO $- FH4 T3D $ED 3 J 1H 343D H N$-C3 ; NF3X-34 B C $C CF$ Q3 J$D3 J E 1-4C-$EN3 H& F C N H Q3 1 $N3D $C CH J -NF @$CF E F3 43C13N 3 <&& N3C H& F3 *3 34C H& F3 '3N3 1 H& 8 C P$(3C O C ; NF3X-34 $!1 #1 ! 3$NF $ED 3 34O H& F NF *3 34C CF$ Q3 C3 34$ O NF$423D F F3 I4H1H4 HE H& F3 C$ D B C F NF CF$ Q3 CH 1 $N3D E F C <&(33 43 3N 3 O $C CH J -NF @$CF $EO >$ H4 #C$23 H F3 NHE 4$4O EH FC $ED E2

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ED Q3 &-4 F34 3E$N 3D *F$ F3 C$ D ; NF3X-34 B C E F3 8$EDC H& F3 C$ D *3 34C CF$ Q3 HN+3D -1 $ED C3N-43D $C @$CF $NNH4D E2 H F3 @H-4C3 H& F3 '3N3 1 H& F3 ; NF3X-34 $!1 #1 ! $ED CF$ Q3 $+3F $ED 3C 33 J 3D $C CH J -NF E 1$4 H& F3 '3 J$ EC E 43$ PHE3O F343 F 3$NF H& F3 C$ D *3 34C CF$ &4H J * J3 H * J3 C $ED NF$423D E NH J JHE F H F34 F3 PHE 3C E F3 C$ D ; NF3X-34 $EO >$ H4 #C$23 H F3 NHE 4$4O EH F C $ED E2 $ED CF$ Q3 $ &- &H4 F3 C$ D @H J J CC HE34C H& F3 *43$C-40 H CC-3 $ED $11 O F3 C$J3 &4H J * J3 H * J3 H C-NF ?34 N3C $C CF$ F3E F$ 3 Q33E H 3D QO F3 @H J JHEC H& F3 #E 3D % E2DH J H& ! " # $ED $!% & E F C 143C3E ?3CC HE H& I$4 $J3E

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ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3Dʻ *F$ʻ F3ʻ I4 EN 1$ʻ ?- Jʻ H4ʻ ?- JCʻ H&ʻ PHE30ʻ Hʻ Q3ʻ NHE $ E3Dʻ Eʻ $ ʻ C-NFʻ ; NF3X-34ʻ B Cʻ Hʻ Q3ʻ J$D3ʻ &H4 Fʻ Q0ʻ 4 -3ʻ H&ʻ F Cʻ N ʻ H23 F34ʻ Fʻ F3ʻ E 343C ʻ F$ʻ J$0ʻ Q3NH J3ʻ D-3ʻ F343HE ʻ CF$ ʻ Q3ʻ $EDʻ F3ʻ C$ J3ʻ $43ʻ F343Q0ʻ J$D3ʻ NF$423R $Q 3ʻ $EDʻ NF$423Dʻ -1HEʻ F3ʻ 24H E2ʻ I4HD-N3ʻ H&ʻ F3ʻ @HECH D$ 3Dʻ 6-EDʻ H&ʻ F3ʻ #E 3Dʻ % E2DH Jʻ H&ʻ ! ʻ " #ʻ $EDʻ $!% #&ʻ Eʻ F3 E3 ʻ C-NN33D E2ʻ \-$4 34ʻ Hʻ F$ʻ Eʻ F NFʻ F3ʻ C$ Dʻ ; NF3X-34ʻ B Cʻ F$ 3ʻ Q33Eʻ CC-3D ʻ $EDʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ F3ʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P$(3C O Cʻ *43$C-40ʻ &H4ʻ F3ʻ * J3ʻ Q3 E2ʻ H4ʻ $E0ʻ *F433ʻ H4ʻ JH43ʻ H&ʻ F3 Jʻ $EDʻ F30ʻ $43ʻ F343Q0ʻ $- FH4 T3Dʻ &4H Jʻ * J3ʻ Hʻ * J3ʻ Q0ʻ 9$44$E ʻ -ED34ʻ F3 4ʻ 8$EDC ʻ Hʻ D 43N ʻ F3ʻ -D H4 H&ʻ F3ʻ ' 3N3 1 ʻ H&ʻ F3ʻ ; NF3X-34ʻ $ʻ !1 #1 ! ʻ Eʻ C-NFʻ P$EE34ʻ $Cʻ F30ʻ CF$ ʻ F E+ʻ E3N3CC$40ʻ Hʻ CC-3ʻ -E Hʻ C-NFʻ I34CHEʻ H4ʻ I34CHECʻ $Cʻ CF$ ʻ Q3ʻ E$ J3Dʻ Eʻ F3ʻ C$ Dʻ 9$44$E ʻ H- ʻ H&ʻ F3ʻ 24H E2ʻ I4HD-N3ʻ H&ʻ F3ʻ C$ Dʻ @HER CH D$ 3Dʻ 6-EDʻ H&ʻ F3ʻ E3 ʻ C-NN33D E2ʻ \-$4 34ʻ Hʻ F$ʻ Eʻ F NFʻ F3ʻ C$ Dʻ ; NF3X-34ʻ B Cʻ F$ 3ʻ Q33Eʻ CC-3Dʻ $E0ʻ ?- Jʻ H4ʻ ?- JCʻ H&ʻ PHE30ʻ EH ʻ 3 N33D E2ʻ Eʻ F3ʻ FH 3ʻ $ʻ ?- Jʻ C-&& N 3E ʻ Hʻ D CNF$423ʻ $EDʻ 1$0ʻ H&& F3ʻ I4 EN 1$ʻ ?- Jʻ H4ʻ ?- JCʻ H&ʻ PHE30ʻ NHE $ E3Dʻ Eʻ C-NFʻ ; NF3X-34 B Cʻ F3Eʻ H- C $ED E2ʻ $EDʻ F NFʻ J$0ʻ F$ 3ʻ Q33Eʻ J$D3ʻ H- ʻ $ED CC-3Dʻ Q0ʻ 4 -3ʻ H&ʻ F Cʻ N ʻ H23 F34ʻ Fʻ $ ʻ C-NFʻ E 343C ʻ $Cʻ J$0 Q3ʻ D-3ʻ F343-1HE

; NF3X-34ʻ B Cʻ J$D3ʻ NF$423$Q 3ʻ -1HEʻ F3ʻ 24H E2ʻ I4HR D-N3ʻ H&ʻ F3ʻ @HECH D$ 3Dʻ 6-ED

ʻ EDʻ Q3ʻ ʻ D3N $43Dʻ $EDʻ &-4 F34ʻ 3E$N 3Dʻ *F$ʻ ʻ CF$ ʻ $ED J$0ʻ Q3ʻ $ &- ʻ &H4ʻ F3ʻ MH 34EH4ʻ $EDʻ @H J 1$E0ʻ H&ʻ F3ʻ B$E+ʻ H&ʻ 8 #(% #& ʻ $EDʻ F30ʻ $43ʻ F343Q0ʻ 3 J 1H 343Dʻ Hʻ $+3ʻ $NN31 ʻ $EDʻ 43N3 3ʻ F3 ; NF3X-34ʻ B Cʻ $- FH4 T3Dʻ Hʻ Q3ʻ J$D3ʻ H- ʻ Eʻ 1-4C-$EN3ʻ H&ʻ F C N ʻ $EDʻ Hʻ $D $EN3ʻ H4ʻ 3EDʻ Hʻ I Cʻ P$(3C O ʻ $ʻ F3ʻ ' 3N3 1 ʻ H&ʻ F3 ; NF3X-34ʻ $ʻ !1 #1 ! ʻ -1HEʻ F3ʻ @43D ʻ H&ʻ F3ʻ ?- Jʻ 24$E 3Dʻ Q0ʻ F Cʻ N ʻ H- ʻ H&ʻ F3ʻ @HECH D$ 3Dʻ 6-EDʻ H&ʻ F3ʻ #E 3Dʻ % E2DH Jʻ H&ʻ ! ʻ " #ʻ $EDʻ $!% #& ʻ $E0ʻ ?- Jʻ H4ʻ ?- JCʻ H&ʻ PHE30ʻ EH ʻ 3 N33D E2ʻ Eʻ F3ʻ FH 3ʻ F3ʻ ?- Jʻ H&ʻ 6H-4 P HECʻ !ʻ $E0ʻ F E2ʻ Eʻ $Eʻ N ʻ 1$CC3Dʻ Eʻ F3ʻ 6 & Fʻ $EDʻ ? Fʻ =3$4Cʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ % E2ʻ %% ʻ $ED \-33Eʻ ʻ E - 3Dʻ / #ʻ / ' ʻ , ʻ (# #(ʻ ,ʻ 7) ! ʻ U!1 !1ʻ 1!0! %ʻ " !1ʻ #&ʻ 2 3 !1ʻ 35 ,#ʻ 7 ,## (!ʻ , ʻ+) 51ʻ #&ʻ C!11!%1 ʻ #&ʻ 35 ,# " ! ! ʻ / %! ʻ #&ʻ ,) ! ʻ < V3 , 1 ʻ #&ʻ , ʻ 1! '3 #(' ! #ʻ L! ' , 5!#' !1ʻ #&ʻ / &0 # (!1ʻ #ʻ)!ʻ 1 &ʻ / ' ʻ !# ,#!&ʻ ,ʻ 13')ʻ *! 1 ,#1ʻ 1ʻ 1) %%ʻ 0 ,%3# % ʻ &0 #' !ʻ)!ʻ +3 ʻ , ʻ 6#!ʻ %% ,#ʻ 0!ʻ)3#& !&ʻ) ,31 #&ʻ * ,3#&1ʻ ,F &1ʻ ' #(ʻ ,#ʻ)!ʻ ʻ (#1 ʻ 64$EN3ʻ H4ʻ Eʻ $E0ʻ H F34ʻ N ʻ H4ʻ N C ʻ Hʻ F3ʻ NHE 4$40ʻ F3ʻ 3H& EH FC $ED E2

B$E+ʻ H&ʻ ; E2 $EDʻ J$0ʻ $D $EN3 91 [ʻ HEʻ F3ʻ @43D ʻ H&ʻ F Cʻ N ʻ EH FR C $ED E2 !KY 9 KPʻ N ʻ U[

>< , G< , : I4 E 3Dʻ Q0ʻ # + . (/ +ʻ & (+ʻ $EDʻ) * (+ , ʻ 0 1 . 2 2 3% , . . * + ʻ
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J CC HE34Cʽ $N E2ʽ Eʽ F3ʽ ; 3N- HEʽ H&ʽ *F433ʽ
N Cʽ &H4ʽ 1$ E2ʽ $EDʽ 432-$ E2ʽ F3ʽ E ;#ʽ
ʽ $EDʽ C3 34$ʽ ? 433 Cʽ $EDʽ I $N3Cʽ Eʽ F # 6ʽ
ʽ Hʽ N34 $ Eʽ H F34ʽ ? 433 Cʽ $EDʽ I $N3Cʽ Eʽ
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8 ; ' ; ?ʽ QOʽ $Eʽ Nʽ 1$CC3Dʽ Eʽ F3ʽ 6 & Fʽ =3$4 H&ʽ F3ʽ ' 3 2Eʽ
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#&ʽ !(3% #(ʽ)!ʽ ' 323E Cʽ I$4+ʽ ,(!)! ʽ F)ʽ)!ʽ #!Fʽ+ !! ʽ , ʽ
)!ʽ ' 323E Cʽ I$4+ʽ ,ʽ I$ ʽ P$ ʽ #&ʽ ʽ#!Fʽ+ !! 1ʽ #&ʽ$ 5 ,0! !# 1ʽ
#ʽ $!ʽ E! ()4,3),,&ʽ , ʽ I$4 $J3Eʽ ? 433ʽ #&ʽ I4 Oʽ M$4D3ECʽ #&ʽ
, ʽ # # #(ʽ ʽ ',#0!# !#ʽ +!F (!ʽ , ʽ)!ʽ 1 !ʽ @H J J CC HE34Cʽ
343ʽ $11H E 3Dʽ &H4ʽ 1$ E2ʽ 2F E2ʽ $ NF E2ʽ N 3$EC E2ʽ $ 34 E2ʽ
J$ E $ E E2ʽ +331 E2ʽ Eʽ H4D34ʽ $EDʽ J14H E2ʽ F3ʽ C3 34$ʽ ? 433 C
?X-$43Cʽ @4N-C3Cʽ M$4D3ECʽ 9$OCʽ I$CC$23Cʽ @H-4 Cʽ M$4D3ECʽ ?F4-QR
Q34 3Cʽ $EDʽ H4E$ J3E $ʽ EN HC-43Cʽ J$D3ʽ $EDʽ $ Dʽ H- ʽ $EDʽ F343$& 34
H Q3ʽ J$D3ʽ $EDʽ $ Dʽ H- ʽ F Eʽ F3ʽ > J Cʽ D3& E3Dʽ QOʽ *F433ʽ C31$4$ 3
P$1Cʽ H4 I $ECʽ $- F3E N$ 3Dʽ $EDʽ D31HC 3Dʽ $Cʽ Eʽ F3ʽ C$ Dʽ Nʽ C
J3E HE3Dʽ HE3ʽ H&ʽ F3ʽ C$ Dʽ I $ECʽ Q3 E2ʽ J$4+3Dʽ , - JQ34ʽ ʽ $ED
E - 3Dʽ ʽ I $Eʽ H&ʽ F3ʽ @4H Eʽ I4H134 Oʽ Eʽ F3ʽ L ! (! # 1ʽ * ʽ
$EH F34ʽ H&ʽ F3ʽ C$ Dʽ I $ECʽ Q3 E2ʽ J$4+3Dʽ , - JQ34ʽ ʽ $EDʽ E - 3Dʽ
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I $Eʹ H&ʹ F3ʹ E3 ʿ? 433 cʹ $EDʹ F3ʹ H F34ʹ H&ʹ F3ʹ C$Dʹ I $ECʹ Q3 E2ʹ J$4+3Dʹ , - JQ34ʹ ʿ $EDʹ E - 3Dʹ ʿ I $Eʹ H&ʹ F3ʹ @4H Eʹ ; C $ 3ʹ Eʹ F3ʹ , 3 2FQH-4FHHDʹ H&ʹ I) #(ʿ I ,11ʹ+ !! ʿ) !) %%ʿ* 0 ʿ &!#1ʿ]& L ') ,#&ʹ 7! '!ʹ)3 ʿ C-Q(3N ʿ $Cʹ Hʹ F3ʹ , $ -43ʹ $EDʹ ; 3E ʿ Hʿ F3ʹ G- 3Cʹ $EDʹ I H 34ʹ H&ʹ F3ʹ C$Dʹ @H J J CC HE34Cʹ H 34ʹ CH J3ʹ H&ʹ F3ʹ I $N3Cʹ NH J14 C3Dʹ Eʹ F3ʹ C$Dʹ I $ECʹ Hʹ N34 $ Eʹ $4 $ HECʿ ; N31 HECʿ $EDʹ '3C 4 N HECʹ F NFʹ 343ʹ 3 143CC3Dʹ Eʹ F3ʹ C$Dʹ N ʿ QOʹ 43&343EN3ʹ Hʹ F3ʹ C$Dʹ I $ECʿ $EDʹ Hʹ I $4 Cʹ J$4+3Dʹ Fʹ D&&343E ʿ @H H-4Cʹ Eʹ F3ʹ C$Dʹ I $ECʿ $EDʹ F3ʹ C$Dʹ @H J J CC HE34Cʹ 343ʹ QOʹ F3ʹ C$J3ʹ N ʿ $- FHR 4 T3Dʹ Hʹ $CC3CCʹ N34 $ Eʹ '$ 3Cʿʿ $EDʹ $4 H-Cʹ G- 3Cʹ 343ʹ J1HC3Dʹ -1HEʹ F3 J ʿ $EDʹ $4 H-Cʹ I H 34Cʹ 3C 3Dʹ Eʹ F3 Jʿ &H4ʹ N$440 E2ʹ E Hʹ 3&&3N ʿ F3ʹ I -41HC3Cʹ H&ʹ F3ʹ C$Dʹ N ʿ EN -D E2ʹ I H 34Cʹ $EDʹ G 43N HECʹ Hʹ F3ʹ C$Dʹ @H J J CC HE34Cʹ Hʹ 1$ 3ʹ 2F ʿ $ 34ʿ N 3$EC3ʿ $EDʹ 432- $ 3ʹ F3ʹ ? 433 Cʹ $EDʹ I $N3Cʹ NH J14 C3Dʹ Eʹ F3ʹ C$Dʹ I $Eʹ J$4+3Dʹ , - JQ34ʹ ʿ $EDʹ Hʹ $CC3CCʹ $EDʹ 3 Oʹ '$ 3Cʹ &H4ʹ I $O J3E ʿ H&ʹ F3ʹ ; 13EN3Cʹ H&ʹ C-NFʹ 1$ E2ʿ 2F E2ʿ $ 34 E2ʿ N 3$EC E2ʿ $EDʹ 432- $ E2ʹ ʿ $EDʹ QOʹ F3ʹ C$J3ʹ N ʿ F3ʹ C$Dʹ @H J J CC HE34Cʹ $43ʹ $11H E 3Dʹ @H J J CC HE34Cʹ H&ʹ ?3 34Cʹ &H4ʹ J$ E $ E E2ʹ $EDʹ +331 E2ʹ Eʹ 431$ 4ʹ F3ʹ 14 EN 1$ʿ H4ʹ NH J JHEʹ ?3 34ʹ &4H Jʹ 3ʹ ? (!# 1ʹ* ʿ $&H43C$Dʹ Hʹ I) #(ʿ I ,M1ʿ $EDʹ &4H Jʹ F3EN3ʹ Hʹ F3ʹ ' 34ʹ 7) !1ʿ $EDʹ $ CHʹ F3ʹ H F34ʹ G4$ ECʿ 9 $ 34NH-4C3Cʿ $EDʹ @H J J -E N$ HECʹ J$D3ʹ -ED34ʹ F3ʹ - FH4 3Cʹ $EDʹ I 4H C HECʹ H&ʹ $Eʹ N ʿ H&ʹ F3ʹ 6 & O F 4Dʹ =3$4ʹ H&ʹ F3ʹ '3 2Eʹ H&ʹ 8 Cʹ $ 3ʹ P$(3C Oʹ % E2ʹ !, (!ʹ F3ʹ *F 4Dʿ F343 Eʹ 43&3443Dʹ Hʿ $EDʹ $ CHʹ &H4ʹ J$+ E2ʿ J$ E $ E E2ʿ $EDʹ +331 E2ʹ Eʹ 431$ 4ʹ C-NFʹ H F34ʹ ?3 34Cʿ G4$ ECʿ $EDʹ 9 $ 34NH-4C3Cʹ $Cʹ J 2Fʿ Q3ʹ E3N3CC$4Oʹ &H4ʹ C-11 O E2ʹ $ 14H134ʹ H4ʹ JH43ʹ 3&&3N -$ʿ G4$ E$23ʹ Hʹ $ ʿ H4ʹ $EOʹ H&ʹ F3ʹ C$Dʹ ? 433 Cʿ ?X-$43Cʿ @ 4N-C3Cʿ *344$N3Cʿ 'H$DCʿ 9 $OCʿ @H-4 Cʿ I CC23Cʿ $EDʹ I $N3Cʹ C3ʿ H- ʿ $EDʹ D3 E3$ 3Dʹ Eʹ F3ʹ C$Dʹ C3 34$ʿ P$1Cʹ $EDʹ I $ECʹ Q3&H43ʹ J3E HE3Dʿ $EDʹ 3$NFʹ H&ʹ F3 J ʿ H4ʹ F NFʹ J 2Fʿ Q3ʹ F343$& 34ʹ C3ʿ H- ʿ HEʹ F3ʹ M4H-EDʹ F343 Eʹ NHE $ E3Dʿ Fʹ C-NFʹ &-4 F34ʹ I H 34Cʹ &H4ʹ 3E$Q E2ʹ F3ʹ C$Dʹ @H J J CC HE34Cʹ Hʹ J$+3ʹ $ʹ NH J1 3 3ʹ $EDʹ 3&&3N -$ʿ G4$ E$23ʹ H&ʹ F3ʹ C$Dʹ I 43 J C3Cʹ $Cʹ Eʹ F3ʹ C$Dʹ N ʿ J3E HE3Dʿ EN -D E2ʹ $ʹ I 4H C HEʿ F$ʿ Eʹ H4D34ʹ Hʹ 431$Oʹ F3ʹ PHE 3Cʹ $ 43$DOʹ 4$ C3Dʹ $EDʹ F343$& 34ʹ Hʹ Q3ʹ 4$ C3Dʹ $EDʹ $11 3Dʹ $Cʹ F343 Eʹ J3E HE3Dʹ HEʹ $NNH-Eʿ H&ʹ F3ʹ C$Dʹ ?3 $23ʿ $EDʹ Hʹ D3&4$Oʹ F3ʹ ; 13EN3Cʹ H&ʹ J$+ E2ʹ $EDʹ +331 E2ʹ Eʹ 431$ 4ʹ F3ʹ ?3 34Cʿ G4$ ECʿ 9 $ 34NH-4C3Cʿ $EDʹ @H J J -E N$ HECʹ QOʹ *F3ʹ C$Dʹ N ʿ EH 9ʿ Eʹ 43N &$ʿ 1 $N3Dʹ -ED34ʹ F3 4ʹ @F$423ʹ $EDʹ P$E$23 J3E ʿ ʿ CFH- Dʹ Q3ʹ $ &- ʿ &H4ʹ F3ʹ C$Dʹ @H J J CC HE34Cʹ &H4 3 3N- E2 F3ʹ C$Dʹ EH ʿ 43N E2ʹ N ʿ H4ʹ $EOʹ *F433ʹ H4ʹ JH43ʹ H&ʹ F3 J ʿ Hʹ E$+3ʹ $EOʹ '$ 3ʹ H4ʹ '$ 3Cʿ CC3CC J3E ʿ H4ʹ CC3CC J3E Cʿ QOʹ $Eʹ 3X-$ʿ I H-EDʹ '$ 3ʿ &4H Jʹ * J3ʹ Hʹ * J3ʹ $Cʹ F3Oʹ CFH- Dʹ C33ʹ <NN$C HEʿ -1HEʹ $ ʿ 8H-C3Cʿ B- D E2Cʿ >$EDCʿ H4ʹ *3E3R J3E Cʹ F NFʹ CFH- Dʹ Q3ʹ D4$ E3Dʹ QOʹ J3$ECʹ H&ʹ F3ʹ C$Dʹ ?3 34Cʿ G4$ ECʿ 9 $ 34NH-4C3Cʿ $EDʹ @H J J -E N$ HECʿ $EDʹ Hʹ NH 3N ʿ $EDʹ 43N3 3ʹ F3ʹ C$Dʹ $C J3E HE3Dʹ '$ 3Cʹ $EDʹ CC3CC J3E Cʹ Eʹ J$EE34ʹ F343 Eʹ C13N & 3Dʹ($EDʹ QOʹ $-ʹ N ʿ 1$CC3Dʹ Eʹ F3ʹ ? Fʹ =3$4ʹ H&ʹ & 3ʹ '3 2Eʹ <& 8 Cʹ C$Dʹ $ 3ʹ

ʿM ʿ ʿ P$(3C Oʹ E - 3Dʹ / #ʹ / ' ʿ , ʿ!J !#& #(ʿ)!ʹ ?3 1& ' ,#ʹ, ʿ)!ʹ I, 1[1 ,#! 1ʹ ' #(ʿ #)!ʹ 8J!'3 ,#ʹ , ʿ #ʹ / ' ʿ , ʿ)!ʹ R)ʹ H! ʿ V ʿ)!ʹ L! (#ʹ , ʿ 1ʹ5 !1!#ʿ U!1 ʿ , ʿ5 0 #(ʿ #&ʹ !(3% #(ʿ)!ʹ '323E Cʹ 1$4+ʿ ,(!)! ʿ F)ʹ)!ʹ #!Fʹ + !! ʿ , ʿ)!#'!ʹ ,ʿ I $ ʿ P$ ʿ #&ʹ , ʿ ,)! ʿ53 5,1!1ʹ !% #(ʿ)! ! ,ʿ C-NFʹ I $4ʿ H&ʹ 34 ʿ * % '!ʹ H &ʿ + # & (! ʿ + !! ʿ $EDʹ 6%&ʹ * % '!ʹ H &ʿ $EDʹ F3ʹ ? 433 Cʹ $EDʹ I $N3Cʹ $D(H E E2ʹ F343 Hʹ $Cʹ 343ʹ F3Eʿ $Cʹ Hʹ F3ʹ 1$ E2 2F E2

2F E2ʽ $ED N 3$EC E2 F343H&ʽ -ED34 F3 @F$423 $ED P$E$23 J3Eʽ
H&ʽ F3 ?-4 30H4 M3E34$ʽ H& 8 C P$(3C O C 9H4+Cʽ 343 1 $N3Dʽ $C H
F3 1$ E2ʽ 2F E2ʽ $ED N 3$EC E2 F343H&ʽ -ED34 F3 @F$423 $ED
PE23 J3Eʽ H& F3 @H J J CC HE34C $N E2 E 3 3N- HE H& F3 C$ D
&3N 3D Nʽ H& F3 6 & F =3$4 H& F3 ' 3 2E H& 8 C $ 3 P$(3C O ʽ $ED
$EH F34 P$1ʽ H4 I $Eʽ $- F3E N$ 3D $ED D31HC 3D $C E F3 C$ D Nʽ
H& F3 ? F =3$4 H& F3 ' 3 2E H& 8 C $ 3 P$(3C O C J3E HE3Dʽ
$ED F343QO 3 143CC3D H Q3 J$4+3D , - JQ34 ʽ $C F343QO
43&3443D Hʽ $ED CH J -NF H& F3 @$44 $23 I$ 3 J3Eʽ H& F3 C$ D
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NH H-43D B4H Eʽ $ED CH J -NF H& F3 6HHʽ I$ 3 J3Eʽ H& F3 C$ J3
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NH H-43D I E+ʽ ʽ $ED $ ʽ F3 IH 34C QO F3 C$ D Nʽ H& F3 6 & F =3$4
H& F3 ' 3 2E H& 8 C $ 3 P$(3C O 3C 3D E F3 C$ D @H J J CC HE34C
$N E2 E F3 ; 3N- HE F343H& F 43C13Nʽ Hʽ F3 ? 433 C $ED
I $N3C NH J 143F3ED3D $ED D3CN4 Q3D E F3 C$ D I $E J$4+3D
, - JQ34 ʽ $ED QO F3 C$ J3 Nʽ 1 $N3D -ED34 F3 4 5-4 CD N HEʽ
343 QO F3 C$ D Nʽ H& F3 ? F =3$4 H& F3 ' 3 2E H& 8 C C$ D $ 3
P$(3C O 3 3ED3Dʽ CH &$4 $C F3 C$ J3 343 $11 N$Q 3ʽ H F3 ? 433 C
$ED I $N3C QO F3 C$ D $C J3E HE3D Nʽ 1 $N3D -ED34 F3 5-4 CR
D N HE H& F3 C$ D @H J J CC HE34Cʽ $ED QO F3 C$ J3 Nʽ $4 H-C
IH 34C $ED I4H C HEC $ED G 43N HEC $43 2 3E &H4 Q3 34 N$440 E2
E H 3&&3Nʽ F3 I -41HC3C H& F3 C$ D Nʽ EN -D E2 $ IH 34 H F3
C$ D @H J J CC HE34C H $CC3CC ' $ 3C &H4 1$O E2 F3 ; 13EN3 H& 1$ E2ʽ
2F E2ʽ $ 34 E2ʽ $ED N 3$EC E2 F3 ? 433 C $ED I $N3C F343QO 1 $N3D
-ED34 F3 4 @F$423 $ED P$E$23 J3E ʽ $ED QO $E Nʽ 1$CC3D E F3
, E F =3$4 H& F3 ' 3 2E H& 8 C C$ D $ 3 P$(3C O % E2 ! , (!ʽ F3
6H-4 Fʽ E - 3D / #ʽ / ' ' ,ʽ ! J ! #&ʽ) !ʽ ? 3 1& ' , #ʽ , ʽ) !ʽ I , 11 , # ! 1 V / ʽ - A + '
' #(ʽ #ʽ) !ʽ 8 J ! ' 3 , #ʽ , ʽ 7 F ,ʽ / ' 1ʽ , ʽ 5 0 : (ʽ #&ʽ ! (3 % #(ʽ) !ʽ
' 323E C I$4+ʽ , (!) ! ʽ F)ʽ) !ʽ # ! Fʽ + ! ! ʽ , ʽ) ! # ' !ʽ , I$ ʽ P$ ʽ
&ʽ ,ʽ ! # &ʽ) !ʽ 1 &ʽ / ' 1ʽ F3 @H J J CC HE34C H& F3 C$ D N C H& F3
6 & F $ED ? F =3$4C H& F3 ' 3 2E H& 8 C C$ D $ 3 P$(3C O 343
$11H E 3D @H J J CC HE34C &H4 1$ E2ʽ 2F E2ʽ $ NF E2ʽ N 3$EC E2ʽ
$ED H F34 C3 432 - $ E2 $ED J14H E2 N34 $ E ? 433 Cʽ ?X-$43C
*344$N3Cʽ $ED J14H 3 J3E C J$D3 $ED F3E E 14H243CC -1HE >$ED
Q3 HE2 E2 H 8 C P$(3C Oʽ $ 3 O F3 ? 3 H& I % , #ʽ 7 % ' !ʽ J0& H& F3
M$4D3EC F343H&ʽ $ED N34 $ E P3 C H4 ? $Q 3C $ED @H$NF FH-C3C $ED
B- D E2C NHEE3N 3D F343 Fʽ 343N 3D HE H F34 M4H-ED Q3 HE2 E2
H 8 C P$(3C Oʽ C -$ 3 HE F3 ; $Cʽ ? D3 H& * # ' ! 1ʽ + ! ! ʽ E F3
@ O H& !1 # 1 ! ʽ N$ 3D H4 E 3ED3D H Q3 N$ 3D ʽ *F3 ! 1 [
# 1 ! ʽ ! F 1 ʽ $ED F3 ? 433 C E F3 C$ J3 Nʽ ' ! /ʽ * % ! # ʽ
+ ! ! ʽ 3&ʽ " & (!ʽ + ! ! ʽ $ED F3 *344$N3 H4 I$ 3 J3Eʽ H& E ! Fʽ * % ' !ʽ
H & ʽ $ED F3 I$CC$23C $ED I $N3C $D(H E E2 F343 Hʽ F NF 343
F3Eʽ $C H F3 1$ E2ʽ 2F E2ʽ $ 34 E2ʽ $ED N 3$EC E2 F343H&ʽ
-ED34 F3 @F$423 $ED P$E$23 J3Eʽ H& F3 @H J J 33 &H4 1$ E2
F3 I$4 CF3C H& + # ʽ (! ʽ $ED + # ʽ ? ,) #ʽ) !ʽ 8 0 # (! % 1 ʽ
! 1 # 1 ! ʽ 343ʽ $C H F3 1$ E2ʽ 2F E2ʽ $ 34 E2ʽ $ED N 3$EC E2
F343H&ʽ 1 $N3D -ED34 F3 @F$423 $ED P$E$23 J3Eʽ H& F3 @H Jʽ
J CC HE34C $N E2 E F3 ; 3N- HE H& F3 C$ D * H &H4 J34 N Cʽ
E F3 C$ J3 P$EE34 $C & F3 C$ D ? 433 C $ED I $N3C F$D Q33E
EN -D3D

EN -D3Dʻ Eʻ $EDʻ D3 E3$ 3Dʻ $EDʻ C3ʻ H-ʻ Eʻ F3ʻ C$Dʻ I $Eʻ J$4+3Dʻ
,-JQ34ʻ ʻ J3E HE3Dʻ $EDʻ 43&3443Dʻ Hʻ Eʻ F3ʻ C$Dʻ &4C 43N 3Dʻ
N ʻ $EDʻ I$4ʻH&ʻ$ʻ 'H$Dʻ D3 E3$ 3Dʻ Eʻ F3ʻ I $Eʻ ,-JQ34ʻ>ʻ43&3443Dʻ
Hʻ Eʻ F3ʻ C$Dʻ Nʻ H&ʻ F3ʻ 6&Fʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ $3ʻ
P$(3C Oʻ N$ 3Dʻ /%4 #ʻL, &ʻ $Cʻ $Cʻ Hʻ F3ʻ P$E 3E$EN3ʻ?-11H4 ʻ
$NF E2ʻ N3$EC E2ʻ $EDʻ '32-$ HEʻ F343H&ʻ 1$N3Dʻ -ED34ʻ F3ʻ
@F$423ʻ $EDʻ P$E$23J3Eʻ H&ʻ F3ʻ C$Dʻ @HJJ CC HE34Cʻ ʻ $EDʻ F3ʻ H F34ʻ
? 433 Cʻ $EDʻ I $N3Cʻ QOʻ F3ʻ C$Dʻ Nʻ H&ʻ F3ʻ, E Fʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ
H&ʻ 8 Cʻ C$Dʻ $3ʻ P$(3C Oʻ 1$N3Dʻ -ED34ʻ F3ʻ 5-4CD N HEʻ H&ʻ F3ʻ C$Dʻ
@HJJ CC HE34Cʻ $Cʻ F343 Eʻ J3E HE3Dʻ 343ʻ D3 E3$ 3Dʻ Eʻ *F433ʻ
H F34ʻ P$1Cʻ $- F3E N$ 3Dʻ $EDʻ D31HC 3Dʻ $Cʻ F343 Eʻ J3E HE3Dʻ
J$4+3Dʻ 43C13N 3 Oʻ Fʻ F3ʻ ,-JQ34Cʻ ʻ ʻ $EDʻ ʻ ʻ $EDʻ H&ʻ
F NFʻ I $ECʻ ,-JQ34ʻ ʻ NHJ14C3Dʻ F3ʻ ? 433 Cʻ $EDʻ I $N3Cʻ HEʻ F3ʻ
? 3ʻ H&ʻ I %,#ʻ I$ $N3ʻ $EDʻ M$4D3ECʻ $EDʻ F NFʻ ? 433 Cʻ $EDʻ I $N3Cʻ
CHʻ &$4ʻ $Cʻ F3ʻ C$J3ʻ 343ʻ NH H-43Dʻ 8-3ʻ Eʻ F3ʻ C$Dʻ I $Eʻ 343ʻ Hʻ
Q3ʻ 1$ 3Dʻ 2F 3Dʻ $ 343Dʻ N3$EC3Dʻ $EDʻ 432-$ 3Dʻ J$E $E3Dʻ
C-11H4 3Dʻ $EDʻ +31ʻ Eʻ H4D34ʻ $NNH4D E2ʻ Hʻ F3ʻ G 43N HECʻ H&ʻ F3ʻ
C$Dʻ Nʻ EH ʻ Eʻ 43N $ʻ $EDʻ CHʻ &$4ʻ $Cʻ F3ʻ C$J3ʻ 343ʻ NH H-43Dʻ
'3Dʻ Eʻ F3ʻ C$Dʻ I $Eʻ 343ʻ Hʻ Q3ʻ -ED34ʻ F3ʻ @HE 4H-ʻ $EDʻ ?-134R
E 3ED3EN3ʻ H&ʻ F3ʻ C$Dʻ @HJJ CC HE34Cʻ $Cʻ Hʻ F3ʻ P$EE34ʻ H&ʻ NHER
C4-N E2ʻ $EDʻ H4E$J3E E2ʻ $EDʻ $Cʻ Hʻ F3ʻ D3&$N E2ʻ $ 34 E2ʻ H4ʻ
#C E2ʻ F3ʻ 8H-C3Cʻ H4ʻ H F34ʻ B- D E2Cʻ 343N 3Dʻ HEʻ H4ʻ $ʻ F3ʻ ? D3Cʻ
F343H&ʻ $EDʻ H&ʻ F NFʻ C$Dʻ I $ECʻ ,-JQ34ʻ ʻNHE $E3Dʻ F3ʻ !1Oʻ
#1 ! ʻ !>F1ʻ F3ʻ E 34 H4ʻ H&ʻ F NFʻ $Cʻ $CHʻ Hʻ Q3ʻ 1$ 3Dʻ 2F 3Dʻ
$ $NF3Dʻ N3$EC3Dʻ $ 343Dʻ $EDʻ 432-$ 3Dʻ $NNH4D E2ʻ Hʻ F3ʻ G 43NR
HECʻ H&ʻ F3ʻ Nʻ EH ʻ Eʻ 43N $ʻ $EDʻ H&ʻ F NFʻ C$Dʻ I $ECʻ
,-JQ34ʻ ʻ NHE $E3Dʻ L % !#ʻ+ !!ʻ " &(!ʻ + !! ʻ $EDʻ F3ʻ
344$N3ʻH4ʻ 6HHʻ I$ 3J3Eʻ E!Fʻ % '!ʻH & ʻ $EDʻ F3ʻ I$CC$23Cʻ
$EDʻ I $N3Cʻ $D(H E E2ʻ F343 Hʻ F NFʻ CHʻ &$4ʻ $Cʻ F3ʻ C$J3ʻ 9343ʻ NH H-43Dʻ
B -3ʻ Eʻ F3ʻ C$Dʻ I $Eʻ 343ʻ $ CHʻ Hʻ Q3ʻ 1$ 3Dʻ 2F 3Dʻ $ 343Dʻ N3$EC3Dʻ
$EDʻ 432-$ 3Dʻ $NNH4D E2ʻ Hʻ F3ʻ G 43N HECʻ H&ʻ F3ʻ C$Dʻ Nʻ EH ʻ Eʻ
43N $ʻ $EDʻ CHʻ &$4ʻ $Cʻ F3ʻ C$J3ʻ 343ʻ NH H-43Dʻ '3Dʻ HEʻ F3ʻ C$Dʻ I $Eʻ
343ʻ Hʻ Q3ʻ -ED34ʻ F3ʻ @NE 4H-ʻ $EDʻ ?-134 E 3ED3EN3ʻ H&ʻ F3ʻ C$Dʻ
ʻ@HJJ CC HE34Cʻ $Cʻ Hʻ F3ʻ P$EE34ʻ H&ʻ NHEC 4-N E2ʻ $EDʻ H4E$J3E E2ʻ
$EDʻ $Cʻ Hʻ F3ʻ D3&$N E2ʻ $ 34 E2ʻ H4ʻ -C E2ʻ F3ʻ 8H-C3Cʻ H4ʻ H F34ʻ B- DR
E2Cʻ 343N 3Dʻ HEʻ H4ʻ $ʻ F3ʻ ? D3Cʻ F343H&ʻ $EDʻ Eʻ F3ʻ C$Dʻ Nʻ H&ʻ F3ʻ
, E Fʻ =3$4ʻ H&ʻ F3ʻ '3 2 ʻ H&ʻ 8 Cʻ C$Dʻ $3ʻ P 3C Oʻ $4H-Cʻ IH 34Cʻ
$EDʻ I4H C HECʻ $43ʻ NHE $E3Dʻ &H4ʻ N$44O E2ʻ E Hʻ 3&&3Nʻ F3ʻ I-41HC3Cʻ
H&ʻ F3ʻ C$ F3ʻ Nʻ EN -D E2ʻ $ʻ IH 3&ʻ Hʻ F3ʻ C$Dʻ @HJJ CC HE34Cʻ
Hʻ $CC3CCʻ $EDʻ 3 Oʻ '$ 3Cʻ &H4ʻ D3&4$O E2ʻ F3ʻ ; 13EN3Cʻ H&ʻ 1$ E2ʻ
&H4J E2ʻ 431$ 4 E2ʻ N3$EC E2ʻ 2F E2ʻ $EDʻ $ 34 E2ʻ F3ʻ? 433 Cʻ $EDʻ
1$N3Cʻ QOʻ F3ʻ C$Dʻ N Cʻ H&ʻ F3ʻ 6&Fʻ $EDʻ ? Fʻ =3$4Cʻ $EDʻ $CHʻ QOʻ
F3ʻ C$Dʻ Nʻ H&ʻ F3ʻ, E Fʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ $3ʻ P$(3C Oʻ
43C13N 3 Oʻ 1$N3Dʻ -ED34ʻ F3ʻ @F$423ʻ $EDʻ P$E$23J3Eʻ H&ʻ F3ʻ C$Dʻ
@HJJ CC HE34Cʻ $Cʻ Hʻ F3ʻ 1$ E2ʻ 2F E2ʻ $ 34 E2ʻ $EDʻ N3$EC E2ʻ
F343H&ʻ ^3 N31ʻ F3ʻ !1 #1 ! ʻ !F1Aʻ Eʻ 3-ʻ $EDʻ C 3$Dʻ H&ʻ
F3ʻ C3 34$ʻ '$ 3Cʻ QOʻ F3ʻ C$Dʻ N Cʻ H&ʻ F3ʻ 6&Fʻ $EDʻ ? Fʻ =3$4Cʻ H&ʻ
F3ʻ '3 2Eʻ $&H43C$Dʻ $- FH4 T3Dʻ Hʻ Q3ʻ J$D3ʻ $EDʻ NH 3N 3Dʻ Q4ʻ 1$ E2ʻ
431$ 4 E2ʻ N3$EC E2ʻ 2F E2ʻ $NF E2ʻ $EDʻ $ 34 E2ʻ $Cʻ F343 Eʻ
J3E HE3Dʻ: EDʻ F343$Cʻ I,'?!153ʻ+ !! ʻ $EDʻ I) #('I ,11ʻ + !! ʻ
$ʻ F3ʻ @ Oʻ H&ʻ !1 #1 ! ʻ ! ʻ $Cʻ Hʻ F3ʻ 1$ E2ʻ 2F E2ʻ $EDʻ
N3$EC E2ʻ F343H&ʻ -ED34ʻ F3ʻ @HE 4H-ʻ $EDʻ P$E$23J3Eʻ H&ʻ F3

U7 M # > ; > P ʿ ʿ @$1 !Y

J 33ʹ &H4ʹ 1$ E2ʹ F3ʹ I$4 CFʹ H&ʹ + #ʿ #ʹ #ʹ)!ʹ R !%&1ʹ =ʹ $EDʹ
! ʿ !, (!ʹ + !! ʿ< %!ʹ " &(!ʹ + !! ʿ $EDʹ F3ʹ ? 433ʿ 3$D E2ʹ &4H Jʹ
! ʿ !,P(!ʹ + !! ʿ Hʹ + #ʿ (! 1ʹ @F-4NFO$4Dʹ $ ʿ Eʹ F3ʹ C$ Dʹ
@ Oʹ H&ʹ !1 #1 ! ʿ $EDʹ $ ʿ F343 E $& 34ʹ JH43ʹ 1$4 N- $4 Oʹ D3& E3Dʹ
$43ʿ $Cʹ Hʹ F3ʹ 1$ E2ʿ 2F E2ʿ $EDʹ N 3$EC E2ʹ F343H&ʿ -ED34ʹ F3ʹ @HEʿ
4H- ʿ $EDʹ P$E$23 J3E ʿ H&ʹ F3ʹ @H J J 33ʹ &H4ʹ 1$ E2ʹ F3ʹ #E 3Dʹ
I$4 CF3Cʹ H&ʹ + #ʿ (! ʿ $EDʹ + #ʿ ?,)#ʹ)!ʹ 80 #(!%1 ʿ !1 [
#1 ! ʿ ʿ EDʹ F343$Cʹ ʿ Cʹ 3 13D 3E ʿ F$ʿ ! ʿ !, (!ʹ + !! ʿ < %!ʹ
" &(!ʹ + !! ʿ $EDʹ F3ʹ ? 433ʿ 3$D E2ʹ &4H Jʹ ! ʿ !, (!ʹ + !! ʿ Hʹ
+ #ʿ (! 1ʹ @F-4NFO$4Dʿ CFH- Dʿ $Cʹ Hʹ F3ʹ 1$ E2ʿ 431$ 4 E2ʿ
2F E2ʿ $ 34 E2ʿ $EDʹ N 3$EC E2ʹ F343H&ʿ $EDʹ F$ʿ F3ʹ @$44 $23 $Oʹ H&ʹ
,ʹ 153ʿ + !! ʿ $EDʹ I) #(ʹ I ,11ʹ + !! ʿ CFH- Dʿ $Cʹ Hʹ F3ʹ 1$ E2ʿ
431$ 4 E2ʿ $ 34 E2ʿ $EDʹ N 3$EC E2ʹ F343H&ʿ Q3ʹ 1 $N3Dʹ -ED34ʹ F3ʹ @F$423ʹ
$EDʹ P$E$23 J3E ʿ H&ʹ F3ʹ C$ Dʹ @H J J CC HE34Cʹ $N E2ʹ Eʹ F3ʹ ; 3N- HEʹ
H&ʹ F3ʹ C$ Dʹ N Cʹ H&ʹ F3ʹ 6 & Fʿ ? Fʿ $EDʹ , E Fʹ =3$4Cʹ H&ʹ F3ʹ ; 3 2Eʹ H&ʹ
8 Cʹ C$ Dʹ $ 3ʹ P$(3C Oʿ $EDʹ F$ ʿ C-Q(3Nʿ Hʹ F3ʹ ʹ3C 4 N HECʹ $EDʹ
$4 $ HECʹ F343 E $& 34ʹ J3E HE3Dʿ F3ʹ C$ Dʹ @H J J CC HE34Cʹ CFH- Dʹ Q3ʹ
E 3C 3Dʹ Fʹ F3ʹ C$ J3ʹ IH 34Cʹ $EDʹ - FH4 3Cʹ Fʹ 43C13Nʿ Hʹ F3ʹ
C$ Dʹ $Cʹ J3E HE3Dʹ ? 433 Cʹ $EDʹ I $N3Cʹ CHʹ 1 $N3Dʹ -ED34ʹ F3 4ʹ @F$423ʹ
$EDʹ P$E$23 J3E ʿ $Cʹ F3ʹ C$ Dʹ @H J J CC HE34Cʹ $43ʹ E 3C 3Dʹ Fʹ QOʹ
F3ʹ C$ Dʹ Nʿ H&ʹ F3ʹ 6 & Fʹ =3$4ʹ H&ʹ F3ʹ ʹ3 2Eʹ H&ʹ 8 Cʹ $ 3ʹ P$(3C Oʿ H4ʹ
QOʹ $EOʹ H&ʹ F3ʹ H F34ʹ N Cʹ F343 E Q3&H43ʹ J3E HE3Dʿ Fʹ 43C13Nʿ Hʹ
F3ʹ ? 433 Cʹ $EDʹ I $N3Cʹ NH J 143F3ED3Dʹ $EDʹ D3CN4 Q3Dʹ Eʹ F3ʹ C$ Dʹ
I $Eʹ J$4+3Dʹ , - J Q34ʹ ʿ $EDʹ F$ʿ C-NFʹ I4H C HECʹ CFH- Dʹ Q3ʹ J$D3ʹ
$Cʹ $43ʹ F343 E $& 34ʹ J3E HE3Dʹ Fʹ 43C13Nʿ Hʹ F3ʹ 6-EDCʹ Hʹ Q3ʹ
4$ C3Dʹ QOʹ ʹ$ 3Cʹ $CC3CC3Dʹ QOʹ F3ʹ C$ Dʹ @H J J CC HE34Cʹ -ED34ʹ F3ʹ C$ Dʹ
43N 3Dʹ N Cʹ $EDʹ -ED34ʹ F Cʹ Nʿ $EDʹ F3ʹ 6-EDCʹ Hʹ Q3ʹ H F34 C3ʹ
HQ $ E3Dʹ QOʹ F3ʹ C$ J3ʹ @H J J CC HE34Cʹ Hʹ D3&4$Oʹ F3ʹ ; 13EN3Cʹ H&ʹ
1$ E2ʿ 2F E2ʿ $ 34 E2ʿ N 3$EC E2ʿ $EDʹ 432- $ E2ʹ F3ʹ ? 433 Cʹ $EDʹ
I $N3Cʹ -ED34ʹ F3 4ʹ 5-4 CD N HEʿ $EDʹ F$ʿ C-NFʹ I4H C HECʹ $Cʹ $43ʹ
F343 E $& 34ʹ J3E HE3Dʹ CFH- Dʹ Q3ʹ J$D3ʹ &H4ʹ F3ʹ ʹ32- $ HEʹ H&ʹ F3ʹ ? 433 Cʹ
$EDʹ I $N3Cʹ QOʹ F Cʹ Nʿ 1 $N3Dʹ -ED34ʹ F3ʹ @F$423ʹ $EDʹ P$E$23 J3E ʿ H&ʹ
F3ʹ C$ Dʹ @H J J CC HE34Cʹ ʿ $EDʹ ʿ Cʹ $ CHʹ 3 13D 3Eʿ F$ʿ F3ʹ IH 34Cʹ QOʹ
F3ʹ C$ Dʹ Nʿ H&ʹ F3ʹ 6 & Fʹ =3$4ʹ H&ʹ 8 Cʹ $ 3ʹ P$(3C O 2 3Eʹ Hʹ F3ʹ C$ Dʹ
@H J J CC HE34Cʹ Hʹ J$+3ʹ ʹ$ 3Cʹ H4ʹ CC3CC J3E Cʹ &4H Jʹ * J3ʹ Hʹ * J3ʹ
-1HEʹ 8H-C3Cʿ B- D E2Cʿ >$EDCʿ H4ʹ *3E3 J3E Cʹ F NFʹ CFH- Dʹ Q3ʹ
D4$ E3Dʹ QOʹ J3$ECʹ H&ʹ F3ʹ ?3 34Cʿ G4$ ECʿ 9 $ 34NH-4C3Cʿ $EDʹ @H JR
J -E N$ HECʹ QOʹ F3ʹ C$ J3ʹ Nʿ 1 $N3Dʹ -ED34ʹ F3ʹ P$E$23 J3E ʿ ?-4 30
@HE 4H- ʿ $EDʹ G 43N HEʹ H&ʹ F3ʹ C$ Dʿ @H J J CC HE34Cʿ CFH- Dʹ Q3ʹ 3 R
3ED3Dʹ Hʹ C-NFʹ 8H-C3Cʿ B- D E2Cʿ >$EDCʿ H4ʹ *3E3 J3E Cʹ Eʹ F3ʹ
L !(!# 1ʹ * ʿ $EDʹ L !(! ʿ+ !! ʿ $Cʹ $43ʹ D4$ E3Dʹ QOʹ ?3 34Cʹ Q3 HE2 E2ʹ
Hʹ F3ʹ @H J J CC HE34Cʹ H&ʹ ?3 34Cʹ &H4ʹ F3ʹ @ Oʹ $EDʹ > Q34 Oʹ H&ʹ !1 [
#1 ! ʿ $EDʹ I$4ʿ H&ʹ F3ʹ @H-E Oʹ H&ʹ &&%!1!J ʿ Q- ʿ $43ʹ EHʿ 4$ 3$Q 3ʹ H4ʹ
$CC3CC$Q 3ʹ QOʹ F3ʹ C$ J3ʹ @H J J CC HE34Cʹ QOʹ 43$CHEʹ F$ʿ C-NFʹ 8H-C3C
B- D E2Cʿ >$EDCʿ H4ʹ *3E3 J3E Cʹ DH EHʿ 3ʹ F Eʹ F3ʹ G C 4 Nʿ H&ʹ C-NFʹ
$Cʹ J3E HE3Dʹ @H J J CC HE34C: P$Oʹ ʿ F343&H43ʹ 1 3$C3ʹ =H-4ʹ P$(3C Oʹ
F$ʿ ʿ J$Oʹ Q3ʹ 3E$N 3Dʿ $EDʹ Q3ʹ ʿ 3E$N 3Dʹ QOʹ F3ʹ % E2 Cʹ JHCʿ ; R
N3 3Eʿ P$(3C Oʿ QOʹ $EDʹ Fʹ F3ʹ D N3ʹ $EDʹ @HEC3Eʿ H&ʹ F3ʹ >H4DCʹ
?1 4 -$ʿ $EDʹ *3 J 1H4$ʿ $EDʹ @H J HECʿ Eʹ F Cʹ 143C3Eʿ I$4 $ J3Eʿ
$CC3 J Q 3Dʿ $EDʹ QOʹ F3ʹ - FH4 Oʹ H&ʹ F3ʹ C$ J3ʿ 7) ʿ ! ʿ !, (!ʹ M43$ʿ M3H423ʹ
+ !! ʿ< %!ʹ " &(!ʹ + !! ʿ $EDʹ F3ʹ IH4 HEʹ F343 E $& 34ʹ JH43ʹ 1$4 N- ʿ ? 433ʿ $EDʹ
$4 Oʹ D3& E3Dʹ H&ʹ F3ʹ ? 433ʿ 3$D E2ʹ &4H Jʹ ! ʿ !, (!ʹ + !! ʿ Hʹ + #ʿ Lk 3 4H Eʿ
ʿ;ʹ & (! 1ʹ 1$N3Dʹ

-ED34 F3ʻ
? *NH J Cʻ
C HE34C$N E2ʻ
E 3 3N- HEʻ
H&ʻ F3ʻ 43R
N 3Dʻ N C

(! 1ʻ @F-4NFO$4D ʻ CF$ ʻ &4H J ʻ $EDʻ $& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ
43 J $ E ʻ $Cʻ Hʻ F3ʻ 1$ E2 ʻ 2F E2 ʻ N 3$EC E2 ʻ $EDʻ $ 34 E2
F343H& ʻ $EDʻ F$ ʻ F3ʻ @$44 $23 $OCʻ H&ʻ I , ' ? ' 153 ʻ + ! ! ʻ $EDʻ I) # (ʻ
I , 11ʻ + ! ! ʻ CF$ ʻ &4H J ʻ $EDʻ $& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ Q3ʻ $EDʻ 7
43 J $ E ʻ $Cʻ Hʻ F3ʻ 1$ E2 ʻ 431$ 4 E2 ʻ $EDʻ $ 34 E2ʻ $EDʻ N 3$EC E2ʻ
F343H& ʻ -ED34ʻ F3ʻ @F$423ʻ $EDʻ P E23 J 3E ʻ H&ʻ F3ʻ @H J J CC HE34Cʻ
$N E2ʻ E 3 3N- HEʻ H&ʻ F3ʻ C$ Dʻ 43N 3Dʻ N Cʻ H&ʻ F3ʻ 6 & F ʻ ? F ʻ $EDʻ
, E F ʻ =3$4Cʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C O ʻ $EDʻ $ CHʻ Q3ʻ $EDʻ 43 J $ E
Hʻ $ ʻ E 3E Cʻ $EDʻ I -41HC3Cʻ C-Q(3N ʻ Hʻ $EDʻ F Eʻ F3ʻ 5-4 CD N HE ʻ
I H 34 ʻ $EDʻ - FH4 Oʻ H&ʻ F3ʻ C$ Dʻ @H J J CC HE34C ʻ Eʻ F3ʻ C$ J 3ʻ P $ER
E34 ʻ 3 N31 ʻ Eʻ F3ʻ I $4 N- $4Cʻ F343 E $& 34ʻ J 3E HE3D ʻ $Cʻ &ʻ F3ʻ C$ Dʻ
? 433 Cʻ $EDʻ I $N3C ʻ $EDʻ I $4 Cʻ H&ʻ ? 433 Cʻ $EDʻ I $N3C ʻ F$Dʻ Q33Eʻ EN -D3Dʻ
Eʻ $EDʻ D3 E3$ 3Dʻ $EDʻ C3 ʻ H- ʻ Eʻ F3ʻ I $Eʻ J $4+3Dʻ , - J Q34ʻ ʻ J 3ER
HE3Dʻ Eʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ H&ʻ F3ʻ 6 & F ʻ =3$4ʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 ?ʻ
$ 3ʻ P $(3C O

I $ECʻ &H4ʻ D CR
E2- CF E2ʻ
? 433 Cʻ 1 $N3Dʻ
-ED34ʻ @H J R
J CC HE34Cʻ Hʻ
Q3ʻ D31HC 3Dʻ
Eʻ F3ʻ <&& N3ʻ
H&ʻ 9 HHDC ʻ
$EDʻ <E3ʻ
@H1Oʻ F343H&
1 $N3Dʻ Eʻ F3ʻ
I $4 $ J 3E ʻ
<&& N3ʻ

ʻ EDʻ F343$Cʻ &H4ʻ $CN34 $ E E2ʻ F3ʻ ? 433 Cʻ $EDʻ I $N3C ʻ $EDʻ I $4 Cʻ
H&ʻ ? 433 Cʻ $EDʻ I $N3C ʻ E 3ED3Dʻ QOʻ F Cʻ N ʻ Hʻ Q3ʻ 1 $N3Dʻ -ED34ʻ
F3ʻ @F$423ʻ $EDʻ P E23 J 3E ʻ H&ʻ F3ʻ C$ Dʻ @H J J CC HE34C ʻ $Cʻ Hʻ
F3ʻ 1$ E2 ʻ 2F E2 ʻ $ 34 E2 ʻ N 3$EC E2 ʻ $EDʻ 432- $ E2ʻ F343H& ʻ
* Hʻ C31$4$ 3ʻ P $1Cʻ H4ʻ I $ECʻ F$ 3ʻ Q33Eʻ J $D3ʻ &H4ʻ F3ʻ I -41HC3ʻ H&ʻ
Q3 E2ʻ D31HC 3Dʻ Eʻ F3ʻ <&& N3ʻ H&ʻ F3ʻ @H J J CC HE34Cʻ H&ʻ (B ?ʻ P $R
(3C O Cʻ 9 HHDC ʻ 6H43C C ʻ $EDʻ >$EDʻ ' 3 3E-3C ʻ HE3ʻ H&ʻ F NFʻ P $1Cʻ
H4ʻ I $ECʻ J $4+3Dʻ , - J Q34ʻ ʻ NH J 143F3EDCʻ $EDʻ D3CN4 Q3Cʻ F3ʻ
@$44 $23 $OCʻ H&ʻ I , ' 153 ʻ + ! ! ʻ $EDʻ I) # (ʻ I , 11ʻ + ! ! ʻ Q3 E2ʻ
NH H-43Dʻ =3 H ʻ Eʻ F3ʻ C$ J 3ʻ P $1ʻ H4ʻ I $E ʻ $EDʻ F3ʻ H F34ʻ H&ʻ
F3ʻ C$ Dʻ P $1Cʻ H4ʻ I $ECʻ J $4+3Dʻ , - J Q34ʻ W ʻ NH J 143F3EDCʻ $EDʻ
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@F-4NFO$4D ʻ Eʻ F3ʻ C$ J 3ʻ P $1ʻ H4ʻ I $Eʻ 43C13N 3 Oʻ NH H-43Dʻ I E+ ʻ
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D3CN4 Q3Dʻ Eʻ F3ʻ C$ Dʻ P $1ʻ E- J Q343Dʻ W ʻ D ʻ J $4+3Dʻ Fʻ F3ʻ
@H H-4ʻ I E+ ʻ $43 ʻ $Cʻ Hʻ F3ʻ 1$ E2 ʻ 2F E2 ʻ N 3$EC E2 ʻ $ 34 E2 ʻ $EDʻ
432- $ E2ʻ F343H& ʻ $EDʻ F3ʻ @$44 $23 $OCʻ , ʻ I , ' 153 ʻ + ! ! ʻ $EDʻ
I) # (ʻ I , 11ʻ + ! ! ʻ ' , , F ' & ʻ =3 H ʻ Eʻ F3ʻ C$ Dʻ P $1ʻ E- J R
Q343Dʻ ʻ $43 ʻ $Cʻ Hʻ F3ʻ 1$ E2 ʻ 431$ 4 E2 ʻ $ 34 E2 ʻ N a EC E2ʻ
$EDʻ 432- $ E2ʻ F343H& ʻ E 3ED3Dʻ Hʻ Q3ʻ QOʻ F Cʻ N ʻ 1 $N3Dʻ -ED34ʻ F3ʻ
@F$423ʻ $EDʻ P E23 J 3E ʻ H&ʻ F3ʻ C$ Dʻ @H J J CC HE34Cʻ $N E2ʻ Eʻ F3ʻ
; 3N- HEʻ H&ʻ F3ʻ C$ Dʻ N Cʻ H&ʻ F3ʻ 6 & F ʻ ? F ʻ $EDʻ , E F ʻ =3$4Cʻ H&ʻ
F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C O ʻ F3ʻ E 3E ʻ $EDʻ P 3$E E2ʻ 4&/ F Cʻ 1 ʻ
Q3 E2 ʻ F$ ʻ F3ʻ 6HH $OCʻ H&ʻ I , ' 153 ʻ + ! ! ʻ $EDʻ I) # (ʻ I , 11ʻ + ! ! ʻ
HEʻ QH F ʻ ? D3Cʻ H&ʻ C-NFʻ ? 433 C ʻ EN -D E2ʻ F3ʻ FH 3ʻ 6HH $Oʻ &4H J ʻ
" 3 ' # ( ) ʻ I , 3 ʻ , ʻ * %%ʻ %% ʻ CF$ ʻ 43 J $ Eʻ -ED34ʻ F3ʻ @F$423ʻ $EDʻ
P E23 J 3E ʻ H&ʻ F3ʻ @H J J 33ʻ -ED34ʻ FHC3ʻ @F$423ʻ $EDʻ P E23R
J 3E ʻ F3ʻ C$ J 3ʻ EH ʻ $43ʻ ʻ Q3ʻ ʻ F343&H43ʻ 3E$N 3D ʻ * F$ ʻ F3ʻ C$ Dʻ I $ECʻ
E- J Q343Dʻ ʻ $EDʻ W ʻ 43C13N 3 O ʻ $& 34ʻ F3ʻ C$ J 3ʻ CF$ ʻ F$ 3ʻ Q33Eʻ
C3 34$ Oʻ $- F3E N$ 3Dʻ QOʻ F3ʻ ? 2E$ -43ʻ H&ʻ F3ʻ ' 2F ʻ 8 HEH-4$Q 3ʻ
F3ʻ ?13$+34ʻ H&ʻ F3ʻ 8 H-C3ʻ H&ʻ @H J J HEC ʻ CF$ ʻ Q3ʻ D31HC 3Dʻ Fʻ $ED ʻ
43 J $ Eʻ Eʻ F3ʻ @-C HDOʻ H&ʻ F3ʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ 9 HHDC ʻ
6H43C C ʻ >$EDʻ ' 3 3E-3C ʻ 9 H4+C ʻ $EDʻ B- D E2Cʻ ($EDʻ <E3ʻ @H1Oʻ H&ʻ
3$NFʻ H&ʻ F3ʻ C$ Dʻ P $1Cʻ H4ʻ I $EC ʻ C 2E3Dʻ QOʻ F3ʻ ?13$+34ʻ H&ʻ F3ʻ 8 H-C3ʻ
H&ʻ @H J J HEC ʻ CF$ ʻ Q3ʻ D31HC 3Dʻ Eʻ F3ʻ I $4 $ J 3E ʻ <&& N3ʻ ʻ $EDʻ <E3
H F34

H F34ʻ @H1Oʻ CH C 2E3Dʻ CF$ ʻ Q3ʻ D31HC 3Dʻ Fʻ F3ʻ @ 34+ʻ H&ʻ F3ʻ I3$N3ʻ &H4ʻ F3ʻ @H-E Oʻ H&ʻ &&%!1!Jʻ F Eʻ *F433ʻ @$ 3ED$4ʻ PH- FCʻ $& 34 F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ H F3ʻ 3EDʻ F$ ʻ $ ʻ I34CHECʻ J$Oʻ $ ʻ $ ʻ C3CHEQ 3ʻ * J3Cʻ F$ 3ʻ > Q34 Oʻ H EC13N ʻ F3ʻ C$J3ʻ $ ʻ F3 4 9 ʻ $EDʻ I 3$C-43ʻ 1$O E2ʻ F3ʻ ?- Jʻ H&ʻ <E3ʻ ?F E2ʻ &H4ʻ 3$NFʻ EC13N HEʻ $EDʻ H $+3ʻ @H1 3Cʻ &4H Jʻ F3ʻ C$ Dʻ P$1Cʻ H4 I $ECʻ H4 3 F34ʻ H&ʻ F3 J ʻ H4 &4H Jʻ $EOʻ I$4 ʻ H4 I$4 Cʻ F343H&ʻ 1$O E2ʻ F3ʻ ?- Jʻ H&ʻ <E3ʻ ?F E2ʻ &H4 3 34Oʻ @H1Oʻ CH $+3E ʻ $EDʻ F3ʻ C$ Dʻ P$1Cʻ H4 I $ECʻ $EDʻ F3ʻ @H1 3Cʻ F343H&ʻ CH C 2E3Dʻ $EDʻ $- F3E N$ 3Dʻ $Cʻ $&H43C$ Dʻ CF$ ʻ Q3ʻ 43N3 3Dʻ Fʻ ; D3EN3ʻ Eʻ $ ʻ I4HN33D E2Cʻ 43 $ E2ʻ H F3ʻ 5- 4 CD N HEʻ H&ʻ F3ʻ C$ Dʻ @H J J CC HE34Cʻ $EDʻ F3ʻ ; 3N- HEʻ $EDʻ I4H C HECʻ H&ʻ F Cʻ N

ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3Dʻ *F$ ʻ &4H Jʻ $EDʻ $& 34 F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ $ ʻ F3ʻ G- 3Cʻ $EDʻ IH 34Cʻ H&ʻ F3ʻ I$ E2ʻ @H J J 33ʻ H&ʻ F3ʻ I$4 CFʻ H&ʻ + #ʻ #ʻ #ʻ) !ʻ R !%&1ʻ Fʻ 43C13N ʻ H F3ʻ 1$ E2ʻ 2F E2ʻ $ 34 E2ʻ $EDʻ N 3$EC E2ʻ F3ʻ ? 433 Cʻ $EDʻ I $N3Cʻ NH J R 143F3ED3Dʻ $EDʻ D3CN4 Q3Dʻ Eʻ F3ʻ C$ Dʻ I $Eʻ J$4+3Dʻ , - J Q34ʻ ʻ H4 $EOʻ H&ʻ F3 J ʻ $EDʻ $ ʻ F3ʻ G- 3Cʻ $EDʻ IH 34Cʻ H&ʻ F3ʻ I$ E2ʻ @H J J 33ʻ H&ʻ F3ʻ #E 3Dʻ I$4 CF3Cʻ H&ʻ + #ʻ (! ʻ $EDʻ + # ʻ ? ,) #ʻ) !ʻ 8 0 #[(!% 1 ʻ !1 #1 ! ʻ Fʻ 43C13N ʻ H F3ʻ 1$ E2ʻ 2F E2ʻ $ 34 E2ʻ $EDʻ N 3$EC E2ʻ F3ʻ ? 433 Cʻ $EDʻ I $N3Cʻ NH J 143F3ED3Dʻ $EDʻ D3CN4 Q3Dʻ Eʻ F3ʻ C$ Dʻ I $Eʻ J$4+3Dʻ , - J Q34ʻ W ʻ ^Q- ʻ FH- ʻ I43(- D N3ʻ H F3ʻ IH 34Cʻ H&ʻ C-NFʻ @H J J 33Cʻ 43C13N 3 Oʻ H 43NH 34ʻ F3ʻ ʻ 443$ Cʻ H&ʻ $EOʻ ' $ 3Cʻ F NFʻ F$ 3ʻ Q33Eʻ $CC3CC3Dʻ $EDʻ CF$ ʻ F3Eʻ Q3ʻ D-3 ʻ $EDʻ $ CH F3ʻ I4H134 Oʻ H&ʻ F3ʻ C$ Dʻ @H J J 33Cʻ Eʻ F3ʻ P$ 34 $ Cʻ H&ʻ F3ʻ I$ 3R J3E Cʻ $EDʻ Eʻ $ ʻ P$ 34 $ Cʻ $ Dʻ DH Eʻ H4 D4 3Eʻ &H4ʻ 431$ 4 E2ʻ F3ʻ I$ 3 J3E Cʻ $EDʻ $ CH Eʻ $ ʻ >$ J1Cʻ >$ J1ʻ IHC Cʻ >$ J1ʻ 4HECʻ IHC Cʻ ' $ Cʻ 63EN3Cʻ $EDʻ M$ 3Cʻ -1HEʻ H4 Q3 HE2 E2ʻ H F3ʻ C$ Dʻ ? 433 Cʻ $EDʻ I $N3Cʻ NH J 143F3ED3Dʻ $EDʻ D3CN4 Q3Dʻ Eʻ F3ʻ C$ Dʻ I $Eʻ J$4+3Dʻ , - J Q34ʻ W ʻ 43C13N 3 Oʻ CF$ ʻ N3$C3ʻ $EDʻ D3 34 J E3ʻ 3 N31 ʻ $Cʻ H F3ʻ IH 34Cʻ $EDʻ G- 3Cʻ H&ʻ F3ʻ C$ Dʻ @H J J 33ʻ &H4ʻ 1$ E2ʻ $EDʻ 2F E2ʻ F3ʻ I$4 CFʻ H&ʻ + #ʻ #ʻ #ʻ) !ʻ R !%&1ʻ CH &$4ʻ $Cʻ 43 $ 3Cʻ H F3ʻ 1$ E2ʻ 431$ 4 E2ʻ 2F E2ʻ $ 34 E2ʻ N 3$EC E2ʻ $EDʻ 432- $ E2ʻ F3ʻ 6HH $OCʻ H&ʻ I , ' 1 3 ʻ + ! ! ʻ $EDʻ I) #(ʻ I ,11ʻ + ! ! ʻ $EDʻ 3 N31 ʻ $Cʻ H F3ʻ I4H134 Oʻ H&ʻ F3ʻ C$J3ʻ @H J J 33ʻ Eʻ F3ʻ P$ 34 $ Cʻ H&ʻ F3ʻ 6HH $OCʻ H&ʻ I , ' 153 ʻ +) ! ! ʻ $EDʻ I) #(ʻ I ,11ʻ + ! ! ʻ $EDʻ Eʻ F3ʻ P$ 34 $ Cʻ $ Dʻ DH Eʻ H4 D4 3Eʻ &H4ʻ 431$ 4 E2ʻ F3ʻ C$J3ʻ 6HH $OCʻ $EDʻ Eʻ F3ʻ >$ J1Cʻ >$ J1ʻ IHC Cʻ >$ J1ʻ 4HECʻ IHC Cʻ ' $ Cʻ 63EN3Cʻ $EDʻ M$ 3Cʻ -1HEʻ H4 Q3 HE2 E2ʻ H F3ʻ C$J3ʻ 6HH $OC: I4H D3Dʻ E3 34 F3 3CCʻ F$ ʻ CH &$4 $Cʻ 43 $ 3Cʻ H $EOʻ N HEʻ ?- ʻ I4HC3N- HEʻ H4 I4HN33D E2ʻ F NFʻ CF$ ʻ Q3ʻ 13ED E2ʻ H4 CF$ ʻ F$ 3ʻ NH J J3EN3Dʻ Q3&H43ʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ F3ʻ @3CC34ʻ H&ʻ F3ʻ IH 34Cʻ H&ʻ F3ʻ C$ Dʻ @H J J 33Cʻ 43C13N 3 Oʻ $EDʻ H&ʻ F3ʻ I4H134 Oʻ H&ʻ F3ʻ C$ Dʻ @H J J 33Cʻ 43C13N 3 Oʻ Eʻ F3ʻ C$ Dʻ C3 34$ʻ 4 N3Cʻ $ Dʻ *F E2Cʻ 43C13N 3 Oʻ -ED34ʻ F3ʻ @ $-C3ʻ $Cʻ F343 ER Q3&H43ʻ NHE $ E3Dʻ CF$ ʻ &H4ʻ F3ʻ I -41HC3Cʻ H&ʻ C-NFʻ N HEʻ ?- ʻ I4HC3R N- HEʻ H4 I4HN33D E2ʻ Q- ʻ &H4ʻ C-NFʻ I -41HC3ʻ HE Oʻ Q3ʻ C-C13ED3Dʻ H4 EH ʻ $+3ʻ 1 $N3ʻ ʻ C-NFʻ N HEʻ ?- ʻ I4HC3N- HEʻ H4 I4HN33D E2ʻ CF$ ʻ Q3ʻ D3 34 J E3Dʻ 7

ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3Dʻ *F$ ʻ F3ʻ ? HE3ʻ M4$E 3ʻ $EDʻ H F34ʻ P$ 34 $ Cʻ &H4 J E2ʻ F3ʻ 143C3E ʻ I$ 3 J3E ʻ H4 $ Dʻ DH Eʻ H4 D4 3Eʻ &H4 $4

$EDʻ $EH F34ʻ @H1Oʻ D31HR C 3Dʻ Fʻ F3ʻ @ 34+ʻ H&ʻ F3ʻ I3$N3ʻ &H4ʻ P DD 3C3 ʻ F343ʻ H 43R J$ Eʻ H13Eʻ &H4ʻ EC13NR HE

H 34Cʻ H&ʻ I$4HNF $ʻ I$ E2ʻ @H J R J 33Cʻ H N3$C3ʻ Eʻ 43R C13N ʻ H&ʻ F3ʻ @$44 $23 $OCʻ H&ʻ ? 433 Cʻ Eʻ I $Eʻ , H ʻ ʻ $EDʻ H&ʻ F3ʻ ? 433 Cʻ $EDʻ I $N3Cʻ Eʻ I $Eʻ , H ʻ W

" ! + ' (!#Bʻ +?ʻ !) &* (L&BA1 HH

3C 3D' E' _[' @H J E C4' C HE34C' (

F3' I-41HC3' H&' 431$ 4 E2' F3' I$ 3 J 3E ʻ H&' F3' ? 433 C' $ED' I $N3C' NH J 143F3ED3D' $ED' D3CN4 Q3D' E' F3' C$ D' I $EC' J$4+3D' , - J Q34' ʻ $ED' , - J Q34' W ʻ 43C13N 3 O ʻ $ED' F343QO' 1 $N3D' -ED34' F3' 5-4 CD NR HE' H&' F3' @H J J CC HE34C' &H4' 3 3N- E2' F C' N ʻ $ED' $ ʻ >$J1C' ʻ ʻ >$J1' IHC C' ʻ >$J1' 4HEC' ʻ IHC C' ʻ '$ C' ʻ 63EN3C' ʻ $ED' M$ 3C' -1HE' H4' Q3 HE2 E2' H' F3' C$ D' ? 433 C' $ED' I $N3C' ʻ $ED' F3' I4H134 O' E' F NF' C' EH ʻ 3C 3D' E' F3' C$ D' I$ E2' @H J J 33C' H&' F3' C$ D' I$4 CF3C' H&' + #' ʻ #' #')!' R !%&1' ʻ $ED' F3' C$ D' #E 3D' I$4 CF3C' H&' + #' ʻ (!' ʻ $ED' + #' ʻ ?,)#')!' 8 0 #(!% 1 ʻ !1 #1 ! ʻ 43C13N 3 O' ʻ

3 N31 ʻ $C' H' P$ 34 $ C' H&' 6HH $OC' H&' @HN+C1-4' ? 433 ʻ $ED' @F$4 E2' @4HCC' ? 433

^3 N31 ʻ $C' H' F3' P$ 34 $ C' &H4' 431$ 4 E2' F3' 6HH $OC' H&' I ,' 153 ʻ + !! ʻ $ED' I) #(' I ,11' + !! ʻ $ED' F3' >$J1C' ʻ >$J1' IHC C' ʻ >$J1' 4HEC' ʻ IHC C' ʻ '$ C' ʻ 63EN3C' ʻ $ED' M$ 3C' -1HE' H4' Q3 HE2 E2' H' F3' C$J3' 6HH $OC ʻ CF$ ʻ &4H J' $ED' J J 3D $ 3 O' $& 34' F3' 1$CC E2' H&' F C' N ʻ Q3' 3C 3D' E' F3' C$ D' @H J J CC HE34C' &H4' 3 3N- E2' F C' N ʻ C-Q(3N' ʻ HE O' $ED' FH- ʻ I43(-D N3' H' F3' ?-C13EC HE' H&' F3' ʻ @3CC34' &' F3' I4H134 O' H&' $EO' H&' F3' C$ D' @H J J 33C' $ED' @H J J CC HE34C' 43C13NR 3 O' D-4 E2' F3' I 3ED3ENO' H&' $EO' N HEC' ʻ ?- C' ʻ I4HC3N- HEC' ʻ H4' I4HN33D E2C' F NF' CF$ ʻ F$ 3' NH J J 3EN3D' Q3&H43' F3' 1$CC E2' H&' F C' N ʻ $C' $&H43C$ D

'$ 3C' H' Q3' J$D3

O ʻ ED' &H4' D3&4$O E2' F3' ; 13EN3C' H&' 1$ E2' $ED' 431$ 4 E2' ʻ N 3$EC E2' ʻ 2F E2' ʻ $ED' $ 34 E2' ʻ $C' 3 ʻ F3' C3 34$' ʻ ? 433 C' ʻ ?X-$43C' ʻ @ 4N-C3C' ʻ *344$N3C' ʻ 'H$DC' ʻ 9 $OC' ʻ @H-4 C' ʻ I$CC$23C' ʻ $ED' I $N3C' QO' F3' C$ D' 43N 3D' N C' H&' F3' 6 & F' ʻ ? F' ʻ $ED' , E F' =3$4C' H&' F3' '3 2E' H&' 8 C' $ 3' P$(3C O' % E2' !, (!' F3' 6H-4 F' 43C13N 3 O' D 43N 3D' H' Q3' 1$ 3D' ʻ 431$ 43D' ʻ N 3$EC3D' ʻ 2F 3D' ʻ $ED' $ 343D' QO' F3' C$ D' @H J J CC HE34C' $N E2' E' 3 3N- HE' H&' FHC3' N C' ^3 N31 ʻ !1 [#1 ! ʻ !F1' $&H43C$ D ʻ $C' $ CH' F3' C3 34$' ʻ ? 433 C' $ED' I $N3C' QO' F C' N ʻ D 43N 3D' H' Q3' 1$ 3D' ʻ 2F 3D' ʻ $ 343D' ʻ $ED' N 3$EC3D' QO' F3' C$ D' @H J J CC HE34C' ʻ $ED' &H4' F3' I -41HC3C' H&' F3' H F34' I$O J 3E C' F343 E ʻ $& 34' E' F$ ʻ B3F$ &' J3E HE3D' ʻ $ED' E' 3- ʻ $ED' C 3$D' H&' F3' '$ 3C' $ED' CC3CC J 3E C' QO' F3' C$ D' 43N 3D' N C' H4' $EO' H&' F3 J' $- FH4 T3D' H' Q3' J$D3' $ED' NH 3N 3D' &H4' 1$ E2' H4' 431$ 4 E2' ʻ N 3$EC E2' ʻ 2F E2' ʻ $ NF E2' ʻ $ED' $ 34 E2' ʻ Q3' ʻ &-4 F34' 3E$N 3D' ʻ *F$ ʻ <E3' H4' JH43' '$ 3' H4' '$ 3C' ʻ CC3CC J 3E' ʻ H4' CC3CC J 3E C' ʻ CF$ ʻ Q3' $ D' $ED' $CC3CC3D' QO' F3' C$ D' @H J J CC HE34C' &H4' 3 3N- E2' F C' N ʻ $ ʻ O3$4 O' !' F$ &' ʻ O3$4 O' I 34 HDC' ʻ H4' H& 3E34' &' F3O' CF$ ʻ (-D23' ʻ E33D&- ʻ -1HE' $ ʻ 8H-C3C' ʻ $ED' $ ʻ @$ F3D4$ ʻ @H 32 $ 3' ʻ $ED' H F34' @F-4NF3C' ʻ I$4HNF $' ʻ $ED' H F34' @F$13 C' ʻ I $N3C' &H4' '3 2H-C' 9 H4CF 1 ʻ 8HC1 $ C' $ED' ?NFHH C' ʻ $ED' $ ʻ ?FH1C' ʻ 9 $43FH-C3C' ʻ @H$NF FH-C3C' ʻ ? $Q 3C' ʻ @3 $4C' ʻ $ED' $- C' ʻ $ED' $ ʻ H F34' B- D E2C' H4' *3E3 J 3E C' ʻ 1-Q N' H4' 14 $ 3' ʻ $ED' $ ʻ ?1$N3C' H&' M4H-ED ʻ E' H4' $Q- E2' -1HE' H4' &4HE E2' F3' ? 433 C' ʻ ?X-$43C' ʻ @ 4N-C3C' ʻ *344$N3C' ʻ 'H$DC' ʻ 9 $OC' ʻ @H-4 C' ʻ I$CC$23C' ʻ $ED' I $N3C' C3 ʻ H- ʻ H4' E 3ED3D' H' Q3' C3 ʻ H- ʻ HE' F3' M4H-ED' D3 E3$ 3D' $ED' D3CN4 Q3D' HE' F3' C$ D' P$1' H4' I $E' J$4+3D' , - J Q34' ʻ 43&3443D' H' E' F3' C$ D' 43N 3D' N ʻ H&' F3' 6 & F' =3$4 H&' F3' '3 2E' H& 8 C' C$ D' $ 3' P$(3C ʻ % E2' M3H423' F3' 6H-4 F ʻ $ED' E' F3' ? 433 C' ʻ ?X-$43C' ʻ @ 4N-C3C' ʻ *344$N3C' ʻ 9 $OC' ʻ @H-4 C' ʻ I$CC$23C' ʻ $ED' I $N3C' D3 E3$ 3D' $ED' NH H-43D' B4H E' E' F3' C$ D' P$1' H4' I $E' J$4+3D' , - J Q34' ʻ 43&3443D' H' E' F3' C$J3' N ʻ $ED' D 43N 3D' H' Q3' 1$ 3D' H4' 431$ 43D' ʻ N 3$EC3D' ʻ 2F 3D' ʻ $ED' $ 343D' QO' F3' C$ D' @H J J CC HE34C' ʻ $ED' E' F3' ? 433 C' ʻ ?X-$43C' ʻ @ 4N-C3C' ʻ *344$N3C' ʻ 9 $OC' ʻ @H-4 C' ʻ I$CC$23C' ʻ $ED' ʻ I $N3C

1 $N3C C3ʻH-ʻ$4 D D3 E3$ 3D HE F3 C$D P$1 H4 I $E J$4+3D ,-JR Q34 ʻ43&3443D H E F3 C$J3 N ʻ $ED E F3 ? 433 C $ED I $N3Cʻ $ED I$4 C H&? 433 C $ED I $N3Cʻ F NF $43 QO F3 C$D 43N 3D N ʻ H& F3 ? F =3$4 H& F3 ' 3 2E H& 8 C C$D $ 3 P$(3C O % E2 !, (!ʻ F3 6H-4 F 1 $N3D -ED34 F3 5-4 CD N HE H& F3 C$D @HJJ CC HE34Cʻ $ED E F3 ? 433 Cʻ ?X-$43Cʻ *344$N3Cʻ I$CC$23Cʻ $ED I $N3Cʻ C3ʻH-ʻ H4 H Q3 C3ʻH-ʻ HE F3 M4H-ED D3 E3$ 3D $ED D3CN4 Q3D HE F3 C$D P$1 H4 I $E J$4+3D ,-JQ34 ʻ E F3 C$D N ʻ H& F3 , E F =3$4 H& F3 ' 3 2E H& 8 C $ 3 P$(3C O 43&3443D H ʻ $ED E F3 ? 433 C I$CC$23Cʻ $ED I $N3C D3 E3$ 3D $ED D3CN4 Q3D E F3 C$D P$1 H4 I $E J$4+3D ,-JQ34 ʻ E F3 C$J3 N ʻ 43&3443D H ʻ $ED E F3 'H$D N$ 3D F3 /%4 U ʻ L, & ʻ E F3 C$J3 N ʻ $ CH 43&3443D H ʻ $ED D3 E3$ 3D E F3 C$D I $E J$4+3D ,-JQ34 ʻ43&3443D H E F3 C$D N ʻ H& F3 6 & F =3$4 H& F3 ' 3 2E H& 8 C C$D $ 3 P$(3C O $C ʻ $&H43C$ Dʻ $ED $ CH E F3 ? 433 C $ED I $N3C D3 E3$ 3D $ED D3CN4 Q3D E F3 C$D I $EC 43C13N 3 O J$4+3D ,-JQ34 ʻ$ED ,-JQ34 Wʻ E F C N ʻ43&3443D H ʻ E C-NF ?-J H4 ?-JC H& PHE3O $C F3 C$D @HJJ CC HE34C CF$ ʻ H4D34 $ED D 43N ʻ CH E3 34 F3 3CC F$ʻ C-NF ' $ 3 H4 ' $ 3Cʻ CC3CC J3Eʻ H4 CC3CC J3E Cʻ $C F3 C$D @HJJ CC HE34C &H4 3 3N- E2 F C N ʻ $43 F343QO 3 J1H 343D H $O $ED $CC3CCʻ DH EHʻ 3 N33D E F3 FH 3 E $EO HE3 =3$4 F3 ?-J H& * H ?F E2C $ED ? 13EN3 E F3 IH-ED $NNH4D E2 H F3 O3$4 O $ -3 H& F3 C$D 8H-C3C $ED I43 J C3Cʻ H4ʻ E @$C3C F343 -ED34 F3 I4H C HEC F343 ER $& 34 NHE $ E3D F3 ' $ 3C H4 CC3CC J3E C CF$ ʻ Q3 J$D3 $NNH4D E2 H F3 ,-JQ34 H& ?X-$43 =$4DC H& I$ 3 J3E ʻ F3 ?-J H& * H ?F E2C &H4 3$NF C-NF ?X-$43 =$4D

ʻ ED Q3 ʻ &-4 F34 3E$N 3Dʻ *F$ʻ F3 % E2 C JHCʻ ; N3 3Eʻ 8 C P$(3C Oʻ P$(3C Oʻ 8 C 83 4C $ED ?-NN3CCH4Cʻ $C < E34 H4 < E34C H& $EO Q(1-Q N B- D E2 H4 B- D E2C F NF J$O Q3 C -$ 3 F E F3 > J C &E> $Q+ H H& $EO H& F3 C$D 43N 3D N C H& F3 6 & F ? Fʻ $ED , E F =3$4C Q34$ 3Dʻ H& 8 C C$D $ 3 P$(3C O C ' 3 2Eʻ H4 H& F C N ʻ $ED F E F NF F3 @HJJ CC HE34C &H4 3 3N- E2 F C N ʻ $43 F343QO 3 J1H 343D H $O H4 $CC3CC ' $ 3C H4 CC3CC J3E Cʻ CF$ ʻ Q3 $Q 3 H Q3 4$ 3D $ED $CC3CC3D H F3 C3 34$ʻ ' $ 3C $ED CC3CC J3E C &H4 F3 I-41HC3C H& C-NF N C E +3 P$EE34 $C F3 < E34C H4 I4H14 3 H4C H& H F34 1-Q N B- D E2C F E F3 > J C H& F3 C$D N C $43 $Q 3 H Q3 4$ 3D $ED $CC3CC3D

ʻ ED Q3 ʻ &-4 F34 3E$N 3Dʻ *F$ʻ C-Q(3Nʻ H F3 I4H C HEC $ 3C H Q3 F3 3 E $& 34 NHE $ E3D &H4 J$+ E2 CC3CC J3E C E N34 $ E @$C3C $NR $CC3CC3D NH4D E2 H F3 ,-JQ34 H& ?X-$43 =$4DC H& I$ 3 J3E ʻ F3 C$D ' $ 3C 3X-$ Oʻ3 R -4 CC3CC J3E C F NF F3 @HJJ CC HE34C &H4 3 3N- E2 F C N ʻ $43 N31ʻ F343 F343QO 3 J1H 343D H $O $ED $CC3CC CF$ ʻ Q3 $ D $ED $CC3CC3D $EO ? 433 C 3X-$ O HE F3 8H-C3Cʻ @$ F3D4$ ʻ @H 32 $ 3ʻ $ED H F34 @F-4NF3Cʻ CF$ ʻ Q3 I$4HNF $ʻ $ED H F34 @F$13 Cʻ I $N3C &H4 ' 3 2 H-C 9H4CF 1ʻ 8HC1 $ Cʻ $ 343D ?NFHH Cʻ ?FH1Cʻ 9$43FH-C3Cʻ @H$NF FH-C3Cʻ ? $Q 3Cʻ @3 $4Cʻ $- Cʻ F C ʻH F34C B- D E2Cʻ *3E3 J3E Cʻ $ED ?1$N3C H& M4H-ED E $Q- E2 -1HEʻ H4 $43 EH &4HE E2 $ ʻ F3 C$D C3 34$ʻ ? 433 Cʻ ?X-$43Cʻ @ 4N-C3Cʻ *344$N3Cʻ 'H$DCʻ 9$OCʻ @H-4 Cʻ ICC23Cʻ I $N3Cʻ $ED I$4 C H& ? 433 C $ED I $N3C ʻ 14H D3D HE Oʻ F$ʻ & $EO <E3 H4 JH43 H& F3 C$D ? 433 Cʻ ?X-$43Cʻ @ 4N-C3Cʻ *344$N3Cʻ 'H$DCʻ 9$OCʻ @H-4 Cʻ ICC23Cʻ I $N3Cʻ $ED

ʻ6

$ED' I$4 C' H&' ? 433 C' $ED' I $N3C' CF$ ' Q3' $ 343D' F C' $EO' H F34' H4' H F34C' H&' F3 J' CF$ ' EH ' Q3' $ 343D' C-NF' $DD HE$' ' $ 3' J $O' Q3' $ D' $ED' $CC3CC3D' E' C-NF' < E3' H4' J H43' H&' F3' C$ D' ? 433 C' ?X-$43C' @ 4N-C3C' * 344$N3C' ' H$DC' 9 $OC' @H-4 C' I CC23C' I $N3C' $ED' I $4 C' H&' ? 433 C' $ED' I $N3C' $C' CF$ ' Q3' CH' 9 $ 343D' Q3OHED' F3' ' $ 3' $ D' $ED' $CC3CC3D' E' F3' H F34' H4' H F34C' H&' F3 J ' $C' F3' C$ D' @H J J CR C HE34C' &H4' 3 3N- E2' F C' N ' CF$ ' NHEC D34' 3X- $ 3E ' H' F3' ; R 13EN3' H&' CH' $ 34 E2' F3' C$ J 3

+#'#+' ' ! (D G<)H(' F / ' #+' ! (H+2(!' !!(&!A' +L' <G(' G <(!' ',% !(H)#(<' H#A

' I4H D3D' $ $OC' $ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' EH F E2' F343 E' NHE $ E3D' CF$ ' 143(-D N3' F3' ' 2F ' H&' F3' C$ D' @H J J CC HE34C' &H4' 3 3N- E2' F C' N ' H' 43NH 34' $EO' 443$4C' F NF' J $O' Q3' H4' Q3NH J 3' D-3' E' 43C13N ' H&' $EO' ' $ 3' H4' CC3CC J 3E ' J $D3' QO' F3 J' -ED34' F3' - FH4 O' H&' F3' C$ D' 43N 3D' N C' H&' F3' 6 & F ' ? F ' $ED' , E F' =3$4C' H&' F3' ' 3 2E' H&' 8 C' C$ D' $ 3' P $(3C O' % E2' ! , (!' F3' 6H-4 F ' H4' H&' $EO' H&' F3 J

IH 34C' H&' 43N 3D' N C' !M @' [[' $ED' V M' N' Y 5 $C' H' F3' J $+ E2' $ED' NH 3N R E2' H&' ' $ 3C' 3 3ED3D' H' F C' N

W ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' $ ' F3' C3 34$ ' I H 34C' $ED' I4H C HEC' 43C13N 3 O' NHE $ E3D' E' F3' C$ D' 43N 3D' N C' H&' F3' 6 & F' $ED' , E F' =3$4C' H&' F3' ' 3 2E' H&' 8 C' C$ D' $ 3' P $(3C O' % E2' ! , (!' F3' 6H-4 F ' F' 43&343EN3' H' F3' J $+ E2' &' F3' ' $ 3C' QO' FHC3' N C' $- FH4 T3D' H' Q3' J $D3 ' $ED' F' 43&343EN3' H' F3' I $O J 3E ' F343H&' $ED' F3' > $Q O' H' 1$O' F3 C$ J 3 ' $ED' F' 43&343EN3' H' F3' ' 3NH 34O' F343H&' F3E' E' $443$4 ' 3 N31 ' CH' &$4' $C' $EO' H&' F3' I H 34C' $ED' I4H C HEC' H&' F3' C$ D' N ' H&' F3' 6 & F' =3$4' H&' F3' ' 3 2E' $&H43R C$ D' $43' 4313$ 3D' H4' $ 343D' QO' F3' C$ D' N ' H&' F3' , E F' =3$4' H&' F3' C$ J 3' ' 3 2E ' $ED' 3 N31 ' CH' &$4' $C' $EO' H&' F3' I H 34C' $ED' I4HR C HEC' H&' F3' C$ D' N C' H&' F3' 6 & F' $ED' , E F' =3$4C' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' $43' QO' F C' N ' 3 143CC O' $ 343D' $ED' 4313$ 3D' CF$ ' Q3' $ED' F3' C$ J 3' $43' F343QO' 3 3ED3D' $ED' J $D3' $11 N$Q 3' H' F3' J $+ E2' H&' F3' C3 34$ ' ' $ 3C' QO' F C' N ' $- FH4 T3D' H' Q3' J $D3 ' $ED' H' F3' I $O J 3E ' $ED' ' 3NH 34O' F343H&' $ED' H' F3' 3E$Q E2.' F3' C$ D' @H J J CC HE34C' H' QH44H ' $EO' ?- J' H4' ?- J C' H&' P HE3O' HE' F3' ?3N-4 O' F343H&' E' F3' C$ J 3' P $EE34' H' $ ' E 3E C' $ED' I -41HC3C' $C' &' F3' ?$ D' I H 34C' $ED' I4H C HEC' F$D' Q33E' C3 34$ O' F343QO' 4313$ 3D' $ED' 43 3E$N 3D' F' 43&343EN3' F343 H' ($ED' F$ ' ' CF$ ' Q3' $ &-' &H4' F3' C$ D' @H J J CC HE34C' H' EN -D3' E' F3 4' CC3CC J 3E C' H&' ' $ 3C' F343QO' $- FH4 C3D' H' Q3' $CC3CC3D' F3' @H J 34' H4' ' 3 -4E' 8 H-C3C' $ED' H F34' B- D E2C' H4' * 3E3 J 3E C' C $ED E2' H4' 343N 3D' $ ' F3' @H4E34C' H4' E2 3C' H&' $EO' ? 433 ' H4' ?X-$43 ' @ 4N-C ' * 344$N3 ' @H-4 ' I CC23 ' H4' 9 $O' F NF' CF$ ' N4HCC' H4' Q4$ENF' &4H J' $EO' H&' F3' C$ D' ? 433 C' ?X-$43C' * 344$N3C' @H-4 C' I CC23C' H4' 9 $OC' F3' 8 H-C3C' $ED' B D E2C' $Q- E2' H4' &4HE E2' -1HE' F NF' $43' F343QO' $- FH4 T3D' H' Q3' $CC3CC3D ' $ED' F3' N 3$EC E2' H&' C-NF' @H4E34' H4' ' 3 -4E' 8 H-C3C' B- D E2C' H4' * 3E3 J 3E C' CF$ ' Q3' 134&H4 J 3D' QO' F3' C$ D' @H J J C' HE34C

@H4E34' 8 H-C3C' H' Q3' EN -D3D' E' F3' ' $ 3

W ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' $ ' F3' I4H C HEC' NHE $ E3D' E' F3' ?$ D' N ' H&' F3' , E F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' F' 43C13N ' H' F3' 4$ E2' $ED' $CC3CC E2' 8 H-C3C' $ED' B- D E2C' F ' $43' 3 J 1 O' H4' -EENN-1 3D' $ ' F3' * J 3' H&' J $+ E2' C-NF' ' $ 3C' $ED' CC3CC J 3E C' $ED' 3 O E2' 8 $ &' HE O' H&' F3' &- ' ' $ 3C' $ED' CC3CC J 3E C

' ' : # J / RJ ' ' ' 8 $ &' ? ' 7 F C' N

J34 C &H4 F3 * J3 F$'C-NF 8H-C3C CF$' NHE E-3 3J1 O H4 -EHNR N-1 3D' $ED $C H F3 I34CHE H4 I34CHEC QO FHJ C-NF '$ 3C H4 CC3CC J3E C CF$' Q3 1$ D' $ED $C H F3 G3D-N HEC H Q3 J$D3 QO *3E$E C H4 <NN-1 34C H-' H& F3 4 '3E C E 43C13N'H& F3 I$OJ3E' H& C-NF '$ 3C H4 CC3CC J3E C' CF$'3 3ED $ED Q3 $11 N$Q 3 H F3 8H-C3C $ED B- D E2C E $' F3 ? 33 C $ED I $N3C QO $EO H& F3 C$ D 43N 3D N C H4 QO F C N' 1 $N3D -ED34 F3 @F$423 $ED P$E$23R J3E' H& F3 C$ D @HJ J CC HE34C'$C H F3 1$ E2' 2F E2' $ 34 E2' $ED N 3$EC E2 F343H&

W ' I4H D3D $ $OC' $ED Q3 '&-4 F34 3E$N 3D' *F$' F3 C3 34$' IH 34C H& IH 34C $ED I4H C HEC NHE $ E3D E F3 C$ D 43N 3D N'H& F3 6 & F !M 'N [[' =3$4 H& F3 '3 2E H& 8 C $ 3 P$(3C O' $ED EH'4313$ 3D QO F3 C$ D N'H& F3 , E F =3$4 H& F3 C$ J3 '3 2E' H4 QO F C N '43 $ 3 H 34OH&'$ 3C' F3 '$ 3C $ED CC3CC J3E C QO F3 C$ D N'H& F3 6 & F =3$4 H& F3 3 3ED3D H' '3 2E H& 8 C $ 3 P$(3C O H Q3 $ D $ED $CC3CC3D' $ED H F3 '3' F C N' NH 34O F343H&' $ED H& F3 443$4C F343H& CF$' CH &$4 $C F3 C$ J3 $43 $11 N$Q 3'3 3ED'$ED F3 C$ J3 $43 F343QO 3 3ED3D H F3 8$ & H& C-NF '$ 3C H4 CC3CC J3E C' $ED H F3 '3NH 34O F343H& $ED H&$' 443$4C F343H& E $' @$C3C E F NF C-NF 8 $ &' CF$' Q3 1$O$Q 3 -ED34 F C N

W ' ED Q3 '&-4 F34 3E$N 3D' *F$' F3 I4H C HEC NHE $ E3D E I4H C HEC H& F3 C$ D N'H& F3 , E F =3$4 H& F3 '3 2E H& 8 C C$ D $ 3 P$(3C O VM' 'N'M' F 43C13N' H F3 PHD3 H& $CC3CC E2 $ED $CN34 $ E E2 F3 '$ 3C $C H F3 -1HE H4 E 43C13N' H& $EO @$ F3D4$' @H 32 $ 3' H4 H F34 @F-4NF '$ 3C E1H$ @F$13' I $N3 H& '3 2H-C 9H4CF 1' 8HC1 $'1-Q N ?NFHH 'H4 H F34 @$ F3D4$ C' 1-Q N B- D E2' H4 $EO 9$'H4 H D ?1$N3 H& M4H-ED' $ED F3 PHD3 @F-4NF3C 4 1' H& 1$O E2 F3 C$ J3 '$ 3C' $ED $ CH F3 I4H C HEC E F3 C$ J3 N' 3 3ED3D H NHE $ E3D F 43C13N' H F3 >$Q 3C H& H- 2H E2 $ED ENHJ E2 F C N *3E$E C 43C13N 3 O E @$C3C F343 $EO I34CHE CF$'X- '$EO 8H-C3 H4 B- D E2 F NF CF$' Q3 J J3D $ 3 O $& 34 $4DC HNN-1 3D QO CHJ3 H F34 I34CHE' CF$'3 3ED $ED Q3 $11 N$Q 3 H F3 '$ 3C $CC3CC3D -ED34 F3 - FH4 O H& F C N' E +3 P$EE34 $C & F3 C$ J3 I4H C HEC 43C13N 3 O 343 E F C N' 4313$ 3D $ED 43 3E$N 3D

W ' ED Q3 '&-4 F34 3E$N 3D' *F$' F3 C$ D @H J J 33 &H4 I$ E2 @HJ 2F E2 $ED 1$ E2 F3 I$4 CF H& #' #)!'R !%&1' CF$'1$O H4 4H 33 H& N$-C3 H Q3 1$ D H F3 @HJ CC HE34C &H4 3 3N- E2 F C N& H4 F3 4 ? P$4 J J' *43$C 434 &H4 F3 * J3 Q3 E2' F3 N 3$4 $EE-$'?-J' H& ? 'F-ED43D 1OEE-DO $ED & & O F433 IH-EDC' H Q3 $11 3D QO F3 C$ D @HJ J CC HE34C E Y!Se J$EE34 F343 E $& 34 J3E HE3D

W ' ED Q3 '&-4 F34 3E$N 3D' *F$' F3 I$O J3E' H& F3 C$ D >+,-' + ' $EE-$'?-J' H& ? 'F-ED43D $ED & & O F433 IH-EDC CF$' NH J J3EN3) 5'!'-' 0 $C &4H J' F3 * 3E 0 &H-4 F G$O H& ?3#!' <E3 FH-C$ED 3 2F' F-ED43D '# -2 '$O $ED F 4 0 H($ED F$' F3 & 4C' F$ & O3$4 O I$O J3E' C P' Q3 J$D3 HE F3 * 3E 0 &H-4 F G$O H& 2!'! 4!' E3 '$& 34 F3 1$CC E2 H& F C N' $ED F3 E3 ' F$ & O3$4 O I$O J3E' HE F3 * 3E 0 &H-4 F G$O H& ?3#!' F3E E3 ' $ED F$' &4H J F3EN3&H4 F F3 C$ J3 CF$' Q3 1$ D QO * H 3X-$' F$ & O3$4 O I$O J3E C HE F3 * 3E 0 &H-4 F G$O

G$O' H&' ?3#!' $ED' F3' * 3E O &H-4 F' G$O' H&' 2!'! 4!' E' 3 34O' =3$4

, H' ' $ 3' H' Q3 J$D3-1H\' @ + " *' &4HE E2' @HN+C1-4' ? 433 ' $ED' @F$4 E2' @4HCC' ? 433 ' -E 3CC' F3' $EE-$'? E' H&' Y!S ' Q3' E' $443$4

W ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' F3' C$ D' @H J J CC HE34C' &H4' 3 3N- E2' F C' N ' CF$ ' EH ' $O' H4' $CC3CC' $EO' ' $ 3' H4' CC3CC J 3E ' -ED34' F3' I H 34' F343 E Q3&H43' E' F$ ' B3F$ &' NHE $ E3D' -1HE' $EO' 8 H-C3C ' @F-4NF3C ' @F$13 C ' I $N3C' H&' ' 3 2 H-C' 9 H4CF 1 ' 8 HC1 $ C' ?NFHH C ' ?FH1C ' 9 $43FH-C3C ' @H$NF FH-C3C ' ? $Q 3C ' @3 $4C ' $- C' H4' H F34' B- D E2C' H4' ?1$N3C' H&' M4H-ED' $Q- E2' H4' &4HE E2' F3' 6HH $OC' H&' I , '%!153 ' + !! ' $ED' I) #(' I ,11' + !! ' -E 3CC' $ED' -E ' F3' C$ D' $EE-$' ?-J' H&' ? ' F-ED43D' $ED' & & O F433' I H-EDC' F343 E Q3&H43' D 43N 3D' H' Q3' 1$ D' QO' F3' @H J J 33' &H4' 2F E2' $ED' 1$ E2' F3' I $4 CF' H&' + #' # 1' #')!' R !%&1' H4' CH J 3' F$ &' O3$4 O' I $O J 3E ' F343H&' H4' CH J 3' I $4 ' F343H&' CF$ ' Q3' E' $443$4' &H4' F3' ?1$N3' H&' 6H4 O' G$OC' E3 ' $& 34' F3' C$ J 3' CF$ ' F$ 3' Q3NH J 3' D-3

E' N$C3' H&' 443$4' &H4' 6H4 O' G$OC' @H J J CR C HE34C' J $O' 4$ 3' 8 H-?3C' KN' &4HE E2' @HN+C1#4' ? 433

W ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' $& 34' F3' C$ D' $EE-$' ?-E' H&' ? ' F-ED43D' $ED' & & O F433' I H-EDC' H4' $EO' F$ & O3$4 O' I $O J 3E ' F343H&' H4' $EO' I $4 ' F343H&' CF$ ' Q3' E' $443$4' H4' F3' ?1$N3' H&' 6H4 O' G$OC' $& 34' F3' C$ J 3' CF$ ' Q3' D-3' $C' $&H43C$ D' ' CF$ ' Q3' $ &- ' &H4' F3' C$ D' @H J J CC HE34C' &H4' 3 3N- E2' F C' N /' F3E' $ED' CH' H& 3E' $C' $EO' C-NF' G3&$- ' E' I $O J 3E ' CF$ ' F$113E' $ED' $ ' $EO' * J 3' H4' * J 3C' F343$& 34' E' 1-4C-$EN3' H&' F3' I H 34' F343 E Q3&H43' NHE $ -3D' 1' $O' H4' $CC3CC' NH 3N ' $ED' 43N3 3' $EO' ' $ 3' H4' CC3CC J 3E ' ' $ 3C' H4' CC3CCR J 3E C' -1HE' F3' 8 H-C3C' @F-4NF3C' @F$13 C' I $N3C' H&' ' 3 2 H-C' 9 H4CF 1 ' I HC1 $ C' ?NFHH C' ?FH1C' 9 $43FH-C3C' ? $Q 3C' @3 $4C' $- C' H4' H F34' B- D E2C' H4' ?1$N3C' H&' M4H-ED' $Q- E2' -1HE' H4' &4HE E2' F3' 6HH $O' H&' I , ' 153 ' + !! ' $ED' I) #(' I ,11' + !! ' E ' C-NF' H4' F3' +3' P $EE34' $C' C-NF' @H J J CC HE34C' NH- D' H4' J 2F ' F$ 3' DHE3' -ED34' F C' N ' E' N$C3' F3' @ $-C3' H4' I 4H C HE' $C ' F343 E Q3&H43' NHE $ E3D' F$D' EH ' Q33E' EC34 3D' E' F C' N ' $ED' F$ ' F3' P HE3O' H' Q3' 43N3 3D' E' 43C13N ' H&' $EO' C-NF' ' $ 3' H4' CC3CC J 3E ' $C' $C ' F343 ER Q3&H43' C' J 3E HE3D' CF$ ' Q3' $11 3D' E' F3' & 4C ' 1 $N3' E' 1$O E2' F3' ; 13EN3' H&' J 1HC E2 ' NH 3N E2 ' $ED' 43N3 E2' C-NF' ' $ 3' H4' CC3CCR J 3E ' $ED' E' F3' E3 ' 1 $N3' E' 1$O E2' F3' 443$4' F NF' CF$ ' &H4' F3' * J 3' Q3 E2' Q3' D-3' H&' F3' C$ D' $EE-$' ?-J' H&'? ' F-ED43D' $ED' & & O ' F433' I H-EDC' $ED' F3' ?-41 -C' H&' C-NF' P HE3O' ^ &' $EO_' CF$ ' Q3' 43R $ E3D' QO' F3' C$ D' @H J J CC HE34C' &H4' 3 3N- E2' F C' N ' $ED' $11 3D' &$O' F3 J' &4H J' * J 3' H' * J 3' H' $EC 34' F3' &- -43' 24H E2' I $O J 3E C' H&' F3' C$ D' $EE-$' ?-J' H&' ? ' F-ED43D' $ED' & & O F433' I H-EDC' ' C-NF' P HE3O' CF$ ' Q3' 3 F$-C 3D

P3 J Q34C' H&' I $ E2' @H J ' J 3N$3 ' $1 2 ' 4H J ' k(k S H#' ($'

' W ' I 4H D3D' $ $OC' $ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' EH F E2' F343 E' NHE $ E3D' CF$ ' 43ED34' $EO' P 3 J Q34' H&' F3' C$ D' @H J J 33' 2F E2' $ED' 1$ E2' F3' I $4 CF' H&' + #' #' #')!' R !%&1 ' E$ ' 6H ' ED' D-$' O' H4' $EO' MHHDC' @F$ 3C' H4' ;&&3N' C' Q3' HE2 E2' H' $EO' C-NF' P 3 J Q34' $C' E' ED D-$' $Q 3' H' F3' C$ D' $EE-$' ?-J' H&' ? ' F-ED43D' $ED' & & O F433' I H-EDC' H4' $EO' I $4 ' F343H&' H4' H' $EO' ' 3 J 3DO' &H4' 43NH 34 E2' H4' NH J 13 E2' I $O J 3E ' F343H&

N' +#' #+' ' !H ##)H(#J(' ' +L(!A' +?'

W ' I 4H D3D' $ $OC' $ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' EH F E2' E' F C' N ' NHE $ E3D' CF$ ' Q3' NHEC 4-3D' H4' $+3E' H' $Q4 D23' H4' E

U`M#> ;>P ' ' @$1 !Y' Z!

$EO' P$EE34' $&&3N ' F3' I H 34C' H&' F3' C$ D' @H J J 33' &H4' 1$ E2' $ED' I$ E2' @H J '
2F E2' F3' I$4 CF' H&' + #' #' #) !' R !%&1' H' 1$ 3 ' 431$ 4 ' 2F '
$ 34 ' N 3$EC3 ' $ED' 432 - $ 3' F3' 6HH $OC' H&' I , ' 153 ' + ! ! ' $ED' E' 3C13$ H'
I) #(' I ,11' + ! ! =' $ED' F$ ' F3' C$ D' @H J J 33' CF$ ' $ED' J $O ' 6HH $OC'
$ED' F3O' $43' F343QO' D 43N 3D' $ED' 43X - 43D' &4H J ' * J 3' H' * J 3' H' $O'
$ED' $CC3CC' C - NF' ' $ 3C' $ED' CC3CC J 3E C' - ED34' F3' I H 34C' EH ' 3C 3D'
E' F3 J ' H&' $O E2' ' $ 3C' $ED' CC3CC J 3E C ' $C' CF$ ' &4H J ' * J 3' H' * J 3'
3E$Q 3' F3 J ' H' 1$O' F3' C$ D' $EE - $ ' ? - J ' H&' ? ' F - ED43D' $ED' & & O '
F433' I H - EDC' F343QO' J $D3' 1$O$Q 3' QO' F3' C$ J 3' @H J J 33

W W ' ED' Q3' ' & - 4 F34' 3E$N 3D ' * F$ ' F3' P HE 3C' H' Q3' NH 3N 3D' 11 N$ HE'
$ED' 43N3 3D' QO' F3' C$ D' @H J J CC HE34C' &H4' 3 3N - E2' F C' N ' &4H J ' ' $ 3C'
F3' ' $ 3C' H4' CC3CC J 3E C' F343 E Q3&H43' D 43N 3D' H' Q 3 $ D' $ED' $CR
C3CC3D' QO' F3 J ' &H4' D3&4$O E2' F3' ; 13EN3C' H&' 1$ E2' $ED' 431$ 4 E2 '
N 3$EC E2 ' 2F E2 ' $ED' $ 34 E2' F3' C3 34$ ' ? 433 C' $ED' I $N3C' ^3 R
N31 ' F3' C$ D' !1 #1 ! ' ! F1A' QO' F3' C$ D' 43N 3D' N C' H&' F3' 6 & F
? F ' $ED' , E F' =3$4C' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O ' $ED' QO' F C'
N ' 43C13N 3 O' D 43N 3D' H' Q3' 1$ 3D' $ED' 431$ 43D ' N 3$EC3D ' 2F 3D '
$ED' $ 343D' QO' F3' C$ D' @H J J CC HE34C ' $ED' &H4' F3' I - 41HC3' H&' H F34'
I $O J 3E C ' $ED' $ CH' F3' P HE 3C' H' Q3' 43N3 3D' E' 43C13N ' H&' F3' C$ D'
$EE - $ ' ? - J ' H&' ? ' F - ED43D' $ED' & & O F433' I H - EDC' F343 E Q3&H43'
D 43N 3D' H' Q3' 1$ D' H' F3' @H J J CC HE34C' &H4' 3 3N - E2' F C' N '
CF$ ' Q3' $11 3D' QO' F3' C$ D' @H J J CC HE34C ' E' F3' & 4C ' 1 $N3 ' E' 1$O E2'
$ED' D CNF$42 E2' F3' ; 13EN3C' $ 3ED E2' F3' HQ $ E E2' $ED' 1$CC E2'
H&' F C' N =' E' F3' E3 ' 1 $N3 ' E' 1$O E2' &4H J ' * J 3' H' * J 3' F3'
E 343C ' H&' $ ' I 4 EN 1$ ' P HE 3C' F NF' F$ 3' Q33E' QH44H 3D' - ED34'
F3' C$ D' 43N 3D' N C' H&' F3' 6 & F ' ? F ' $ED' , E F' =3$4C' H&' F3'
' 3 2E' H&' 8 C' $ 3' P $(3C O ' H4' $EO' H&' F3 J ' H4' F NF' J $O' F343$& 34' Q3'
QH44H 3D' - ED34' F3' I H 34C' H&' F C' N ' $ED ' C - Q(3N ' F343 H ' E'
D3&4$O E2' F3' ; 13EN3C' H&' 1$ E2' $ED' 431$ 4 E2 ' N 3$EC E2 ' 2F E2 '
$ 34 E2 ' $ED' 432 - $ E2 ' E' J $EE34' F343 E' J 3E HE3D ' F3' C3 34$ '
? 433 C' $ED' I $N3C' ^3 N31 ' F3' C$ D' !1 #1 ! ' ! F1 A' QO' F3' C$ D'
43N 3D' N C' H&' F3' 6 & F ' ? F ' $ED' , E F' =3$4C' $&H43C$ D ' $ED' QO'
F C' N ' 43C13N 3 O' D 43N 3D' H4' $ - FH4 T3D' H' Q3' 1$ 3D' H4' &H4 J 3D '
$ED' 431$ 43D ' N 3$EC3D ' 2F 3D ' $ED' $ 343D' QO' F3' C$ D' @H J J CR
C HE34C ' $ED' E' 1$O E2' H&&' F3' C$ D' I 4 EN 1$ ' P HE 3C' $ 43$DO' QH44H 3D'
D4' F343$& 34' H' Q3' QH44H 3D' $C' $&H43C$ D

WW ' ED' Q3' ' & - 4 F34' 3E$N 3D ' * F$ ' ' CF$ ' Q3' $ & - ' &H4' F3' @H J J&C '
C$ D' @H J J CC HE34C' &H4' 3 3N - E2' F C' N ' H' QH44H ' H4' 4$ C3' $EO' C HE34C' J $O'
? - J ' H4' ? - J C' H&' P HE3O' HE' F3' @43D ' H&' F3' C$ D' ' $ 3C' H4' CC3CC '
J 3E C' $ED' $EE - $ ' ? - 4$ ' &H4' $EO' H&' F3' I - 41HC3C' H' F NF' F3' P HE 3C' N43D+' H&' F3
H' $4 C3' &4H J ' F3' C$ D' ' $ 3C' $ED' CC3CC J 3E C' $43' F343QO' J $D3' $11 ' I$ E2'
N$Q 3' ' $ED' $ ' F3' I H 34C' $ED' I 4H C HEC' NHE $ E3D' E' F3' C$ D' ' $ 3C'
43N 3D' N ' H&' F3' 6 & F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O ' H4'
E' F3' C$ D' N ' H&' F3' , E F' =3$4' H&' F3' C$ J 3' ' 3 2E' QO' 43&343EN3' H'
F3' C$ D' N ' H&' F3' 6 & F' =3$4 ' F' 43C13N ' H' F3' QH44H E2' H4'
4$ C E2' H&' P HE3O' QO' F3' C$ D' @H J J CC HE34C' HE' F3' @43D ' H&' F3'
' $ 3C' $ED' CC3CC J 3E C' H' Q3' NH 3N 3D' QO' F3 J ' - ED34' F3' - FH4 O'
H&' FHC3' N C ' $ED' H' F3' * 4$EC&34' H&' F3' ?3N - 4 3C' &H4' F3' C$ J 3 '
3 N31 ' CH' &$4' $C' F3' C$ J 3' $43' QO' F3' C$ D' N ' H&' F3' , E F' =3$4' H&'
F3' ' 3 2E' H&' 8 C' C$ D' $ 3' P $(3C O' H4' QO' F C' N ' $ 343D' H4' 4313$ 3D

CF$ 'Q3 $ED F3 C$J3 $43 F343QO3 ED3D $ED J$D3 $11 N$Q3 H F3 QH44H E2 $ED 4$ C E2 H& PHE3O QO F3 C$ D @HJJ CC HE34C HE F3 @43D 'H& F3 C$ D %$ 3C $ED CC3CC J3E C $ED $EE-$' ?-J' HE F3 @43D 'H& F NF F3O $43 F343QO $- FH4 T3D H QH44H 'H4 4$ C3 PHE3O' $ED H F3 *4$EC&34 H& F3 ?3N-4 3C &H4 F3 C$J3'$C &- O $ED 3&&3N -$ O' $ED H $' E 3E C $ED I-41HC3C'$C & F3 C$ D IH 34C $ED I4H CHEC F$D Q33E C3 34$ O F343QO 4313$ 3D $ED 43R 3E$N 3D F 43&343EN3 F343 H' C-NF @F$E23C Q3 E2 F343QO $- FH '4 T3D H Q3 J$D3 E F3 6H4 J' H& F3 &- -43 ?3N-4 3C' $ED E F3 *4$EC&34C F343H&'$C F3 @ 4N- JC $EN3C J$O 43X- 43

EH'3 N33D E2 ' WW>' I4H D3D $ $OC' $ED Q3 '&-4 F34 3E$N 3D'*F$' F3 C$ D @HJJ CC HE34C CF$ 'EH'QH44H 'H4 4$ C3 -ED34 F3 - FH4 O H& F C N' $EO 243$ 34 ?-J' E F3 FH 3 F$E F3 ?-J' H& * 3E O FH-C$ED IH-EDC

NNH-E C H Q3 J$D3 -1 WW ' ED Q3 '&-4 F34 3E$N 3D'*F$' F3 C$ D @HJJ CC HE34C &H4 3 3N- E2 F C N' CF$ '$' F3 * J3 $11H E 3D &H4 J$+ E2 H-' F3 $EE-$' NNH-E C D 43N 3D H Q3 J$D3 H-'QO F3 C$ D & 4C 43N 3D N' N$-C3 $E NNH-E'H& F3 PHE 3C 43N3 3D $ED D CQ-4C3D E F3 143N3D E2 =3$4' $ED F3 JH-E' H& F3 443$4C H& '$ 3C $ED $EE-$'?-JC F3E D-3 -ED34 F3 - FH4 O H& F C N' $ED H& F3 B$ $EN3C H& @$CF F3E E F3 4 8$EDC $4 C E2 &4H J' F3 '$ 3C H Q3 $CC3CC3D -ED34 F C N' $ED H& F3 $EE-$'?-J' 1OQ 3 -ED34 F C N' H Q3 J$D3 H-' CH F$' F3 PHE 3C 4 3N3 3D $ED 1$ D $ED NHE E- E2 D-3 E 43C13N'H& F3 '$ 3C $ED CC3CC J3E C J$D3 QO F3 C$ D @HJJ CC HE34C &H4 3 3N- E2 F C N' $ED F3 $EE-$'?-J' 1OQ 3 -ED34 F C N' &H4 1$ E2' 2F E2'N 3$EC E2' $ 34 E2'$ED 432- $ E2 $' F3 C$ D C3 34$'? 433 C $ED I $N3C QO $EO H& F3 C$ D 43N 3D N C H4 QO F C N' D 43N 3D H Q3 1$ 3D' 2F 3D' $ 343D' $ED N 3$EC3D QO F3 C$ D @HJJ CC HE34C'^3 N31' F3 '$ 3C $ED CR C3CC J3E C &H4 1$ E2' 2F E2' $ 34 E2' $ED N 3$EC E2 F3 C!1' #1 !' ! A J$O Q3 NHECH D$ 3D E E <E3 6-ED' $ED NHJ143R F3ED3D E <E3 NNH-E' F NF NNH-E' ' CF$ 'Q3 $ &-'&H4 $' I34CHEC 4$ 3D H4 $CC3CC3D QO F3 C$ D @HJJ CC HE34C -ED34 $ED QO 4 -3 H& F C N' H F3 '$ 3C $ED CC3CC J3E C $&H43C$ D' $ED $' I34CHEC 1$O E2 '$ 3C H4 CC3CC J3E C E 43C13N' H& F3 $EE-$' ?-J' F343QO J$D3 1$O$Q 3 H F3 @HJJ CC HE34C &H4 3 3N- E2 F C N' $ED $' H F34 I34CHEC E 343C 3D' $' $' C3$CHE$Q 3 * J3C H EC13N

@HJJ CC HER 34C H 1$ 3' KN'6HH $OC H& ? 433 C E I $E ,H' W' $ED @$44 $23R $OC H& ? 433 C' KN' E I $EC ,HC' ' $ED W WW ' ED Q3 '&-4 F34 3E$N 3D' *F$' ' CF$ 'Q3 $ &-'&H4 F3 C$ D @HJJ CC HE34C QO F C N' $11H E 3D' $ED F3O $43 F343QO $- FH4 T3D $ED 3J1H 343D' H N$-C3' F3 6HH $OC H& F3 C$ D C3 34$' ? 433 C $ED I $N3C C3' H-' $ED D3 E3$ 3D E F3 C$ D I $E J$4+3D ,-JQ34 W' H Q3 1$ 3D' $ED F3 @$44 $23 $OC H& F3 C$J3 ? 433 C $ED I $N3C' $ED $ CH H& F3 ? 433 C $ED I $N3C D3 E3$ 3D $ED C3' H-' E F3 C$ D I $E J$4+3D ,-JQ34 ' H Q3 1 NF3D H4 1$ 3D H4 H Q3 &H4 J3D $ED 431$ 43D F Q4H+3E ? HE3' M4$E 3' 6 E' M4$ 3' H4 H F34 & 4 J' $ED C-& N 3E' P$ 34 $ C' $C F3O F3 C$ D @HJR J CC HE34C CF$ '(-D23 & ' -1HE C-NF >3 3 C $ED E C-NF P$EE34 $C F3O CF$ '(-D23 E3N3CC$4O' $4 D C-NF 6HH $OC $ED @$44 $23 $OC

&4H J' * J3' H' * J3' H' Q3' $J3ED3D' $ED' +31 ' E' 2HHD' '31$4 ' $ED'
$ CH' H' N$-C3' C-NF' ? 433 C' $ED' I $N3C' $ED' F3' @H-4 C' $ED' I$CC$23C'
$D(H E E2' H' Q3' 2F 3D' $ 343D' N 3$EC3D' $ED' 432- $ 3D' $ED' F3'
? D3C' F343H&' H' Q3' EN HC3D' F' 4HE' H4' H F34' '$ C' E' C-NF' I$4 C'
$ED' I $N3C' $C' F3' C$ D' @H J J CC HE34C' CF$ ' F E+' 14H134' $ED' $ '
<QC 4-N HEC' ; EN4H$NF J3E C' , - C$EN3C' $ED' EEHO$EN3C' F343 E' H'
Q3' 43 J H 3D' $ED' G4$ EC' ? E+C' M- 34C' , ' 9 $ 34NH-4C3C' H' Q3' J$D3' '
&H4' NHE 30 E2' F3' 9 $ 34' &4H J' F3' C$ D' ? 433 C' $ED' I $N3C' E' C-NF'
P$EE34' $C' F30' CF$ ' F E+' 14H134'($ED' &' $EO' I34CHE' CF$ ' FH- '
F3' @HEC3E ' H&' F3' C$ D' @H J J CC HE34C' $ 34' F3' 6H4 J' H4' Q43$+' -1'
F3' M4H-ED' H4' I$ 3 J3E ' H&' F3' @$44 $23' H4' 6HH ' 9 $OC' H&' $EO' H&'
C-NF' ? 433 C' H4' I $N3C' H4' J$+3' F3' C$ J3' H F34 C3' F$E' $C' D 43N 3D'
QO' F3' C$ D' @H J J CC HE34C' ^3 N31 ' $C' H' F3' 6HH $OC' H&' I , ' 153 '
+ ! ! ' $ED' I) #(' I ,11' + ! ! A' 3 34O' I34CHE' CH' H&&3ED E2' CF$ ' &H4&3 '
$EO' ?- J' EH ' 3 N33D E2' * 3E' IH-EDC' &H4' 3 34O' C-NF' <&&3EN3' $ED'
CF$ ' $ CH' 1$O' $ ' F3' ; 13EN3C' H&' 43C H4 E2' C-NF' M4H-ED' H4' I$ 3 J3E '
H' C' &H4 J 34' ? $ 3

WW ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' F3' C$ D' @H J J CC HE34C' IH 34C'
&H4' N$440 E2' F C' N ' E H' 3 3N- HE ' &4H J' $ED' $& 34' F3' 1$CC E2' H&' 24$E 3D' H
F C' N ' $? H' $ ' F3' ? 433 C' $ED' I $N3C' QO' F C' N ' 1 $N3D' -ED34'
F3 4' @F$423' $ED' P$E$23 J3E ' CF$ ' F$ 3' $ED' 3 34N C3' F3' +3' IH 34C' ?' 2
$ED' - FH4 3C' EH ' HE O' F' 43C13N ' H' 1$ E2' 2F E2' $ 34 E2' KVM ' $C'
$ED' N 3$EC E2' Q- ' $ CH' F' 43C13N ' H' 432- $ E2' ? $EDC' , ' @H$NF3C' H 432- $ J2'
$ED' 43 J H E2' H4' 3E&H4N E2' F3' ' 3 J H $' H&' , - C$EN3C' $ED' EEHO '
$EN3C' $ED' J' H F34' IH 34C' $ED' - FH4 3C' F$ CH3 34' CH' &$4' $C' ! ,0) (f
F3' C$ J3' CF$ ' Q3' $11 N$Q 3' $C' $43' E' $ED' QO' F3' C$ D' N C' H&') !' ,$C EN3C'
6 & F' ? F' $ED' , E F' =3$4C' , ') !' ' 3 2E' H&' 8 C' C$ D' $ 3' P$(3C O' 3 3ED3D' H
3C 3D' E' F3' C$ D' @H J J CC HE34C' F' 43C13N ' H' F3' ? 433 C' $ED'
I $N3C' F NF' $C' H' F3' 1$ E2' 2F E2' $ 34 E2' $ED' N 3$EC E2' -ED34NF$423'
F343H&' $43' QO' F3' C$ J3' N C' H4' $EO' H&' F3 J' 1 $N3D' -ED34' F3 4' , ' @H J J C'
@F$423' H4' P$E$23 J3E ' ^3 N31 ' $C' H' F3' 1$4 N- $4' I4H C HEC' NHE ' C 1E34C'
$ E3D' E' F3' C$ D' N ' H&' F3' , E F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3'
P$(3C O' F' 43C13N ' H' F3' C!1 #1 ! ' ! F1A'

WW ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' Q3C D3C' F3' C3 34$' IH 34C' N $$C3C' KN
$ED' I4H C HEC' H&' F3' C$ D' 43N 3D' N C' F343 E Q3&H43' 1$4 N- $4 O' H& 43N 3D'
43&3443D' H' $ ' $ED' 3 34O' H F34' F3' @ $-C3C' IH 34C' I4H CH3C' ; 3 J1 '
HEC' ' - 3C' ' 3 J3D 3C' ' 32- $ HEC' I3E$ 3C' 6H4&3 -43C' 4 N 3C' F C' N '
P$ 3 C' $ED' * F E2C' F$ CH3 34' F343 E' NHE $ E3D' ^C$ 3' $ED' 3 N31 '
C-NF' I$4 C' H&' $EO' H&' F3' C$ J3' N C' $C' QO' $EO' C-QC3X-3E ' N ' H4' QO' F C'
N ' $43' $ 343D' H4' H F34 C3' 14H D3D' &H4 _' CF$ ' Q3' $ED' $43' F343QO'
D3N $43D' H' Q3' E' &- ' 6H4N3' $ED' ; &&3N ' $ED' CF$ ' 3 3ED' H' $ED' Q3'
-C3D' 3 34N C3D' $11 3D' 3E&H4N3D' $ED' 1- ' E' 3 3N- HE ' H' $ ' E 3E C'
$ED' I -41HC3C' $C' H' C' N '($ED' F3' C3 34$' P$ 34C' $ED' * F E2C' F343 E'
NHE $ E3D' &H4' 1$ E2' 431$ 4 E2' 2F E2' $ 34 E2' N 3$EC E2' $ED'
432- $ E2' F3' C3 34$' ? 433 C' $ED' I $N3C' F343QO' 1 $N3D' -ED3&' F3'
5-4 CD N HE' H&' F3' C$ D' @H J J CC HE34C' &H4' 3 3N- E2' F C' N ' $ED'
&H4' N$440 E2' F3' C3 34$' I -41HC3C' H&' F C' N ' E H' 3 3N- HE ' E' $C'
&- ' $ J 1 3' $ED' Q3E3& N $' $' P$EE34' H' $ ' E 3E C' @HEC 4-N HEC'
$ED' I -41HC3C' F$ CH3 34' $C' &' F3' C$ J3' F$D' Q33E' C3 34$ O' $ED'
C31$4$ 3 O' 4313$ 3D' $ED' 43 3E$N 3D' E' F3' BHDO' H&' F C' N ' $ED' J$D3

I$4' F343H&' F' 43&343EN3' H' F3' ? 433 C' $ED' 1 $N3C' F343QO' 1 $N3D' -ED34' F3' 5-4 CD N HE' H&' F3' C$ D' @H J J CC HE34C

IX 34 H' EN-D3' E' C' C3CCE 3E' H 3' '323E C I$4+' ?3 34' $' 8H-C3C' E 3' '323E C I$4+' H4' '3R 23E' ? 433' $ FH-2F D4$ E3D' QO' $EO' H 34' ?3 34

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' ' CF$ ' $ED' J$O' Q3' $ &-' &H4' F3' C$ D' @H J J CC HE34C' &H4' 3 3N- E2' F C' N ' H4' $EO' *F433' H4' JH43' H&' F3 J' H' EN-D3' E' $EO' CC3CC J 3E' H4' CC3CC J 3E C' F NF' -ED34' F3 4' 143C3E' IH 34C' F3O' CF$ ' J$+3' $& 34' F3' 1$CC E2' H&' F C' N ' -1HE' 8H-C3C' B- D E2C' >$EDC' H4' *3E3 J 3E C' D4$ E3D' QO' J3$EC' H&' F3' C$ D' ?3 34C' G4$ EC' 9$ 34NH-4C3C' $ED' @H J J-E N$R HEC' QO' F3' C$ D' N ' H&' F3' 6 & F' =3$4' H&' F3' '3 2E' H&' 8 C' $ 3' P$(3C O' % E2' !, (!' F3' 6H-4 F' 1 $N3D' -ED34' F3 4' @F$423' &H4' D3&4$O E2' F3' ; 13EN3C' H&' J$+ E2' $ED' +331 E2' E' 431$ 4' C-NF ?+3 34C' G4$ EC' 9$ 34NH-4C3C' $ED' @H J J-E N$ HEC' C-NF' 8H-C3C' B- D E2C' >$EDC' H4' *3E3 J 3E C' C -$ 3' E')!' L!(!# 1' * '1#@' "!(!#'+ !!' 43C13N 3 O' $C' D4$ E' E H' $EO' ?3 34' G4$ E' 9$ 34NH-4C3' <4 @H J' J-E N$ HE' F NF' $C' EH' QO' F3' C$ D' N ' H&' F3' 6 & F' =3$4' H&' F3' '3 2E' H&' 8 C' $ 3' P$(3C O' % E2' !, (!' F3' 6H-4 F' 1 $N3D' -ED34' F3' @F$423' $ED' P$E$23 J 3E' H&' F3' @H J J CC HE34C' , '3 3N- E2' F3' C$ J 3' N ' E' F3' C$ J 3' P$EE34' H' $' E 3E C' $ED' I-41HC3C' $C' J' C$ D' @H J J CC HE34C' &H4' 3 3N- E2' F C' N ' NH- D' H4' J 2F' F$ 3' EN-D3D' F3' C$ D' $C J 3E HE3D' 8H-C3C' B- D E2C' I $ED' H4' *3E3R J 3E C' E' C-NF' CC3CC J 3E' H4' CC3CC J 3E C' $ED' CF$ ' F$ 3' $ED' 3 34N C3' $' F3' C$ J 3' '3 J 3D 3C' $ED' IH 34C' $C' F3' C$ J 3' @H J J CC HE34C' H- D' F$ 3' F$D' $ED' 3 34N C3D' E' N$C3' F3' C$ J 3' 8H-C3C' B- D E2C' ; $-DC' H4' *3E3 J 3E C' F$D' D4$ E3D' E H' $EO' ?3 3 'G4$ E' 9$ 34NH-4C3' H4' @H J J-E N$ HE' QO' F3' C$ D' N ' H&' F3' 6 & F' =3$4' H&' F3' '3 2-' H&' 8 C' $ 3' P$(3C O' % E2' !, (!' F3' 6H-4 F' 1 $N3D' -ED34' F3' @F$423 $ED' P$E$23 J 3E' H&' F3' C$ D' @H J J CC HE34C' &H4' 3 3N- E2' F3' C$ J 3 N

, H' I34CHE' 1$O E2' '$ 3' H' F3' @H JR J CC HE34C' H&' ?3 34C' &H4' 9 3C J EC 34' $Q 3' H' Q3' $CC3CC3D' -ED34' C N

WW ' I4H D3D' $ $OC' $ED' Q3' '&-4 F34' 3E$N 3D' *F$' EH' I34R CHE' 1$O E2' $EO' ?3 34C' '$ 3' H4' CC3CC J 3E C' H' F3' @H J J CC HE34C' H&' ?3 34C' &H4' F3' @ O' $ED' > Q34 O' H&' C!1 #1! ' $ED' I$4' H&' F3' @H-E O' H&' &&%!1!J' CF$ ' D-4 E2' F3' @HE E-$EN3' H&' C-NF' I$O J 3E ' Q3' C-Q(3N' H4' $Q 3' H' F3' I$O J 3E' H&' $EO' ?3 34C' '$ 3' H4' CC3CCR J 3E' QO' 4 -3' H&' F C' N ' E' 43C13N' H&' F3' I43 J C3C' K4' F NF' F3' H4' CF3' CF$ ' CH' 1$O' $' ?3 34C' '$ 3' H4' CC3CC J 3E' H' F3' C$ D' @H J J CR C HE34C' H&' ?3 34C' &H4' F3' @ O' $ED' > Q3T O' H&' !1 #1! ' $ED' I$4' H&' F3' @H-E O' H&' &&%!1!J

?$ E2' F3' '2F C' H&' @H J J CR C HE34C' H&' ?3 34C' &H4' 9 3C J EC 34

WW ' I4H D3D' $ $OC' $ED' Q3' '&-4 F34' D3N $43D' $ED' 3E$N 3D' *F$' EH F E2' E' F C' N ' NHE $ E3D' CF$ ' 3 3ED' H4' Q3' D33 J 3D' H4' NHEC 4-3D' H' 3 3ED' H' 143(-D N3' D J E CF' $ 34' H4' $+3' $ $O' $EO' H&' F3' '2F C' IH 34C' H4' - FH4 3C' 3C 3D' E' F3' @H J J CC HE34C' H&' ?3 34C' &H4' F3' @ O' $ED' > Q34 O' H&' !1 #1! ' $ED' I$4' H&' F3' @H-E O' H&' &&%!1!J' Q-' $' F3' '2F C' IH 34C' $ED' - FH4 3C' 3C 3D' E' F3 J' CF$ 'Q3' $C' 2HHD' $ D' $ED' 3&&3N -$' $C' &' F C' N ' F$D' EH' Q33E' J $D3

IH 34 H' @H J J CR C HE34C' ^&H4 F3' C$+3' H&

WW W' ED' F343$C' E' F3' >3$C3C' 24$E 3D' QO' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' 9 HHDC' 6H43C C' $ED' >$ED' '3 3E-3C ' F3' >3CC33C' H&' 8H-C3C' $ED' B- D E2C' C $ED E2' -1HE' M4H-ED' NH J 14 C3D' E' F3 C$ D

C$D I $EC F343 E Q3&H43 43&3443D H' E-J Q343D ' &' $ED '43C13N '
3 O' $43 QH-ED QO @H 3E$E C E F3 C$J3 >3$C3C NHE $ E3D '
H N 3$EC3 $ED NH H-4 F3 H- C D3 ? -NNH $ED ? HE3 9 H4+ H& F3
8H-C3C ' B- D E2C ' $ED 9 $ C NH J 14 C3D E C-NF >3$C3C 43C13NR
3 O' E F3 PHE F H& / 3(' E N34 $ E =3$4C. ED F343$C & F3
FH 3 > E3 H& ? 433 '), # * %% %% H *, % #&'*% '!' EN -D E2 F3
@ 4N-C3C $ED @43CN3E C' H23 F34 F F3 8H-C3C $ED B- D E2C E
F3 L!(!# 1 * '$ED F3 8H-C3C $ED B- D E2C 343N 3D HE F3 ? 3
H& I % ,# I$ $N3 $ED M$4D3EC ' 343 1 $N3D -ED34 F3 @$43 H& F3
C$D @H J J CC HE34C &H4 F3 ; 3N- HE H& F C N '$C H F3 NH H-4 E2
$ED N 3$EC E2 H& F3 ? -NNH $ED H- C D3 ? HE3 9 H4+ H& F3 C$D
8H-C3C $ED B- D E2C ' $ED F3 C$D >3CC33C 343 43 3$C3D &4H J ' F3
C$D @H 3E$E C &H4 N 3$EC E2 $ED NH H-4 E2 F3 C$J3 ? -NNH $ED
H- C D3 ? HE3 9 H4+ 'C-NF $E 44$E23 J 3E ' H- D C3N-43 F3 N 3$EC E2
$ED NH H-4 E2 Q3 E2 'DHE3 E $ -E &H4 J ' P $EE34 ' $ED 243$ O NHER
4 Q- 3 H F3 B3$- O H& F3 C$D > E3 H& ? 433 ' $ED H& F3 C$D
8H-C3C $ED B- D E2C 343N 3D $C $&H43C$D ' $ED H- D $ CH 3ED
H F3 ; $C3 $ED @HE 3E 3EN3 H& F3 EF$Q $E C ' EH ' F343&H43
Q3 ' &-4 F34 3E$N 3D ' *F$ ' &4H J ' $ED $& 34 F3 1$CC E2 H& F C
N ' 'CF$ ' Q3 $ &- ' &H4 F3 @H J J CC HE34C &H4 F3 ; 3N- HE
H& F C N ' &4H J ' * J 3 H * J 3 $C F3O CF$ ' C33 <NN$C HE ' H
-ED34 $+3 $ED N$-C3 H Q3 3 3N- 3D F3 N 3$E E2 $ED NH H-4 E2 E
$ 432- $4 $ED -E &H4 J ' P $EE34 $ ' F3 H- C D3 ? -NNH $ED ? HE3 9 H4+
H& $ ' H4 $EO H& F3 8H-C3C ' B- D E2C ' $ED 9 $ C $Q- E2 -1HE $EO
? 433 '*344$N3 '@43CN3E '@ 4N-C ' H4 1 $N3 NH J 143F3ED3D H4 D3CN4 Q3D
E F3 C$D I $EC F343 E Q3&H43 43&3443D H ' J $4+3D , - J Q34C ' > '
$ED '43C13N 3 O ' H4 3 F34 H& F3 J ' $ED H 3 J 1 HO 9 H4+ J 3E ' $ED
$+3 $ '? 31C E3N3CC$4O H4 14H134 &H4 F3 D-3 I34&H4 J $EN3 H& F3
9 H4+

WWW ' I4H D3D $ $OC E3 34 F3 3CC ' $ED Q3 ' &-4 F34 3E$N 3D H ' H Q3
*F$ ' F3 C$D @H J J CC HE34C &H4 F3 ; 3N- HE H& F C N 'CF$ ' EH '
-ED34 F3 @ $-C3 $C ' F343 E Q3&H43 NHE $ E3D ' Q3 $- FH4 T3D H
-ED34 $+3 F3 N 3$E E2 $ED NH H-4 E2 H& F3 H- C D3 ? -NNH H4 ? HE3
9 H4+ H& F3 8H-C3C ' B- D E2C ' H4 9 $ C E $EO 1$4 N- $4 ? 433 '
*344$N3 '@43CN3E '@ 4N-C ' H4 I $N3 ' ^3 N31 ' L!(!# '+ !! A FH- '
E F3 & 4C ' 1 $N3 HQ $ E E2 F3 @HEC3E ' E 9 4 E2 , '7F ,' *F 4DC H&
F3 8H-C3FH D34C H& F3 ? 433 '*344$N3 '@43CN3E '@ 4N-C ' H4 I $N3 ' F3
H- C D3 ? -NNH H4 ? HE3 9 H4+ H& F3 8H-C3C ' B- D E2C ' $ED 9 $ C E
F NF ' CF$ ' &H4 F3 * J 3 Q3 E2 Q3 14H1HC3D H NH H-4 $ED N 3$E '
$ED 14H D3D $ CH ' F$ ' 'CF$ ' EH ' Q3 $ &- ' &H4 F3 C$D @H J J CR
C HE34C H -ED34 $+3 F3 N 3$E E2 $ED NH H-4 E2 H& F3 H- C D3 ? -NNH
H4 ? HE3 9 H4+ H& F3 64HE C H& 8H-C3C ' B- D E2C ' H4 9 $ C E L!(!# '
+ !! ' FH- 'F$ E2 143 H-C O HQ $ E3D F3 @HEC3E ' H& * H ' *F 4DC
H& F3 8H-C3FH D34C H& F3 1$4 N- $4 G C HE H& 8H-C3C $ED B- DR
E2C &H4 J E2 <E3 $4NF 3N -4$ ' I $E H4 ; 3 $ HE ' F3 H- C D3 ? -NNH
H4 ? HE3 9 H4+ H& F NF 1$4 N- $4 G C HE 'CF$ ' Q3 14H1HC3D H
N 3$E $ED NH H-4

WWW ' ED Q3 ' &-4 F34 3E$N 3D ' *F$ ' &H4 F3 I -41HC3 H& '$ 3C H Q3
$EC 34 E2 F3 ; 13FN3 H& F3 N 3$E E2 $ED NH H-4 E2 F3 ? -NNH $ED
? HE3 9 H4+ F343QO $- FH4 T3D H Q3 N 3$E3D $ED NH H-43D QO F3

#E &H4 J O ' H N 3$E $ED NH H-4 F3 <- C D3 ? -NNH $ED ? HE3 H4+ H& F3 ? 433 ' &4H J ' I$ ' P$ ' H I H4 R $ED I $N3 ' $ED H& @$4 R HE I $ $N3 $ED M$4D3EC.

3 34N C3D 3 N31 ' <B F3 '3X- C HE ' E 9 4 E2 ' H& * H *F 4DC H& F3 EF$Q $E C H& $EO ? 433

J $D3&H4C-NF N 3$E E2 $ED NH H-4 E2

C$D' @HJJ CC HE34C' $N E2' E' F3' ; 3N- HE' H&' F C' N ' ' $ 3C' CF$ '
Q3' $ D' $ED' $CC3CC3D' QO' F3' C$ D' @HJJ CC HE34C' &4HJ' * J3' H' * J3'
$C' F3O' CF$ ' (-D23' E33D&- ' -1HE' $ ' 8H-C3C' @F-4NF3C' @F$13 C'
?FH1C' 9$43FH-C3C' @3 $4C' $- C' $ED' B- D E2C' &4HE E2' -1HE'
H4' $EO' 9$ ' Q3 HE2 E2' H' F NF' CF$ ' &4HE ' -1HE ' F3' ? 433 ' *34R
4$N3' @43CN3E ' @ 4N-C' H4' I $N3' F3' H- C D3' ? -NNH' H4' ? HE3' 9H4+'
H&' F3' 8H-C3C' B- D E2C' $ED' 9$ C' E' F NF' CF$ ' &H4' F3' * J3'
Q3 E2' Q3' 14H1HC3D' H' F3' H4' CF$ (' F$ 3' Q33E' NH H-43D' H4' N 3$E3D' $C'
$&H43C$ D' ($ED' $' C31$4$ 3' NNH-E ' CF$ ' Q3' +31 ' H&' C-NF' $C '
J3E HE3D' ' $ 3C' $ED' F3' PHE 3C' H' $4 C3' F343QO' CF$ ' Q3' $11 3D'
E' N 3$E E2' $ED' NH H-4 E2' D 3' ? -NNH' $ED' <- C D3' ? HE3' 9H4+' &4HE E2'
-1HE' 3 34O' ? 433 ' *3 *$N3' @43CN3E ' @ 4N-C' H4' I $N3' #1HE' F3'
8H-C3C' ?FH1C' 9$43FH-C3C' @3 $4C' $- C' $ -' B- D E2C' E' F NF'
C-NF' 43C13N 3' ' $ 3' CF$ ' F$ 3' Q33E' 4$ C3D' $ED' E' 1$O E2' $ ' F3'
; 13EN3C' EN-443D' E' H4' $QH- ' F3' I34&H4 J$EN3' H&' C-NF' 9H4+'
$ED' F$ ' F3' C$ D' $C J3E HE3D' ' $ 3C' CF$D' Q3' $CC3CC3D' $ED' 3 3D'
$ED' 43NH 343D' E' F3' C$E(3' P$EE34' $ED' F' $ ' F3' C$J3' IH 34C'
$ED' ' 3J3D 3C' $C' F3' ' $ 3C' QO' F C' N $- FH& T3D' H' Q3' $CC3CC3D'
&H4' F3' 23E34$ ' I-41HC3C' H&' F C' N ' $C' $&H43C$ D

, H' I34CHE' FH' 1$OC' H F3' @HJJ CR C HE34C' H Q3' $Q 3' -1HE' F3' @H 3E$E' E' F C' >3$C3' &4HJ F3@HJ ' J CC HE34C' H&' 9HHDC' KN

' WWWE ' I4H D3D' $ $OC' $ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' EH'
>3CC33' H4' H F34' I34CHE' FH' CF$ ' 1$O' F3' ' $ 3' $CC3CC3D' QO' F3' C$ D'
@HJJ CC HE34C' &H4' F3' ; 13EN3' H&' F3' N 3$E E2' $ED' NH H-4 E2' F3'
? -NNH' $ED' H- C D3' ? HE3' 9H4+' F343QO' $- FH4 T3D' H' Q3' N 3$E3D' $ED'
NH H-43D' QO' F3' C$ D' @HJJ CC HE34C' CF$ ' Q3' $Q 3' H' Q3' C-3D' 1'
43C13N ' H&' F3' NH H-4 E2' $ED' N 3$E E2' H&' F3' H- C D3' ? -NNH' H4' ? HE3'
9H4+' F NF' F3' @HJJ CC HE34C' &H4' 3 3N- E2' Q C' N ' $43' F343QO'
$- FH4 T3D' H' NH H-4' $ED' N 3$E ' -1HE' $EO' @H 3E$E ' E' F3' >3$C3' H&'
F3' I43J C3C' E' 43C13N ' H&' F NF' C-NF' ' $ 3' CF$ ' Q3' $ D' $ED' $CC3CC3D '
Q3&H43' F3' ; 1 4$ HE' H&' 6H-4' =3$4C' $& 34' F3' $CC3CC E2' H&' F3' $C '
' $ 3' F NF' CF$ ' F$ 3' Q33E' 1$ D' E' 43C13N ' H&' F3' N 3$E E2' $ED'
NH H-4 E2' H&' F3' ? -NNH' $ED' H- C D3' ? HE3' 9H4+' H&' F3' I 634$C3C'
NHJ14 C3D' E' C-NF' >3$C3

>3CC33C' KN' EH' H' NH H-4' <- C D3' H&' 8H-C3C' $& 34' @HJJ CR C HE34C' F$ 3' DHE3' CH' HE' I3E$ O' H&' [

WWW ' I4H D3D' $ $OC' $ED' Q3' ' 3E$N 3D' *F$ ' &4HJ' $ED' $& 34'
F3' N 3$E E2' $ED' NH H-4 E2' H&' F3' H- C D3' ? -NNH' H4' ? HE3' 9H4+' H&'
$EO' 8H-C3' B- D E2' H4' 9$ ' QO' F3' @HJJ CC HE34C' $N E2' E' F3'
; 3N- HE' H&' F C' N ' -ED34' F3' - FH4 O' &H4' F$ ' I-41HC3' F343 ER
Q3&H43' NHE $ E3D' ' CF$ ' EH' Q3' $ &- ' &H4' F3' >3CC33' < E34' H4'
<NN-1 34' H&' C-NF' 8H-C3' B- D E2' H4' 9$ ' H4' &H4' $EO' H F34' I34CHE'
H4' I34CHEC' ^3 N31 ' F3' C$ D' @HJJ CC HE34C' H4' $EO' I34CHE' QO' F3J' E'
F$ ' B3F$ &' $- FH4 T3D_' H' N 3$E' H4' NH H-4' H4' E' $EO' P$EE34' H' 1$ E '
H4' $4O' F3' @H H-4' H4' 113$4$EN3' H&' C-NF' H- C D3' ? -NNH' H4' ? HE3'
9H4+' $ED' &' $EO' C-NF' >3CC33' < E34' H4' <NN-1 34' H4' H F34' I34CHE'
H4' I34CHEC' CF$ ' CH' N 3$E' H4' NH H-4' H4' E' $EO' P$EE34' 1$ E ' H4' $4O'
F3' @H H-4' H4' 113$4$EN3' H&' C-NF' H- C D3' ? -NNH' H4' ? HE3' 9H4+ ' 3'
CF3 ' H4' F3O' CF$ ' &H4' 3 34O' C-NF' <&&3EN3' &H4&3 ' $ED' 1$O' $' ?- J' H&' *3E'
IH-EDC

IH 34' H' 2 3' , H N3' H' 43' JH 3' $EO' 94 E2' KN

WWW ' I4H D3D' $ $OC' $ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' &' F3
< E34' H4' <NN-1 34' H&' $EO' 8H-C3' ?FH1' B- D E2' 9$43FH-C3 ' H4'
*3E3J3E ' E' $EO' H&' F3' ? 433 C' I$4 C' H&' ? 433 C' ? (E$43C' @ 4N-C3C
*344$N3C

*344$N3C '@H-4 C' 9 $OC ' $ED' I $N3C F E' F3' 5-4 CD 3 Q ' <& F3' C$ D' $QH 3' F3
@H J J CC HE34C ' F$C' 4 3E ' 14 E 3D ' 1$ E 3D ' D3 E3$ 3D ' H4' 1 $N3D '
H4' N$-C3D' H' Q3' 4 3E ' 14 E 3D ' 1$ E 3D ' D3 E3$ 3D ' D4' 1 $N3D '
H4' CF$ ' 4 3 ' 14 E ' 1$ E ' D3 E3$ 3 ' H4' 1 $N3 ' H4' N$-C3' H' Q3' 4 R
3E ' 14 E 3D ' 1$ E 3D ' D3 E3$ 3D ' H4' 1 $N3D ' $EO' , $ J 3 ' G3CN4 1 HE'
H&' *4$D3' H4' <NN-1$ HE ' H4' $EO' BH$4D ' ? 2E ' H4' H F34' P $ 34' H4'
*F E2 ' HE' $EO' I $4 ' H&' C-NF' 8H-C3 ' ?FH1 ' B- D E2 ' 9 $43FH-C3 ' H4'
*3E3 J 3E ' $QH 3' F3' B$C3' H&' F3' B$ NHEO' H4' >3 3 ' H&' F3' -1134
?-4&$N3' H&' F3' 5H C C' H&' F3' 6 4C ' 6 HH4' F343H&' H4' CF$ ' 1- ' -1' H4'
1 $N3 ' H4' N$-C3' H4' C-&&34' H' Q3' 1- ' -1' H4' 1 $N3D ' -1HE' H4' 2 EC ' $EO'
I $4 ' H&' F3' 3 34E$ ' 64HE ' H4' H&' F3' ? D3C' H&' C-NF' 8H-C3 ' ?FH1
B- D E2 ' 9 $43FH-C3 ' H4' *3E3 J 3E ' H4' -1HE' H4' 2 EC ' $EO' I H4 NH
@H HE$D3 ' I $4 ' @H - J E ' H4' H F34' ; 43N HE' E' 64HE ' H4' $ ' F3' ? D3'
F343H&' $EO' BH$4D ' ? 2E ' I N4D ' H4' H F34' P $ 34' H4' *F E2' E' F3'
, $ -43' H&' $E' D 34 C3 J 3E ' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' F3' ?-4R
3OH4' H&' F3' C$ D' @H J J CC HE34C' F343QO' $11H E 3D ' QO' , H N3' E'
9 4 E2' H' Q3' 3& ' $ ' C-NF' 8H-C3 ' ?FH1 ' B- D E2 ' 9 $43FH-C3 ' H4'
*3E3 J 3E ' H' 43X- 43' F3' < E34' H4' <NN-1 34' F343H&' H' 43 J H 3' C-NF'
, $ J 3 ' G3CN4 1 HE ' BH$4D ' ? 2E ' I N4D ' H4' H F34' P $ 34' H4' *F E2 '
$ED' H' 43C H43' F3' 9 $ ' H4' I $N3' HE' H4' 2 EC ' F NF' F3' ?$ J 3' CF$ '
F$ 3' Q33E' 4 3E ' 1- ' -1 ' H4' 1 $N3D ' $ED' &' $EO' C-NF' < E34' H4'
<NN-1 34' CF$ ' &H4' F3' ?1$N3' H&' *3E' G$OC' $& 34' F3' G3 34O' H&' C-NF'
, H N3 ' E32 3N ' H4' 43&-C3' H' HQ3O' F3' C$ J 3 ' F3E' $ED' E' 3 34O' C-NF'
@$C3' C-NF' < E34' H4' <NN-1 34' E32 3N E2' H4' 43&-C E2' CH' H' DH' H' F3'
?$ C&$N HE' H&' F3' C$ D' @H J J CC HE34C' H4' F3 4' ?-4 3OH4' &H4' F3' * &H3'
Q3 E2' $C' $&H43C$ D ' CF$ ' &H4' 3 34O' C-NF' <& 3EN3 ' $ED' -1HE' !0 '
C-NF' , 32 3N ' H4' ' 3&-C$ ' &H4&3 ' $ED' 1$O' $' ?- J' H&' EH ' 3CC' F$E' 6H4 O'
?F E2C' EH4' 3 N33D E2' 6 3' I H-EDC ' $ED' F NF' J $O' Q3' 3 3D' H4' 43R
NH 343D' E' F3' C$ J 3' P $EE34' E' F NF' H F34' I 3E$ 3C' $43' D 43N 3D' H'
Q3' 3 3D' $ED' 43NH 343D' QO' 4 -3' H&' $EO' H&' F3' C$ D' 43N 3D' N C' H4' H&'
F C' N

WWW ' ED' F343$C' ' C' 14H D3D' E' F3' C$ D' & 4C O' F343 E Q3&H43' I 4H C HE'
43N 3D ' F$ ' &H4' F3' Q3 34' 3E&H4N E2' F3' I $O J 3E ' H&' F3' ' $ 3C' H4' C ' &O ' 3E&H4N E2
C3CC J 3E C' H' Q3' J $D3' QO' F3' C$ D' @H J J CC HE34C ' &' $EO' I 34CHE' H4' ' $ 3C' E' N$C3'
I 34CHEC' $Q 3' H' 1$O' $EO' H&' F3' ' $ 3C' H4' CC3 J 3E C' J $D3' QO' F3' H&' ' 3 J H $
C$ D' @H J J CC HE34C' CF$ ' $ ' $EO' * J 3' Q32 E' H' 43 J H 3' F C ' F34 ' H4'
F3 4' MHHDC' H4' 6-4E -43' &4N4$' F3' 8H-C3' H4' I 43 J C3C' E' F C ' F34 ' D4'
F3 4' <NN-1$ HE' F E' F3' > J C' H&' F3' C$ D' N ' H4' H' C3 ' H4'
D C1HC3' H&' C-NF' MHHDC' H4' 6-4E -43' F343 E' QO' 1-Q N' -N HE ' H4'
C3 ' D C1HC3' H& ' H4' N$44O' $ $O' F C ' F34 ' H4' F3 4' MHHDC' H4' 6F4$ -4]' $C'
$&H43C$ D ' FH- ' 1$O E2' $ ' 443$4C' F3E' D-3' H4' 4$ 3D' E' 43C13N ' H&'
C-NF' 8H-C3' H4' I 43 J C3C' ^ E' F NF' F3' N-443E ' \ -$4 34' CF$ ' Q3' NHER
C D343D' $C' D-3_' F3E' $ED' E' 3 34O' H&' F3' C$ D' @$C3C' ' CF$ ' Q3' $ &- '
&H4' F3' @H 3N H4' H' F3' C$ D' @H J J CC HE34C' H' NH 3N ' $ED' 3 O'
C-NF' ' $ 3C' H&' CC3C J 3E C ' $ED' $ ' 443$4C' D-3' F343HE ' $ED' F3'
' $ 3' H4' CC3CC J 3E ' &H4' C-NF' \ -$4 34' F343 E' C-NF' ' 3 J H $ ' H4'
?$ 3' CF$ ' Q32 E' H' Q3' J $D3' $C' $&H43C$ D ' ^$ FH-2F' 143 H-C' H' F3'
* J 3' &H4' I $O J 3E ' H&' F3' ' $ 3' H4' CC3CC J 3E ' &H4' C-NF' \ -$4 34_'
QO' 9 44E ' -ED34' F3' 8 $ED' $#D' ?3$ ' H&' $EO' <E3' H4' J H43' 5-C N3' H4'
5-C N3C' H&' F3' I 3$N3' &H4' F3' @H-E O' H&' &&%!1! J' $ED' @ O' H&'
!1 1%!C ' QO' G C 43CC' $ED' ?$ 3' H&' F3' MHHDC' $ED' @F$ 3 C' ' F3
I $4 O

I$4 O' CH E32 3N E2' H4' 43&-C E2' H4' Q32 EE E2' H' 43 J H 3' $+3' $ $O' H4' C3 ' $EO' C-NF' MHHDC' H4' 6-4E -43' $C' $&H43C$ D' . ED' F343$C' ' F$ F' Q33E' &H-ED' F$ ' F3' I H 34C' 24$E 3D' QO' F3' $QH 3 43N 3D' ; E$N J 3E ' $43' EH ' E' CH J 3' @$C3C' C-&& N 3E ' &H4' 3E&H4N E2' F3' I $O J 3E ' H&' F3' C$ D' ' $ 3C' $ED' CC3CC J 3E C' (Q3' ' F343&H43' 3E$N 3D ' * F$ ' &' $EO' I 34CHE' H4' I 34CHEC' $Q 3' H' 1$O' $EO' H&' F3' C$ D' ' $ 3C' H4' CC3CCR J 3E C' CF$ ' 1-Q N O' $D 34 C3' H4' $ EH-EN3' H' C3 ' H4' D C1HC3' H&' QO' -N HE' F C' F34' H4' F3 4' MHHDC' H4' 6-4E -43' ' CF$ ' Q3' $ &-' &H4' F3' @H 3N H4' &H4' F3' * J 3' Q3 E2' <&' F3' C$ D' @H J J CC HE34C' H' NH 3N ' $ED' 3 O' F3' ' $ 3C' H4' CC3CC J 3E C' D-3' &4H J' C-NF' I 34CHE' H4' I 34CHEC' $C' $&H43C$ D' $ED' $ ' 443$4C' D-3' F343HE ' $ED' F3' ' $ 3' H4' CC3CCR J 3E ' &H4' F3' \-$4 34' F343 E' C-NF' D 34 C<E 3E ' H&' ?$ 3' CF$ ' Q3' J $D3 ' QO' 9 44 ' -ED34' F3' 8 $ED' $ED' ?3$ ' H4' 8 $EDC' $ED' ?3$ C' H&' $EO' <E3' H4' J H43' 5-C N3' H4' 5-C N3C' H&' F3' I 3$N3' &H4' F3' @H-E O' H&' &&%!1! J' H4' @ O' H&' !1 #1 ! ' QO' G C 43CC' $ED' ?$ 3' H&' F3' MHHDC' H4' 6-4E -43' H&' F3' I 34CHE' H4' I 34CHEC' CH' $D 34 C E2' H' C3 ' F3' ?$ J 3' $C' $&H43C$ D' E' F3' C$ J 3' P $EE34' $C' C' D 43N 3D' QO' F3' $QH 3 43N 3D' N ' E' M$C3C' H&' ' 3 J H $' H&' MHHDC' H4' E' @$C3C' H&' $N -$' ?$ 3' QO' 1-Q N' -N HE ' $ED' F$ ' E' M$C3C' F343' $EO' I 34CHE' H4' I 34CHEC' $Q 3' H' 1$O' $EO' H&' F3' C$ D' ' $ 3C' H4' CC3CC J 3E C' CF$ ' Q32 E' H' 43 J H 3' F C' F34' H4' F3 4' MHHDC' H4' 6-4E -43' $C' $&H43C$ D' FH-' 1$O E2' $ ' C-NF' 443$4C' H&' ' $ 3C' $ED' CC3CC J 3E ' EN -D E2' F3' F3E' N-443E ' \-$4 34' D-3' &4H J' F EQ' F3 ' H4' F3 J ' ' CF$ ' Q3' $ &-' &H4' F3' @H 3N H4' &H4' F3' * J 3' Q3 E2' H&' F3' C$ D' @H J R J CC HE34C' H' C3 T3' $ED' D C 4$ E' C-NF' MHHDC' $ED' 6-4E -43' &H4' F3' J H-E ' H&' C-NF' 443$4C' FH-' $EO' &-4 F34' 9 44E ' H4' -R FH4 O' ' 14H D3D' F$ ' C-NF' @H 3N H4' DH' F' $ ' D-3' ?133D' &H4 FR F' HQ $ E' $' 9 44E ' &H4' F3' ?$ 3' H&' C-NF' MHHDC' H4' 6-4E -43' &4H J' $EO' <E3' H4' J H43' 5-C N3' H4' 5-C N3C' H&' F3' * 3$N3' $C' $&H43C$ D' $ED' 14HN33D' F343HE' E' J $EE34' 1H E 3D' H-' E' $ED' QO' F3' ?$ D' & 4C O' 43N 3D' N

9 F343' 8H-R C3C' 3 ' H J H43' F$E' <E3' * 3R E$E '$EO' <E3' H&' C-NF' * 3R E$E C' H' Q3' D33 J 3D' F3' <NN-1 34

WWW ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F343' '$EO' 8 H-C3 ' B- D E2' H4' * 3E3 J 3E ' E' 43C13N ' F343H&' $EO' ' $ 3' H4' CC3CC J 3E ' CF$ ' Q3' J $D3' QO' F3' C$ D' @H J J CC HE34C' &H4' 3 3N- E2' F C' N ' CF$ ' Q3' 3 ' E' D C EN ' H4' C31$4$ 3' 1$4 J 3E C' H4' G C HEC' H' J H43' F$E' <E3' * 3E$E ' F3E' $ED' E' C-NF' @$C3' F3' * 3CC33 ' >$EDR H4D ' H4' < E34' F343H& ' H4' $EO' <E3' H&' J H43' H&' C-NF' * 3E$E C' CF$ ' E' F3' G CN43 HE' H&' F3' C$ D' @H J J CC HE34C ' Q3' D33 J 3D' F3' <NN-R 1 34' H4' <NN-1 34C' F343H&' &H4' F3' I -41HC3C' H&' F3' C$ D' 43N 3D' N C' H4' H&' F C' N

' K U' 9 ' ' N' UU

WWW ' ED' F343$C' QO' $E' N ' H&' I $4 $ J 3E ' J $D3' $ED' 1$CC3D' E' F3' 6 4C ' $ED' ?3NHED' =3$4C' H&' 8 C' 143C3E ' P $(3C O' E - 3D' ?#' / ' ' ,' !#&)!' < F1' !% #(' ,' '7 ! ' I (!1' #&' ,' ((,#1' I 1' #& 2 1' 31!&' #)!' ! ,5,% 1' #&' ,' 5% '!')!' I ,%%!' ,# , ')!' 23 !1' ,# ' #! ' I (!1' #&' ,# J, ! 1' #&' * !&% 1' # ; E2 $ED' 3#&! ')!' I , 11 ,#! 1' , ' + 51' ' C' 3E$N 3D ' F$ ' F3' ' < E34' H&' 3 34O' 9 $22HE ' 9 $ E ' @$4 ' @$4' G4$O ' H4' H F34' C-NF' @$44 $23' F NF' CF$ ' Q3' D4 3E' H4' -C3D' E' $EO' 1-Q N' ? 433 ' H4' ' H$D' F E' F3' G C $EN3' H&' 6 3' P 3C' &4H J' F3' M3E34$ ' I HC ' <&& N3' E' F3' @ O' H&' <,#&,#' CF$ ' Q3&H43' C-NF' 9 $22HE ' 9 $ E ' @$4 ' @$4' H4 G4$O

G4$O ʻ H4ʻ H F34ʻ C-NFʻ @$44 $23ʻ CF$ ʻ Q3ʻ CHʻ D4 3Eʻ H4ʻ -C3Dʻ $Cʻ $&H43C$ Dʻ 1$ E ʻ H4ʻ N$-C3ʻ Hʻ Q3ʻ 1$ E 3D ʻ Eʻ J $EE34ʻ Eʻ F3ʻ C$ Dʻ N ʻ C13N & 3D ʻ F3ʻ 4-3ʻ @F4 C $Eʻ , $ J 3ʻ $EDʻ ?-4E$ J 3ʻ $EDʻ I $N3ʻ H&ʻ QHD3ʻ H&ʻ F3ʻ < E&34ʻ 4ʻ &ʻ F343ʻ CFH- Dʻ Q3ʻ J H43ʻ F$Eʻ < E3_ʻ H&ʻ F3ʻ 14 EN 1$ ʻ < E34ʻ H&ʻ C-NFʻ 9 $22HE ʻ 9 $ E ʻ @$4 ʻ @$4 ʻ G4$O ʻ H4ʻ H F34ʻ C-NFʻ @$44 $23ʻ ($EDʻ ʻ Cʻ &-4 F34ʻ 3E$N 3D ʻ F$ ʻ &ʻ $EOʻ I 34CHEʻ CF$ ʻ D4 3ʻ H4ʻ -C3 ʻ H4ʻ N$-C3ʻ Hʻ Q3ʻ D4 3Eʻ H4ʻ -C3D ʻ Eʻ H4ʻ -1HEʻ $ ʻ 1-Q Nʻ ? 433 ʻ H4ʻ ʻ H$Dʻ $Cʻ $&H43C$ D ʻ $EOʻ 9 $22HE ʻ 9 $ E ʻ @$4 ʻ @$4 ʻ G4$O ʻ <&ʻ C-NFʻ < F34ʻ @$44 $23 ʻ -1HEʻ F NFʻ F343ʻ CF$ ʻ EH ʻ Q3ʻ 1$ E 3Dʻ F3ʻ 4-3ʻ @F4 C $Eʻ , $ J 3ʻ $EDʻ ?-4R E$ J 3ʻ $EDʻ 1 $N3ʻ H&ʻ QHD3ʻ H&ʻ F3ʻ < E34ʻ H4ʻ ^ &ʻ F343ʻ CFH- Dʻ Q3ʻ J H43ʻ F$Eʻ < E3_ʻ H&ʻ F3ʻ 14 EN 1$ ʻ < E34ʻ H&ʻ C-NFʻ 9 $22HE ʻ 9 $ E ʻ @$4 ʻ @$4 ʻ G4$O ʻ H4ʻ H F34ʻ C-NFʻ @$44 $23 ʻ 3 34Oʻ I 34CHEʻ CHʻ H&&3ED E2ʻ CF$ ʻ &H4&3 ʻ 6 3ʻ I H-EDC ʻ $EDʻ ʻ CF$#ʻ Q3ʻ $ &- ʻ &H4ʻ $EOʻ I 34CHEʻ Hʻ $+3ʻ $EDʻ C3 T3ʻ C-NFʻ 9 $22HE ʻ 9 $ E ʻ @$4 ʻ @$4 ʻ G4$O ʻ H4ʻ H F34ʻ C-NFʻ @$44 $23 ʻ $EDʻ $EOʻ 8 H4C3ʻ D4$ E2ʻ F3ʻ C$ J 3 ʻ $EDʻ Hʻ HD23ʻ F3ʻ C$ J 3ʻ &H4ʻ C$&3ʻ @-C HDOʻ &H4ʻ F3ʻ I -41HC3ʻ H&ʻ C3N-4 E2ʻ $EDʻ 3E&H4N E2ʻ F3ʻ I $OR J 3E ʻ H&ʻ F3ʻ C$ Dʻ I 3E$ O ʻ $EDʻ F3ʻ ; CN13EN3Cʻ H&ʻ F3ʻ I 4HN33D E2Cʻ F343HE ʻ $Cʻ Cʻ Eʻ F3ʻ C$ Dʻ N ʻ 1$4 N- $4 Oʻ J 3E HE3D ʻ EDʻ 9 F343$Cʻ F3ʻ I 4H C HECʻ H&ʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ CHʻ &$4ʻ $Cʻ D 43N ʻ F3ʻ 4-3ʻ @F4 C $Eʻ $EDʻ ?- E$ J 3ʻ H&ʻ F3ʻ < E34Cʻ H4ʻ ^ &ʻ F343ʻ CFH- Dʻ Q3ʻ J H43ʻ F$Eʻ < E3_ʻ H&ʻ F3ʻ 14 EN 1$ ʻ < E34ʻ H&ʻ $EOʻ 9 $22HE ʻ 9 $ E ʻ @$4 ʻ @$4 ʻ G4$O ʻ H4ʻ H F34ʻ C-NFʻ @$44 $23 ʻ Hʻ Q3ʻ 1$ E 3Dʻ F343HE ʻ $43ʻ &H-EDʻ Hʻ Q3ʻ E$11 N$Q 3ʻ Hʻ F3ʻ 9 $22HEC ʻ 9 $ EC ʻ @$4 C ʻ @$4C ʻ G $OC ʻ $EDʻ H F34ʻ C-NFʻ @$44 $23Cʻ Q3 HE2 E2ʻ Hʻ H4ʻ 3 J 1 HO3Dʻ QOʻ F3ʻ @H J J CC HE34Cʻ &H4ʻ 3 3N- E2ʻ F Cʻ N ʻ H4ʻ Hʻ F3ʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ 9 HHDC ʻ 6H43C C ʻ G$EDʻ ʻ 3 3E-3C ʻ 9 H4+C ʻ $EDʻ B- D E2Cʻ ʻ Q3ʻ ʻ F343&H43ʻ 3E$N 3D ʻ $EDʻ ʻ Cʻ F343QOʻ D3N $43D ʻ *F$ ʻ ʻ CF$ ʻ EH ʻ Q3ʻ E3N3CC$4Oʻ Hʻ 1$ E ʻ H4ʻ N$-C3ʻ Hʻ Q3ʻ 1$ E 3Dʻ F3ʻ 4-3ʻ @F4 C $Eʻ $EDʻ ?-4E$ J 3ʻ H&ʻ $EOʻ I 34CHE ʻ H4ʻ I 34CHECʻ FH J CH3 34ʻ -1HEʻ $EOʻ H&ʻ F3ʻ 9 $22HEC ʻ 9 $ EC ʻ @$4 C ʻ @$4C ʻ G4$OC ʻ H4ʻ H F34ʻ C-NFʻ @$44 $23Cʻ Q3 HE2 E2ʻ Hʻ H4ʻ 3 J HO3Dʻ QOʻ F3ʻ @H J J CC HE34Cʻ &H4ʻ 3 3N- E2ʻ F Cʻ N ʻ H4ʻ Q3 HE2 E2ʻ Hʻ <4 34$1 9 3Dʻ QOʻ F3ʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ 9 HHDC ʻ 6H43C C ʻ 8$EDʻ ʻ 3 3E-3C ʻ 9 H4+C ʻ $%ʻ B- D E2C ʻ $EDʻ F$ ʻ F3ʻ I 3E$ Oʻ H&ʻ 6 3ʻ I H-EDCʻ J 1HC3Dʻ QOʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ H&ʻ F3ʻ 6 4C ʻ $EDʻ ?3NHEDʻ =3$4Cʻ H&ʻ 8 Cʻ 143C3E ʻ P $(3C Oʻ CF$ ʻ EH ʻ Q3ʻ EN-443Dʻ H4ʻ 1OQ 3ʻ &H4ʻ 9 $E ʻ H&ʻ $EOʻ C-NFʻ 4-3ʻ @F4 C $Eʻ $EDʻ ?-4E$ J 3ʻ -1HEʻ $EOʻ H&ʻ C-NFʻ 9 $22HEC ʻ 9 $ EC ʻ @$4 C ʻ @$4C ʻ G4$OC ʻ H4ʻ C-NFʻ H F34ʻ @$44 $23C ʻ Q- ʻ F$ ʻ ʻ CF$ ʻ $EDʻ J $Oʻ Q3ʻ $ &- ʻ &H4ʻ F3ʻ @H J J CC HE34Cʻ &H4ʻ 3 3N- E2ʻ F Cʻ N ʻ $EDʻ 3O ʻ $43ʻ F343QOʻ 43X- 43D ʻ Hʻ N$-C3ʻ Hʻ Q3ʻ 1$ E 3Dʻ HEʻ $EOʻ 9 $22HEC ʻ 9 $ EC ʻ @$4 C ʻ @$4C ʻ G4$OC ʻ H4ʻ H F34ʻ ?-NFʻ @$44 $23Cʻ Q3 HE2 E2ʻ Hʻ H4ʻ 3 J 1 HO3Dʻ QOʻ F3 J ʻ Eʻ F3ʻ P $EE34ʻ D 43N 3Dʻ QOʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ H&ʻ F3ʻ 6 4C ʻ $EDʻ ?3NHEDʻ =3$4Cʻ H&ʻ F3ʻ ʻ 3 2Eʻ H&ʻ 8 Cʻ 143C3E ʻ P $(3C O ʻ F3ʻ 9 H4DCʻ &H H E2 ʻ F$ ʻ Cʻ Hʻ C$O ʻ ʻ *F3ʻ @H J J CC HE34Cʻ &H4ʻ 1$ E2ʻ F3ʻ 8 ! !# 1ʻ 8 ʻ !? ʻ R) ! ʻ !1 #1 ! ʻ> H4ʻ Eʻ 3-ʻ H&ʻ F3ʻ 9 H4DC ʻ) !) %%ʻ *% ʻ ! ʻ !1 #1 ! > F3ʻ I $N3ʻ F343ʻ F3ʻ <&& N3ʻ H&ʻ F3ʻ C$ Dʻ @H J J CC HE34Cʻ CF$ ʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2ʻ Q3ʻ C -$ 3D ʻ $EDʻ F$ ʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ F3ʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ / 9 HHDC ʻ 6H43C C ʻ >$EDʻ ʻ 3 3E-3C ʻ 9 H4+C ʻ $EDʻ B- D E2C ʻ $EDʻ F3Oʻ $43ʻ F343QOʻ 43X- 43D ʻ Eʻ +3ʻ P $EE34 ʻ Hʻ N$-C3ʻ Hʻ Q3ʻ 1$ E 3Dʻ HEʻ $EOʻ 9 $22HEC ʻ 9 $ EC ʻ @$4 C ʻ @$4C ʻ G4$OC ʻ H4ʻ H F34ʻ C-NFʻ @$44 $23Cʻ Q3 ʻ HE2 E2ʻ Hʻ H4ʻ 3 J 1 HO3Dʻ &3Oʻ F3 J ʻ F3ʻ 9 H4DCʻ &H H E2 ʻ F$ ʻ Cʻ Hʻ C$O

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F3J &' F3O CFH-D F E+'& H N34 &O F3 I$4 N-$4C H&'C-NF @$C3 E 94 E2 -ED34 F34 8$EDC H 8 C P$(3C _ C H4E3O M3E34$ $ED F343-1HE CFH-D Q3 $ &-' &H4 8 C P$(3C O C H4E3O M3E34$ &'F3 CFH-D CH F E+'& 3 F34 QO $C-JJ$4O 11 N$ HE E F3 ,$ -43 H&' $ I3 HE H4 QO E&H4J$ HE $a F3 @$C3 J 2F 43X-43 H $11 O H H4 NHJJ3EN3 $?- E 8 C P$(3C O C 8 2F @H-4 H&' @F$EN34O H4 H H4 E 8 C P$(3C O C @H-4 H&' ; NF3X-34 C E2 $C $ @H-4 H&' ;X- O C$ E2 $ED C3 E2 &H4 F F3 , 32 3N B43$NF H&' *4-C 64$-D Q-C3 H4 P CNHED-N H4 H F34 @$-C3 H&' @HJ1$E H4 11 N$ HE $ED 14$O E2 C-NF '3 3& $C F3 ,$ -43 H&' F3 @$C3 J 2F 43X-43 ($ED $& 34 a-NF I3 HE CFH-D F$ 3 Q33E 143C3E 3D H4 ?- EC -3D C-NF I4HN33D E2C 343 H Q3 F$D F343-1HE $C E F3 C$D N EH E 43N $ J3E HE3D ED F343$C F3 IH 34C H&' F3 C$D @HJJ CC HE34C 3 1 43D @ F3 6 4C G$O H&' ?3% <E3 FH-C$ED 3 2F F-ED43D $ED F 4 O $ED J$EO @F$4 3C C 43J$E H Q3 E 3C 2$ 3D . ED F343$C $E N $C 1$CC3D E F3 $C ?3CC HE H&' I$4 $J3E E -3D /# / '?' 55, # #(' I , [11 ,#! 1 , ' ,# #3!)! $#V3 !1 ',#'! # #(I) !1 J ; E2 $ED $ED 9$ 3C , 7F, H! 1 #& ,)!#'! ,)! ; ED ,)!)!# #!J +!11 ,# , * % !# F343QO 8 C P$(3C O 9$C 3J1H 343D H CC-3 $ @HJJ CC HE 3E$Q E2 F3 @HJJ CC HE34C F34JE H Q3 E$J3D H E 3C 2$ 3 C-NF 43J$E E2 @F$4 3C ED F343$C C 3 13D 3E F$ F3 I4H CHEC H&' F3 C$D 43N 3D N H&' F3 6 & O E E F 43$4 H&' F3 ' 3 2E H&' 8 C C$D $ 3 P$(3C O CFH-D Q3 E E-3D E J$EE34 F343 E $& 34 J3E HE3D ($ED C $ CH 3 13D 3E H &+N $ 3 F3 I4HH&C E I4HN33D E2C EC -3D H4 H F3 EC -3D -ED34 F3 C$D $C J3E HE3D N H4 H&' F C N E J$EE34 F343 E $& 34 J3E HE3D . ED F343$C C 3 13D 3E H J$+3 C-NF 14H CHEC 43C13N E2 ;C$ 3C H4 6-EDC Q3 HE2 E2 H @F$4 3C $C F343 E4$& 34 J3E HE3D . B3 F343&H43 3E$N 3D o F3 % E2 C JHC ; N3 3E P$(3C O QO $ED F F3 D N3 $ED @HEC3E H&' F3 >H4DC ?1 4 -$ $ED *3J1H4$ $ED @HJJHEC E F C 143C3E I$4 $J3E $CC3JQ 3D $ED QO F3 - FH4 O H&' F3 C$J3 *F$ CF$ $E J$O Q3 $ &-' &H4 F3 C$D @HJJ CC HE34C $11H E 3D H4 H Q3 $11H E 3D -ED34 F3 - FH4 O H&' F3 C$D N H&' F3 $C ?3CC HE H&' I$4 $J3E H4 -ED34 F3 - FH4 O H&' $EO N H Q3 F343$& 34 1$CC3D &H4 F3 +3 I-41HC3 H4 EEO ' 3 H4 JH43 H&' F3J H J$+3 C-NF @34 & N$ 3C &4HJ * J3 H * J3 H 8 C P$(3C O C H4E3O M3E34$ $C F3 @HJJ CC HE34C $11H E 3D -ED34 F3 - FH4 O H&' F3 C$D N C H&' F3 6 & O 3 2F F $ED 6 & O E E F =3$4C H&' F3 ' 3 2E H&' 8 C C$D $ 3 P$(3C O 343 3J1H 343D H DH ($ED F343-1HE C-NF I4HN33D E2C CF$ H4 J$O Q3 F$D $ED $+3E $C 343 $- FH4 T3D H4 D 43N 3D QO F3 C$D 43N 3D N H&' F3 C$D 6 & O E E F =3$4 H&' 8 C C$D $ 3 P$(3C O C ' 3 2E E F3 C$J3 P$EE34 H $ E 3E C $ED I-41HC3C $C &' F3 I4H CHEC H&' F$ N $C H C-NF @34 & N$ 3C $ED I4HN33D E2C 343 3JQHD 3D E $ED 43 3E$N 3D QO F C N

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Q33E' N34 & 3D' H' 8 C' P $(3C O C' H4E3O' M3E34$ ' &H4' F3' * J 3' Q3 E2' D- O' N34 8 3D' $NNH4D E2' H' F3' I 4H C HEC' H&' F3' ?$ D' 43N ' 3D' N ' H&' F3' 6 & O E E F' =3$4' H&' 8 C' C$ D' $ 3' P $(3C O ' H4' H&' F C' N ' $C' F3' @$C3' J $O' Q3 ' CF$ ' Q3' D33 J 3D C-&& N 3E ' ; D3EN3' F$ ' C-NF' I $4 N- $4C' F$ 3' Q33E' D- O' N34 & 3D' H' 8 C' P $(3C O C' H4E3O' M3E34$ ' $NNH4D E2 O ' H' $ED' &H4' $ ' E 3E C' $ED' I -41HC3C' F$ CH3 34

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' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F343' F3' I 34CHE ' H4' $ ' F3' I 34CHEC ' &' J H43' F$E' < E3 ' E' FH J ' $EO' >$EDC ' 8 343D $ J 3E C ' ' 3E NF$423 ' H4' H F34' ' 3$ ' I 4H134 O' J $O' F$ 3' Q33E' 3C 3D' E' * 4-C ' &H4' $EO' @F$4 O' H4' NF$4 $Q 3' H4' 1-Q N' I -41HC3 ' CF$ 8' Q3' D3$D ' ' CF$ ' Q3' $ &- ' &H4' F3' C$ D' @H-4 ' H&' @F$EN34O' H4' F3' C$ D' @H-4 ' , ' ; NF3X-34 ' HE' F3' I 3 HE' H&' 8 C' P $(3C O C' H4E3O' M3E34$ ' H4' H&' F3' I 34CHEC' H4' BHDO' $D J E C 34 E2' C-NF' @F$4 O' H4' C-134 E 3ED E2' C-NF' 1-Q N' I -41HC3 ' <4 H&' $EO' I 34CHE' <E' Q3F$ ' F343H& ' H' D 43N ' $EO' P $C 34' H4' H F34' <&& N34' H&' F3' C$ D' @H-4 C' 43C13N 3 O' H' @$-C3' * H' C-NN3CC 3' D 34 C3 J 3E C' H' Q3' EC34 3D' E' F3' < ,#&,#' ! ! ' $ED' E' < E3' H4' J H43' H&' F3' , 3 C1$134C' N 4N- $ 3D' E' F3' @H-E O ' @ O ' H4' I $N3' F343' C-NF' >$ED ' 8 343D $ J 3E C ' H4' ' 3$ ' I 4H134 O ' H4' F3' >$EDC' H4' 8 343D $ J 3E C' H- ' H&' F NF' C-NF' ' 3E NF$423' C' CC- E2 ' CF3 ' Q3' C -$ 3D ' 2 E2' , H N3' F$ ' F3' ' 3143C3E $ 3' H4' ' 3143C3E $ 3C' H&' F3' I 34CHE' H&' F3' $C ' ?-4 H4' H&' F3' I 34CHEC' E' FH J ' $EO' >$ED ' 8 343D $ J 3E C ' ' 3E NF$423 ' H4' H F34' ' 3$ ' I 4H134 O' J $O' F$ 3' Q33E' 3C 3D' E' * 4-C ' $C' $&H43C$ D' DH' F E' * 3E O ' 3 2F ' G$OC' $113$4' <4 2 3' , H N3' H&' F C' H4' F3 4' * 3' H' C-NF' P $C 34' H4' H F34' <&& N34 ' $ED' 14< 3' F C' H4' F3 4' I 3D 2433' H4' H F34' * 3' $C' * 4-C 33' ' $ED' 4' EH' I 34CHE' CF$ ' $113$4' H' 2 3' C-NF' , H N3' F E' C-NF' * 3E O 3 2F ' G$OC ' H4' F3' I 34CHE' H4' I 34CHEC' FH' J $O' $113$4' H4' 2 3' C-NF' , H N3' CF$ ' EH ' F E' * F 4 O HE3' G$OC' $& 34' C-NF' 113$4$EN3' H4' , H N3' 14H 3' F C' H4' F3 4' * 3' H' F3' ?$ C&$N HE' H&' C-NF' P $C 34' H4' H F34' <&& N34 ' F3E' $ED' E' C-NF' @$C3' ' CF$ ' Q3' $ &- ' &H4' F3' C$ D' @H-4 C' 43C13N 3 O' H' $11H E ' $EO' E3 ' * 4-C 33C' &H4' C-NF' @F$4 O' H4' NF$4 $Q 3' H4' 1-Q N' I -41HC3 ' E' N$C3' EH' * 4-C 33C' &H4' C-NF' @F$4 O' H4' I -41HC3' D- O' $11H E 3D' CF$ ' F3E' Q3' 3 C E2 ' $ED' C-NF' >$ED ' 8 343D $ J 3E C ' ' 3E NF$423 ' H4' < F34' ' 3$ ' I 4H134 O' J $O' Q3' NHE 3O3D' H' C-NF' E3 ' * 4-C 33C' F3E' CH' $11H E 3D' QO' F3' C$ D' @H-4 C' 43C13N 3 O ' H4' H' F3' 3 C E2' * 4-C 33C' 143 H-C O' D- O' $11H E 3D ' $C' F3' @$C3' J $O' Q3 ' QO' $EO' I 34CHE' FH J ' F3' C$ D' @H- C' 43C13N 3 O' J $O' D 43N ' &H4' F$ ' I -41HC3' QO' 4 -3' H&' F3' I 4H C HEC' E' F C' N ' FH- ' F3' , 3N3CC O' H&' $EO' G3N433

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6H4' 3E$1H ' 34 E2 43C D3E ' P E C 34C' $ED' @F$4N#' $4R D3EC' H' 43R N3 3' ' 3E ' NF$423C' Q3R HE2 E2' H' @ $4 3C' F343' F343' ' $43' EH' 3 C R E2' * 4-C 33C'

F3ʻ * J3ʻQ3 E2ʻ H&ʻ F3ʻ I$4 CFʻ H4ʻ I $N3ʻ E 343C 3Dʻ Eʻ C-NFʻ @F$4 O ʻ Eʻ N$C3ʻ HE Oʻ <E3ʻ I$4 CFʻ H4ʻ I $N3ʻ Cʻ CHʻ E 343C 3D ʻ Q- ʻ &ʻ JH43ʻ F$Eʻ <E3ʻ I$4 CFʻ H4ʻ I $N3ʻ Cʻ CHʻ E 343C 3D ʻ F3Eʻ F3ʻ 43C D3E ʻ P E C 34ʻ $EDʻ F3ʻ @F-4NF $4D3ECʻ H4ʻ @F$13 $4D3ECʻ H&ʻ CH J3ʻ HE3ʻ H&ʻ F3ʻ I$4 CF3Cʻ H4ʻ I $N3Cʻ E 343C 3D ʻ Hʻ 43N3 3ʻ F3ʻ C$ Dʻ EE- Oʻ H4ʻ '3E NF$423 ʻ EE- 3Cʻ H4ʻ '3E NF$423C ʻ H4ʻ $EOʻ 443$4Cʻ F343H&ʻ $EDʻ Hʻ $11 Oʻ F3 ʻ C$J3ʻ $NNH4D E2ʻ Hʻ F3ʻ I-41HC3Cʻ H&ʻ F3ʻ NF$4 $Q 3ʻ DHE$ HECʻ H4ʻ B3X-3C Cʻ F343H& ʻ Eʻ F3ʻ C$J3ʻ P$EE34ʻ $Cʻ F3ʻ *4-C 33Cʻ H&ʻ F3ʻ C$ Dʻ @F$4 Oʻ H- Dʻ F$ 3ʻQ33Eʻ QH-EDʻ Hʻ DHʻ($EDʻ F3ʻ I H 34ʻ CHʻ Hʻ Q3ʻ 2 3Eʻ Hʻ C-NFʻ P E C 34ʻ $EDʻ @F-4NF $4D3ECʻ H4ʻ @F$13 $4D3ECʻ CF$ ʻ 43J$ Eʻ Eʻ &H4N3ʻ -E ʻ *4-C 33Cʻ H&ʻ F3ʻ C$ Dʻ @F$4 Oʻ D- Oʻ $11H E 3Dʻ CF$ ʻ $113$4ʻ $EDʻ N $ Jʻ F3ʻ D J E C 4$ HEʻ H&ʻ F3ʻ 6-EDCʻ F343H& ʻ H4ʻ -E ʻ *4-C 33Cʻ H&ʻ F3ʻ C$ Dʻ @F$4 Oʻ CF$ ʻ Q3ʻ $11H E 3Dʻ QOʻ F3ʻ @H-4 H&ʻ @F$EN34Oʻ H4ʻ @H-4 ʻ H&ʻ ; NF3X-34 ʻ $EDʻ F ʻ '3N3 1 Cʻ Hʻ Q3ʻ 2 3Eʻ QOʻ C-NFʻ P E C 34ʻ $EDʻ @F-4NF $4D3ECʻ H4ʻ @F$13 $4D3ECʻ CF$ ʻ Q3ʻ 3&&3N -$ʻ G CNF$423Cʻ Hʻ F3ʻ I34CHECʻ $Q 3ʻ Hʻ F3ʻ I$O J3E ʻ H&ʻ C-NFʻ EE- 3Cʻ H4ʻ '3E NF$423Cʻ &H4ʻ $ ʻ C-NFʻ ?- J Cʻ $Cʻ Eʻ C-NFʻ '3N3 1 Cʻ CF$ ʻ Q3ʻ 3 143CC3D ʻ Hʻ F$ 3ʻQ33Eʻ 43N3 3Dʻ Eʻ 43C13N ʻ F343H& ʻ $EDʻ Eʻ N$C3ʻ H&ʻ , HE1$O J3E ʻ H&ʻ C-NFʻ EE- 3Cʻ H4ʻ '3E NF$423C ʻ H4ʻ $EOʻ 443$4Cʻ F343H&ʻ ʻ CF$ ʻ $EDʻ J$Oʻ Q3ʻ $ &- ʻ &H4ʻ C-NFʻ (E C 34ʻ $EDʻ @F-4NF $4D3ECʻ H4ʻ @F$13 $4D3ECʻ 43C13N 3 O ʻ D-4 E2ʻ F3ʻ @HE E- ʻ $EN3ʻ H&ʻ F3ʻ I H 34ʻ Hʻ Q3ʻ 2 3Eʻ Hʻ F3 J ʻ QOʻ 4 -3ʻ H&ʻ F3ʻ I4H C HECʻ H&ʻ F Cʻ N ʻ Hʻ -C3ʻ $EDʻ 3 34N C3ʻ $ ʻ C NFʻ I H 34Cʻ $EDʻ '3 J 3D 3Cʻ &H4ʻ 43NH 34 E2ʻ $EDʻ NH J 13 E2ʻ I$O J3E ʻ <&ʻ F3ʻ C$ Dʻ EE- 3Cʻ H4ʻ '3E NF$423C ʻ $EDʻ F3ʻ 443$4Cʻ F343H& ʻ $Cʻ F3ʻ *4-C 33Cʻ H&ʻ F3ʻ C$ Dʻ @F$4 3Cʻ 43C13N 3 Oʻ J 2F ʻ <4 NH- Dʻ F$ 3ʻ DHE3ʻ &ʻ D- Oʻ $11H E 3D

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H F34ʻ N ʻ F NFʻ J $Oʻ F343$& 34ʻ Q3ʻ 1$CC3Dʻ &34ʻ F3ʻ ' 3 3&ʻH&ʻ ECH 3E ʻ
G3Q H4C ʻ CF$ ʻ $EDʻ J ʻ 3 3EDʻ Hʻ $ ʻ I 4HN3CCʻ CC- E2ʻ &4H J ʻ $EOʻ @H-4 ʻ
H&ʻ ; X- Oʻ &H4ʻ $EOʻ @HE 3 J 1 ʻ H&ʻ C-NFʻ @H-4 ʻ &H4ʻ , HE1$O J 3E ʻ H&ʻ
P HE3O ʻ H4ʻ H&ʻ@HC C ʻ @F$423C ʻ H4ʻ ; 13EN3Cʻ Eʻ $EOʻ C-NFʻ @H-4 ʻ $EDʻ
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2 EC ' C-NF I4 CHE34 &H4 F3 I-41HC3 '&H4 F3 ' 3NH 34O H& F3 C$J3 (
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I4 CHE34 E 43C13N ' F343H& ' $ED 3E 3D H F3 B3E3& C H& $ ' F3
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C-Q(3N ' E3 34 F3 3CC H C-NF $CN34 $ E E2 H& F3 JH-E ' H& F3 C$D
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; $J E$ HE F343H& $C C E F3 C$D $C J3E HE3D N ' H4 $C CF$ '
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F3 ' 3 2E H& 8 C 143C3E ' P$(3C O ' Q3 ' 3E$N 3D QO F3 % E2 C ' E$H? '
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F3 $C J3E HE3D N ' F343 $EO I34CHE H4 I34CHEC $43 H4 C H4
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F34 @HE 3J1 ' 3 N31 ' $C H F3 @HC C F343H& &H4 F NF @HC C F3O '
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F3 I4HN3CC H& @HE 3J1 ' E +3 P$EE34 $C C E F3 C$D $C J3ER
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@ʻ ʻ 6 ʻ > W

Eʻ Nʻ Hʻ 4$EC&34ʻ F3ʻ P$E$23J3E ʻ H&ʻ N34 $ Eʻ EE- 3Cʻ HEʻ > 3Cʻ &4HJʻ F3ʻ '3N3 1 ʻ H&ʻ 8 Cʻ P$(3C O Cʻ ; NF3X-34ʻ Hʻ F3ʻ PE23J3E ʻH&ʻ F3ʻ @HJ J CC HE34Cʻ &H4ʻ F3ʻ '3D-N HEʻ H&ʻ F3ʻ , $ HE$ ʻ G3Q ʻ $EDʻ Hʻ $J3EDʻ $Eʻ N ʻ &H4ʻ 3E$Q E2ʻ F3ʻ ?$ Dʻ @HJ J CC HE34Cʻ Hʻ 24$E ʻ > &3ʻ EE- 3Cʻ $EDʻ EE- 3Cʻ &H4ʻ *34J Cʻ H&ʻ =3$4C ʻ I Fʻ2 ʻ ZSU5

> 8 ; ' ;ʻ ?ʻ N34 $ Eʻ EE- 3Cʻ HEʻ > 3Cʻ F$ 3ʻ Q33Eʻ N&3$ 3Dʻ $ʻ $4 H-Cʻ I34 HDCʻ QOʻ C-ED4Oʻ N Cʻ H&ʻ I$4 $J3E ʻ(ʻ ^ F$ʻ Cʻ Hʻ C$O _ʻ QOʻ $Eʻ N ʻ 1$aC3Dʻ Eʻ F3ʻ ; 2F 33E Fʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ P$(3C Oʻ % E2ʻ M3H4 3ʻ F3ʻ ?3NHED ʻ E - 3Dʻ / #ʻ / ' ʻ , ʻ %. 1 - B ʻ (# #(ʻ ,ʻ O 1ʻ ' !1 ʻ 1!0! %ʻ && ,# %ʻ 23 !1ʻ 35,#ʻ %%ʻ #!1ʻ 5, !&ʻ # ,ʻ M43$ʻ B4 $ Eʻ #&ʻ , ʻ 1 #(ʻ ʻ '! #ʻ + ʻ , ʻ ,#! ʻ 4 ʻ / ##3 !1ʻ #&ʻ ʻ<, ! ʻ #ʻ ##! ʻ)! ! #ʻ !# ,#!&ʻ ,ʻ 4!ʻ ') (!&ʻ ,#ʻ)!ʻ 1 &ʻ && ,# %ʻ 23 !1ʻ ʻ $EDʻ $ CHʻ QOʻ $Eʻ N ʻ 1$CC3Dʻ Eʻ F3ʻ , E3 33E F ʻ =3$4ʻ H&ʻ 8 Cʻ C$ Dʻ P$(3C Oʻ E - 3Dʻ / #ʻ / ' ʻ , ʻ(# #(ʻ mVM U N Uʻ ,ʻ 1ʻ U!1 ʻ1!0! %ʻ L !1ʻ #&ʻ 23 !1ʻ 35,#ʻ % 11ʻ #&ʻ 35,#ʻ +5 <ʻ ,31ʻ < V3, 1ʻ #&ʻ , ʻ 1 #(ʻ ʻ '! #ʻ +3 ʻ, ʻ ,#! ʻ 4 ʻ / ##3 !1ʻ ʻ #&ʻ ʻ<, ! ʻ ,ʻ 4!ʻ ') (!&ʻ ,#ʻ)!ʻ 1 &ʻ L !1ʻ #&ʻ 23 !1ʻ=ʻ #&ʻ , ʻ ,40 #(ʻ 1, !ʻ 2 ,34 1ʻ 4,3ʻ %ʻ #(ʻ ,3ʻ6 &! 1ʻ ʻ)!ʻ 8J') !V3! ʻ , ʻ)!ʻ ,# !1ʻ &0 #'!&ʻ 35,#ʻ)!ʻ I !& ʻ , ʻ)!ʻ + %ʻ 23 !1ʻ (# !&ʻ #&ʻ ',# #3!&ʻ ,ʻ 1ʻ U!1 ʻ 4 ʻ #ʻ / ' ʻ, ʻ)!ʻ % 1ʻ +!11 ,#ʻ , ʻ* % !# =ʻ $ CHʻ QOʻ $Eʻ N ʻ 1$CC3Dʻ Eʻ F3ʻ *F 4 3 Fʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ C$ Dʻ

Yʻ Pʻ ʻ P$(3C O

! [Y U' K' S' M # > ; > P ' ' @$1 !V

: 3 - P $(3C O' E - 3D' / #' / ' ' , ' ,' ' !1 ' 1! ' !1
#&' 23 !1' 35,#' $#&!# 3 !1' <! !1' " ,#&1' #&' 5) ! ' 2 ! !&1' #&'
35,#' E!F15 5! 1' /&0! 1! !# 1' &&' /% # ' 1' &' 35,#' < '!#!!1'
, ' ! % #(' ' #&' 35,#' I , %1' !J5, !&' ,' " , &(#' * 1' ' /' , '
55% #(' , ' ' '! #7 ! '& !' "3 1' , ' ,#! ' 1 #(' , ')!' +3 '
5%31' , ')!' 23 !1' 6#% '!#'!1' , ' ! % #(' +5 3,31' < V3, 1' =' #&'
, ' 1 #(')!' +3 ' V '7) !!' %% ,#1' 4 ' /##3 !1' ,' 4!' ') (!&' ,#')!'
1 &' L !1' 23 !1' #&' +3 1' , ' ,#! =' #& ' #('5! 5! 3 %' # / ' '
&!' #')!' +!' ,#&' H! ' , ')!' L! (#' , '" 1'5 !1!#' V !1 ' # 3%!&'
7 /#' / ' ' , ')!' 4! ! ' L!(3% ,#' , '/ , !1' #&' +,% ' , 1' #&' , '
!#% (#(')!' 7 !' , '?O #(' / & 0 1' , ')!' 8J!'3 ,#' V ' I ,# ' 1'
, ' I %! 1' ,' / , # !1' #&' +,% ' , 1' #&' %1,')!' 7 !' , ' * !#'
, ')!' 23 !1' , !&' ,')!' 5 &' , ')!' $#&!# 3 !1' #&' I ,# ' 1' V '
I %! 1' #&' / 55 !# ' !1=' $ED' $ CH' QO' $E' N ' 1$CC3D' E' F3' 6 & F'
=3$4' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' +, (!' F3' * F 4D' E - 3D'
!' M S' @US / #' / ' ' , '(# #(' /##3 !1' ,' 4!' !#&!&' ' '<, ! ' ,' 1 1 '
#&' & 1') (!' '! #' E 0 ' C ' 3 %% #(' #&' 7 #15, ' "O%1' #&' , '
') (#(')!' * !#' V '13')' / ##3 !1' ,#')!' + # #(' R3#&=' $ED' $ CH'
QO' $E' N ' 1$CC3D' E' F3' ; 2F 33E F' =3$4' H&' F3' ' 3 2E' H&' 8 C' C$ D'
UZ M'S' @UU P $(3C O' % E2' !, (!' F3' * F 4D' E - 3D' / #' / ' , ' 1 #(' ' '! #'
+3 ' V ' ,#! ' 4 ' F ' V ' / ##3 !1' #&' ' !1 4% 1 #(' '<, ! ='
$ED' $ CH' QO' $E' N ' 1$CC3D' E' F3' , E3 33E F' =3$4' H&' F3' ' 3 2E' H&'
VM S @ Z 8 C' C$ D' P $(3C O' % E2' !, (!' F3' * F 4D' E - 3D' / #' / ' , ' 1 '
' '! #' +3 ' V ' ,#! ' 4 ' F ' @ '/ ##3 !1' #&' , ' !1 4% #(' '
<, ! =' $ED' $ CH' QO' $E' N ' 1$CC3D' E' F3' * 3E E E F' =3$4' H&' F3'
UVM S' @ ' 3 2E' H&' 8 C' C$ D' P $(3C O' % E2' !, (!' F3' * F 4D' E - 3D' / #' / ' '
, ' 1 #(' ' '! #' +3 ' V ' ,#! ' 4 ' O ' V ' / ## & !1' ,' 4!'
!#&!&' F)')!' "!#! ' V ' +3 0 0, 1) 5' ' I % 11!1' =' $ED' $ CH' QO' $E'
N ' 1$CC3D' E' F3' * F 4 3 F' =3$4' H&' F3' ' 3 2E' H&' 8 C' C$ D' P $(3C O'
S[M S @ ! % E2' !, (!' F3' * F 4D' E - 3D' / #' / ' ' , ' !, ! % #(' '! #'
/ ##3 !1' ,' 4!' !#&!&' F)')!' "!#! ' V ' +3 0 0, 1) 5' #' I % 11!1'
!1 4% 1) !&' 4 ' #' / ' ' V ')!' % 1' +!11 ,#' , ' * % !# ' # ,' '! #'
/ ##3 !1' , ' #' 41,%3 !' 7! ' , 'H! 1' #&' , ' !# 4% #(')!' I , [
11 ,#! 1' , ')!' 7 ! 13 ' ,' #, # !' < 0!!' ')!' +) !1' 1,' ' ,#[
0! !&' =' F NF' C$ D' C3 34$' EE- 3C' HE' > 3C' 343' QO' F3' C$ D'
43N 3D' N C' 1 $N3D' -ED34' F3' P E23 J 3E ' $ED' J $D3' 1$O$Q 3' $ ' F3'
' 3N3 1 ' H&' 8 C' P $(3C O C' ; NF3X-34.' ED' F343$C' ' C' 3 13D 3F'
F$ ' F3' C$ D' EE- 3C' CFH- D' Q3' 4$EC&3443D' H' F3' P E23 F3E '
H&' F3' @H J J CC HE34C' &H4' F3' ' 3D-N HE' H&' F3' , $ HE$ ' G3Q ' $ED'
Q3' 432- $ 3D' QO' HE3' 23E34$' ?OC 3 J' H&' I $O J 3E ' E' NH J JHE' F' $ '
H F34' > &3' EE- 3C' D-3' H' F3' I -Q N' @43D H4' ' $ED' ' C' F343&H43'
3 13D 3E ' H' 4313$' CH' J -NF' H&' F3' C$ D' 43N 3D' N C' $C' 43 $ 3' H' F3'
?H' J -N ' H&' 43N 3D' N C' $C' 43 $ 3' H F3' P E23R J 3E ' $ED' I $O J 3E ' H&' EE- 3C' &H4 > 3C' $ ' F3' ; NF3X-34' 4313$ 3D
P E23 J 3E ' $ED' I $O J 3E ' H&' F3' C$ D' EE- 3C' $ ' F3' ' 3N3 1 ' H&'
F3' C$ D' ; NF3X-34.' B3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC '
; N3 3E ' P $(3C O' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4 C'
?1 4 -$' $ED' * 3 J 1H4$ ' $ED' @H J JHEC' E' F C' 143C3E ' I $4 $ J 3E '
$CC3 J Q 3D' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3' * F$ ' CH' J -NF' H&' F3'
C$ D' 43N 3D' N C' $C' 43 $ 3C' H' F3' P E23 J 3E ' CC 2E J 3E ' $ED'
I $O J 3E ' H&' F3' C$ D' EE- 3C' HE' > 3C' $ ' F3' ' 3N3 1 ' H&' 8 ?4' P $R
(3C O C' ; NF3X-34' CF$ ' Q3' $ED' F3' C$ J 3' C' F343QO' 4313$ 3D

EE- 3C N43$ 3D' QO' 43N 3D' N C
' ED' Q3' ' 3E$N 3D' * F$ ' $& 34' F3' 1$CC E2' H&' F C' N ' H4' $C'
CHHE' $& 34' $C' F3' E3N3CC$4O' 44$E23 J 3E C' N$E' Q3' $D3' H&' F NQ' Q3

C$D' @HJJ CCHE3 C' C $' 2 3' ,H N3' E' F3' <,#&,#' ! ! ' F3' 4$EC&3443D' H
C$D' C3 34$' EE- 3C' H-' > 3C' F NF' 343' N43$ 3D' QO' F3' C$D' P$E$23J3E'
C3 34$' 43N 3D' N C' CF$ ' Q3' 1 $N3D' -ED34' F3' P$E$23J3E' H&' F3'
@HJJ CCHE34C' &H4' F3' '3D-N HE' H&' F3' ,$ HE$' G3Q ' $ED' CF$ ' F3'
1OQ 3' $ED' 1$D' $' F3' B$E+' H&' 8#(% #&' -ED34' F3' '32-$ HEC' ,$ HE$'
Q343 E $& 34' D 43N 3D' G3Q

' ED' Q3' '3E$N 3D' *F$'$ '<4D34C' J$D3' H-' &H4' F3' I$OJ3E' <4D34C' &H4'
H&' $EO' EE- O' -ED34' F3' I4H C HEC' H&' F3' C$D' & 4C 43N 3D' N C' H4' I$OJ3E' H&'
3 F34' H&' F3J' F NF' HE' F3' 6 & F' G$O' H&' ?3%' <E3' FH-C$ED' 3 2F' EE- 3C'
F-ED43D' $ED' F O H' CF$ ' F3' 43J$ E E2' E' F3' <&& N3' H&' F3' @ 34+' 43J$ E E2' H1
H&' F3' I3 C' H&' 8 C' P$(3C O C' '3N3 1' H&' 6 NF3X-34' CF$ ' Q3' D3 343D' ! Q5E O ZSU'
H 34' QO' F J' H' F3' C$D' @HJJ CCHE34C' H4' F3' '3D-N HE' H&' F3' H' F3' D3 R
,$ HE$' G3F O' H4' H' F3@HE$1# H 34' M3E34$' H4' CC C $E '@HJ1 4H 34' 343D' H' @HJR
$N E2' -ED34' F3' C$D' @HJJ CCHE34C' -1HE' F C' 43N3 E2' G 43N HEC' J CC HE34C' QO'
H' F$' ;& *3N' &4HJ' F3' @HJJ CCHE34C' H&' 8 C' P$(3C O C' *43$C-4O' @ 34+' H&' F3'
$ED' $ 'G D3EDC' H4' EE- 3C' N43$ 3D' QO' $EO' H&' F3' C$D' & 4C 43N 3D' I3 C
N C' F NF' CF$ ' F$ 3' Q33E' D 43N 3D' QO' F3' -D H4' H&' 8 C' P$(3C O C' *3 34C' H&'
C$D' ; NF3X-34' H' Q3' 1$D' QO' F3' *3 34C' F343H&' Q-' F NF' CF$ ' ; NF3X-34' H'
EH ' F$ 3' Q33E' 1$D' QO' F3J' HE' F3' C$D' 6 & F' G$O' H&' <E3' 1$OG D3EDC'
FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O H' $XD' F NF' CF$ ' Q3' F3E' E' F3 4& $EDC'
43J$ E E2' E' F3 4' 8 $EDC' -ED34' F3' G3EHJ E$ HE' H&' <-' @$CF' CF$ ' $C' <- @$CF'
Q3' 1$D' H 34' QO' F3' C$D' *3 34C ' H' F3' MH 34EH4' $ED' @HJ1$EO' H&' HE' Y Q' $ O'
F3' B$E+' H&' 8#(% #&' -1HE' F3 4' 43N3 E2' G 43N HEC' CH' H' DH' &4HJ' ZSU'' E(H'
F3' @HJJ CCHE34C' H&' 8 C' P$(3C O C' C$D' *43$C -O' ($ED' F3' @$CF 34C' B$E+' H&'
H&' F3' C$D' B$E+' $43' F343QO' 43X- 43D' H' 43N3 3' F3' C$J3' $ED' H' ; E2 $ED
N$44O' C-NF' PHE 3C' H' F3' NNH-E ' H&' F3' C$D' @HJJ CCHE34C' &H4' F3'
'3D-N HE' H&' F3' ,$ HE$' G3Q

' ED' F343$C' $E' N ' $C' 1$CC3D' E' F3' *3E F' =3$4' H&' F3' @34 $E'
'3 2E' H&' 8 C' $ 3' P$(3C O' % E2' ! , (!' F3' 6H-4 F' E - 3D
,' !# 4%!')!' I , 11 ,#! 1' , ')!' L!&3' ,#' , ')!' E ,# %' 2 !4 ' ,' $1D H' 3 '
(#' < !' /##3 !1' #&' /##3 !1' , ' 7! 1' , ' *3$4C' F NF' C$D' N U
> &3' EE- 3C' 343' QO' F3' C$D' N ' J$D3' 1OQ 3' $ED' 4$EC&34$Q 3' 4313$ 3D'
$' F3' B$E+' H&' 8#(% #&' ED' F343$C' ' C' 3 13D 3E ' H' 4313$' '
N34 $ E' I4H C HEC' H&' F3' C$D' $C 43N 3D' N ' $ED' H&' F3' C$D' 43N 3D'
N ' H&' F3' *F 4 3 F' =3$4' H&' F3' '3 2E' H&' 8 C' P$(3C O' ' E2' ! , (!'
F3' *F 4D' $ED' ;' C-QC - 3' H F34' I4H C HEC' E' 3-' F343H&' Q3' '
F343&H43' 3E$N 3& ' *F$' CH' J-NF' H&' F3' C$D' 43N 3D' N ' H&'
*F 4 3 F' =3$4' H&' F3' '3 2E' H&' 8 C' P$(3C O' % E2' ! , (!' F3' *F 4D'
$C' 43 $ 3C' H' 4$EC J E2' > C C' QO' @HJJ CCHE34C' H&' *43$C-4O' H'
I$4 CF3C' &H4' '3 -4EC' N34 &O E2' F3' G 3C' H&' ,HJ E33C' $ED' H&' F3'
C$D' 43N 3D' N ' H&' F3' *3E F' =3$4' $C' $&H43C$D' $C' 43 $ 3C' H'
24$E E2' @34 & N$ 3C' H&' F3' ; C 3EN3' H&' ,HJ E33C' $ED' H' F3'
J$+ E2' N34 $ E' && D$ C' $ED' CH 3J E' && 4J$ HEC' QO' I34CHEC' D3C 4H-C'
H&' 1-4NF$C E2' C-NF' EE- 3C' E' @$C3C' F343' I4HH&' H&' F3' 23' $ED'
D3E O' H&' ,HJ E33C' F$C' Q33E' Q3&H43' 14HD-N3D' H' F3' C$D' @HJR
J CC HE34C' N34 & 3D' $ED' 34 & 3D' $NNH4D E2' H' F3' I4H C HEC' H&' F3'
C$D' N ' $ED' $C' 43 $ 3C' H' && D$ C' $ED' CH 3J E' && 4J$ HEC' E'
M$C3C' F343' F3' ,HJ 133' CF$ ' EH ' $113$4' 134CHE$ O' Q3&H43' F3'
<&& N34C' H&' F3' C$D' @HJJ CCHE34C' H' 3E$Q 3' C-NF' I34CHEC' H' 43N3 3'
F3' F$ & O3$4 O' 1$OJ3E C' &4HJ' * J3' H' * J3' H&' 3 34O' C-NF' > &3'
EE- O' $ED' $ CH' &H4' 43N3 E2' F3' <E3' 6H-4 F' I$4 ' H&' $EO' 3 1 43D'
> &3

>&3ʻ EE- Oʻ FNFʻ CF$ʻ Q3ʻ N$ J3Dʻ -ED34ʻ F3ʻ I4H CHECʻ H&ʻ F3ʻ C$Dʻ Nʻ $EDʻ $Cʻ 43$3Cʻ Hʻ F3ʻ 1$0E2ʻ $EDʻ 4$EC&344E2ʻ C-NFʻ EE- 3C$ʻ F3ʻ B$E+ʻ H&ʻ8#(% #&ʻ CF$ʻ Q3ʻ $EDʻ F3ʻ C$J3ʻ $43ʻ 343QOʻ 4313$3D

ʻG3N4 HEʻ HʻQ3ʻ J$D3ʻ Eʻ 3-ʻ H&ʻ F3ʻ &&D$ ʻH4ʻ &&4J$ HEʻ F F34H43ʻ m-43DʻQOʻ I34CHEC1-4ʻ NF$C E2 $EDʻ 43N3 E2ʻ>&3ʻ EE- 3C

ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ʻ Eʻ $ʻ @$C3Cʻ Eʻ FNFʻ $EOʻ &&D$ ʻH4ʻ CH3JEʻ &?4J$ HEʻ $Cʻ 43X-43Dʻ QOʻ $EOʻ 1&ʻ F3ʻ C$Dʻ 43N 3Dʻ NCʻ $&H43C$Dʻ F3ʻ I34CHEʻHʻ I34CHECʻ FHʻ H-Dʻ -ED34ʻ F3ʻ C$5ʻ43N 3Dʻ NCʻ Q3ʻ 43X-43Dʻ Hʻ $+3ʻ H4ʻ J$+3ʻ C-NFʻ &&D$ ʻH4ʻ CH3JEʻ &&4J$ HEʻ CF$ʻ J$+3ʻ $EDʻ C-QCN4 Q3ʻ $ʻG3N$4$ HEʻ Eʻ 3-ʻ F343H&ʻ Eʻ C-NFʻ 6H4Jʻ $EDʻ 9H4DCʻ $EDʻ -ED34ʻ ?-NFʻ ʻ32-$ HECʻ $Cʻ J$OʻQ3ʻ D43N 3Dʻ QOʻ F3ʻ C$Dʻ @HJJ CCHE34Cʻ H4ʻ QOʻ F3ʻ@HJ1 4H 34ʻ M3E34$ʻ H4ʻ CCC$Eʻ @HJ1 4H 34ʻ $N E2ʻ -ED34ʻ F3ʻ C$Dʻ @HJJ CR CHE34Cʻ $EDʻ &ʻ$EOʻC-NFʻG3N4 HEʻCF$ʻQ3ʻ -E4-3ʻ Eʻ $EOʻ I$4 N-$4ʻ F3ʻ I34CHEʻ J$+E2ʻ F3ʻ C$J3ʻ CF$ʻ H 34ʻ $EDʻ $QH 3ʻ 3 34Oʻ H F34ʻ I3E$ Oʻ Hʻ FNFʻ C-NFʻ I34CHEʻ J$OʻQ3NHJ3ʻ C-Q(3N ʻ &H4&3 ʻ F3ʻ?-Jʻ H&ʻ<E3ʻF-ED43Dʻ IH-EDC

?-NFʻ &&D$ʻ Cʻ14HD-N3Dʻ H&ʻ F4 Ncʻ HʻQ3ʻ $ Dʻ

=>ʻ I4H D3Dʻ$ $OCʻ$EDʻQ3ʻ ʻ3E$N 3Dʻ *F$ʻ &ʻ$& 34ʻ F3ʻ1$CC E2ʻ H&ʻ FCʻ Nʻ $EOʻ &&D$ ʻH4ʻCH3JEʻ &&4J$ HEʻ $ ʻQ3ʻ14HD-N3Dʻ&H4ʻ F3ʻ I-41HC3ʻ H&ʻ43N3 E2ʻ $EOʻ>&3ʻ EE- Oʻ -ED34ʻ F3ʻ I4H CHECʻ H&ʻ F3ʻC$Dʻ43N 3Dʻ NCʻC-NFʻ &&D$ Cʻ$EDʻCH3JEʻ &&4J$ HECʻEH FR C$ED E2ʻ F3ʻ ʻ313$ʻ F343H&ʻQOʻ Q&ʻ Nʻ CF$ʻ Q3ʻD33J3Dʻ $ Dʻ $EDʻ 3&&3N -$ʻ&H4ʻ F3ʻ I-41HC3ʻH&ʻ43N3 E2ʻ C-NFʻ>&3ʻ EE- 3Cʻ $EOʻ F E2ʻ Eʻ FCʻ Nʻ Hʻ F3ʻ NHE4$4Oʻ F343H&ʻ Eʻ $EO C3ʻ EH FC $ED E2

&&D$ ʻJ$Oʻ Q3ʻ43X-43Dʻ Eʻ N34$Eʻ @$C3C

ʻ I4H D3Dʻ E3 34 F3 3CCʻ $EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ*F$ʻ F3ʻ C$Dʻ @HJJ CCHE34Cʻ H4ʻ @HJ1 4H 34ʻ M3E34$ʻ H&ʻ CCC$Eʻ @HJ1 H 34ʻ $N E2ʻ -ED34ʻ F3ʻ C$Dʻ @HJJ CCHE34Cʻ J$Oʻ Eʻ $EOʻ @$C3ʻ 43X-43ʻ EOʻ C-NFʻ I34CHEʻ H4ʻ I34CHECʻ Hʻ J$+3ʻ &&D$ ʻH4ʻ CH3JEʻ &&4J$ HEʻ Eʻ @HE&4J$ HEʻ H&ʻ $EOʻC-NFʻ G3N$4$ HEʻ $EDʻ 3 34Oʻ C-NFʻ I34CHEʻ CF$ʻ $EDʻ F3ʻCF3ʻ H4ʻ F3Oʻ Cʻ $EDʻ $43ʻ F343QOʻ F343-1HEʻ 43X-43Dʻ Hʻ J$+3ʻ C-NFʻ &&D$ ʻH4ʻ CH3JEʻ &&4J$ HEʻ Q3&H43ʻC-NFʻ@HJ1 4H 34ʻ M3E34$ʻ H4ʻ CCC$Eʻ @HJ1 4H 34ʻ H4ʻ H F34ʻ <&&N34ʻ $11H E 3Dʻ&H4ʻ F$ʻ I-41HC3ʻ QOʻ F3ʻ C$Dʻ @HJJ CCHE34Cʻ FHʻ $43ʻ F343QOʻ 43C13N 3Oʻ$- FH4 T3Dʻ Hʻ $DJ EC34ʻ F3ʻ C$J3ʻ H4ʻ Q3&H43ʻ $EOʻ 5-C N3ʻ H&ʻ F3ʻ I3$N3ʻ H4ʻ P$2C4$3ʻ $EOʻ F E2ʻ Eʻ FCʻ Nʻ Hʻ F3ʻ NHE4$4Oʻ F343H&ʻ EH Fʻ C$ED E2

#1HEʻ I4HH&ʻ H&ʻ ,HJ E33Cʻ Q3 E2ʻ E2ʻ H4ʻ H&ʻG3$ FCʻ 9$44$E Cʻ Hʻ Q3ʻ CC-3Dʻ -1HEʻ 4FNFʻ F3ʻ B$E+ʻ Hʻ 1$0

ʻ EDʻ Q3ʻ ʻ3E$N 3Dʻ *F$ʻ -1HEʻ I4HH&ʻ H&ʻ F3ʻ ; C 3EN3ʻ H&ʻ F3ʻ ,HJ E33ʻ H&ʻ $EOʻ>&3ʻ EE- OʻN43$3Dʻ FOʻ $EOʻ H&ʻ F3ʻ C$Dʻ &4Cʻ 43N 3Dʻ NCʻ H4ʻ QOʻ F3ʻ C$Dʻ 43N 3Dʻ Nʻ H&ʻ F3ʻ *3E Fʻ=3$4ʻ H&ʻ F3ʻ ʻ32Eʻ H&ʻ 8 Cʻ $ 3ʻ P$(3C Oʻ H4ʻ H&ʻ $EOʻ>&3ʻ EE- Oʻ FNFʻ J$OʻF343R $& 34ʻ Q3ʻ N43$3Dʻ QOʻ F3ʻ C$Dʻ $C 43N 3Dʻ N ʻ3 F34ʻ QOʻ F3ʻ 134CHE$ʻ 113$4$EN3ʻ H&ʻ C-NFʻ ,HJ E33ʻQ3&H43ʻ F3ʻ <&&N34ʻ H&ʻ F3ʻ C$Dʻ @HJJ CR CHE34CʻH4ʻ Eʻ N$C3ʻH& F3ʻ ,HE$113$4$EN3ʻH&ʻC-NFʻ ,HJ E33ʻQOʻ F3ʻ I4HR D-N HEʻ H&ʻ $ʻ@34 &N$3ʻ14H E2ʻ F3ʻ ; C 3EN3ʻ H&ʻC-NFʻ ,HJ E33ʻ $Cʻ Cʻ43X-43Dʻ QOʻ F3ʻC$Dʻ43N 3Dʻ NCʻ H23 F34ʻ Fʻ C-NFʻ G3N4 HEʻ $&H43C$Dʻ H4ʻ H F34ʻ ; D3EN3ʻ Hʻ F3ʻ?$ C&$N HEʻ H&ʻ F3ʻ C$Dʻ@HJJ CR CHE34CʻH4ʻH&ʻ F3ʻ<&&N34ʻ H4ʻ <&&N34Cʻ $N E2ʻ -ED34ʻ F3ʻ C$Dʻ<H 9Cʻ CHE34C(F3ʻC$Dʻ <&&N34ʻCF$ʻ F343-1HEʻ CC-3ʻ Hʻ F3ʻ I34CHEʻ H4ʻ I34CHEC 3E 3Dʻ Hʻ$EOʻ E-E Oʻ D313ED E2ʻ -1HEʻ F3ʻ>&3ʻ H&ʻC-NFʻ ,HJ E33ʻ$ʻ 9$44$Eʻ H4ʻ 9$44$E Cʻ Eʻ C-NFʻ 6H4Jʻ $?ʻ CF$ʻ Q3ʻ$114H 3DʻQOʻ F3ʻC$D

@HJ

@H J' J CC HE34C' H4' QO' F3' @H J 1 4H 34' M3E34$' H4' CC C $E' @H J 1 4H 34'
$N E2' -ED34' F3' C$ D' @H J J CC HE34C' $DD43CC3D' H' F3' @$CF 34C' H&'
F3' MH 34EH4' $ED' @H J 1$EO' H&' F3' B$E+' , '8#(% #& ' &3 ' F3' F$ & ' '
O3$4 O' I $O J 3E ' H4' I $O J 3E C' H&' F3' EE- O' F NF' CF$ ' F3' F3E'
D313ED E2' -1HE' F3' > 43' H&' C-NF' , H J E33 ' H4' -1HE' I 4HH&' H&' F3' G3$ F'
H&' F3' C$ D' , H J E33' F3E' $' 9 44E' CF$ ' Q3' CC-3D' QO' F3' C$ D' <&& N34'
&H4' F3' I $O J 3E ' H&' <E3' 6H-4 F' I $4 ' H&' F3' 3 1 43D' EE- O' F NF'
D313ED3D' -1HE' F3' > &3' H&' C-NF' , H J E33' F NF' -ED34' F3' I 4HR
C HEC' H&' F3' C$ D' N ' H&' F3' *3E F' =3$4' H&' F3' ; 3 2E' H&' % E2'
!, (!' F3' 6H-4 F' C' $ H 3D' H' Q3' N $ J 3D' QO' F3' I 34CHE' H4' I 34R
CHEC' 3E 3D' F343 H' 14H D3D' C#NF' 6H-4 F' I $4 ' CF$ ' Q3' N $ J 3D' QO'
F3' I 34CHE' H4' I 34CHEC' 3E 3D' F343 H' F E' F3' I 34 HD' 143CN4 Q3D'
QO' F3' C$ D' 43N 3D' N ' H23 F34' F' $EO' F$ & O3$4 O' I $O J 3E ' H&'
F3' C$ D' EE- O' F NF' J $O' Q3' H- C $ED E2' $' E3' * J 3' H&' F C' H4'
F34' G 3$ F' $ED' -1HE' F3' C$ D' 9 44E' H4' 9 44E C' Q3 E2' 14HD-N3D'
$ED' HD23D' $' 3' C$ D' B$E+' F3' C$ D' @$CF 34' E4' @$CF 34C' CF$ ' 1$O'
F3' ?-J' 3 143CC3D' F343 E' H' F3' I 34CHE' H4' I 34CHEC' 14HD-N E2' F3'
C$ J 3

W' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' $ ' I 34CHEC' FH' $' F3' * J 3' 8H D34C' H&'
H&' F3' 1$CC E2' H&' F C' N ' CF$ ' Q3' 8 H D34C' H&' $ED' C $ED' 1HCC3CC3D' H&' ! '
$<O' ; NF3X-34' <4D34' H4' <4D34C' &H4' H4' E' 43C13N ' H&' $EO' EE- 3C' 74D34 $ J '
HE' > 3C' N43$ 3D' QO' $EO' H&' F3' C$ D' F4C 43N 3D' N a' F343 H&H43'
1OQ 3' $' F3' '3N3 1 ' H&' 8 C' P $(3C O C' ; NF3X-34' H4' FH' $' F3' ! ' '
* J 3' H&' F3' 1$CC E2' H&' F C' N ' CF$ ' C $ED' 1HCC3CC3D' E' F3' BHH+C' F3' BHH+O' H&'
H&' F3' C$ D' MH 34EH4' $ED' @H J 1$EO' H&' F3' B$E+' , '8#(% #&' , '$EO'
EE- O' D313ED E2' -1HE' F3' > &3' H&' F3' C$ D' , H J E33' -ED34' $EO' $#>&&3 E'
N ' H4' N C' F343 H&H43' E' &H4N3' 3E$Q E2' F3' C$ D' @H J J CC HE34C' &H4' D! ' H' Q3'
F3' '3D-N HE' H&' F3' , $ HE$' G3Q ' H' 24$E' > &3' EE- 3C' CF$ ' Q3' ' $ ' '
D33 J 3D' $ED' $+3E' H' $ ' E 3E C' $ED' I -41HC3C' H' C $ED' 1HCC3CC3D' H&'
C-NF' C3 34$' $ED' F3' +3' EE- 3C' E' F3' BHH+C' H&' F3' C$ D' @H4$' > &3' 2&'
J CC HE34C' $ED' CF$ ' Q3' 3E 3D' H' $ ' F3' C3 34$' ' 2F C' * 3C ' H4 E$'
E 343C C' $ED' B3E3& C' E' $ED' H' $EO' > &3' EE- O' H*' F$ CH3 34' & 5 '
+ ED' F3 F34' C-NF' > &3' EE- O' CF$ ' Q3' J J 3D $ 3' H4' D3&3443D' H4'
F3 F34' $N -$ O' E' F3' NH-4C3' H&' I $O J 3E' $' F3' * J 3' H&' F3' 1$CC E2'
H&' F C' N ' H4' EH ' $NNH4D E2' H' F3' C3 34$' I 4H C HEC' <&' F3' C$ D'
43N 3D' N C' <4 H&' $EO' H&' F3 J ' $ED' C-NF' C3 34$' > &3' EE- 3C'
$ED' $ CH' $' > &3' EE- 3C' F NF' J $O' F343$& 34' Q3' N43$ 3D' E' 1-4R
C-$EN3' H&' F3' C$ D' 43N 3D' N ' H&' F3' *3E F' =3$4' H&' 8 C' $ 3' P $(3C O'
CF$ ' &4H J' * J 3' H' * J 3' Q3' 4$EC&34$Q 3' E' F3' BHH+C' H&' F3' C$ D'
@H J J CC HE34C' &H4' F3' '3D-N HE' H&' F3' , $ HE$' G 3Q ' H&' CH' &$4' $C'
43 $ 3C' H' $EO' ; NF3X-34' > &3' EE- 3C' H4' <4D34C' CF$ ' Q3' $CC 2E$Q 3'
$ED' CF$ ' Q3' 1$ D' H' $ED' CF$ ' Q3' 4$EC&34$Q 3' $ED' $CC 2E$Q 3' QO' F3'
I 34CHEC' 43C13N 3 O' J $ 3D' H' C-NF' EE- 3C ' H4' QO' CH J 3' I 34CHE'
D- O' $- FH4 T3D' H' 43N3 3' H4' 4$EC&34' F3' C$ J 3' $NNH4D E2' H' C-NF
6H4 J' $ED' -ED34' C-NF' '32- $ HEC' $C' CF$ ' Q3' $114H 3D' H&' QO' F3'
C$ D' @H J J CC HE34C' &H4' F3' '3D-N HE' H&' F3' , $ HE$' G3Q ' H4' QO'
F3' C$ D' @H J 1 4H 34' M3E34$' H4' CC C $E' @H J 1 4H 34' $N E2' -ED34'
F3' C$ D' @H J J CC HE34C.' I 4H D3D' $ $OC' F$ ' C-NF' EE- O' CF$ '
Q3' 4$EC&3443D' 3E 43' $& D' EH ' E' I $4 C' H4' ?F$43C' $ED' F$ ' F3'
H4 2 E$' , H J E33' H&' $EO' EE- O' CF$ ' E3 34' Q3' $4 3D' H4' NF$E23D'
EH FC $ED E2' C-NF' *4$EC&34

W' ED' Q3' '&-4 F34' 3E$N 3D' *F$' 'CF$ 'Q3' $ &-'&H4' F3' C$ D' @HJJ CC HE34C' &H4' F3' '3D-N HE' H&' F3' ,$ HE$'G3Q' H' $- FH4 T3' F3' @HJ1 4H 34' M3E34$' ,'F C' CC C $E ' H' J$+3' H-'$ED' C 2E' $EO' E3 '<4D34' E' C-NF' 6H4 J' $C' F3' C$ D' @HJ J CC HE34C' CF$ ' D 43N '$C' $?-QC - 3' &H4' $ED' E' 3-' H&' $EO' <4D34' H&' $' +3' G3CN4 1 HE' F NF' J$O' F$ 3' Q33E' HC' H4' D3C 4HO3D' H4' Q3NH J 3' D3&$N3D' H4' HQ 34$ 3D' FH-'$EO' C-NF' - FH4 O' &4H J" F3' @HJ J CC HE34C' H&' 8 C' P$(3C O C' *43$C-4O' H4' @34 & N$ 3' &4H J' $EO' 5-D23' H&' F3' @H-4'H&' ; NF3X-34' $C' C' C13N & 3D' $ED' 43X- 43D' E' F3' C$ D' 43N 3D' N' H&' F3' * 3E O' E E F' =3$4' H&' F3' '3 2E' H&' 8 C' P$(3C O' % E2' !, (!' F3' *F 4D' H4' E' $EO' @$C3' F$ 3 34' 43 $ E2' H' $EO' H&' F3' C$ D' 43N 3D' N C' -1HE' I4HH&' Q3 E2' 2 3E' H' F3' ?$ C&$N HE' H&' F3' C$ D' @HJ J CC HE34C' QO' F3' <$ F' H4' CH 3 J E' && 4 J$ HE' H' Q3' J$D3' $ED' $+3E' Q3&H43' F3' C$ D' @HJ1 4H 34' M3E34$' H4' CC C $E '@HJ1 4H 34' H4' Q3&H43' $EO' 5-C N3' H&' F3' I3$N3' H4' P$2 C 4$ 3' QO' F3' I34CHEC' $11 O E2' &H4' C-NF' E3 ' <4D34' H4' $EO' H F34' I34CHE' H&' C-NF' >HCC' H4' G3C 4-N HE' H4' I4HD-N HE' H&' F3' <4D34' E' 3-' H&' F NF' $' E3 '<4D34' C' 43X- 43D' ' $ED' $ ' C-NF' E3 '<4D34C' CH' C 2E3D' CF$ ' Q3' D33 J 3D' 2HHD' $ED' $ D' H' $ ' E 3E C' $ED' I-41HC3C' $C' &' F3' C$ J 3' F$D' Q33E' J$D3' -ED34' F3' I4H C HEC' H&' F3' C$ D' 43N 3D' N C' H4' 3 F34' H&' F3 J ' $EO' F E2' E' F3' C$ D' 43N 3D' N C' H' F3' NHE 4$4O' EH FC $ED E2

W' ED' F343$C' ' C' 3E$N 3D' QO' F3' C$ D' 43N 3D' N 'H&' F3' *3E F' =3$4' H&' 8 C' $ 3' P$(3C O' F$' F3' MH 34EH4' $ED' @HJ1$EO' H&' F3' B$E+' H&' 8#(% #&' CF$ ' N$-C3' H' Q3' J$D3' -1' H' F3' 6 & F' G$O' H&' ? #3 ' E' 3$NF' =3$4' $E' NNH-E 'H&' $ ' EE- 3C' &H4' *34 J C' H&' =3$4C' 24$E 3D' QO' F3' C$ D' @HJ J CC HE34C' &H4' F3' '3D-N HE' H&' F3' ,$ HE$' G3Q ' E' 1-4C-$EN3' H&' F3' C$ D' N ' F NF' CF$ ' F$ 3' 43 J$ E3D' -EN $ J 3D' &H4' F3' ?1$N3' H&' *F433' =3$4C' F3E' E3 '143N3D E2' F NF' EE- 3C' CH' 43 J$ E E2' -EN $ J 3D' $ED' $ 'F$ & O3$4 O' 443$4C' F343H&' CF$ 'N3$C3' H' Q3' NF$423D' -1HE' $ED' CF$ ' EH ' Q3' CC-3D' H4' C?-$Q 3' H-' H&' F3' C$ D' @HECH D$ 3D' 6-ED' &4H J' $ED' $& 34' F3' G$O' -1HE' F NF' $EO' C-NF' EE- 3C' CF$ ' F$ 3' 43 J$ E3D' CH' -EN $ J 3D ' ED' F343$C' ' C' 3 13D 3E' F$' $ ' C-NF' -EN $ J 3D' EE- 3C' &H4' *34 J C' H&' =3$4C' CFH- D' Q3' 432- $ 3D' QO' F3' C$ J 3' ' - 3C' $C' $43' D 43N 3D' QO' $E' N ' 1$CC3D' E' F3' 6 & O C F' =3$4' H&' F3' '3 2E' H&' 8 C' P$(3C O' % E2' !, (!' F3' *F 4D' E - 3D' / : ' / ' ' ,' 3), !')!' #1 ! #(' +, ' '35,#' F) ')' 2 0 &!#&1' 1) %%' ! #' 3#'% !&' , ')!' +5 '!' , ' '%! 1' 7!#' H! 1' ')!' " # ' , ' ; E2 $ED' #&' %1,' %%' <, ! ' * !1' , ' "!#! 1' #&' " % #'!1' , ' +3 1' 113!&' , ' 5 #(')!' * #' 5 %1' , '+ , ' 1' , ' /##3 !1' F) ')' 1) %%' #, ') 0!' 4!!#' &! #&!&' , ')!' 1 !' *! ,&1' ,')!' I, 11 ,#! 1' , ')!' L!&3' ,#' , ')!' E ,# %' 2 !4 =' Q3' '3E$N 3D' *F$' F3' MH 34EH4' $ED' @HJ1$EO' H&' F3' B$E+' H&' 8#(% #&' CF$ ' N$-C3' H' Q3' J$D3' -1' X-$4 34 O' $E' NNH-E ' H&' $ ' EE- 3C' &H4' *344$C' H&' =3$4C' 43$DO' 24$E 3D' H4' F NF' J$O' F343$& 34' Q3' 24$E 3D' QO' F3' C$ D' @HJ J CC HE34C' -ED34' F3' I4H C HEC' H&' F3' C$ D' 43N 3D' N ' H&' F3' *3E F' =3$4' H&' 8 C' $ 3' P$(3C O' F NF' CF$ ' F$ 3' 43 J$ E3D' -EN $ J 3D' &H4' F3' ?1$N3' H&' *3E' =3$4C' F3E' E3 ' 143N3D E2' C-NF' \-$4 34C' 43C13NR 3 O' ' $ED' $ ' C-NF' -EN $ J 3D' EE- 3C' $ED' $ ' 443$4C' F343H&' CF$ ' Q3' 4$EC&3443D' H' F3' @HJ J CC HE34C' &H4' '3D-N HE' H&' F3' ,$ HE$' G3Q ' $ED' CF$ ' Q3' C-Q(3N ' H' F3' +3' '3C 4 N HEC' $ED' '32- $ HEC' $C' $ 'H F34' @$1 $' ? HN+C' $ED' EE- 3C' $43' EH 'C-Q(3N

U ĉ K ʻ $ ĉ M # > ; > P ʻ ʻ @$1 !V !

QOʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ H&ʻ F3ʻ 6 & O C Fʻ =3$4ʻ H&ʻ 8 Cʻ C$ Dʻ P $(3C O ʻ
$EOʻ F E2ʻ Eʻ $EOʻ N ʻ Hʻ F3ʻ NHE 4$4Oʻ F343H&ʻ EH FC $ED E2

W ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ * F$ ʻ &H4ʻ F3ʻ I -41HC3ʻ H&ʻ $CN34 $ E ʻ @H J J C ʻ
E2ʻ &4H J ʻ * J 3ʻ Hʻ * +E3ʻ F3ʻ J H - E ʻ H&ʻ EE - 3Cʻ &H4ʻ > 3Cʻ 1OQ 3ʻ H&ʻ
-ED34ʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$ Dʻ C3 34$ ʻ & 4C 43N 3Dʻ N C ʻ F3ʻ @H4$1 ʻ N34
4H 34ʻ M3E34$ ʻ H4ʻ CC C $E ʻ @H J 1 4H 34ʻ $N E2ʻ -ED34ʻ F3ʻ C$ Dʻ @Hb ʻ &&&O H F3
J CC HE34Cʻ CF$ ʻ F Eʻ 6H-4 33Eʻ G$OCʻ E3 ʻ 143N3D E2ʻ F3ʻ 6 & Fʻ G$Oʻ *43$C-4O
H&ʻ ? #3 ʻ F3ʻ 6 & Fʻ G$Oʻ H&ʻ / 5 %ʻ F3ʻ 6 & Fʻ G$Oʻ H&ʻ ?3% ʻ $EDʻ F3ʻ Q3&H433 ʻ
* 3E Fʻ G$Oʻ H&ʻ 6 ' ,4! ʻ Eʻ 3$NFʻ $EDʻ 3 34Oʻ =3$4ʻ ^NH J J 3EN E2ʻ ,#ʻ F3ʻ
* 3E Fʻ G$Oʻ H&ʻ 6 ' ,4! ʻ < E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ F 4&O H ʻ H&ʻ EE - 3Cʻ
@34 &Oʻ Hʻ F3ʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ * 43$C-4Oʻ F3ʻ J H - E ʻ 1OQ 3-ED34ʻ
H&ʻ EE - 3Cʻ &H4ʻ > 3Cʻ ^& 4C ʻ D3D-N E2ʻ F343&4H J ʻ F3ʻ J H - E ʻ NF$423 ʻ 43N 3Dʻ
$Q 3ʻ HEʻ $NNH - E ʻ H&ʻ F3ʻ C3 34$ ʻ > 3Cʻ EH J E$ 3Dʻ QOʻ F3ʻ @HE J CC HE34Cʻ
H&ʻ F3ʻ * 43$C-4Oʻ -ED34ʻ F3ʻ I 4H C HECʻ H&ʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ H&ʻ F3ʻ CH &H&ʻ M ʻ +ʻ
* F 4 3 Fʻ =3$4ʻ H&ʻ % E2ʻ M3H423ʻ F3ʻ * F 4D ʻ F3ʻ F$ & O3$4 Oʻ I $O J 3E Cʻ $EDʻ F3ʻ - 4ʻ
H&ʻ F NFʻ CF$ ʻ &4H J ʻ * J 3ʻ Hʻ * J 3ʻ Q3ʻ NF423Q 3 ʻ $EDʻ F3ʻ C$ J 3ʻ $43ʻ F ʻ K UV F
F343QOʻ J $D3ʻ NF$423$Q 3 ʻ -1HEʻ F3ʻ C$ Dʻ @HECH D$ 3Dʻ 6 - ED ʻ HEʻ 3$NFʻ H&ʻ
C - NFʻ G$OCʻ 43C13N 3 O ʻ $EDʻ F3ʻ C$ Dʻ @H J J CC HE34Cʻ H&ʻ F3ʻ * 43$C-4O ʻ
H4ʻ $EOʻ * F433ʻ H4ʻ J H43ʻ H&ʻ F3 J ʻ CF$ ʻ F343-1HEʻ H4D34ʻ $EDʻ D 43N ʻ QOʻ
9 44E ʻ #ED34ʻ F3 4ʻ 8 $EDC ʻ F3ʻ ?- J Cʻ C13N & 3Dʻ &4H J ʻ * J 3ʻ Hʻ * J 3ʻ
Eʻ 3 34Oʻ C - NFʻ @34 & N$ 3ʻ Hʻ Q3ʻ CC-3Dʻ $EDʻ 1$ Dʻ H - ʻ H&ʻ F3ʻ @HECH D$ 3Dʻ
6 - EDʻ &4H J ʻ * J 3ʻ Hʻ * J 3ʻ Hʻ F3ʻ MH 34EH4ʻ $EDʻ @H J 1$EOʻ H&ʻ F3ʻ B$E+ʻ
H&ʻ 8#(% #&ʻ Hʻ Q3ʻ QOʻ F3 J ʻ 1 $N3Dʻ Hʻ F3ʻ NNH - E ʻ H&ʻ F3ʻ @H J J CC HE34Cʻ
&H4ʻ F3ʻ ' 3D - N HEʻ H&ʻ F3ʻ , $ HE$ ʻ G3Q ʻ &H4ʻ F3ʻ I -41HC3ʻ H&ʻ 1$O E2ʻ $ ʻ
C - NFʻ EE - 3Cʻ 43C13N 3 Oʻ N43$ 3Dʻ QOʻ F3ʻ C$ Dʻ & 4C 43N 3Dʻ N Cʻ H&ʻ
F3ʻ ; 2F 33E F ʻ , E3 33E F ʻ $EDʻ * F 4 3 Fʻ =3$4Cʻ H&ʻ H / #(ʻ ! , (!ʻ F3ʻ
?3NHED ʻ $EDʻ QOʻ F3ʻ 6 & F ʻ ; 2F 33E F ʻ $EDʻ * 3E O E E Fʻ =3$4Cʻ H&ʻ
% E2ʻ M3H423ʻ F3ʻ * F 4D

W ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ * F$ ʻ $ ʻ > 3 34Cʻ H&ʻ H4E3Oʻ &4H J ʻ 3 34Cʻ H&ʻ
* J 3ʻ Hʻ * J 3ʻ Eʻ &H4N3 ʻ F NFʻ CF$ ʻ F$ 3ʻ Q33Eʻ 24$E 3Dʻ &H4ʻ F3ʻ I -41HC3ʻ H4E3Oʻ Hʻ
H&ʻ 4$EC&344 E2ʻ H4ʻ C3 E2ʻ H4ʻ 43N3 E2ʻ C - NFʻ > &3ʻ ; C $ 3ʻ CHʻ 1 -4NF$C3Dʻ M J E-3 $ Dʻ
-ED34ʻ $EOʻ H&ʻ F3ʻ C$ Dʻ 43N 3Dʻ N C ʻ CF$ ʻ Q3ʻ $ Dʻ $EDʻ 3&&3N -$ ʻ &H4ʻ F3ʻ &H4ʻ 43N3 E2ʻ
I -41HC3Cʻ H&ʻ F Cʻ N ʻ $EDʻ 43N3 E2ʻ F3ʻ C$ J 3ʻ -ED34ʻ F3ʻ I 4H C HECʻ H&ʻ EE - 3Cʻ
F Cʻ N ʻ $EOʻ F E2ʻ Eʻ $EOʻ N ʻ H4ʻ N C ʻ H4ʻ F Cʻ N ʻ Hʻ F3ʻ NHE 4$4Oʻ -ED34ʻ & Cʻ
EH FC $ED E2 N

W ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ * F$ ʻ F3ʻ @H J J CC HE34Cʻ &H4ʻ F3ʻ 11H E ʻ
' 3D - N HEʻ H&ʻ F3ʻ , $ HE$ ʻ G3Q ʻ $43ʻ F343QOʻ 3 J 1H 343Dʻ &4H J ʻ * J 3ʻ H&
Hʻ * J 3ʻ Hʻ $11H E ʻ C - NFʻ < && N34C ʻ @ 34+C ʻ $EDʻ H F34ʻ I 34CHECʻ $Cʻ J $Oʻ bbN34C ʻ KNʻ
Q3ʻ E3N3CC$4Oʻ &H4ʻ N$440 E2ʻ F Cʻ N ʻ E Hʻ 3 33- H J ʻ $EDʻ $Cʻ J $Oʻ Q3ʻ
$114H 3Dʻ H&ʻ QOʻ F3ʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ * 43$C-4O

W ʻ EDʻ F343$Cʻ ʻ Cʻ 3 13D 3E ʻ Hʻ 2 3ʻ 32$ ʻ ' 3 J 3D 3Cʻ Hʻ I 34CHECʻ ?- ʻ KN ʻ J $Oʻ
3E 3Dʻ Hʻ $EOʻ EE - 3Cʻ 4$EC&3443Dʻ -ED34ʻ F3ʻ I 4H C HECʻ H&ʻ F Cʻ 3 ʻ OC& - 3Dʻ
&4H J ʻ F3ʻ BHH+Cʻ H&ʻ F3ʻ MH 34EH4ʻ $EDʻ @H J 1$EOʻ H&ʻ F3ʻ B$E+ʻ H&ʻ
8#(% #&ʻ Hʻ F3ʻ BHH+Cʻ H&ʻ F3ʻ @H J J CC HE34Cʻ &H4ʻ F3ʻ ' 3D - N HEʻ H&ʻ H4ʻ CC C $E ʻ
F3ʻ , $ HE$ ʻ G 3Q ʻ Q3ʻ ʻ F343&H43ʻ 3E$N 3D ʻ * F$ ʻ Eʻ $ ʻ @$C3Cʻ Eʻ @H J 1 4H 34ʻ
F NFʻ $EOʻ I 34CHEʻ 3E 3Dʻ Hʻ H4ʻ E 343C 3Dʻ Eʻ $EOʻ EE - Oʻ 4$EC&34$Q 3ʻ
Eʻ F3ʻ BHH+Cʻ H&ʻ F3ʻ MH 34EH4ʻ $EDʻ @H J 1$EOʻ H&ʻ F3ʻ B$E+ʻ H&ʻ 8#(% #& ʻ B$E+
, ʻ Eʻ $EOʻ EE - Oʻ 43NH4D3Dʻ Eʻ F3ʻ BHH+Cʻ H&ʻ F3ʻ C$ Dʻ -D H4ʻ H&ʻ 8 Cʻ Q$ 3Q33E
P $(3C O Cʻ ; NF3X-34 ʻ J 2F ʻ F$ 3ʻ EC - 3D ʻ $EOʻ N HE ʻ ?- ʻ H4ʻ 32$ ʻ $Q3 & Q3
ʻ I 4HN33D E2ʻ `

43J$E3D' E' F3 4' BHH+C

I4HN33D E2' E' $EO' @H-4'H&'>$ 'H4' ;X- O'&H4' H4' E' 43C13N'H&' $EO' N ' P$ 34' H4' *F E2' DHE3' QO' F3' C$D' MH 34EH4' $ED' @HJ1$EO'H4' QO' F3' C$D' -D H4' H4' F3 4' <&& N34C' H4' $EO' H F34' I34CHE' H4' I34CHEC' E' 43 $ HE' H' $EO' C-NF' EE- O' H4' $EO' &H423D' H4' H F34' 32$' *4$EC&34' F343H&' C-NF' N HE'?- 'H4' 32$' I4HN33D E2' J$O' Q3' EC - 3D' $ED' N$44 3D' HE' 2 EC' F3' @HJ1 4H 34' M3E34$' H&' F3' C$D' @HJJ CC HE34C' H4' F3' CC C $E' @HJ1 4H 34' M3E34$' H&' F3' C$D' @HJJ CC HE34C' &H4' F3' * J3' Q3 E2' $ED' G$J$23C' 43NH 343D' H4' H F34' '3J3DO' 2 3E' ' $EO' @H-4'H&'>$ 'H4' ;X- O' 2 EC' C-NF' @HJ1 4H 34' H4' CC C $E' $C' J 2F' F$ 3' Q33E' 3NHO343D' H4' 2 3E' 2 EC' F3' MH 34EH4' $ED' @HJR 1$EO' H&' F3' B$E+' H&' 8#(% #&' E' 3$C3' F3' C$D' EE- O' F$D' 43J$ E3D' 4$EC&34$Q 3' E' F3' BHH+C' H&' F3' MH 34EH4' $ED' @HJ1$EO' H&' F3' B$E+' H&' 8#(% #&' H4' 2 EC' F3' C$D' -D H4' E' N$C3' F3' C$D' EE- O' C HHD' 43NH4D3D' E' F3' BHH+C' H&' F3' C$D' -D H4'($ED' $ 'GJ23C' $ED' ?-JC' H&' P HE3O' $ED' @HC C' 43NH 343D' E' $EO' C-NF' ?- 'H4' I4HN33DR E2' CF$ ' Q3' 1$D' QO' F3' <4D34' H&' F3' @HJJ CC HE34C' H&' F3' *43$R C-4O' H4' $EO' *F433' H4' JH43' H&' F3J' &H4' F3' * E$3' Q3 E2'^ F NF' <4D34' F3' C$D' @HJJ CC HE34C' $43' F343QO' 43X- 43D' H' 2 3 d' H-' H&' $EO' H&' F3' DC' $ED' ?-11 3C' H 3D' QO' I$4 $J3E' &H4' F3' I-Q N' ?34 N3.' I4H D3D' $ $OC' F$' F3' BHDO' H4' MHHDC' @F$ 3C'>$EDC' H4' *3E3J3E C' H&' C-NF' @HJ1 4H 34' H4' CC C $E' @HJ1 4H 34' CF$ ' EH ' QO' 43$CHE' H&' F C' Q3 E2' G3&3ED$E ' -ED34' F3' I4H C HEC' H&' F C' N ' E' $EO' C-NF' ?- ' N HE' H4' I$4 O' E' $EO' C-NF' I4HN33D E2' Q3' $Q 3' H' Q3' $43C 3D' C3 T3D' D3 $ E3D' H4' $+3E' E' ; 3N- HE' ' $ED' EH' C-NF' ?- ' CF$ ' Q 3' HE' F3' G3$ F' H4' '3JH $' &4HJ' <&& N3' H&' F3' @HJ1 4H 34' H4' CC C $E' @HJ1 4H 34' 2 EC' FHJ' F3' C$D' ?- ' $C' F$D' Q-' CF$ 'NHE E-3' E' &- '6H4N3' 2 EC' F C' ?-NN3CCH4

#, ' D,' ' '(' "

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' EH' G3N 4 HE' 43X- 43D QO' F C' N' H' Q3' J$D3' H' F3' @HJJ CC HE34C' &H4' F3' '3D-N HE'H&' F3' ,$ HE$' G3Q 'EH4' $EO' 9$44$E '@34 & N$ 3' && D$ '<4' && 4J$ HE' H4' H F34' EC 4- J3E '^C$ 3' $ED' 3 N31' $ '>3 34C' H&' H4E3O' F NF' CF$ ' H4' J$O' Q3' 24$E 3D' &4HJ' * J3' H' * J3' &H4' F3' I-41HC3C' H&' F C' N _' J$D3' H-' QO' H4' -ED34' F3' - FH4 O' H&' F3' C$D' @HJJ CC HE34C' CF$ ' Q3' $Q 3' H' F3' I$OJ3E' H&' $EO' ? $J1' G- O

IH 34C' H&' *43$C-4O' $ED' -D H4' H&' ; NF3X-34' $C' H EE-R 3C' -ED34' & 4C 43N 3D' N ?(H N3$C3' HE' ! F 5- O' $ED' FHC3' H&' F3' B$E+' EED34 <M ' KN' H 3 1 43 HE' S[F 5- O' ZSU

W ' ED' Q3' ' 3E$N 3D' *F$' $ ' F3' IH 34C' $ED' - FH4 3C' H&' F3' @HJJ CC HE34C' H&' F3' *43$C-4O' $ED' H&' F3' -D H4' H&' F3' ; R NF3X-34' CH' &$4' $C' F3' C$J3' $43' $11 N$Q 3' H' F3' PE23J3E' $ED' I$OJ3E ' H4' H' $EO' H F34' P$ 34' H4' *F E2' 43 $ E2' H' $EO' > &3' EE- 3C' N43$ 3D' QO' F3' C$D' & 4C 43N 3D' N C' CF$ ' N3$C3' $ED' D3 34J E3' HE' $ED' &4HJ' $ED' $& 34' F3' 6 & F' G$O' , '?3% '<E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O H' $ED' $ ' F3' IH 34C' $ED' - FH4 3C' H&' F3' MH 34EH4' $ED' @HJ1$EO' H&' F3' B$E+' H&' 8#(% #& 'CH' &$4' $C' F3' C$J3' $43' $11 N$Q 3' H' F3' C$D' 43N 3D' N ' H&' F3' *3E F' =3$4' H&' 8 C' $ 3' P$(3C O' % E2' !, (!' F3' 6H-4 F' H4' H' $EO' H F34' N ' 3E$Q E2' F3' @HJJ CC HE34C' H&' F3' ,$ HE$' G3Q ' H' 24$E ' > &3' EE- 3C'^3 N31' $C' E' F C' N'14H D3D_' CF$ ' N3$C3' $ED' D3 34J E3' HE' $ED' &4HJ' $ED' $& 34' F3' *F 4 3 F' G$O' H&' ?3#!' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O H

IH 34C' H&' -D H4' H&' ; NF3X-34'

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' $ ' F3' IH 34C' $ED' - FH' 4 3C' F NF' $43' QO' F3' C$D' 43N 3D' N C' H4' $EO' H4' 3 F34' H&' F3J'

43C13N 3 O' 2 3E' H' F3' @H4$ CC HE34C' H&' F3' *43$C-40' H4' H' F3' $ED' MH 34EH4'
-D H4' H&' F3' ; NF3X-34' H4' H' F3' MH 34EH4' $ED' @H J 1$EO' H&' F3'
B$E+' H&' 8#(% #&' H4' H' F3 4' 43C13N 3' <&& N34C' H4' $EO' <&& N34' H4' 3>4N C3D'
?34 $E' $N E2' -ED34' F3 J' 43C13N 3 O' E' 43 $ HE' H' $EO' & E- O' QO' F3' @H4H
QO' F C' N ' 1 $N3D' -ED34' F3' P E23 J 3E' H&' F3' @H J J CC HE34C' &H4' J CC HE34C'
F3' ' 3D-N HE' H&' F3' , $ HE$' G3Q ' H4' H' $EO' P $ 34' H4' * F E2'
43X- 43D' QO' $EO' H&' F3' C$ D' 43N 3D' N C' H' Q3' DHE3' QO' F3' C$ D' @H J R
J CC HE34C' H&' F3' *43$C-40' H4' QO' F3' C$ D' -D H4' H4' QO' F3' C$ D'
MH 34EH4' $ED' @H J 1$EO' CF$ ' $ED' J $O' Q3' -C3D' $ED' 3 34N C3D' $ED'
1- ' E' &H4N3' &H4' $ ' F3' I -41HC3C' H&' F C' N ' $ED' &H4' F3' J H43'
3&&3N -$' N$440 E2' F3' I 4H C HEC' F343H&' E H' 3 3N- HE' QO' F3' C$ D'
@H J J CC HE34C' &H4' F3' ' 3D-N HE' H&' F3' , $ HE$' G3Q ' H4' QO' $E('
B34CHE' $N E2' -ED34' F3 4' - FH4 O' $C' &- O' H' $ ' E 3E C' $ED' I -4R
1HC3C' CH' &$4' $C' F3' C$ J 3' $43' EH' $ 343D' QO' F C' N ' $C' &' F3' C$ J 3'
343' C3 34$ O' 43 3E$N 3D' E' F C' N ' $ED' 3 143CC O' 2 3E' H' F3' C$ D'
@H& J CC HE34C

W W' ED' Q3' ' &-4 F34' 3E$N 3D' * F$' &' $EO' I 34CHE' H4' I 34CHEC' I 3E$ O' HE'
CF$ ' &H423' NH-E 34&3 ' H4' $ 34' H4' CF$ ' N$-C3' H4' 14HN-43' H' Q3' &H423D' &H42 E2' ' 3'
NH-E 34&3 3D' H4' $ 343D' H4' CF$ ' +EH E2 O' 14' &- O' $N' H4' $CC C'
E' F3' &H42 E2' NH-E 34&3 E2' H4' $ 34 E2' $EO' G3N 4 HE' 9 44E
<4D34' H4' H F34' EC 4- J 3E ' H4' $EO' && D$ ' H4' && 4 J $ HE' 43X- 43D' 63 HEO '
H' Q3' J $D3' QO' F C' N ' H4' QO' F3' @H J J CC HE34C' &H4' F3' ' 3D-N HE' 1-E CF$Q 3'
H&' F3' , $ HE$' G3Q ' -ED34' $EO' H&' F3' I 4H C HEC' H&' F C' N ' H4' =>' G3$ F'
-ED34' $EO' - FH4 O' 2 3E' H' F3 J' &H4' F$' I -41HC3' ' H4' CF$ ' , (! '
NH-E 34&3 ' H4' $ 34' H4' CF$ ' N$-C3' H4' 14HN-43' H' Q3' &H423D' NH-E 34R
&3 3D' H4' $ 343D' H4' CF$ +EH E2 O' H4' &- O' $N' H4' $CC C' E' F3'
&H42 E2' NH-E 34&3 E2' H4' $ 34 E2' $EO' @34 & N$ 3' H4' <4D34' H&' $EO'
<&& N34' H&' F3' @H J J CC HE34C' &H4' F3' ' 3D-N HE' H&' F3' , $ HE$' G3Q '
H4' F3' , $ J 3' H4' , $ J 3C' H&' $EO' I 34CHE' H4' I 34CHEC' E' H4' H' $EO' * 4$EC&34'
H&' $EO' EE- O' H4' E' H4' H' $EO' @34 & N$ 3' <4D34' 9 44E ' H&' H F34'
EC 4- J 3E ' &H4' F3' I $O J 3E ' H&' P HE3O' &H4' F3' I -4NF$C3' H&' $EO'
EE- O' -ED34' F3' I 4H C HEC' H&' F C' N ' D4' E' H4' H' $EO' * 4$EC&34'
H4' NN31 $EN3' H&' $EO' C-NF' EE- O' E' F3' BHH+C' H&' F3' @H J J CR
C HE34C' &H4' F3' ' 3D-N HE' H&' F3' , $ HE$' G3Q ' H4' E' H4' H' $EO'
' 3N3 1 ' H4' G CNF$423' &H4' $EO' C-@F' EE- O' H4' E' H4' H' $EO' ' 3N3 1 '
H4' G CNF$423' &H4' $EO' I $O J 3E ' H4' I $O J 3E C' D-3' H4' H' Q3NH J 3' D-3'
F343HE' H4' E' H4' H' $EO' >3 34' H&' H4E3O' H4' H F34' - FH4 O' H4'
EC 4- J 3E ' H' $- FH4 T3' H4' 1-41H4 E2' H' $- FH4 T3' F3' * 4$EC&34' H4'
NN31 $EN3' H&' $EO' EE- 3C' H4' $EO' > &3' EE- O' H&' F$ CH3 34'
+ ED' H4' $- FH4 T E2' H4' 1-41H4 E2' H' $- FH4 T3' F3' ' 3N3 1 ' H&' $EO'
> &3' EE- O' H&' F$ CH3 34' % ED' 24$E 3D' -ED34' $EO' H&' F3' C$ D'
43N 3D' N C' H4' F C' N ' H4' $EO' I $O J 3E ' H4' I $O J 3E C' D-3' H4' H'
Q3NH J 3' D-3' F343HE' (H4' &' $EO' I 34CHE' H4' I 34CHEC' CF$ ' &- O'
&$ C3 O' $ED' D3N3 &- O' 134CHE$ 3' $EO' 4-3' $ED' 43$' , H J E33' H4' , H J R
E33C' H4' CF$ ' &- O' - 34' H4' D3 34' H4' 14HD-N3' H' $EO' I 34CHE' H4'
I 34CHEC' $N E2' -ED34' F3' - FH4 O' H&' F C' N ' $EO' &H423D' ' 32 C 34'
H4' @H1O' H&' ' 32 C 34' H&' $EO' B 4 F' B$1 C J ' H4' P $44 $23' H4' $EO' &H 23D'
G3N 4 HE' && D$ ' H4' && 4 J $ HE' +EH E2' F3' C$ J 3' H' Q3'
&H423D' NH-E 34&3 3D' H4' $ 343D' F' E 3E ' H' D3&4$-D' 8 C' P $(3C O
8 C' 8 3 4C' $ED' ?-NN3CCH4C' H4' F' E 3E ' H' D3&4$-D' $EO' I 34CHE' , '
I 34CHEC' FH J CH3 34' F3E' $ED' E' 3 340' C-NF' @$C3' $ ' $ED' 3 340'

! ' UcKS/M#> ;>P ' ' @$1 !V

I34CHE $ED I34CHEC CH H&&3ED E2 '$ED Q3 E2 $ &- O NHE N 3D F343H&'
CF$ 'Q3 $D(-D23D 2- O H& 63 HEO '$ED C-&&34 G3$ F

) +$ $ WW' ED Q3 '&-4 F34 31$@ 3D' *F$' F3 >H4D 8 2F *43$C-434'
H4D34 CC-3C c7' @HJJ CC HE34C H& 8 C P$(3C O C *43$C-40' H4 $EO *F433 H4
JH43 H& F3J '&H4 F3 * J3 Q3 E2' J$O H4D34 $ED D 43N' H Q3 CC-3D
?$$4 3C' $ED 1$D' H-' H& F3 6-ED -1HE F3F F3 ;C $Q CFJ3E 'H& F3
@HJJ CC HE34C &H4 F3 '3D-N HE H& F3 ,$ HE$ 'G3Q ' C NF423Q 3'
$EO ?-J' H4 ?-JC H& PHE3O &H4 F3 I$OJ3E ' ?$ $4 3C H <&& N34C
$ED @ 34+C $N E2 E F3 ; 3N- HE H& F C N '$ED &H4 D CNF$42 E2
C-NF EN D3E $' ; 13EN3C $C CF$ ' E3N3CC$4 O $ 3ED F3 ; 3N- HE
F343H&' E C-NF P$EE34 $C F3 C$ D >H4D 8 2F *43$C-434' H4 @HJR
J CC HE34C H& F3 *43$C-40' H4 $EO *F433 H4 JH43 H& F3J ' CF$ '&4HJ'
* J3 H * J3 F E+'& '$ED 43$CHE$Q 3'$ED $ CH &H4 F3 I$OJ3E 'H&'$ '
C-NF GJ23C '@HC C' @F$423C '$ED ; 13EN3C $C CF$ ' Q3 43NH 343D
2 EC ' H4 1OQ 3 -ED34 F3 I4H C HEC H& F C N ' QO F3 @HJ1R
4H 34 M3E34$' H4 CC C $E '@HJ1 4H 34 M3E34$' H& F3 C$ D @HJR
J CC HE34C' F NF $C J3E HE3D G$J$23C '@HC C' @F$423C' $ED
; 13EN3C CF$ ' Q3 1O9 3 $ED 1$ D H-' H& $EO DC H4 ?-11 3C
' 24$E 3D QO I$4 $J3E '$ED $11 N$Q 3 H $EO 1-Q N ?34 N3

N' J$O Q3 WW ' ED Q3 '&-4 F34 3E$N 3D' *F$' F C N' J$O F3 $J3ED3D'
$ 343D H4 $ 343D' H4 4313$ 3D QO $EO N' H4 N C H Q3 1$CC3D E F C 143C3E'
4313$ 3D' ?3CC HE H& I$4 $J3E

>< ,G< ,'.' I4 E 3D QO ' ' $ED ' '
I4 E 34C H F3 % E2 C JHC ' ; N3 3E ' P$(3C O' ZSU

, , <ʻ ? ; M# , G<ʻ Kʻ * ; ' * <

M # > * ; > P ʻ ʻ ' ; M ?

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EC 3$Dʻ H&ʻ *) % 5 1 , F # ʻ I Fʻ ? 3 % ʻ ZSU m

9 8 ; ' ; ?ʻ ʻ Cʻ 3 13D 3E ʻ F$ ʻ F3ʻ CC T3Cʻ &H4ʻ F3ʻ # 1ʻ I , 3# ʻ Eʻ F$ ʻ I $4 ʻ H&ʻ F3ʻ #E 3Dʻ % E2DH J ʻ N$ 3Dʻ $! % #&ʻ Q3ʻ F3 Dʻ * N3ʻ Eʻ 3$NFʻ =3$4ʻ Eʻ F3ʻ *H Eʻ H&ʻ 73%% , , ! ʻ EC 3$Dʻ H&ʻ Eʻ F3ʻ *H Eʻ H&ʻ *) % 51 , F#ʻ Eʻ F3ʻ C$ Dʻ #(1ʻ I , 3# EDʻ F343$Cʻ F3ʻ FH D E2ʻ F3ʻ C$ J 3ʻ $Cʻ $&H43C$ Dʻ H- Dʻ Q3ʻ NHED-N 3ʻ Hʻ F3ʻ J H43ʻ C133DOʻ $EDʻ 3&&3N 3ʻ $EDʻ D-3ʻ D J E C 4$ HEʻ H&ʻ5-C N3ʻ F343 Eʻ ʻ Q3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ J HC ʻ ; N3 3E ʻ P $(3C O ʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3E ʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ ʻ $EDʻ * 3 J R 1H4$ ʻ $EDʻ @H J J HEC ʻ Eʻ F Cʻ 143C3E ʻ I $4 $ J 3E ʻ $CC3 J Q 3D ʻ $EDʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$ J 3ʻ * F$ ʻ &4H Jʻ $EDʻ $& 34ʻ F3ʻ 6 4C ʻ G$Oʻ H&ʻ ?3% ʻ < E3ʻ CC T3Cʻ H Q3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ F 4 0 & 3ʻ F3ʻ C$ Dʻ *H Eʻ H&ʻ 73%% , , ! ʻ F3 Dʻ E&- -43ʻ $&H43C$ Dʻ CF$ ʻ Q3ʻ D33 J 3Dʻ $EDʻ $+3Eʻ Hʻ Q3ʻ F3ʻ ?F 43ʻ *H Eʻ H&ʻ F3ʻ C$ Dʻ @H-E O ʻ $EDʻ F$ ʻ $ ʻ F3ʻ @H J J CC HECʻ H&ʻ CC T3ʻ $EDʻ , C ʻ I 4 -C ʻ $EDʻ 1F C H Eʻ $ ʻ 23E34$ ʻ @H J J CC HECʻ H&ʻ < O34ʻ $EDʻ * 34 J E34 ʻ $EDʻ $ ʻ @H J J CC HECʻ ʻ H&ʻ M3E34$ ʻ M$H ʻ G3 340 ʻ F NFʻ CF$ ʻ Q3ʻ $11H E 3Dʻ Hʻ Q3ʻ F3 Dʻ $EDʻ 3 3R N- 3Dʻ &H4ʻ F3ʻ C$ Dʻ #(1ʻ I , 3# ʻ CF$ ʻ Q3ʻ F3 Dʻ $EDʻ 3 3N- 3Dʻ &H4ʻ F3ʻ C$ Dʻ # 1ʻ I , 3# ʻ $ ʻ $EDʻ Eʻ F3ʻ C$ Dʻ *H Eʻ H&ʻ 73%% , , !ʻ =ʻ $EDʻ F$ ʻ F3ʻ C$ Dʻ @H J J CC HECʻ &H4ʻ F3ʻ C$ Dʻ # 1ʻ I , 3# ʻ CF$ ʻ Q3ʻ $11H E 3Dʻ $EDʻ 3 3R N- 3Dʻ $ ʻ $EDʻ Eʻ F3ʻ C$ Dʻ *H Eʻ H&ʻ 73%% , , !ʻ * N3ʻ Eʻ 3 340ʻ =3$4 ʻ ^ F$ ʻ Cʻ Hʻ C$O _ʻ $ ʻ H4ʻ $QH- ʻ F3ʻ -C-$ ʻ * J 3Cʻ &H4ʻ FH D E2ʻ F3ʻ >3E ʻ $EDʻ

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?- J J34 CC T3C 43C13N 3 O $EO >$? $ - 3 #C$23 P$ 34 H4 *F E2 H F3 NHE 4$4O EH FC $ED E2

I4H CH&H4 FH D E2 CR C T3C E N$C3 H& NN D3E H F3 *H E H& *- $JHH43

I4H D3D $ $OC $ED C F343QO 3E$N 3D $ED D3N $43D *F$ & $ $EO * J3 F343$& 34 F3 C$ D *H E H& 73%% , , ! CF$ Q3 FH O -E& &H4 FH D E2 CC T3C F343 QO NN D3E H& 6 43 H4 QO J 3$EC H& $EO NHE $2 H-C H4 31 D3 J N$ G C 3E 134 H4 QO 43$CHE H& $EO @ * - J - C H4 G CH4D34 H4 F3 G$E234 H4 43$CHE$Q 3 1143F3EC HE F343H& H4 QO 43$CHE H& $EO H F34 @$-C3 H4 ; 23ENO F3 C$ J 3 H4 $EO H& F3 $&H43C$ D P$ 34C H Q3 J $D3 N $113$4 Q3&H43 F3 >H4D 8 2F @F$ER N3 H4 H4 >H4D %33134 H4 >H4DC @H J J CC HE34C &H4 +331 E2 F3 M43$?3$ H& $!% #& &H4 F3 * J 3 Q3 E2 F$ F3E $ED E C-NF @$C3C HE O CF$ $ED J $O Q3 $ &- H $ED &H4 F3 C$ D >H4D 8 2F @F$EN3 H4 H4 >H4D %33134 H4 >H4DC @H J J CC HE34C &H4 +331 E2) ! M43$?3$ H& $!% #& &H4 F3 * J 3 Q3 E2 F F3 D N3 H& F3 5-C N3C H& CC T3 &4H J * J 3 H * J 3 E $ED D-4 E2 F3 @HE E-$EN3 H& C-NF 43C13N 3 ; 23EN 3C HE O $ED &H4 $ED $ EH H F34 * J 3 H4 * J 3C H $11H E CH J 3 NHE 3E 3E I $N3 F E F3 C$ D J 2 @H E&(& &H4 FH D E2 F3 C$ D CC T3C $ED 3$NF H4 3 F34 H& F3 J EC 3$D H& FF C$ D *H E H& 73%% , , ! $EO F E2 E F C 1(3C3E N NHE $ E3D H F3 NHE 4$4O EH FC $ED E2

*- $JHH43 H Q3 D33 J 3D $ *H E F E F3 P3$E E2 H& . :

8 ; ED Q3 &-4 F34 3E$N 3D *F$ F3 C$ D *H E H& 73%% , , ! CF$ &4H J $ED $& 34 F3 1$CC E2 H& F C N Q3 D33 J 3D $ED $+3E H Q3 &H4 F3 I -411C3C $&H43C$ D $ *H E H4 I $N3 &H4 FH D E2 F343$ F3 CC T3C H& C$ D @H-E O I4H C HE J $O Q3 E $D3 QO $ C-NF 9 $OC $ED P 3$EC $C $43 143CN4 Q3D &H4 14H D E2 &H4 F3 FH D E2 H& F3 CC T3C H& $EO @H-E O @H-E O H& $ @ O H4 @H-E O H& $ *H E -ED34 $ED QO 4 -3 H& $E N 1$CC3D E F3 6 & O F 4D =3$4 H& F3 3 2E H& 8 C P$(3C O % E2 M3H423 F3 *F 4D E - 3D E N H ! 3) ! L!(3% ,#1 ,) !) 3 #(#& !5 #(V I ,3 ,31!1 #& +!11 ,#1 ,31!1 # !) J /

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' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' ! , (!') !' * F 4D ' E R
- 3D' / #' / ' ' ,' !#&' #&' !#&! ' , !' ! ! ' 3 %' #' / ' ' !VMS@ S '
5 11!&' #') !' %31 ' +!11 ,#' , ' * % !# ' , ' 43 %& #(' #&' 5 , , #('
) !' #(' , ' && ,# %' I) 3 ') !1' #' 5,53%,31' * 1) !1' F343QO' ' C'
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N ' F' N34 $ E' @HEC3E C' E' F3' EH 43N E2' N ' J 3E HE3D' H4'
43&3443D' H ' H' -E 3' $ED' NHECH D$ 3' NHE 2-H-C' I $4 C' H&' I $4 CF3C'
$ED' ; 4$ 1$4HNF $ ' I $N3C' E H' $' C31$4$ 3' $ED' D C EN ' G C 4 N ' &H4'
$ ' ; NN 3C $C N$ ' I -41HC3C ' $ED' H' J $+3' M4$E C' H4' >H$EC' H $4DC F3'
Q- D E2' H&' $EO' @F$13 ' H4' @F$13 C' E' $ ' C-NF' G C 4 N ' $ED' H' NHER
C - 3' $EO' C-NF' G C 4 N ' $' NHECH D$ 3D' @F$13 4O$ED' F$ ' $ ' C-NF'
@F$13 4 3C' CFH- D' Q3' D33 J 3D' H' Q3' B3E3& N3C ' $ED' Q3' C-Q(3N ' H' F3'
5-4 CD N HE' H&' F3' B CFH1' $ED' 4NFD3$NHE' F E' FHC3' G HN3C3'
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ED F343$C GH-Q C F$ 3 $4 C3E H-NF E2 C-NF 5-4 CD N HE E F3 @$C3 H& @-13 C H4 G C 4 N C C -$ 3D FH O H4 E 1$4 F E 3 3 J 1 H4 13N- $4 5-4 CD N HEC Q3 F343&H43 3E$N 3D QO F3 % E2 C J HC ; N3 3E P $(3C O QO $ED F F3 D N3 $ED @HEC3E H& F3 >H4DC ?1 4 -$ $ED *3 J 1H4$ $ED @H J J HEC E F C 143C3E I $4 $ J 3E $CC3 J Q 3D $ED QO F3 - FH4 O H& F3 C$ J 3 * F$ 3 34O C-NF @F$13 $ED G C (N F3 F34 C -$ 3D FH O H4 E 1$4 F E $EO 3 3 J 1 H4 13N- $4 5-4 CD N HE CF$ Q3 C-Q(3N H F3 5-4 CD N HE H& F3 B CFH1 $ED 4NFD3$NHE F E F3 > J C H& FHC3 G HN3C3 $ED 4NFD3$NHE4O F3 $4 H& $EO C-NF @F$13 CF$ Q3 HN$ O C -$ 3 E $C &- $ED $ J 1 3 $ P $EE34 $C H- D Q3 & EH I $4 H& C-NF @F$13 4O 343 F E CH J 3 3 3 J 1 <4 13N- $4 5-4 CD N HE $ED E 3 34O C-NF @$C3 $ H F34 ; NN 3C $C N$ 5-4 CD N HE H 34 F3 C$ D @F$13 $ED @F$13 4O CF$ FH O N3$C3 $ED EH H F34 C-NF 5-4 CD N H CF$ Q3 3 34N C3D E F3 C$ D @F$13 4O C$ 3 $ED 3 N31 F3 5-4 CD N HE H& F3 B CFH1 $ED 4NFD3$NH1 $C $&H43C$ D $EO >$ #C$23 H4 @-C H J H F3 NHE 4$4O EH FC $ED E2

@F$13 C F E 3 R 3 J 1 H4 13N- $4 5-4 CD N HEC H Q3 C-Q(3N H F3 B CFH1 F E FHC3 G HN3C3 F3 $4 C HR N$ O C -$ 3

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1 E' E ' &H4' $QH CF E2' F3' I - E CF J 3E ' H&' G3$ F' E' N34 $ E' @$C3C ' $ED' C - QC - E2' $' 3CC34' I - E CFR J 3E ' E' 3 - ' F343H&' I F' ZSU m

> 8 ; ' ; ?' QO' $E' N ' 1$CC3D' E' F3' ?3 3E F' $ED' ; 2F F' =3$4C' H&' F3' ' 3 2E' H&' % 2' ! , (!' F3' 6H - 4 F' E - 3D' / #' / ' ' , ' ' ,#1,% & #(' #&' !#& #(')!' < F1' #' ; E2 $ED' 'KZ M' ' !% 0!' ,' < '!# ' #&' ,)! ' 6 !#'!1' ',##!' !&')! !F)' ' C' N'UV' $ J HE2C ' H F34' F E2C' 3E$N 3D' F$ ' &' $EO' I 34CHE' CF$ 'C 3$' E' $EO' G 3 E2' 8 H - C3' $EO' @F$ 3 ' P HE30 ' H4' $ -$Q 3' ?3N - 4 O' H' F3' $ -3' E' F3' FH 3' H&' 6 3' I H - EDC' H4' J H43 ' 3 340' C - NF' <&&3ED34' Q3 E2' NHE N 3D' F343H&' CF$ ' C -&&34' G3$ F' $C' $' 6 3 HE ' $ED' ' C' $ CH' QO' ' F3' C$ D' N ' 3E$N 3D' F$ ' &' $EO' I 34CHE' CF$ 'C 3$' $EO' 8 H4C3 ' P $43 M3 D E2 ' @H ' H4' 6 O ' H4' $EO' B - ' @H ' < ' 8 3 &34 ' H4' @$ & ' H4' $EO' ' $ J ' ; 3 ' ?F331 ' H4' >$ J Q ' H4' CF$ ' &- O' + ' $EO' H&' C - NF' @$ 3' F' E 3E ' H' C 3$ ' F3' @$4N$CC' H4' ?+ E' H4' $EO' I $4 ' H&' F3' @$ 3' CH' F 3D ' 3 340' C - NF' <&&3ED34' CF$ ' Q3' 2 - O' H&' 63 HEO ' $ED' Q3 E2' NHER N 3D' F343H&' CF$ ' C -&&34' G3$ F' $C' $' 6 3 HE .' ED' F343$C' QO' $E' N ' 1$CC3D' E' F3' , E F' =3$4' H&' F3' C$ J 3' ' 3 2E ' E - 3D' / #' / ' U4 ' V' M' ! ' ' ,#1,% & #(' ` &' !#& #(')!' < F1' #' 43 $ED' !% 0!' ,' < '!# ' #&' ,)! ' 6 !#'!1' ',##!' !&')! !F)' ' C' $ J HE2' H F34' F E2C' ' 3E$N 3D' F$ ' &' $EO' I 34CHE' CF$ ' C 3$' E' $EO' G 3 FE2' 8 H - C3' $EO' @F$ 3 ' P HE30 ' H4' $ E$Q 3' ?3N - O(' H' F3' $ -3' E' F3' FH 3' H&' 6 3' I H - EDC' H4' J H43 ' 3 340' C - NF' <&&3ED34' Q3 E2' NHE N 3D' F343H&' CF$ ' C -&&34' G3$ F' $C' $' 6 3 HE ' $ED' ' C' $ CH' QO' F3' ?$ D' $C J 3E HE3D' N ' 3E$N 3D' F$ ' &' $EO' I 34CHE' CF$ ' C 3$' $EO' 8 H4C3 ' P $43 ' M3 D E2

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&3EN3 ' F343 E' +343 E Q3&H43 ' C13N & 3D' CF$ ' Q3' $ED' F3' C$ J 3' C' F343QO' 4313$ 3D' ($ED'

C13N & 3D' F$ ' &4H J' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' 3 34O' I 34CHE' NHE N 3D' H&'

CF$ Q3 4$ J EO' H&' F3' 6 3 HE 3C' F343 E Q3&H43' C13N & 3D ' H4' H&' NH - EC3 E2 ' $ D E2 '

1H4 3D' &H4' - 3' $Q3 E2' F3' @H J J CC HE' F343H& ' CF$ ' Q3' 4$EC1H4 3D' Q3OHED' F3'

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' ED' Q3' ' &- 4 F34' 3E$N 3D ' * F$ ' E3 F34' F3' MH 34EH4' H4' > 3 - 3E$E ' MH 34EH4' H&' $EO' C $ED ' @H HEO ' H4' ?3 3 J 3E ' H4' $EO' H F34' I 34CHE ' CF$ ' 2 3' $EO' I $4DHE' H4' * N+3 ' H&' >3$ 3' H' $EO' I 34CHE' C3E 3EN3D' H' * 4$EC1H4 $ HE ' H4' FH' CF$#' 43N3 3' $' I $4DHE' HE' NHE ' D HE' H&' * 4$EC1H4 $ HE ' H4' $EO' <4D34' H4' I 34 J CC HE' H' C1 3 E D' H4' 43 J ' F3' >$QH - 4' H&' $EO' C - NF' I 34CHE ' 3 N31 ' E' @$C3C' H&' E3CC ' - E ' C - NF' I 34CHE ' &' 4$EC1H4 3D' &H4' ?3 3E' =3$4C ' CF$ ' F$ 3' C34 3D' 6H - 4(&' 4$EC1H4 3D' &H4' 6H - 4 33E' =3$4C ' CF$ ' F$ 3' C34 3D' ? ' (H4' &' 4$ECR 1H4 3D' &H4' > &3 ' CF$ ' F$ 3' C34 3D' ; 2F ' =3$4C' H&' >$QH - 4' ($ED' F$ ' EH' C - NF' I 34CHE' CF$ ' Q3' N1Q 3' H&' $NX - 4 E2' H4' FH D E2' $EO' I 4H134 O ' H4' H&' Q4 E2 E2' EO N HE' &H4' F3' ' 3NH 34O' H&' $EO' I 4H134 O ' - E ' $& 34' C - NF' I 34CHE' CF$ ' F$ 3' D - O' HQ $ E3D' $' I $4DHE' &4H J' F3' MHR 34EH4' H4' > 3 - 3E$E ' MH 34EH4' H&' F3' @H HEO' H4' ?3 3 J 3E ' E' F NF' F3 H4' CF3' CF$ ' F$ 3' Q33E' NHE& E3D .' I 4H D3D' F$ ' EH F E2' F343 E' NHE $ E3D' CF$ ' E' $EO' P $EE34' $&&3N ' 8 C' P $(3C O C' ' HO$ ' I 434H2$ 3' H&' P 34NO

> < , G < , .' I 4 E 3D' QO' # + . (/ +' & (+' $ED') * (+ , ' O1 . 223% , . . * + ' I 4 E 34C' H' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' ZSU

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8 ; ' ; ?ʻ QOʻ $Eʻ N ʻ 1$CC3Dʻ Eʻ F3ʻ ? Fʻ =3$4ʻ H&ʻ F3ʻ ' 3 2Eʻ 3ʻ EE ʻ Nʻ USʻ H&ʻ 8 34ʻ P $(3C Oʻ \ -33Eʻ / ##! ʻ E 3Dʻ / #ʻ / ' ʻ ,ʻ !ʻ I 3) ! ʻ * , 0 1 , #ʻ , ʻ !%! ' #(ʻ #&ʻ 13 , # #(ʻ + J ! ! #ʻ * ! ! 1ʻ , ʻ ?NH $EDʻ ,ʻ 1 ʻ #ʻ) !ʻ , 31!ʻ , ʻ * ! ! 1ʻ #ʻ) !ʻ * % ! # ʻ , ʻ 0! ʻ B4 $ E ʻ #&ʻ , ʻ #(ʻ * ! ! 1ʻ , ʻ 6 ! #' ! 1ʻ ' , ! &ʻ #ʻ ?NH $ED ʻ #&ʻ , ʻ) !ʻ 3) ! ʻ ! (3% #(ʻ , ʻ C , ! 1ʻ #ʻ 8%! ' , #1ʻ , ʻ ! 4! 1ʻ ,ʻ 1! 0!ʻ #ʻ * % ! # ʻ ʻ $Cʻ $ J HE2C ʻ H F34ʻ F E2Cʻ 3E$N 3D ʻ F$ ʻ F3ʻ I 334Cʻ H&ʻ + ' , % #&ʻ CFH- D ʻ 143 H-C Oʻ Hʻ 3 34Oʻ ; 3N HEʻ Hʻ Q3ʻ F3 Dʻ QOʻ F3 Jʻ -ED34ʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ $+3ʻ $EDʻ C-QCN4 Q3ʻ F3ʻ <$ FC ʻ $EDʻ J $+3 ʻ 4313$ ʻ $EDʻ C-QCN4 Q3ʻ F3ʻ G3N 4 HEʻ Eʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ J 3E HE3Dʻ $EDʻ C3 ʻ &H4 F ʻ $EDʻ ʻ $Cʻ &-4 F34ʻ 3E$N 3D ʻ F$ ʻ C-NFʻ H&ʻ F3ʻ I 334Cʻ H&ʻ + ' , % #&ʻ FHʻ $ ʻ F3ʻ * J 3ʻ H&ʻ CC- E2ʻ F3ʻ ʻ I 4HN $ J $ HEʻ &H4ʻ $EOʻ ; 3N HEʻ H&ʻ I 334Cʻ Eʻ J $EE34ʻ D 43N 3Dʻ QOʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ CFH- Dʻ 43C D3ʻ Eʻ 8 #(% #&ʻ J 2F ʻ $+3ʻ $EDʻ C-QCN4 Q3ʻ F3ʻ C$ Dʻ <$ FC ʻ $EDʻ J $+3 ʻ 4313$ ʻ $EDʻ C-QCN4 Q3ʻ F3ʻ C$ Dʻ G3N 4 HE ʻ Eʻ 8 34ʻ P 3C O Cʻ 8 2Fʻ @H-4 ʻ H&ʻ @F$EN34Oʻ Eʻ 8 #(% #&ʻ ʻ 8 34ʻ P $(3C O Cʻ @H-4 ʻ H&ʻ \ -33E Cʻ B3ENF ʻ @H J J HEʻ I 3$C ʻ H4ʻ @H-4 ʻ H&ʻ ; NF3X-34ʻ Eʻ 8 #(% #&ʻ F NFʻ Q3 E2ʻ N34 & 3Dʻ QOʻ 9 4 ʻ Hʻ F3ʻ I 334Cʻ H&ʻ + ' , % #&ʻ $ ʻ F3 4ʻ P 33 E2 ʻ -ED34ʻ F3ʻ ?3$ ʻ H&ʻ F3ʻ @H-4 ʻ F343ʻ C-NFʻ <$ Fʻ $EDʻ G3N 4 HEʻ CFH- Dʻ Q3ʻ J $D3 ʻ 4313$ 3D ʻ $EDʻ C-QCN4 Q3D ʻ CFH- Dʻ Q3ʻ Yʻ ?ʻ C-&& N 3E

C-&& N 3E' H 3E 3 C-NF I334 H J$+3 F C I4H O H4 H C3ED $ C 2E3D
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C-QCN4 Q3 F3 <$ FC H& 32 $EN3 $ED Q(-4$ HE' CFH- D $+3 $ED
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H4 F3 ?$N4 & N3 H& F3 P$CC' H Q3 J$D3 QO $EO H& 8 C P$(3C O C
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I334C H& +' , % #& 14H&3CC E2 F3 'H J$E @$ FH N '3 2 HE' F3 <$ F
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J HEC ' E' F C' 143C3E ' I $4 $ J 3E ' $CC3 J Q 3D ' $ED' QO' FH' - FH4 O'
1&' F3' C$ J 3 ' * F$ ' &4H J ' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' 3 34O' I 334' H&' I334CH&?NH '
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+' , % #&' $ ' F3 4' P 33 E2 ' -ED34' F3' ?3$ ' H&' F3' @H-4 ' F343' C-NF' Q' 43 $ED'
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3 D' &H4' C-NF' , H4 F34E' G C HE' $ ' F3' * H E' H&' # !%& ' $ED' &H4'
C-NF' ?H- F34E' G C HE' $ ' F3' BH4H-2F' H&' E ! F

W ' ED' Q3' ' 3E$N 3D ' * F$ ' F3' * H' G C HEC' H&' F3' @H-E O' G C HEC' H&'
H&' O A . 1' CF$ ' 43C13N 3 O' Q3' N$ 3D' F3' E ,) ! #' 2 0 1 , #' $ED' F3' + %, 5 '
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F3 D' &H4' C-NF' , H4 F34E' G C HE' $ ' F3' BH4H-2F' H&' +) ! F143 ' $ED'
&H4' C-NF' ?H- F34E' G C HE' $ ' F3' * H E' I) 3 ') ' + ! Y#

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H&' O . 4 + (%+2' CF$ ' 43C13N 3 O' Q3' N$ 3D' F3' 8 1 ! #' 2 0 1 , #' $ED' + , ! 1! '
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F3 D' &H4' C-NF' ; $C 34E' G C HE' $ ' F3' @ O' H&' !O1' ' ED' &H4' C-NF'
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G C HEC' H&' W W ' ED' Q3' ' 3E$N 3D ' * F$ ' F3' * H' G C HEC' H&' F3' @H-E O'
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F3' + , 3) ! #' 2 0 1 ,#' = $ED' F$ ' C-NF' , H4 F34E' G C HE' CF$ ' EN -D3'
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F3 D'&H4' C-NF' ,H4 F34E' G CHE' $' F3' BH4H-2F' H&' + , &' $ED' &H4'
" -NF' ?H- F34E' G CHE' $' F3' @ 0' H&') ') !%&

WW' ED' Q3' '3E$N 3D' *F$' F3' /4 H' G CHEC' H&' F3' @H-E 0' H&' G CHEC' H&'
0>DD.A'' CF$ ' 43C13N 3 0' Q3' N$ 3D' F3' 8 1 ! #' 2 0 1 ,#' $ED' F3' +3 ,%'
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$ ' C-NF' B$4 C' H&' F3' @H-E 0' H&' +3 ,%' $C' $ 3' EH' NH J R
14 C3D' E' F3' > Q34 0' H&' H4' E' 3 F34
H&' F3' 8-ED43DC' H&' !1 ! !' 1#&' + ,F '

$ED' F$' F3' @H-4' &H4' F3' ; 3N HE' H&' %E 2F C' H&' F3' ?F 43' CF$ ' Q3'
F3 D'&H4' C-NF' 9 3C 34E' G CHE' $' F3' BH4H-2F' H&' " 3 '+ ' 8& 3#& 1'
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WW' ED' Q3' '3E$N 3D' *F$' F3' * H' G CHEC' H&' F3' @H-E 0' G CHEC' H&'
H&' 0>((+&' CF$ ' 43C13N 3 0' Q3' N$ 3D' F3' 8 1 ! #' 2 0 1 ,#' $ED' F3' +3 ! '
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F3 D'&H4' C-NF' ; $C 34E' G CHE' $' F3' *H E' H&' I , &,#' $ED' &H' C-NF'
9 3C 34E' G CHE' $' F3' BH4H-2F' H&' 3 %& , &

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G C HEC H& +311!J WW ED Q3 3E$N 3D *F$ F3 * H G C HEC H& F3 @H-E O H& O>%%+H CF$ 43C13N 3 O Q3 N$ 3D F3 8 1 ! # 8 F 1 ,# $ED F3 !1 ! # 2 0 1 ,# $ED F$ C-NF ;$C 34E G C HE CF$ EN -D3 F3 FH 3 H& F3 C3 34$ '$13C H& 7

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G C HEC H& F ' WW ED Q3 3E$N 3D *F$ F3 * H G C HEC H& F3 @H-E O H& < (, 3 ' CF$ 43C13N 3 O Q3 N$ 3D F3 E ,) ! # 2 0 1 ,# $ED F3 +,3) ! # 2 0 1 ,# $ED F$ C-NF ,H4 F34E G C HE CF$ EN -D3 F3 FH 3 H& F3 8 -ED43D H&

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G C HEC H& % 1 WW ED Q3 3E$N 3D *F$ F3 * H G C HEC H& F3 @H-E O H& < 3A2% CF$ 43C13N 3 O F3 N$ 3D F3 E ,) ! # 2 0 1 ,# $ED F3 +,3) ! # 2 0 1 ,#- $ED F$ C-NF ,H4 F34E G C HE CF$ EN -D3 F3 FH 3 H& F3 C3 34$ 8 -ED43DC H&

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WW ' ED' Q3' ' 3E$N 3D ' * F$ ' F3' * H' G C HEC' H&' F3' @H-E O' H&' G C HEC' H&' < . (+%2+ (' CF$ ' 43C13N 3 O' Q3' N$ 3D' F3' 8 1 ! #' 2 0 1 , #' $ED' F3' , '!1 ! ' !1 ! #' 2 0 1 , #' = $ED' F$ ' C-NF' ; $C 34E' G C HE' CF$ ' EN -D3' F3' FH 3' H&' F3' C3 34$' EH ' 3 C E2' G C HEC' H&'

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$ED' $ CH' F3' BH4H-2F' H&' +% 4 I' $ED' $ CH' $ ' C-NF' H F34' I $N3C ' &' $EO ' E' F3' C$ D' @H-E O' H&' , '!1 ! ' $C' $43' HN$ O' C -$ 3D' F E' H4' $43' C-44H-ED3D' QO' F3' F343 ER Q3&H43' J 3E HE3D' ?3CC HE$ ' G C HEC' F343H&_' H4' $EO' H&' F3 J ' $ED' $43' EH ' J 3E HE3D' E' F3' C$ D' < 4D34' '

$ED' F$ ' C-NF' 9 3C 34E' G C HE' CF$ ' EN -D3' F3' FH 3' H&' F3' C3 34$' B< 9' 3 C E2' G C HEC' H&'

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QOʹ F3ʹ 6H-4 $C Oʹ F343 E Q3&H&3ʹ J 3E HE3Dʹ ?3CC HE$ ' G R
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E I $4 $ J 3E ' $Cʹ %E 2F Cʹ H&ʹ F3ʹ ?F 43ʹ Q3ʹ NHEC D343Dʹ $Cʹ &H4 J E2ʹ
I $4 Cʹ H&ʹ F3ʹ 43C13N 3ʹ @H-E 3Cʹ $EDʹ G C HECʹ F NF $43 43C13N 3 Oʹ
J 3E HE3Dʹ E F3ʹ 6H-4 F @H - J E H&ʹ F3ʹ C$ Dʹ ?NF3D- 3ʹ ^P _' E NHER
(-EN HE F F3ʹ , $ J 3Cʹ H&ʹ C-NF CH $ 3Dʹ I $4 Cʹ 43C13N 3 O ' $EDʹ
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D3 $NF3Dʹ &4H J ' F3ʹ J $ E BHDOʹ H&ʹ C-NF @H-E O ' Q- ' &H4 F NF EH
C13N $ ' I4H C HE Cʹ F343QOʹ J $D3 ' CF$ ' Q3ʹ NHEC D343D ' &H4 F3ʹ I -4R
1HC3Cʹ H&ʹ F3ʹ ; 3N HE H&ʹ P 3 J Q34Cʹ 1ʹ ?34 3ʹ E I $4 $ J 3E ' $Cʹ %E 2F Cʹ
H&ʹ F3ʹ ?F 43 ' $Cʹ &H4 J E2ʹ I $4 ' H&ʹ F$ ' @H-E Oʹ ^EH ' Q3 E2ʹ $ʹ @H-E Oʹ
@H41H4$ 3_' $EDʹ H&ʹ F$ ' G C HE ' ' D E2 ' H4 I $4 C ' F343QOʹ C-NF
D3 $NF3Dʹ I $4 ' CF$ ' Q3ʹ C-44H-ED3D ' Q- ' &ʹ $EOʹ C-NF D3 $NF3Dʹ I $4 '
CF$ ' F3ʹ C-44H-ED3Dʹ QOʹ * H H4 J H43ʹ @H-E 3C ' H4 G C HEC ' ' D E2C '
H4 I $4 C ' F3E $Cʹ &H4 J E2ʹ I $4 ' H&ʹ F$ ' @H-E O ' H4 G C HE ' ' D E2 '
H4 I $4 C ' F F NF C-NF D3 $NF3Dʹ I $4 ' CF$ ' F$ 3ʹ F3ʹ HE23C '
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I4H C HE &H4 F3ʹ D3 $NF3Dʹ I $4 Cʹ H&ʹ 8 -ED43DC ' KN

WW ' EDʹ Q3ʹ ' &-4 F34 3E$N 3D ' * F$ ' $Cʹ 43C13N Cʹ F3ʹ @H-E 3Cʹ
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8 -ED43D ' 9 $4D ' 9 $13E $+3 ' ' $13 ' >$ F3 ' H4 > Q34 Oʹ H&ʹ $EOʹ C-NF
@H-E Oʹ F NF Cʹ D3 $NF3Dʹ &4H J ' F3ʹ J $ E BHDOʹ H&ʹ C-NF 8 -ED43D '
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C31$4$ 3Dʹ &4H J ' F$ ' G C HE H&ʹ F3ʹ @H-E Oʹ H F NF C-NF J $ E BHDOʹ
Cʹ H Q3 HE2ʹ -ED34 F3ʹ I4H C HECʹ NHE $ E3Dʹ E F Cʹ N ' H4 E F3ʹ
F343 E Q3&H43ʹ 43N 3Dʹ N ' Q- ' F NF Cʹ EH ' C-Q(3N ' H F3ʹ I4H C HECʹ
$C Oʹ F343 E Q3&H43ʹ NHE $ E3D ' CF$ ' &H4 F3ʹ I -41HC3ʹ H&ʹ F3ʹ ; 3N HE
H&ʹ P 3 J Q34Cʹ H C34 3ʹ E I $4 $ J 3E ' $Cʹ %E 2F Cʹ H&ʹ F3ʹ ?F 43 ' Q3ʹ NHER
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143CC Oʹ J 3E HE3D ' ^3 N31 ' F3ʹ C3 34$ ' @ 3Cʹ $EDʹ ; H EC ' $EDʹ @H-E 3Cʹ
F343H&ʹ 43C13N 3 O ' H&ʹ " 1 , %' 8 J ! ! ' < ') !%&' E , F ') ' $EDʹ E , [
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F3ʹ BH-ED$4 3Cʹ F343H&ʹ 43C13N 3 O _' CF$ ' $Cʹ H F3ʹ ; 3N HE H&ʹ
P 3 J Q34Cʹ H C34 3ʹ E I $4 $ J 3E ' $Cʹ %E 2F Cʹ H&ʹ F3ʹ ?F 43 ' 43C13N 3 Oʹ
Q3ʹ NHEC D343Dʹ $Cʹ EN -D3Dʹ F E F3ʹ 43C13N 3ʹ G C HECʹ F343QOʹ
3C $Q CF3Dʹ E F NF C-NF > Q34 3C ' 64$ENF C3C ' $EDʹ I $N3Cʹ F$ E2ʹ
$ʹ C31$4$ 3ʹ 5-4 CD N HE CF$ ' Q3ʹ HN$ Oʹ C -$ 3D

' ' WW W ' ED

WW W' ED' F343$C' QO' F3' F343 E Q3&H43' 43N 3D' N' ' C' $CH' 14H D3D' F$' F3' 43C13N 3' @H-E 3C' E' 8#(% #&' E& D' %!1' $ED' F3' 43C13N 3' ' D E2C' I$4 C' $ED' G C HEC' H&' @H-E 3C' CFH- D' F3' D D3D' E H' NHE 3E 3E' G C 4 N C' &H4' 1H E2' $ED' F$' E' 3$NF' G CR 4 N' CFH- D' Q3' $11H E 3D' $' NHE 3E 3E' I $N3' &H4' $+ E2' F3' IN#' $' $' ; 3N HEC' H&' $' %E 2F' H4' %E 2F C' H&' F3' ?F 43' H' C34 3' E' $EO' &- -43' I$4 $J 3E' $ED' F$' C-NF' G C 4 N C' $ED' I $N3C' &H4' $+ E2' F3' IH' CFH- D' Q3' C3 3D' $ED' $11H E 3D' QO' F3' N' H' Q3' 1$CC3D' E' F C' 143C3E' I$4 $J 3E' &H4' F3' I -41HC3' H&' C3 E2' $ED' D3CN4 Q E2' F3' G C HEC' H&' F3' @H-E 3C' 3E- J 34$ 3D' E' F3' ?NF3D- 3' J $4+3D' ^6 _' H' F3' C$ D' 43N 3D' N' J $E3 3D' 14H D3D' F$' EH' @H-E O' EH4' $EO' ' D E2' I$4 C' H4' G DC HE' H&' $' @H-E O' CFH- D' F$ 3' J H43' F$E' 6 & 33E' G C 4 N C' $ED' 43C13N 3' I $N3C' $11H E 3D' &H4' $+ E2' F3' IH' &H4' C-NF' @H-E O' ' D E2' I$4 C' H4' G C HE' ' $ED' QO' F3' C$ D' 43N 3D' N' ' C' $ CH' 14H D3D' F$' F3' C3 34$' BH4H-2FC' H&' E!F' +), !) ' I ' ' % &!' / g ' $ED' 8 1' L!\A &' $C' F343QO' D3& E3D' CFH- D' Q3' D D3D' E H' NHE 3E 3E' G C 4 N C' &H4' 1H E2' $ED' F$' F343' CFH- D' Q3' $11H E 3D' E' 3$NF' G C 4 N' $' NHE 3E 3E' I $N3' &H4' $+ E2' F3' IH' $' $' ; 3N HEC' H&' P 3 J Q34C' H' C34 3' E' $EO' &- -43' I$4 $J 3E' &H4' 3$NF' H&' F3' C$ D' BH4H-2FC' F NF' G C 4 N ' $ED' I $N3C' &H4' $+ E2' F3' I ' (CFH- &' Q3' C3 3' $ED' 1 J E 3D' QO' $E' N' H' Q3' 1$CC3D' E' F C' 143C3E' I$4 $J 3E' Q3' ' F343&H43' 3E$N 3D' *F$' F3' IH' &H4' ; 3N HE' H&' %E 2F C' H&' F3' ?F 43' CF$ ' Q3' $+3E' $' C-NF' I $N3C' $C' E' F3' ?NF3D- 3' H' F C' N' $EE3 3D' J $4+3D' ^, _' $43' J 3E HE3D' E NHE(-EN HE' F' F3' , $J 3C' H&' F3' @H-E 3C' $ED' H&' F3' ' D E2C' I$4 C' $ED' G C HECH&' @H-E 3C' E' F NF' C-NF' I $N3C' $43' 43C13N 3 O' C -$ 3D

WWW' ED' Q3' ' 3E$N 3D' *F$' F3' 5-C N3C' H&' F3' I3$N3' &H4' 3 34O' @H-E O' E' 8#(% #&' $ED' , 1' $ED' &H4' 3$NF' H&' F3' ' D E2C' H&' H ' 1) !' $ED' &H4' F3' I$4 C' H&' < #&1! ' $ED' &H4' F3' I$4 C' H&' !1 !0!#' F &' , %% #&' E' < #' , %#1) !' $CC3 J Q 3D' $' F3' \ -$4 34' ?3CC HEC' H' Q3' FH D3E' E' F3' P HE F' H&' 6' ,4!' E' F3' 143C3E' =3$4' H4' $' ?H J 3 ?13N $' ?3CC HEC' H' Q3' $11H E 3D' QO' F3 J' CH' $CC3 J Q 3D' $C' $&H43C$ D' F NF' CF$ ' Q3' FH D3E' HE' H4' Q3&H43' F3' $C' G$O' H&' 6' ,4!' E' F3' 143C3E' =3$4' CF$ ' D D3' F3 4' 43C13N 3' @H-E 3C' $ED' ' D E2C' 6$4 C' $ED' G C HEC' 1&' @H-E 3C' E H' NHE 3E 3E' G C 4 N C' &H4' 1H E2' $ED' CF$ ' $CC 2E' HE3' H&' C-NF' G C 4 N C' H' 3 34O' IH E2' I $N3' J 3E HE3D' E' F3' C$ D' ?NF3D- 3' J $4+3D' ^, _' H' F C' N' $EE3 3D' $ED' F$' $' > C' D3CN4 Q E2' F3' G C 4 N C' E$J 3D' E' 3 34O' C-NF' CC 2E J 3E' $ED' E$J E2' F3' IH E2' I $N3C' H' F NF' C-NF' G C 4 N C' $43' 43C13N 3 O' $CC 2E3D' CF$ ' Q3' HD23D' F' F3' @ 34+' H&' F3' I3$N3' H&' F3' @H-E O ' D E2' H4' I$4 C' FH' CF$ ' &H4 F F' N$-C3' @H1 3C' H&' C-NF' > C' H' Q3' 14 E 3D' $ED' CF$ ' D3 34' $' @H1O' H&' C-NF' > C' H' 3 34O' I34CHE' FH' CF$ ' $11 O' &H4' F3' C$ J 3' -1HE' I$O J 3E' H&' < E3' ?F E2' &H4' 3$NF' @H1O

WWW>' I4H D3D' $ $OC' $ED' Q3' ' 3E$N 3D' *F$' &H4' F3' I -41HC3' $CC 2E E2' NF' G C 4 N C' H' 3 34O' IH E2' I $N3' $C' $&H43C$ D' 3 34O' > Q34 O' 64$ENF C3' $ED' I $N3' F$ E2' $' C31$4$ 3' H4' 3 N -C 3' 5-4 CR D N HE' CF$ ' Q3' NHEC D343D' $C' Q3 E2' F E' F$' @H-E O' $ED' F E' F$' G C HE' ' D E2' H4' I$4 C' E' F NF' C-NF' > Q34 O' 64$ENF C3' H4' I $N3' C' 1 $N3D' QO' &3' N' H4' QO' F3' N' F343 E Q3&H43' 43N 3D' H4' E'

' Y' U' F NF

@H-E O' IH R E2' I $N3C' CF$ ' Q3' C-NF' $C' $43' J 3ER HE3D' E' ?NF3D- 3' ^, _' H' F C' N

IH# E2' G C' @H-E 3C' H' 4+ C' ' @H-E 3C' H' (-C N3C' '

E' F$' @H-E 3C' KN' I $N3C' F$ E2' C31$' 1$4$ 3' 5-4 CR D N HE' $43' H' Q3' NH$' C D343D

F NF F3 C$J3 C HN$ O C -$ 3D . I&H D3D E3 34 F3 3CC ' F$ ' F3 5-C N3C H& F3 I3$N3 &H4 $1%!' , '8% ' $CC3 J Q 3D $ ' F3 \-$4 34 ?3CC HEC &H4 F3 1 &'$1%!' , '8% ' H Q3 FH D3E E F3 P HE F H& 6 ' ,4! ' E F3 143C3E '=3$4 ' H4 $ ' CH J3 ?13N $ ' ?3CC HEC H Q3 $11H E 3D QO F3 J ' CH $CC3 J Q 3D $C $&H43C$ D ' F NF CF$ ' Q3 FH D3E HE H4 Q3&H43 F3 $C ' G$O , '6 ' ,4! ' E F3 143C3E '=3$4 ' CF$ ' D D3 F3 C$ D $1%!' E H NHE 3E 3E ' G C 4 N C &H4 1H E2 ' $ED CF$ ' $CC 2E <E3 H& C-NF G C 4 N C H 3 34O I H E2 I $N3 F E F3 C$ D C&3 , '8% ' J3E HE3D E F3 C$ D ?NF3D- 3 ^ , _' $ED F$ ' $ > C ' D3CN4 Q E2 F3 G C 4 N C E$ J 3D E C-NF CC 2E J 3E ' $ED E$ J E2 F3 I H E2 I $N3C H F NF C-NF G C 4 N C $43 43C13N 3 O $CC 2E3D ' CF$ ' Q3 HD23D F F3 @ 34 N H& F3 I3$N3 &H4 F3 C$ D $1%!' '8% ' FH CF$ '$ H ' F3 C$J3 ' H4 $ @H1O F343H& ' H Q3 EC13N 3D $ ' F C <&& N3 $ ' $ ' * J3C

IH E2 I $N3C &H4 ,3 '?FH43R F$J ' KN

WWW ' ED Q3 ' 3E$N 3D ' *F$ ' F3 I H ' &H4 F3 ; 3N HE H& P3 J Q34C H C34 3 E I $4 $ J 3E '&H4 F3 C$ D C3 34$ ' BH4H-2FC , 'E!F ' +), !) ' I ' % &!' / %!143 ' $ED 8 1 ' L! , & CF$ ' Q3 $+3E $ ' F3 ' I $N3 H4 I $N3C F NF E F3 ?NF3D- 3 H F C N ' $EE3 3D J$4+3D ^, 'U_' C H4 $43 J3E HE3D E NHE(-EN HE F F3 ,$ J 3C H& C-NF C3 34$ ' BH4H-2FC 43C13N 3 O '

IH E2 G C ' H N C &H4 F$J KN L H/ Q3 C3 3D QO 5-C N3C '

WWW ' ED Q3 ' 3E$N 3D ' *F$ ' F3 5-C N3C H& F3 I3$N3 &H4 43C13N 3 @H-E 3C E F NF F3 BH4H-2FC H& E!F ' +), !) I ' % &!' $ED 8 1 ' L! , & $43 C -$ 3D ' CF$ ' $ ' F3 \-$4 34 ' ?3CC HEC H Q3 FH D3E E F3 P HE F H& 6 ' ,4! ' E F3 143C3E '=3$4 ' D D3 F3 C$ D BH4H-2FC H& E!F ' +), !) ' I ' % &!' $ED 8 1 ' L! , & E H NHE 3E 3E ' G C 4 N C &H4 1H E2 ' $ED CF$ ' $CC 2E HE3 H& C-NF G C 4 N C H 3 34O I H E2 I $N3 &H4 F3 C$ D BH4H-2FC H& E!F ' +), !) ' I '%& &!' $ED 8 1 ' L! , & ' J3E HE3D E F3 C$ D ?NF3D- 3 H F C N ' $EE3 3D J$4+3D ^, 'U_' $ED F$ ' $ G C ' ' D3CN4 Q E2 F3 G C 4 N C E$ J 3D E C-NF CC 2E J 3E ' $ED E$ J E2 F3 I H E2 I $N3C H F NF C-NF G C 4 N C $43 43C13N 3 O $CC 2E3D ' CF$ ' Q3 HD23D F F3 '3 -4E E2 <&& N34 H& F3 43C13N 3 BH4H-2F ' FH CF$ ' &H4 F F N$-C3 @H1 3C H& C-NF > C ' H Q3 14 E 3D ' $ED H Q3 & 3D HE F3 GHH4C H& F3 C3 34$ ' @F-4NF3C $ED @F$13 C F E F3 BH4H-2F &H4 F NF C-NF G C 4 N C $43 $CC 2E3D

; 3N HE H4 I H ' J$O $+3 1 $N3 $ ' I $N3C E F3 ,3 2FQH-4R FHHD H& FHC3 E$J 3D E F C N

WWW ' ED Q3 ' 3E$N 3D ' *F$ ' & ' CF$ ' C33 J ' & ' H F3 ?F34 & * ' F3 @H-4 ' &H4 F3 ; 3N HE H& %E 2F C H& F3 ?F 43 J$O Q3 F3 D ' H4 F3 I H ' J$O Q3 $+3E ' $ ' $EO I $N3 H4 ?1H ' E F3 ,3 2FQH-4FHHD H& $EO I $N3 $11H E 3D QO F C N ' &H4 FH D E2 C-NF @H-4 ' <4 $+ E2 C-NF I H ' 43C13N 3 O ' $ ' F NF C-NF @H-4 ' H4 I H ' J$O F$ 3 F343R H&H43 Q33E F3 D H4 $+3E ' H4 F NF J$O Q3 NHE 3E 3E ' &H4 3 F34 H& FHC3 I -41HC3C _' $EO F E2 F343 E NHE $ E3D EH FC $ED E2

@HE 3E C $ED BH-ED$4 3C CF$ ' Q3 C-NF &H4 F#CNF3 ' D- 3^[_' H F C N '

WWW ' ED F343$C QO F3 N ' F343 E Q3&H43 43N 3D ' C $ CH 14H D3D F$ ' 3$NF H& F3 I $N3C 3E- J 34$ 3D E F3 ?NF3D- 3C F343 H $EE3 3D 43C13N 3 O J$4+3D ^@_' ^G_' $ED ^; _' $ED F$ ' 3 34O @ (/' ED BH4H-2F E 8#(% #& F NF Q3&H43 F3 1$CC E2 H& F3 C$ D 43N ' N ' $C 3E 3D H 43 -4E $ P3 J Q34 H4 P3 J Q34C H ?34 3 E I$4 ' $ J 3E ' ^3 N31 ' F3 C3 34$ ' BH4H-2FC 3E- J 34$ 3D E F3 ?NF3D- 3 F343 H $EE3 3D J$4+3D ^ _' $ED 3 N31 ' F3 C3 34$ ' BH4H-2FC H& E!' +), !)

Q4 T : =E E ' ' &' P ', . .

+), !) ' I ')&! ' /)1)3 ' $ED 1 ' L! , & A $ED F$ ' F3
BH4H-2F H& " !',#' $ED 3$NF H& F3 *H EC H&+F #1! ' <,3(),
E!)' /4! ,#' $ED !# ('/,,J/&' , ' F3 I-41HC3C H& F3 C$ D
43N 3D N ' EN -D3 F3 I $N3 H4 I $N3C 43C13N 3 O F NF CFH- D
F3 NH J 143F3ED3D F E C-NF BH-ED$4 3C $C CFH- D F3 C3 3D $ED
D3CN4 Q3D QO $E N ' H Q3 1$CC3D &H4 F$ ' I -41HC3 E F C 143C3E '
I$4 $J 3E ' F NF N ' F3E 1$CC3D CFH- D Q3 D33 J 3D $ED $+3E
H Q3 I$4 ' H& F3 C$ D 43N 3D N '$C &- O $ED 3& I3N -$ O $C & ENH4 '
(%(4$ 3D F343 F . ED F343$C F3 N ' CH H Q3 1$CC3D &H4 C3 E2
$ED D3CN4 Q E2 F3 BH-ED$4 3C H& @ 3C ' BH4H-2FC ' $ED I $N3C $C E
F3 C$ D 43N 3D N ' C J 3E HE3D C F C 143C3E ' N . ED F343$C
F3 C3 34$ ' @ 3C ' BH4H-2FC ' $ED I $N3C F343H& F3 BH-ED$4 3C 343
CH H Q3 C3 3D $ED D3CN4 Q3D $C E F3 C$ D 43N 3D N ' C J 3E HE3D
$43 F3 C3 34$ ' @ 3C ' BH4H-2FC ' $ED I $N3C F NF $43 C13N & 3D E
F3 ?NF3D- 3 H F C N ' $EE3 3D J $4+3D ^< _ ' Q3 ' F343&H43
&-4 F34 3E$N 3D $ED D3N $43D ' *F$ ' F3 C3 34$ '@ 3C ' BH4H-2FC ' $ED
1 $N3C C13N & 3D E F3 C$ D ?NF3D- 3 H F C N '$EE3 3D ^J $4+3D < _ '
CF$ ' $C H F3 ; 3N HE H& P 3 J Q34C H4 $ P 3 J Q34 H C34 3 E I$4R
$ J 3E ' 43C13N 3 O EN -D3 F3 I $N3C $ED Q3 NH J 14 C3D F E F3
BH-ED$4 3C F NF E C-NF ?NF3D- 3 $43 43C13N 3 O C13N & 3D $ED
D3CN4 Q3D E NHE(-EN HE F F3 , $ J 3C H& C-NF @ 3C ' BH4H-2FC '
$ED I $N3C 43C13N 3 O

WWW ' ED Q3 ' 3E$N 3D ' *F$ ' C-Q(3N ' H $EO G 43N HE H F3 ' - 3C &H4 F3
NHE 4$40 ' F3 &H H E2 ' - 3C CF$ ' Q3 HQC34 3D E F3 @HEC 4-N HE H& @HEC 4 H$
F3 C3 34$ ' G3CN4 1 HEC H& BH-ED$4 3C NHE $ E3D E F3 C$ D ?NF3D- 3 2N4 1 4$4
F343 H $EE3 3D ^J $4+3D < _ ' ^ F$ ' C H C$O _ ' NHE $ E3D $

' h *F$ ' F3 9 H4DC `' , H4 F $4D c `' ?H- F $4D c `' ; $C $4D c ^$ H F C
`' 9 3C $4D c CF$ ' 43C13N 3 O Q3 -ED34C HHD H D3EH 3 HE O N '
F3 23E34$ ' G 43N HE E F NF $EO BH-ED$4O 14HN33DC &4H J '
F3 I H E ' $C ' D3CN4 Q3D ' $ED EH ' F$ ' C-NF BH-ED$4O CF$ '
NHE E-3 H 14HN33D F4H-2FH- ' E F3 C$ J 3 G 43N HE H F3
I H E ' E3 ' D3CN4 Q3D .

U ' h *F$ ' F3E $EO ' H$D C J 3E HE3D J 343 O QO F3 , $ J 3 H& F3
I $N3 H F NF C-NF ' H$D 3$DC ' F3 14 EN 1$ ' ' J D F F34
&4H J ' F3 @ O ' BH4H-2F ' H4 I $N3 H& F NF F3 BH-ED$4O C
E NH-4C3 H& G3CN4 1 HE CF$ ' Q3 -ED34C HHD.

? *F$ ' F3E3 34 $ > E3 C C$ D H Q3 D4$ E & H4$ ' H ' H4 F4H-2F
$E <Q(3N ' C#NF > E3 CF$ ' E F3 QC3EN3 H& $EO G 43N HE
H F3 NHE 4$40 ' Q3 -ED34C HHD H Q3 D4$ E &4H J ' H ' H4
F4H-2F F3 @3E 43 H& C-NF <Q(3N ' $C E3$4 O $C F3 @3E 43
F343H& N$E Q3 $CN34 $ E3D.

/ *F$ ' 3 34O B- D E2 F4H-2F F NF H4 F4H-2F $EO I$4 '
F343H& $EO BH-ED$4O F343QO 3C $Q CF3D CF$ ' 1$CC CF$ '
Q3 NHEC D343D $C F E C-NF BH-ED$4O. I4H D3D $ $OC '
F$ ' & F3 BH-ED$4 3C H& $EO * H H4 J H43 H& F3 @ 3C
BH4H-2FC ' $ED I $N3C F343H& F3 @HE 3E C $ED BH-ED$4 3C
$43 F343QO C3 3D $ED D3CN4 Q3D CF$ ' 1$CC F4H-2F F3 C$ J 3
B- D E2 H4 $EO I$4 ' F343H& ' C-NF B- D E2 CF$ ' Q3 @HER
C D343D $C F E F$ ' <E3 H& C-NF * H H4 J H43 H& F3 C$ D
@ 3C ' BH H-2FC ' $ED I $N3C F NF $C Q3&H43 F3 1$CC E2 H&
F3 F343 E Q3&H43 43N 3D N ' 3E 3D H 43 -4E P 3 J Q34C H4
$ P 3 J

$ P3JQ34 H C34 3 E I$4 $J3E ' H4 &'E3 F3& ! JH43 F$E
' <E3 H& C-NF * H H4 JH4 ' H& F3 C$D @ 3C ' BH4H-2FC ' $ED
' I $N3C CF$ ' F$ 3 Q33E CH 3E 3D ' F3E F E F$ ' <E3
H& F3J' F343H& F3 43$ $C F343QO 3C $Q CF3D C F3
CJ$ 3C.

! h *F$ ' F3E3 34 $EO BH-ED$4O QO F C N ' 3C $Q CF3D C C$D
H 1$CC $ HE2 $EO H F34 BH-ED$ ' H4 $ HE2 $EO 8H$D ' >$E3 '
I$ F' ' 34 ' ?43$J ' @$E$ ' G4$ E ' B4HH+ ' H4 G NF ' F3
P DD 3 ^$C E3$4 O $C F3 C$J3 N$E E3 $CN34 $ E3D_ H& C-NF
H F34 BH-ED$4O ' H4 H& C- NF ' H$D ' >$E3 ' I$ F' ' 34 ' ?43$J '
@E ' G4$ E ' B4HH+ ' H4 G NF ' CF$ ' Q3 -ED34C HHD.

*F$ ' F3 P DD 3 H& $EO ' H$D H4 ' >$E3 CF$ ' Q3 -ED34C HHD $C
F3 P DD 3 H& F3 @$44 $23 $O $ HE2 F3 C$J3.

h *F$ ' F3E $EO BH-ED$4O QO F C N ' 3C $Q CF3D C C$D H
14HN33D $ HE2 $ ' H$D ' >$E3 ' I$ F' ' 34 ' ?43$J ' @$E$ ' H4
G4$ E ' &4HJ ' H4 H $E <Q(3N ' C-NF BH-ED$4O CF$ ' Q3 -ED34R
C HHD H 14HN33D &4HJ ' H4 H F$ ' IH E ' E F3 P DD 3 H& C-NF
' H$D ' >$E3 ' I$ F' ' 34 ' ?43$J ' @$E$ ' H4 G4$ E &4HJ '
F NF F3 CFH4 3C ' > E3 H- D Q3 D4$ E H F3 @3E 43 H&
C-NF <Q(3N ' $C E3$4 O $C F3 @3E 43 F343 4& N$E Q3 $CN34R
$ E3D.

' *F$ ' F3 IH E ' $ ' F NF $EO I3EN3 ' 83D23 ' 9$ ' BH-ED$4O
' H$D ' >$E3 ' I$ F' ' 34 ' ?43$J ' @$E$ ' G4$ E ' B4HH+ ' H4
G NF C C$D H N- ' J33 ' (H E ' @4HCC ' 43$NF ' H4 3$ 3 $EO
63EN3 ' 83D23 ' 9$ & ' BH-ED$4O ' ' H$D ' >$E3 ' I$ F' ' 34 '
?43$J ' @$E$ ' G4$ E ' B4HH+ ' H4 G NF ' CF$ ' Q3 -ED34R
C HHD $C F$ ' IH E ' $ ' F NF $ >+J ' 1$CC E2 $ HE2 F3 P DD 3
H& F3 63EN3 ' 83D23 ' 9$ ' BH-ED$ O ' ' H$D ' >$E3 ' I$ F'
' 34 ' ?43$J ' @$E$ ' G4$ E ' B4HH+ ' H4 G NF CH N- ' J3 '
(H E3D ' N4HCC3D ' 43$NF3D ' H4 3& ' H- D Q3 E 34C3N 3D QO $
> E3 D4$ E $ HE2 F3 P DD 3 H& F3 I3EN3 ' 83D23 ' 9$ '
BH-ED$4O ' ' H$D ' >$E3 ' I$ F' ' 34 ' ?43$J ' @$E$ ' G4$ E '
B4HH+ ' H4 G NF CH @- E2C ' J33 E2 ' (H E E2 ' N4HCC E2 '
43$NF E2 ' H4 3$ E2 ' & C-NF > E3 343 14H HE23D C-&& R
N 3E O &$4.

' h *F$ ' F3E $ > E3 C C$D H F3 D4$ E H $ ' H$D ' >$E3 ' ' 3
?43$J ' H4 @$E$ ' C-NF > E3 CF$ ' Q3 NHEC D343D $C 14HR
HE23D H F3 P DD 3 H& C-NF ' H$D ' >$E3 ' ' 34 ' ?43$J ' H4
@E.

' h *F$ ' QO F3 9H4DC ` ?3$c $ED `' ?3$ @H$CI ' CF$ ' Q3 -ED3
C HHD F3 >H $ 34 P $4+.

' h *F$ ' & $EO G3& N 3ENO CF$ ' Q3 &H-ED H 3 C ' E F3 > E3 H&
$EO BH-ED$4O D3CN4 Q3D E F3 C$D ?NF3D- 3 H F C N '
$EE3 3D J$4+3D ^< _' QO 43$CHE H& F3 E 34 3E HE H& $EO
?1$N3 Q3 33E $EO * H J J3D $ 3 O NHEC3N- 3 IH E C ' C-NF
G3& N 3ENO CF$ ' Q3 C-11 3D QO $ C 4$ 2F ' > E3 H Q3 D4$ E
&4HJ ' F3 HE3 H F3 H F34 H& C-NF * H J J3D $ 3 O NHER
C3N- 3 IH E C

I4H C HE $C WWW ' ED Q3 ' &-4 F34 3E$N 3D ' *F$ ' EH FC $ED E2 F3
¡ ' D3 $N F3D M3E34$ O H& $EO G3CN4 1 HE NHE $ E3D E F3 C$D ?NF3D- 3 H F C
I$4 CF> KN ' $EE3 3D J$4+3D ^< _' EH @ O ' BH4H-2F ' H4 I $N3(F3 @HE 3E C
' F343H&

F343H&ʻ $43ʻ C13N & 3Dʻ Eʻ C-NFʻ ?NF3D- 3ʻ CF$ ʻ EN -D3ʻ $EOʻ I $4 ʻ H&ʻ $EOʻ I $4 CFʻ ʻ * H ECF 1 ʻ 8 $ J 3 ʻ @F$13 40ʻ * F E2ʻ P $EH4ʻ H4ʻ > Q34 Oʻ F NFʻ Cʻ D3 $NF3Dʻ &4H Jʻ F3ʻ J $ Eʻ BHDOʻ H&ʻ C-NFʻ I $4 CFʻ ʻ * H ECF 1 8 $ J 3 ʻ @F$13 40ʻ * F E2ʻ P $EH4ʻ H4ʻ > Q34 Oʻ &ʻ QOʻ 43$CHEʻ H&ʻ EN -D E2ʻ C-NFʻ D3 $NF3Dʻ I $4 ʻ F3ʻ BH-ED$4Oʻ F343QOʻ 3C $Q CF3Dʻ H&ʻ C-NFʻ @ Oʻ BH4H-2F ʻ H4ʻ I $N3ʻ H- Dʻ EH ʻ Q3ʻ NHE E-H-C ʻ -E 3CCʻ C-NFʻ D3 $NF3Dʻ I $4 ʻ CF$ ʻ Q3&H43ʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ F$ 3ʻ &H4 J 3Dʻ I $4 ʻ H&ʻ C-NFʻ @ Oʻ BH4H-2F ʻ H4ʻ I $N3ʻ &H4ʻ F3ʻ I -41HC3ʻ H&ʻ F3ʻ ; 3N ʻ ` HE ʻ H&ʻ P 3 J Q34Cʻ Hʻ C34 3ʻ Eʻ I $4 $ J 3E ʻ ʻ Q- ʻ F$ ʻ $ ʻ I $N3C ʻ 1$4HNF $ ʻ H4ʻ 3 4$ 1$4HNF $ ʻ F NFʻ $43ʻ C-44H-ED3Dʻ QOʻ F3ʻ @HE 3E Cʻ H&ʻ F NFʻ $EOʻ @ Oʻ BH4H-2F ʻ H4ʻ I $N3ʻ Cʻ C$ Dʻ Eʻ C-NFʻ ?NF3D- 3ʻ J $4+3Dʻ ^< _ʻ Hʻ NH C C ʻ Q- ʻ &H4ʻ F NFʻ EHʻ I 4H C HEʻ Cʻ J $D3ʻ Eʻ C-NFʻ ?NF3D- 3ʻ ^< _ʻ CF$ ʻ Q3ʻ NHEC D343Dʻ $Cʻ EN -D3Dʻ F Eʻ C-NFʻ @ O BH4H-2F ʻ H4ʻ I $N3 ʻ &H4ʻ F3ʻ I J 1HC3ʻ H&ʻ F3ʻ ; 3N HEʻ H&ʻ P 3 J Q34Cʻ Hʻ C34 3ʻ Eʻ I $4 $ J 3E & <ʻ ?+!ʻ N %Uʻ

WWW ʻ I 4H D3Dʻ$ $OC ʻ $EDʻ Q3ʻ ʻ 3E$N 3D ʻ * F$ ʻ EHʻ P CEH J 34ʻ H4ʻ E$NN-4$ 3ʻ G3CN4 1 HEʻ NHE $ E3Dʻ Eʻ F Cʻ N ʻ H4ʻ Eʻ $EOʻ H&ʻ F3ʻ ?NF3D- 3Cʻ F343 Hʻ $EE3 3D ʻ CF$ ʻ Eʻ $EO C3ʻ 143 3E ʻ H4ʻ $Q4 D23ʻ F3ʻ < 134$ HEʻ H&ʻ F Cʻ N ʻ 9 Fʻ 43C13X ʻ Hʻ F3ʻ ?-Q(3N ʻ H&ʻ C-NFʻ G3CN4 1 ʻ HE ʻ 14H D3Dʻ F3ʻ C$ J 3ʻ CF$ ʻ Q3ʻ CHʻ D3C 2E$ 3Dʻ $Cʻ Hʻ Q3ʻ NH J J HE Oʻ -ED34C HHD ʻ $EDʻ F$ ʻ &H4ʻ F3ʻ I -41HC3ʻ H&ʻ D3E &O E2ʻ F3ʻ G3CN4 1R HECʻ NHE $ E3Dʻ Eʻ F3ʻ C$ Dʻ ?NF3D- 3ʻ ^< _ʻ Fʻ F3ʻ ?-Q(3N Cʻ H&ʻ C-NFʻ G3CN4 1 HECʻ 43C13N 3 O ʻ C-NFʻ G3CN4 1 HECʻ CF$ ʻ &ʻ EH ʻ ER $11 N$Q 3 ʻ Q3ʻ F3 Dʻ Hʻ $11 Oʻ Hʻ C-NFʻ ?-Q(3N Cʻ $Cʻ F3Oʻ 3 C 3Dʻ HEʻ F3ʻ 6 4C ʻ G$Oʻ H&ʻ 6 ' ,4! ʻ < E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $ED HE3)A +@ (!ʻ +#+ʻ 2)#)&#(1ʻ & <ʻ #J (ʻ $ (%ʻ AH!) ' #)< Aʻ) ʻ HJ (<G (ʻ ` Sʻ #+ʻ I (ʻ H+ A)<(!(<ʻ &Aʻ (N)A#) *ʻ + ʻ #J (ʻ A# , (.K "

WWW W ʻ I 4H D3Dʻ $ $OC ʻ $EDʻ Q3ʻ ʻ 3E$N 3D ʻ * F$ ʻ F Cʻ N ʻ J $Oʻ Q3ʻ $ J 3ED3Dʻ H4ʻ $ 343Dʻ QOʻ $EOʻ N ʻ H4ʻ N Cʻ Hʻ Q3ʻ 1$CC3Dʻ D-4 E2ʻ F Cʻ 143C3E ʻ ?3CC HEʻ H&ʻ I $4 $ J 3E ʻ H# @&Bʻ I (ʻ &@(<(<ʻ #J)Aʻ (AA)+

!! 'K'S/'M#> ; P ' ' @$1 Y '

?@8 ;G#>;?' H' F NF' F3' &H432H E2' N ' 43&34C

?@8 ;G#>;' ^P _

+G #)(A #+' LJ)HJ' #J(')A+ &#(< "&!#A' I(+ *	"&!)AJ(A' +L AJ)'A1' 4H' +?' LJ)HJ1' +!' +? "&!#A' +? LJ)HJ1' #J(')A+ &#(< "&!#A' H+ A)A#	+G #)(A) ' LJ)HJ' #J(')A+ &#(< "&!#A &!(' +H& B'A)#G&#(	+G #)(A'& <' $)2)A)+ A' #+' LJ)HJ)#')A') #(<(< #J&#' #J(')A+ &#(< "&!#A' AJ+G <' I(' & (N(<
:E $			
(<?+!<AJ)!(	"&!#' +?' #G<J&!&' "&!)AJ1' '&!# BK]') ' (&HJL++<' "&!;' ' #J(' Y' +G #B' +?' (!#?+!<' %' %'3	# (!#?+!<AJ)!(	(!#?+!<AJ)!(
(<?+!<AJ)!(	"&!#' +?' H; (?+!<' "&!)AJ' %	(!#?+!<AJ)!(	(!#?+!<AJ)!(
(!;AJ)!(' %	"&!#' +?' :!(&#' &!!) *#+ ' '&!)AJ'	: +GH(A#(!AJ)!(' %'5	: +GH(A#(!AJ)!(1' &A#(! ' $)2)A)+
(!;AJ)!(' %	"&!#' +?' * (AJ&@' "&!)AJ	>) #(J)!(' %	>) #AJ)!(1 Ü +!#J(! ' $)2)A)+
(!;AJ)!(' %	"&!#' +?' E& *?+!<' "&!)AJ	N?+!<AJ)!(' %	N?+!<AJ)!(%
(!;AJ)!(' %	E)## (' &!!) *<+ ')#J) *	N?+!<AJ)!(' %'	N?+!<5)!(
(!;AJ)!(' %	"&!#' +?' J) #+ ' "&!)AJ' %' Y	N?+!<AJ)!(' %	N?+!<AJ)!(
GH;) *J&@AJ)!('	#G< (B' "&!)AJ' +!' &@ (#') h' #J(' "&!)AJ' +?' (H; B' %3	N?+!<AJ)!(' %	N?+!<AJ)!(1
GH;) *J&@AJ)!(' %	&2(!A?)(<' "&!)AJ 0	N?+!<AJ)!(0	N?+!<AJ)!(
GH;) *J&@AJ)!(	"&!#' +?' EG??)(<' II(B1' & ' N#!& 'h ' '&!+HJ)&' " &H(' %' %'3	+!#J&@ '#+ AJ)!('5	+!#J&@ '#+ AJ)!(1' +G#J(! ' $)2)A)+
J(AJ)!(' %	"&!#' +?' $)A (B' +L AJ)'1'A)#G&#(K]' + ' #J(' $(!IBAJ)!(')<(' ?' #J(' Y')2(!' :+B#' %' ' 3	$(!IBAJ)!(' %' %	J(AJ)!(1 +!#J(! ' $)!)!)+
+! L&	' A@& ' "&!#' +?' #J(' "&!)AJ' +?K]' #' #('J(' IB' & #&AJ1' + ' #J(' Y' &A#(! ')<(' +?' #J(')2(! &@&!'3	)#J(!' E' $(2 Y %?' AJ)!(' +!' +! L& '#1	$(2+ AJ)!(1' +G#J(! ' $)2)A)+
+! L& ' %'	"&!#' +?' +!#J' &@(!#+ ' "&!)AJ1' K' &A#' +?' #J(' &@&!' %' '3	)#J(!') ' $(2+ %?' AJ)!(' +!' +! L& '	+! L& 1 &A#(! ' $)2)A)+
	'< ! ' $@ -2 ' 0' ! %' $! '<' ' ' # <' '$ %/' ' " ' '5		
@ -2 ' 0' 0E	)! !! ' '! ' ' 2' <' !' $ -2' , '.! ' ! <' !' $@ ! '	G !	G34Q0CF 43 ?H- F34E' G C HE
G34Q0CF 43' '	<' !' $! '<' ' $='(!	G ! ' 0'H'	G34Q0CF 43' ?H- F34E' G HE
G34Q0CF 43	<' !' $! 4 ' $<' . %!	G ! ' 0	G34Q0CF 43' ?H- F34E' 9 C HE

U ' K' SL' M # > ; > P ' ' @$1 Y !!!

I#@#)(A #+' L))+J #J(')&' &#(<)"&!#A I(+ *	"&!)AI(A)' +L AJ)'Al' 4H' +?' LJ)HJl' +!' +?' "&!#A' +?' LJ)HJl' #J(')A+ &#(<' "&!#A' H+ A)A#	+G #)(A) ' LJ)HJ' #J(')A+ &#(<' "&!#A &!(' +H& B'A)#G&#(	+G #)(A'& <' $)2)A)+ A' 1 #+' LJ)HJ P)#')A') #(<(<' #J&# #J(' ')A+ &#(< "&!#A) AJ+G <' I(' & (N(<
Y(!IBAJ)!(	"&!#' +?' H!+'#+ ' +L AJ)'	#&??+!<AJ)!(' %	#&??+!<AJ)!(1 '+!#J(! ' $)2)A)+
$(!IBAJ)!(' % '	"&!#' +?' (&!<' +L AJ)'1' + ' #J(/ ' J(AJ)!(')<(' +?' #J(')2(!' % : +B#' ' ' ' &	$(!IBAJ)!(' +!' +' J(AJ)!(' %	$(!IBAJ)!(1' +!#J(! ' $)2)A)+ 1
$(2+ AJ)!(P	J+! H+@I' "&!)AJ	$+!A(#AJ)!(' %	$+!A(#AJ)!(
$(2+ AJ)!(	"&!#' +?' N) A#(!"&!)AJ1' &@(B1' h ' G!J& ' $+L A' & <' &A#J&B' 3	$+!A(#AJ)#(	$+!A(#AJ)!(
$(2+ AJ)!(' 8' %	"&!#' +?' #J(' '&!)AJ' +?' &) #3+J	+! L&	+! L& 1 &A#(! ' $)2)A)+
$(2+ AJ)!(' %	+!#J' "(#I(!L) ' "&!)AJ' %	+! L& ' %' %	$(2+ AJ)!(1' +!#J(! ' $)2)A)+
$(2+ AJ)!(	"&!#' +?' >)!!)J*#+ ' "&!)AJ1' > (A#' ' +?' #J(' &@&!' % %' 3	+! L& ' +!' $ (%?' 2+ AJ)!(' %' %'	$(2+ AJ)!(1' +!#J(! ' $)2)A)+
$(2+ AJ)!(' %	"&!#' +?' #J(' &@ (#' +?' +!#J%' Y H+#(' > (A#' +?' #J(' &@&!' %' 3	+! L& ' !' $(%' 7' ', 2+ AJ)!(' %' %	$(2+ AJ)!(0' +!#J(! ' $)2)A)+
$(2+ AJ)!(' %	'&!#' +?' !)<*(!G (' "&!)AJ1' > (A#' ' +?' #J(' &@&!' 8' %' 3	+! L& ' '#' $(2+	$(2+ AJ)!(1' +!#J(! ' $)2)A)+
$(2+ AJ)!(' %	"&!#' +?' &;(!' "&!)AJ') ' #J('K')#J) *' +? &G #(!AJ+ @(' %' [	+! L& ' %	+! L& 1 &A#(! ' $)2)A)+
$+!A(#AJ)!(	#+H; & <' "&!)AJ	$(2+ AJ)!(' %	$(2+ AJ)!(1' +G#J(! ' $)2)A)+
$+!A(#AJ)!(' %	$& L++<' +L AJ)'	$(2+ AJ)!(' %	$(2+ AJ)!(1 +G#J(! ' $)2)A)+
$G!J&@' %'	J(' $)A#!)H#' +?' +!J&@AJ)!(	+!#JG@I(! & <	+!#JG@I(! & <1' +!#J(! ' $)2)A)+
$G!J&@'	J(' $)A#!)H#' +?' A & <AJ)!(1') %/ ' (G<) *' #J(' &@(' A & <A' & <' Y + ;J+GA(' ' ' &	+!#JG@I(! & <	+!#JG)I(!)& <1' +!#J(! ' $)2)A)+
$G!J&@' T' %	J(' "&!)AJ' +?' (<) *#+ ' +!KS' (<) *#+ AJ)!(' ' '5	+!#JG@I(! & <	5+!#JG@I(! & <1' +!#J(! ' $)2)A)+ 1
$G!J&@' ' %' 5	J(' "&!)AJ' +?' !&);(' +!' !&);(%/ AJ)!(' %' ' %' 3	+!#J')<) *' +??' +!;AJ)!('	+!#J')<) *' +?' +!;AJ)!(
: +GH(A#(!AJ)!(	) (#B' "&!)AJ' %' %' %	>) #AJ)!(' %'	>) #AJ)!(1 +!#J(! ' $)2)A)+
+GH(A#(#AJ)!(	>)<?+!<' "&!)AJ' ' %	N?+!<AJ)!(' '	N?+!<AJ)!(
: +GH(A#(!AJ)!(	+@'#+ ' "&!2&' "&!)AJ'	>&!L)H;AJ)!('	L +' &L)H;AJ)!(+G#J(! ' $)2)A)+
: +GH(A#(#AJ)!(	G##+J%G <(!% !&) A' "&!)AJ' '	>&!2B)H;AJ)!('	>&!L)H;AJ)!(1' +G#J(! ' $)2)A)+
: +GH(A#(!AJ)!(	J( ) *#+ ' "&!)AJ'	N?+!<AJ)!(	N?+!<AJ)!(
: +GH(A#(!AJ)!('	"&!#' +?' $(&' "&!)AJ	(!(?+!<AJ)!('	(!(?+!<AJ)!(
(!(?+!<AJ)!(	&! +(' J&'(!B' %'	J!+'AJ)!(' %	J!+'AJ)!(1 +G#J(! 'G CHE
(!(?+!<AJ)!(	' +HJ?+!<' "&!)AJ' %' %	> +!H(A#(!AJ)!(	> +!H(A#(!AJ)!(1' > (A#(! ' $)2)A)+

!!Y U K S M#> ;>P @$1 Y

+G #)(A #+ L I)HJ #J( )A+ &#(< "&!#A I(+ *	"&!)AJ(AI +L AJ)'AI 4H +? LJ)HJI +! +? '&!#A +? LJ)HJI #J( )A+ &#(< "&!#A H+ A)A#	+G #)(A) LJ)HJ #J( )A+ &#(< "&!#A &!(+H& B A)#G&#(	+G #)(A & <)!)A)+ A #+ LJ)HJ)#)A) #(<(< #J&# #J( )A+ &#(< "&!#A AJ+G < I(& (N(<
(!(?+!<AJ)!(	++#J+* +L/ AJ)' %	(#L((+ % /)+G#JAJ)!(& < Y !(H+ AJ)!(9	(!(?+!<AJ)!(
(!(?+!<AJ)!(	E)##+ & < 5AH I +L AJ)'	&< +!AJ)!(	&< +!AJ)!(
(!(?+!<AJ)!(	L HJ &@ (# % %	+ @+G#JAJ)!(%	+ @+G#JAJ)!(
(!(?+!<AJ)!(	"&!# +? #J("&!)AJ +? !( )(; %	+ @+G#JAJ)!(%	+ @+G#JAJ)!(
(!#?+!<AJ)!(	"&!# +? +)(AJ)) &@ (#	G(;) *J&)AJ)!(5	GH;) *)&@AJ)!(1
(!#?+!<AJ)!(	"&!# +? (' (!A)& "&!)AJ	(<?+!<AJ)!(	(<?+!<AJ)!(
G #) *<+ AJ)!(%	"&!# +? &#L+!#J +L AJ)'	+!#J&@ '#+ AJ)!(	+!#J&@ '#+ AJ)!(1 +!#J(! $)2)A)+
G #) *<+ AJ)!(%	L) (AJ(&< "&!)AJ	(<?+!<AJ)!(	G #) *<+ AJ)!(
G #) *<+ AJ)!(%	"&!# +? 2(!#+ "&!)AJ %	(#L(((<?+!<%/ AJ)!(& < &@% Y I!)<*(AJ)!(%3	G #) *<+ AJ)!(
a(# % %	"&!# +? >++ L)HJ "&!)AJI +!#J +? #J(J&@(A %	a(# +! AA(N %	a(#I >(A#(! $)2)A)+
+ @+G#JAJ)!(	>(AJ)(; +! "&!)AJ %	(!(?+!<AJ)!(	(!(?+!<AJ)!(
N?+!<AJ)!(	+BH+# +L AJ)'	G(;) *J&@AJ)!(%	GH;) *J&@AJ)!(
N?+!<AJ)!(	E)) *A#+ (E+2("&!)AJ	GH;) *J&@AJ)!(%	GH;) *J&@AJ)!(
N?+!<AJ)!(%	&H;J&!+'A#(&< J&'(!B 8	GH;) *J&@AJ)!(%	GH;) *J&@AJ)!(
N?+!<AJ)!(% %	:!(&# E(@J) &!@I "&!# +?KS !+G*J#+ "+**A "&!)AJ %3	: +GH(A#(!AI)!?!	b :?+#)H(A#(!A !(I &A#(! $)2)A)+ 1
J!+'AJ)!(	"&!# +? & (A L("&!)AJ	+G <(< IB >+!%/# H(A (!AJ)!(& < Y #&??+!<AJ)!(%3	>+!H(A#(!AJ)!(1 1 &A#(! $)2)A)+]
+@(!A(#AJ)!(%	+ L("&!)AJI) H G<) * GH;% AI&L)#J) * % %3	$+!A(#AJ)!(% %	$+!A(#AJ)!(
&@'AJ)!(%	+!#J @I(!AJ&@ & < +G#JA @I(!AJ&@)#I) *A) #J(Y "&!)AJ +? #((' % %3	GAA(N % %	GAA(NI >(A#(! $)2)A)+
#&??+!<AJ)!(	!++@ "&!)AJ %	>+!H(A#(!AJ)!(%	>+!H(A#(!AJ)!(1 &A#(! $)2)A)+
#&??+!<AJ)!(	(# "&!)AJ % % %	>+!H(A#(!AJ)!(	>+!H(A#(!AJ)!(1 &A#(! $)2)A)+
GAA(N %	"&!# +? +*&#( )#J) *I I() */ & &!@ H& (< +*&#(+JG # Y &!@ % % % &	&@'AJ)!(% %	&@'AJ)!(1 +!#J(! $)2)A)+
>&!L)H;AJ)!(	G# & & < +I (B &@ (#	>+!H(A#(!AJ)!(%	>+!H(A#(!AJ)!(1 &A#(! $)2)A)+ 1
>&!L)H;AJ)!(%	#!(##+ G'+ +AA "&!)AJ % @) *#+ "&!)AJ % % +@'#+ H+!')+ &@ (# % % >J)#HJG!HJ "&!)AJ % % $)#HJ?+!< &@ (# % 8 %&	(#L(("&!#A +?/# >+!H(A#(!AJ)!(B & < : +GH(A#(!% AJ)!(% L9	>&!L)H;AJ)!(1 +G#J(! $)2)A)

U/KScM#> ;>P ʻ @$1 Y !!

+G #)(A #+ʻ LJ)HJ #J()A+ &#(< "&!#A I(+ *	"&!)AJ(AI +L AJ)'AI 4(ʻ +? LJ)HJI +!ʻ +? "&!#Aʻ +? LJ)HJI #J( )A+ &#(< "&!#A H+ A)A#	+G #)(A) ʻ LJ)HJ #J()A+ &#(< "&!#A &!(+H& B A)#G&#(	+#) #)(5 & < $)2)A)+ A #+ʻ LJ)HJ)#)Aʻ) #(<(< #J&# #J( )A+ &#(< "&!#& AJ+G < I(& (N(< 1 /
9 CF 43	I$4ʻH& 9H+ E2F$Jʻ I$4 CF	B34+CF 43	B34+CF 43ʻ ʻ
9 CF 43	8 E HE * F E2 E 8-4Cʻ I$4 CF	B34+CF 43	B34+CF 43
9 CF 43	8 DE$ E * F E2 E ?F E& 3 Dʻ ʻ I$4 CF ʻ ʻ ʻ5	B34+CF 43	B34+CF 43
9 CF 43	? $ H & 3 D I$4 CF	B34+CF 43 ʻ ʻ ʻ	B34+CF 43
9 CF 43	% E2C HHD I$4 CF	M H-N3C 3CF 43	M H-N3C 34CF 43ʻ 9 3C 34E G C HE
9 CF 43	I H- HE I$4 CF ʻ ʻ	M H-N3C 34CF 43	M H-N3C 34CF 43ʻ ; $C 34F G C HE
9 H4N3C 34CF 43	D34 J -C 34 I$4 CF *43D E2 HE I$4 CFʻ EN -D E2 F3 ʻ &H H E2 8$J 3 C. 4 ECNHʻ I B $N+ 3 , 3 QH D $ED * H HE G$4 E2CNH 3 $ED >HE2DHE ?F 1C HE QE ? H-4 I$4 CF * D J E2 HE @F$13 4O ; 3E H$D I$4 CF B HN+ 3O I$4 CFʻ EN -D E2 F3/ &H H E2 8$J 3 C. , H4 F NF I$ &H4D ʻ G4$ONH G14E3 ʻ ʻ G NF&H4D ʻ C HE P$2E$ @- CD3$E H4 @-DD3CD3E @F$13 4O	B3 33E M H- " N3C 34CF 43 K ʻ 9 $4 N+CF 43 5	9 H4N3C 34CF 43ʻ ; $C 34E G C HE
9 H4N3C 34CF 43	NNH J Q I$4 CF n	B3 33E M H-N3CR 34CF 43 $ED < ʻ &H4DCF 43 ḃ	M H-N3C 34CF 43ʻ ; $C 34E G C HE
9 H4N3C 34CF 43	G$ C&H4D I$4 CF	< &H4DCF 43 ʻ n	9 H4N3C 34CF 43ʻ ; $C 34E G C HE
Q4N3C 34CF 43	< DQH4H-2F I$4 CF	9 $4 N+CF 43 n	9 H4N3C 34CF 43ʻ ; $C 34E G C HE
9 H4N3C 34CF 43	G-D 3O I$4 CF	? $&&H4DCF 43 n	9 H4N3C 34CF 43ʻ ʻ ; $C 34E G C HE
9 H4N3C 34CF 3	; D E >H$NF I$4 CF	8343&H4DCF 43 n	9 H4N3C 34CF 43ʻ ; $C 341 G C HE
9 H4N3C 34CF 43	9 $4 3O 9 2H4E * H ECF 1	B3 33E I$4 C $& (ʻ ? $&&H4DCF 43 $ED ?F4H1CF 43 5	9 H4N3C 34CF 43ʻ ; $C 34 4 G C HE

ʻ B

!!Z U/K'S'M#> ;>P ' ' @$1 Y

+G #)(A #+' LJ)HJ' #J(')A' &#H< "&!#A' I(+ *	"&!)AJ(A' +L AJ)'A' 4H' +?' L)))HJ' +!' +?' "&!#A' +?' LJ)HJ' # (')A+ &#(< "&!#A' H+ A)A#	+G #)(A) ' LJ)HJ' #J(')A+ &#(< % "&!#A &!(' +H& B' A)#G&#(	+G #)(A' & <' $)2)A)+ A' #+' LJ)HJ)#')A') #(<(<' #J&# #J(')A+ &#(< "&!#A' AJ+G <' I(' & (N(<
9 >;?:'			
@$4E$4 HECF 43	*F3' 8-ED43D' H&' @430DD0E' / ; 4$C' *H ECF 1' H4' 8$J 3' '5	G3EQ 2FCF 43	@$4E$4 HECF 43
@$4E$4 HECF 43	P$3F$E	G3EQ 2FCF 43	@$4E$4 HECF 43
G3EQ 2FCF 43	@$4432QH $F' *H ECF 1 n	B3 33E' ?F4H1 *' CF 43' $ED' PHE ' ' 2HJ340CF 43' 5	PHE 2HJ340CF 43
6 E CF 43' ')	I$4' H&' F3' 8-ED43D' H&' P 0 H4 ' NHEC C E2' H&' F3' &H H E2' I$4 CF3C *H ECF 1C' H4' I $N3C' H4' H&' I$4 C' F343H&' 43C13NR 3 0' ' E$J3 0 < 34 HE' 6H43 2E' $ED' < 34 H1' $' ' %EH HE B$E2H4' ' " ' ; 4Q C HN+' ' 4 9 H4 F3EQ-40' Q3EQ-40' 3NF$E' 8$E E34' ' ' ' 8$ 2F HE' ' ' 9 E2 HE' ' ' CNH3D' g B3 C& 3 D' *0Q4H-2F HE' ' ' I3E 30' ' ' B4HE E2 HE' ' '	BH-ED3D' Q0' F3' @H-E 3C' H&' ?$' H1(' @F3C 34' ' G3EQ 2F' '	6 E CF 43
6 E CF 43	?-ED40' H F34' CJ$' I H C' H&' >$ED' E' F3' &H H E2' *H ER CF 1C' 43C13N 3 0' 1$J3 0' < 34 HE' $' ' ' < 34 HE' 6H43 2E' ' B$E2H4' ' ' 9 H4 F3EQ-40' ' ' ?- HE' ' ' g	G3EQ 2FCF 43	6 E CF 43
6 E CF 43'	I$4 C' H&' P$4&H4D' $ED' 8 HC3 30' *H ECF 1C' ' ' ' 5	G3EQ 2FCF 43	6 E CF 43
6 E CF 43	I$4' H&' 8$ $4D3E' *H ECF 1'	@F3CF 43	6 E CF 43
M$JH42$ECF 43	6$' 8H J3C' '	E' F3' B4 C H @F$EE3'	M$JH42$ECF 43
M$JH42$ECF 43	B$440' C $ED' ' ' '	E' F3B4 C H' @F$EE3	M$JH42$ECF 43
B43N+EHN+CF 43	I$4' H&' M$CQ-40' I$4 CF' '	B43N+EHN+CF 43' H4' '$DEH4CF 43 d	B43N+EHN+CF 43

UL' K' S ' M # > ; > P ' ' @$1 Y !!V

?@8 ; G # > ;' ^ , _

@H$ 4 3C G C HEC 4H E2' I $N3C

; , M > , G

B3D&H DCF 443

B3D&H4D
> - HE
>3 2F HE '
E1 F '
B 22 3C $D3 '
?F$ J 'Q4HH+

B34+CF 43

Q E2DHE '
' 3$D E2 '
, 3 Q - 40 '
9 $E $23 '
9 H+ E2F$ J '
P $ D3EF3$D '
M43$ ' 6$4 E2DHE '
; $C ' C 30

B - N+ && 2F$ J CF 43

0 3CQ - 40 '
B - N+ E2F$ J '
, 3 1H4 ' I $2E3 '
B3$NHEC& 3 D

@$ J Q4 D23CF 43' '

@$ J Q4 D23
, 3 J $4+3
' HOC HE

C 3' H&' ; 0

n

; 0
9 CQ3$NF
9 F 3C30

@F3CF 43 , H4 F34E' G C HE'

%E - C&H4D
? HN+1H4
P $NN 3C& 3 D
' - ENH4E

@F3CF 43 ?H - F34E' G C HE

@F3C 34
, $E NF
, H4 F NF
?EDQNF
B 4+3EF3$D

@H4E $; $C 34E' G C HE' i

BHD J E
>$ - EN3C HE
> C+3$4D
? 4$ HE
? ' - C 3 '

@H4E $ 9 3C 34E' G C HE

* 4 - 4H
I 3ET$EN3
8 3 C HE
' 3D4 - F

@ - J Q34 $ED ; $C 34E' G C HE'

@$4 C 3' '
B4$ J 1 HE '
9 2 HE
I 3E4 F
DC HE3

!Y[U"KS"M#> ;>P ʻ ʻ @$1ʻY

@H-E 3C	G C HEC	I H E2ʻ I $N3C
@-J Q34 $ED	9 3C 34Eʻ G C HE	@HN+34 J H- F C1$ 4 $ %3C N+ BHH 3 ; 243 J HE
G34QOCF 43	, H4 F34Eʻ G C HEʻ	B$+3 3 @F3C 34& 3 D @Q$13 E 3 64 F &43 HE M&HCCH1
G34QOCF 43	?H- F34Eʻ G C HEʻ	G34QO CFQH-4E 9 4+C H4 F P 3 QH-4E B3 134
G3 HECF 43	, H4 F34Eʻ G C HEʻ	?H- Fʻ P H HE MH# - J 1 HE B$4EC $1 3 * H4$E2 HE 8 H C H& FO < 3D HE
G3 HECF 43	?H- F34Eʻ G C HE	; 3 34 8 HE HE , 3 HEʻ QQH % E2CQ4 D23 I O J H- F * $ C HN+ < +3F$ J 1 HE
GH4C3 CF 43		GH4NF3C 34 9 J QH4E3 9 $43F$ J B3$ J EC 34 ?F34QH4E3 ?F$& 3CQ-4O B $ED&H4D @F3C HE
G-4F$ J	, H4 F34Eʻ G C HE	G-4F$ J ?-ED34 $ED) * +&, ! -! 9 N+F$ J @F3C 34 3 ? 433 ?H- Fʻ& 3 DC
G-4F$ Jʻ	?H- F34Eʻ G C HEʻ	G$4 E2 HE ? HN+ HE B CFH1Cʻ -N+ $EDʻ ? $EFH13 P DD 3 HEʻ * 33CD$ 3ʻ B$4E$4Dʻ @$C 3ʻ ?3D23& 3 D

U ' K' S ' M # > ; > P ' ' @$1 Y !Y

@H-E 3C	G C HEC	I H E2' $N3C
; CC3	, H4 F34E'G C HE'	B4$ E 433 @H NF3C 34 ?$&&4HE' 9 $ D3E ' * FH413
;CC3	?H- F34E'G C HE'	@F3 J C&H4D B 34 N$O ' H J &H4D ; 11 E2 ' HNF&H4D P $ DHE
MH-N3C 34CF 43 j	; $C 34E' G C HE'	M H-N3C 34 ? 4H-D * 3 +3CQ-4O @ 43EN3C 34 @$ J 1D3E , H4 F 3$NF @F3 3EF$ J
M H-N3C 34CF 43	9 3C 34E' G C HE	9 H HE -ED34 ; D23 , 3 3E , 3 EF$ J @H 3&H4D ?HDQ-4O * FH4EQ-4O ' G -4C 3O
8 $ J 1CF 43	, H4 F34E' G C HE'	9 ENF3C 34 HE EDH 34 B$C E2C H+3 % E2CN 343 <D F$ J I 3 34C& 3 D B CFH1C' 9 $ F$ J
8 $ J 1CF 43	?H- F34E' G C HE'	?H- F$ J 1 HE ; $43F$ J >O J E2 HE I H4 C J H- F ' E2 HHD ' H J C3O
' 8 343&H4DCF 43		8 343&H4D >3H J EC 34 B4H J O$4D >3DQ-4O ' HCC % E2 HE
8 34 &H4DCF 43		8 34 &H4D ? 3 3E$23 B-E E2&H4D B CFH1C' ? H4 &H4D ' 8 HDD3CDHE 8 $ & 3 D 8 3 J 3 ' 8 3 J 1C 3$D

!YU UčK S" M#> ;>P ' ' ' @$1 Y

@H-E 3C	G CHEC	IH E2 I $N3C
8-E E2DHECF 43		^ 8-E E2DHE ? HE
%3E	;$C 34E G C HE 2	@$E 34Q-4O ? E2QH-4E3 CF&H4D ,3 ' ' HJE3O ' '$J C2$ 3
%3E	93C 34E G $C HE	P$ DC HE3 B4HJ 3O B $N+F3$ F M4$ 3C3ED *HEQ4 D23 @4$EQ4HHQ3
>ENCF 43	,H4 F34E G C HE	>ENC 34 8$ Q3CF3$D # 34C HE IH-+HE I43C HE B-4E 3O
>ENCF 43	?H- F3E4 G C HE	,3 HE 9 2$E ' j P$ENF3C 34 ' > 341HH ' ' < 4JC+ 4+ 'HNFD$ 3
>3 N3C 34CF 43	,H4 F34E G C HE	>H-2FQH4H-2F ' P3 HE PH Q4$O ' CFQO D&4 $ eH-NF
>3 N3C 34CF 43	?H- F34E G C HE	>3 N3C 34 8 ED 3O P$4+3 ' 8$4QH4H-2F
> ENH ECF 43	I$4 C H& > EDC3O	> ENH E ' M$ ECQH4H-2F ' ;1 H4 F ' B$4 HE B4 P$4+3 ' '$ C E ' M43$ ' M4 JCQO ' >H- F ?1 CQO ' 8HJN$C 3
> ENH ECF 43	n I$4 C H& %3C 3 3E $ED 8H $ED	? 3$&H4D ' BHC HE ' 8H Q3$NF ' BH-4E ' BHE E2 HE ' ,$ 3E o ' ?1$ D E2 ' M4$E F$J

U7 K S `M # > ; > P ʽ ʽ @$1ʽY !YS

@H-E 3C	G C HEC	IH E2ʽ I $N3C
P DD 3C3		B43E &H4D ; ED& 3 D % E2 Cʽ@4HCC ʽH4ʽ F Eʽ 8 $ &ʽ$ʽ P 3ʽ F343H&ʽ 8 $ J J 34C J Fʽ ʽ B3D&HE ; D2 $43 P 3ʽ ; ED # Q4 D23
P HE J H- FCF 43		P HE J H- F Q342$ 3EEO # C+ , 3 1H4 * F3ʽ ' HN+ʽ EE ʽ Eʽ F3ʽ I $4 CFʽ H&ʽ B3D 3 O
, H4&H +	; $C 34Eʽ G C 4$Eʽ	, H4 NF = $4 J H- F ' 331F$ J , H4 Fʽ 9 $ CF$ J > HE2ʽ ? 4$ HE
, H4&H +	9 3C 34Eʽ G C HE	? $&&F$ J GH EF$ J 6$+3EF$ J > OEEʽ ' 32 C * F3 &H4D ; $C ʽ G343F$ J
, H4 F$ J 1 HECF 43	, H4 F34Eʽ G C HEʽ	%3 34 E2 I 3 34QH4H-2F < -ED 3 9 3 E2QH4H-2F @ 1C HE
, H4 F$ J 1 HECF 43	?H- F34Eʽ G C HEʽ	, H4 F$ J 1 HE G$ 3E 40 * H N3C 34 B4$N D3O
, H4 F$ J 1 HECF 43	, H4 F34Eʽ G C HE	E N+ B34 N+ 9 HH 34 ; CDHE P H413 F
, H4 F- J Q34 $EDʽ	?H- F34Eʽ G C HEʽ	8 3 F$ J , 3 N$C 3ʽ - 1HEʽ * OE3 ʽ 8 $ F C 3ʽ B3 E2F$ J ʽ ? $ J &H4DF$ J
, H E2F$ J CF 43	, H4 F34Eʽ G C HEʽ	, H E2F$ J P $EC& 3 D ; $C ʽ ' 3 &H4D

. 9 U7 K S ` M # > ; > P ʻ ʻ @$1 Y

@H-E 3C	G C HEC	I H E2ʻ I $N3C
%H E2F$ ECF 43ʻ	?H- F34EʻG C HE	, 3 $4+ʻ -1HEʻ * 43E ʻ B E2F$ J ?H- F 3
< &H4DCF 43		< &H4D G3DD E2 HE 9 E3O , 3 D3Q3D
' -D$ DCF 43		<$+F$ J
?F4H1CF 43	, H4 F34EʻG C HE	?F43 CQ-4O <C 3C 4O 9 F NF J F 9 3 E2 HE
?F4H1CF 43	?H- F3 EʻG C HEʻ	@F-4NFʻ ? 43 HE B4 D2EH4 F > -D H B CFH1 Cʻ @$C 3ʻ 9 3E HN+
?H J 34C3 CF 43	; $C 34EʻG C HE	&ʻ 9 3#Cʻ B$ F ?F31 HEʻ P $ 3 ʻ B3D J EC 34 Q4 D23 9 EN$E HE
?H J 34C3 CF 43	9 3C 34EʻG C HEʻ	* $-E HE B4 D2 $ 34 NF3C 34 9 HE
? $&&H DCF 43	, H4 F34EʻG C HEʻ	? $&&H4D >33+ , 3 N$C 3ʻ -ED34ʻ >O J 3ʻ @F3$D 3 QQH CʻB4H J 3O
? $ &H4DCF 43	?H- F34EʻG C HEʻ	9 $ C$ > NF& 3 Dʻ 9 H 34F$ J 1 HEʻ I 3E+4 D23 % E2Cʻ ? E&H4D
? -&&H +	; $C 34EʻG C HEʻ	1C NF , 33DF$ J 9 HHDQ4 D23ʻ 7 ; 4$ J E2F$ J ʻ ?$ J -EDF$ J ʻ 8 $ 3C H4 F ʻ > B3NN 3C

6 I' K' S/' M # > ; > P ' ' ' $1 3 !Y!

3+G #)(A	G C HEC	IH E2' I $N3C
? - &&H +	9 3C 34E' G C HE'	B - 40' ? ' ; D J - ED C 9 N+F$ J ' B4HH+ >$ 3EF$ J ? H J $4+3 BH 3CD$ 3 P D3EF$ 8 $D 3 2F
? - 4430	; $C 34E' G C HE	@4HODHE ' ' 3 2$ 3 ' ' @$ J Q34 3 ' % E2C HE
? - 4430	9 3C 34E ' G C HE	n M - D&H4D GH4+ E2 @F34 C30
? - CC3	; $C 34E ' G C HE	n >3 3C ; $C ' M4 EC 3$D B$ 3 P $O& 3 D
? - CC3	9 3C 34E' G C HE'	@F NF3C 34 ? 30E E2 I3 H4 F 8 H4CF$ J 4 - ED3
9 $4 N+CF 43	, H4 F34E' G C HE'	@H 3CF , - E3$ HE @H 3E 40 B 4 J E2F$ J G - ENF - 4NF
9 $4 N+CF 43	?H - F34E' G C HE'	9 $4 N+ % E3 HE ? 4$ &H4D 8 3E 30 ?H - F$ J
9 3C J H43 $ED		11 3QO ' % 4+QO ? 31F3E ' ?F$1 ' '/ J Q 3C D3 ' %3ED$ ' % 4+QO >H 4CD$ 3
C + H & 2 F		n , 3 1H4 ' 9 3C ' @H 3C

G

!YY U" K S C M # > ; > P M$1 Y

@H-E 3C	G C HEC	I H E2 I $N3C
9 CF 43	, H4 F34E G C HE	G3 T3C P 3 +CF$ J P $ J CQ-4O ? EDHE
9 CF 43	?H- F34E G C HE	?$ CQ-4O 9 $4 J EC 34 ; $C ; 34 3O 8 EDHH
9 H4N3C 34CF 43	; $C 34E G C HE	G4H NF I 34CFH43 ?F 1C HE ? H-4Q4 D23
9 H&N3C 34CF 43	9 3C 34E G C HE	9 H4N3C 34 # 1 HE ? H-41H4 * 3EQE4O
=H4+CF 43	, H4 F ' D E2	& =H4+ P $ HE ?N$4QH4H-2F 9 F QO ? H+3C 3O M- CQ<4H-2Q ' H J $ D+ 4+ ' NF J HED C+4 22 * F 4C+ , H4 F$ 34 HE % 4QO P HH4 ? D3
=H4+CF 43	; $C ' D E2	B3 34 3O 8 - G4 && 3 D I HN+ E2 HE B4 D E2 HE 8 H D3E 8 3DHE ?3 4 E2 HE
=H4+CF 43	9 3C ' D E2	9 $+3& 3 D ?F3&& 3 D GHEN$C 34 ?E$ F 8 -DD34C& 3 D 8 $ &$ B4$D&H4D B$4 C >33DC %3 2F 3O ?3 3 ; E$43CQH4H-2F ?+ 1 HE I $ 3 O B4 D23 G3E

U ˀ Kˁ SLˁ M # > ; > P ˁ ˁ @$1 Y !@

qH-" 3Z G C HEC I H E2ˁ I $N3C

9 > ; ? .

ˁ B3$- J $4 C ˁ

(2 3C3$ ˁ 8 H OF3$D

> $E23&E

B43N+EHN+CF 43

B43NHE

> $ED Hˁ $ 4ˁ

@$34ˁJ $4ˁ F3E ˁ

> $EDH 340 ˁ

@$34 J $4 F3ECF 43

, 3 N$C 3 ˁ ; J OE ˁ

?$ E ˁ @ 3$4C ˁ

> $E3 O ˁ

> EC 3

@$4D 2$E

Q34OC F

@$4D 2$ECF 43

>$ J 13 34

*4 $4HE

@$4E$4 HE ˁ

@HE $O ˁ

@$4E$4 HECF 43

@$13 ˁ @344 2 ˁ

I F3

G3EQ 2F

9 43 F$ J

G3EQ 2FCF 43

> $E4 C

> $E21 # 3E

' - F E

6 E

@ (

' FEDD $E

< 34 HE

B4 D23ED

@$4D &&

M $ J H42$ECF 43ˁ

? $EC3$

, 3$ F

P 34 F04ˁ * OD

8 $4 3NF ˁ

B$ $ ˁ

P 34 HE3 FCF 43

GH 23 O ˁ

* H OE ˁ

@H4 3E

P HE 2H J 340

> $E D H3C

P HE 2H J 34OCF 43ˁ ˁ

P $NFOE 3 F

> $E&O E

> $E $ 4

!YZ UL' K' SL' M # > ; > P ' ' @$1 ' Y

QH-E 3C	G C HEC	I H E2' I $N3C
I 3 J Q4H+CF 43		8 $ 34&H4D 3C I 3 J Q4H+3 , $4Q34 F 6 CF2-$4D , 3 1H4 * 3EQO P $ F O
' $DEH4CF 43' "		, 3 ' ' $DEH4 I 43C 3 2E ' F$OD4 I $ ECN$C 3 @H OE %E 2F HE I 3E O QHE

?@ 8 ; G # > ; ' ^ , ' U _

BH4H-2FC	I H E2' I $N3C
, 3 ' ?FH43F$ J ' ' &' '	, 3 ' ?FH43F$ J ' @H &Q D
@4 N+ $D3' ' ' ' " &' '	@4 N+ $D3 B4 E+ H4 F ' ? EDHE
O 3CQ-4O' ' '	O 3CQE4(&
; $C ' ' 3 &H4D' ' '	; $C ' ' 3 &H4D ' < #34 HE / 9 H4+CH1 M4 E2 3O HE F3 8

U " K S " M # > ; > P ' ' @$1 Y !YV

?@ 8 ; G # > ; ' ^< _

h @< # , * = ' <6' B ; G6 < ' G

H#+ $ ' ' * F3' H D' BH4H - 2F' H&' B3D&H4D

U h @< # , * = ' <6' B ; ' %?

* F3' < D' BH4H - 2F' H&' Q E2DHE

; ' * F3' H D' BH4H - 2F' H&' ' 3$D E2

* F3' H D' BH4H - 2F' H&' 9 $ E2&H4D' ' F3' C3 34$ ' I $4 CF3C' H&' B4 2F 3 ' ?H 3 ' , H4 F' P H43 HE ' ?H - F' P H43 HE ' B3EC E2 HE ' @4H J $4CF ' $ED' , 3 EF$ J ' P - 443E ' F3' > Q34 O' H&' @ $1NH ' $ED' F3' ; 4$ 1$ ' 4H3F $ ' I 43N EN ' H&' F3' @$C 3 ' $ED' $ CH' $ ' C - NF' I $4 C ' H&' F3' C3 34$ ' I $4 CF3C' H&' @FH C3O ' C HE' * 443 ' $ED' C HE' # 1 FH413' $C' $43' C - $ 3' HE' F$ ' ? D3' H&' F3' > E3' E3 ' F343 E $& 34' D3CN4 Q3D ' HE' F NF' F3' * H E' H&' 9 $ E2&H4D' 3C' ' ^ F$ ' C' H' C$O _

5 E :

64H J ' B 3 Q344O ' $ HE2' F3' ' H$D' N$ 3D' ` ' * F3' N+E 3 D' 9 $O c' H' F3' I H E ' HE' % E2 C' ? $ED E2' 8 ' $ ' F NF' F3' C$ J 3' J 33 C' F3' BH - ED$4O' H&' F3' I $4 CF' H&' @FH C3O ' F3EN3 ' ; $C $4D ' $ HE2' F3' BH - ED$4O' H&' F3' I $4 ' H&' @FH C3O' H' F3' I H E ' $ ' F NF' F3' C$ J 3' ' 43$NF3C' F3' ' 34' * F$ J 3C

* F3' H D' BH4H - 2F' H&' , 3 ' 9 EDCH4 ' F3' > H 34' / 9 $4D' H&' F3' @$C 3 ' $ED' CH' J - NF' H&' F3' I $4 CF' H&' @ 3 34' $C' C' C - $ 3D' H' F3' ; $C ' H&' F3' &H H E2' BH - ED$4O ' ^ F$ ' C' H' C$O _

64H J ' F3' I H E ' $ ' F NF' F3' MHC 3 ' G NF' (H EC' F3' ' 34' * F$ J 3C ' $ HE2' F3' MHC 3 ' G NF' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' @ 3 34' > $E3' ' F3EN3 ' 9 3C $4D ' $ HE2' @ 3 34' > $E3' H' $' I H E ' * 3E O & 3' = $4DC' D C $E ' &4H J ' F3' I H E ' $C ' D3C14 Q3D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' , H4 F 3C 34E' @H4E34' H&' F3' ; EN HCE43' 9 $ ' H&' F3' @$ $ 4O' B44N+C ' F3EN3' $ HE2' F3' 9 3C 34E' ; EN HC - 43' 9 $ ' H&' F3' @$ $ 4O' B44N+C' H' F3' I H E ' $ ' F NF' F3' C$ J 3' N - C' F3' BH - ED$4O' H&' F3' ' I $4 CF' H&' , 3 ' 9 EDCH4

G ' 5

' ;

! [@$1 [

Sh @<#<*=' <6' B#@% ,M8 P

*F3' C3 34$' I$4 CF3C' H&' B-N+ E2F$J ' P$ DCJH4 HE' *FH4EQH4H-2 '
I$DQ-40' 8 3C D3E' I43C HE' B CC3 ' * E23 N+' $ED' '$DN +3 NEJ '
@F$N+ JH43'

+ 2 +3. , *F3' C3 34$' I$4 CF3C' H&' M43$' P $4 H '> 3' P $4 H ' P 3DJ 3EF$J

=@<PB;' ' I$4 CF' H&' @F 11 E2' 9 ONHJQ3

h@<#, *=' <6' @ PB' GM;

4@(3*/+' ' *F3' H D' BH4H-2F' H&' @$JQ4 D23

! h@<#, *=' <6' @8;?*; '

, < ' * 8 ; ' , ' G ? < ,

64HJ' F3' IH E '$' F NF' F3' BH-ED$40' H&' F3' BH4H-2F' H&' P $NN 3CR & 3 D' J33 C' F3' >33+' 'H$D' E3$4' P HCC' IHH ' ?H- F $4D' $ HE2' F3' >33+' 'H$D' H' F3' B4 D23' H 34' F3' P $NN 3C& 3 D' @$E$ ' F3EN3' ;$C R $4D' $ HE2' F3' P $NN 3?& 3 D' @$E$' H' F3' IH E '$' F NF' F3' C$J3' J33 C' F3' BH-ED$40' H&' F3' BH4H-2F' F3EN3' ;$C $4D' $ HE2' F3' BH-ED$4('H&' F3' BH4H-2F' H' F3' IH E '$' F NF' F3' C$J3' C' 2 E' J3' QO' F3' P $NN 3C& 3 D' @$E$ ' F3EN3' , H4 F $4D' $ HE2' F3' P $NN 3C& 3 D' @$E$' H' F3' IH E '$' F NF' F3' C$J3' N4HCC3C' ?FH43 C' @ H-2F' B4HH+' F3EN3' 9 3C $4D' $ HE2' ?FH43 C' @ H-2F' B4HH+' H' F3' IH E '$' F NF' F3' C$J3' J33 C' F3' BH-ED$40' H&' F3' *H ECF 1' H&' 8 -4DC& 3 D' F3EN3' ?H- F $4D' $ HE2' F3' BH-ED$40' H&' F3' *H ECF 1' H&' 8 -4 &N& 3 D' H' F3' IH E '$' F NF' F3' C$J3' J33 C' F3' BH-EDJO' H&' F3' BH4H-2F' H&' P $NN 3C& 3 D' F3#N3' 9 3C $4D' $ HE2' F3' BH-ED$40' H&' F3' BH4H-2F' H&' P $NN 3C& 3 D' H' F3' IH E '& 4C' D3CN4 Q3D

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*F3' *H ECF 1' H&' ? HN+1H4 '$ED' F3' 43C13N 3' 8$J 3 C' H&' B4 E+C $O' $ED' ;D23 30' H23 F34' F' FHC3' I$4 C' H&' F3' 43C13N 3' *H ECF 1C' H&' B4 EE E2 HE' $ED' 8 3$ HE' , H44 C' F NF' $43' EN -D3D' F E' F3' &H H E2' BH-ED$4 3C' 43C13N 3 O' ^F$' C' H' C$O _

h 64HJ' F3' IH E '$' F NF' F3' BH-ED$40' H&' F3' *H ECF 1' H&' ? HN+1H4' H- D' Q3' N- ' QO' $' C 4$ 2F' > E3' H' Q3' D4$ E' &4HJ' F3' B 4 3' H 34' F3' ' 34' P 34C30' HE' F3' B43DQ-40' $ED' 8 OD3' 'H$D' H' J3' @HJ' P ' E' F3' *H ECF 1' H&' 8 3$ HE' , H44 C' Q3 33E' F3' P $ENF3C 34' $ED' ? HN+1H4' @$E$' $ED' F3' ' 3DD CF' 'H$D' $ED' EH ' E' F3' <NN-1$ HE' H&' P 4' 9 $ JC 30 $ HE2

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* #Gʿ G h 64H J ʿ F3ʿ I H E ʿ$ ʿ F NFʿ F3ʿ BH-ED$40ʿ H&ʿ F3ʿ *H ECF 1ʿ H&ʿ 8 3$ HEʿ , H44 Cʿ J 33 Cʿ F3ʿ P $ENF3C 34ʿ ' H$D ʿ Q3 33Eʿ $ʿ I -Q Nʿ 8 H-C3ʿ N$ 3Dʿ F3ʿ CF ʿ $EDʿ G$EQOʿ >$E3 ʿ $ HE2ʿ F3ʿ P $ENF3C 34ʿ ' H$Dʿ Hʿ F3ʿ I H E ʿ $ ʿ F NFʿ F3ʿ C$J 3ʿ (ʿ J 33 Cʿ G$EQOʿ >$E3 ʿ F3EN3ʿ $ HE2ʿ G$EQOʿ >$E3ʿ Hʿ F3ʿ I H E ʿ$ ʿ F NFʿ F3ʿ C$J 3ʿ Cʿ N- ʿ QOʿ $ʿ C 4$ 2F ʿ > E3ʿ D4$ Eʿ F343 Hʿ &4H J ʿ F3ʿ 6 4C ʿ P 3ʿ ? HE3ʿ HEʿ F3ʿ 4 E2F4ʿ ' H$Dʿ F4H-2Fʿ F3ʿ 9 3C 34Eʿ E2 3ʿ H&ʿ F3ʿ I -Q Nʿ 8 H-C3ʿ N$ 3Dʿ F3ʿ 8 3$ HEʿ , HE Cʿ @ -Qʿ 8 & -C3ʿ ʿ F3EN3ʿ $ HE2ʿ F3ʿ C$ Dʿ C 4$ 2F ʿ > E3ʿ Hʿ F3ʿ ʿ I H E ʿ $ ʿ F NFʿ F3ʿ ?$J 3ʿ J 33 Cʿ F3ʿ ?H- F34Eʿ BH-ED$40ʿ H&ʿ F3ʿ *H ER CF 1ʿ H&ʿ 8 3$ HEʿ , H44 C ʿ F3EN3 ʿ ; $C $4D ʿ $ HE2ʿ F3ʿ BH-ED$40ʿ H&ʿ F3ʿ *H ECF 1ʿ H&ʿ 8 3$ HEʿ , Q44 Cʿ Hʿ F3ʿ I H E ʿ & 4C ʿ D3CN4 Q3D

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64H4 ʿ F3ʿ ?3NHEDʿ @ Oʿ BH-ED$40ʿ ? HE3ʿ Eʿ BH-2F H4 ʿ 6H4Dʿ P 3$D ʿ $EDʿ HEʿ F3ʿ ; $C 34Eʿ B$E+ʿ H&ʿ F3ʿ ' 34ʿ G33 ʿ Eʿ $ʿ C 4$ 2F ʿ > E3ʿ Hʿ F3ʿ 9 3C 34Eʿ ; 43 J Oʿ H&ʿ $ʿ >$E3ʿ F NFʿ 3$DCʿ &4H J ʿ ? HN+ʿ >$E3ʿ Hʿ BH-2F HEʿ 8 3$ F ʿ F3EN3ʿ Eʿ $ʿ C 4$ 2F ʿ > E3ʿ Hʿ F3ʿ ?H- F34Eʿ ; 43 J Oʿ H&ʿ 8 3$ Fʿ >$E3 ʿ F3EN3ʿ $ HE2ʿ 8 3$ Fʿ >$E3ʿ Hʿ F3ʿ I H E ʿ $ ʿ F NFʿ F3ʿ C$J 3ʿ (H ECʿ F3ʿ @F4 C 3 HEʿ ' H ʿ F3EN3ʿ $ HE2ʿ F3ʿ @F4 C 3 HEʿ ' H$Dʿ Hʿ F3ʿ I H E ʿ $ ʿ F NFʿ F3ʿ C$J 3ʿ Cʿ (H E3Dʿ QOʿ , 3 ʿ >$E3 ʿ F3EN3ʿ $ HE2ʿ , 3 ʿ >$E3ʿ Hʿ F3ʿ I H E ʿ $ ʿ F NFʿ F3ʿ C$J 3ʿ J 33 Cʿ 6 + Eʿ >$E3 ʿ F3EN3ʿ $ HE2ʿ 6 + Eʿ >$E3ʿ Hʿ F3ʿ I H E ʿ$ ʿ F NFʿ F3ʿ C$J 3ʿ (H EC ʿ $ ʿ C1ʿ *433ʿ * -4E1 +3ʿ M$ 3 ʿ F3ʿ *$4 Eʿ ' H$D ʿ F3EN3ʿ $ HE2ʿ F3ʿ *$4 Eʿ ' H$Dʿ Hʿ *$4 Eʿ B4 D23 ʿ F3EN3ʿ $ HE2ʿ F3ʿ , $E NFʿ @$E$ Hʿ F3ʿ I H E ʿ $ ʿ F NFʿ F3ʿ C$J 3ʿ J 33 Cʿ F3ʿ H Dʿ @ Oʿ BH-ED$40 ʿ F3EN3 ʿ ?H- F $4D ʿ $ HE2ʿ F3ʿ H Dʿ @ Oʿ BH J ʿ gD$ Oʿ Hʿ F3ʿ ?3NHEDʿ @ Oʿ BH-ED$ Oʿ ? HE3ʿ $&H43C$ D

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64H J @H 34$N+ B4 D23 H 34 F3 ' 34 > HH E $ C 4$ 2F > E3 $N4HCC D 3 9 3ED4HE ' H$D H F3 9 3C 34E ; 43 J O H& $ > $E3 3$D E2 QO 9 F3$ EE H M4FJ P E3 F3EN3 $ HE2 F3 C$ D > $E3 H F3 I H E $ F NF F3 C$ J 3 J 33 C $ C J $? 43$ J F3EN3 ?H - F $4D $ HE2 F3 C$ D ? 43$ J H F3 I H E $ F NF F3 C$ J 3 J 33 C $ > $E3 3$D E2 &4H J 9 3ED4HE H * 3HHHC3 ; ED @HEC $E E3 F3EN3 ; $C $4D $ HE2 F3 C$ D > $E3 H * 43NHHC3 $1D @HEC $E E3 H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 BH - ED$4O H& F3 I $4 CF H& 9 3ED4HE F3EN3 ?H - F $4D $ HE2 F3 BH - ED$4O H& F3 I $4 CF H& 9 3ED4HE H @H 34$N+ B4 D23

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64H J F3 I H E HE F3 , H4 F H& I 3F4OF $ F NF F3 BH - ED$4O H& F3 H D BH4H - 2F 3$ 3C F3 BH - ED$4O H& F3 I $4 CF H& P O H4 9 3C $4D $ HE2 F3 BH - ED$4O H& F3 H D BH4H - 2F H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 ' H$D &4H J I 3E4OE H 8 3 C HE3 F3EN3 E $ C 4$ 2F > E3 H F3 I H E N$ 3D 8 8 3$D $ F NF F3 ' H$D H I 3E OE &4H J B - DHN+ (H EC 3 ' H$D H I 3E4OE &4H J @HEC $E E3 F3EN3 E $ C 4$ 2F > E3 H F3 E3$43C I H E H& (3 BH - ED$4O H& F3 I $4 CF H& 6$ J H - F F3EN3 ?H - F $4D $ HE2 F3 BH - ED$ O H& F3 I $4 CF H& 6$ J H - F H F3 I H E $ F NF F3 ?$ J 3 J 33 C F3 BH - ED$4O H& F3 D3 $NF3D I H4 HE H& F3 I $4 CF H& B - DHN+ F3E@3 E $ C 4$ 2F > E3 H F3 , H4 F34E I H E $ F NF F3 BH - ED$(4O H& F3 D3 $NF3D I H4 HE H& F3 I $4 CF H& B - DHN+ 3$ 3C F3 BH - ED$4O H& F3 I $4 CF H& 6$ J H - F F3EN3 9 3C $4D $ HE2 F3 ?3$ @H$C H F3 I H E $ F NF F3 C$ J 3 C J 3 QO F3 BH - ED$4O H& F3 I $4 CF H& ?$ E M - $C F3EN3 ; $C $4D $ HE2 F3 BH - ED$4O H& F3 I $4 CF H& ? M - $C H F3 I H E & 4C D3CN4 Q3D

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64H J BHC 2H B4 D23 H 34 F3 %31 O1 ' 34 $ED HE F3 BH - ED$4O H& F3 H D BH4H - 2F $ HE2 BHC (2H > $E3 H F3 I H E $ F NF F3 C$ J 3 (H EC F3 ' 3D4 - F ' H$D F3EN3 $ HE2 F3 ' 3D4 - F ' H$D H F3 I H E $ F NF F3 C$ #3 C (H E3D E3$4 @F$13 8 M$ 3 QO M433E > $E3 F3EN3 $ HE2 M433E > $E3 H F3 I H E $ F NF F3 ?$ J 3 (H EC F3 6$ J H - F ' H$D F3EN3 $ HE2 $E < NN - 1$ HE ' H$D 3$D E2 F4H - 2F , 3 F$ J 6$4 J > $ED H F3 I H E $ F NF C - NF < NN - 1$ HE ' H#D J 33 C , 3 F$ J 6$4 J > $E3 F3EN3 $ HE2 $ 63EN3 F NF 14HN33DC &4H J , 3 F$ J 6$4 J > $E3 $ED C F3 ?H - F 3C 34E BH - ED$4O H& * H 6 3 DC 43C13N 3 O N$ 3D M43$ B33& @ #C3 $ED > 3 B33& @ HC3 H F3 I H E $ F NF C - NF 63EN3 J 33 C F3 , H4 F 3C 34E 63EN3 H& $ 6 3 D N$ 3D B4$ J Q 3 @ HC3 F3 (N3 ; $C $4D $ HE2 F3 63EN3 H& B4$ J Q 3 @ HC3 H F3 I H E $ F NF F3 C$ J 3 43$NF3C F3 ?FH43 H& @$ 3E N+ @433+ F3EN3 $ HE2 F3 ?FH43 H& @$ E N+ @ 43 H > H 34 , 3 F$ J 9 F$4& F3EN3 E $ C 4$ 2F > E3 $N4HCC F3 * 4 - 4H $ED 6$ R J H - F ' 34 H F3 ?H - F 3$C 34E ; 43 J O H& ? - EEO @H4E34 9 F$4& F3EN3 E $ C 4$ 2F > E3 H ? - EEO @H4E34 F3EN3 E $ C 4$ 2F > E3 H F3 I H E $ F NF * 43E$N+ > $E3 H - D F3 @ - QO $ C 4$ 2F > E3 H Q3 D4$ E &4H J F3 ; $C 34E ; 43 J O H& , 3 F$ J 6$4 J > $E3 H F3 I H E N$ 3D 8 8 3$D $ F NF ? @ 3 J 3E C > $E3 J 33 C F3 ? - C 3 H D * - 4E1 +3 ' H$D F3EN3 E $ C 4$ 2F > E3 H P NF3 8 M$ 3 HE F3 H D > HEDHE ' H$D F3EN3 E $ C 4$ 2F > E3 H F3 I H E $ F NF F3 BH - ED$4O H& F3 H D BH4H - 2F H - D Q3 N - QO $ C 4$ 2F > E3 H Q3 D4$ E &4H J P NF3 8 M$ 3 H %3E OE @F - 4NF F3EN3 , H4 F $4D $ HE2 F3 BH - ED$4O H& F3 H D BH4H - 2F H BHC 2H

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; 4HJ ' F3' B4 D23' H 34' F3' ' 34' @$ D3 ' -E E2' F3' *H ECF 1' H&' @$ D3 2$ 3' F' F3' H D' @ O' H&' @$4 C 3' ?H- F $4D' $ HE2' F3' ' 34' @ D3 ' H' F3' I H E ' $ ' F NF' F3' C$ J 3' 3$ 3C' F3' BH-ED$4O' H&' F3' *H ECF 1' H&' @$ D3 2$ 3' F3EN3' 9 3C $4D' $ HE2' F3' BH-ED$4O' H&'
1)E F3' *H ECF 1' H&' @$ D3 2$ 3' H' F3' I H E ' $ ' F NF' F3' ' H$D' &4HJ ' F3' %3 ' 8H-C3C' H' @$4 C 3' (H EC' F3' 9 2 HE' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' BO3 ' H$D' &4HJ ' ? $ E HE' H 34' F3' ?- J J 34' 8H-C3' 6H4D' E' F3' ' 34' ; D3E ' $ED' $N4HCC' F3' @$E$ ' &4HJ ' F3' ?H $O' H' @$4 C 3' J 33 C' F3' ' H$D' &4HJ ' M43$ ' $ED' > 3' <4 HE' H' @$4 C 3' $ ' $' I $N3' N$ 3D' , 3 ' *H E ' F3EN3' $ HE2' F3' C$ D' ' H$D' &4H F' ? $ E HE' H' F3' I H E ' $ ' F NF' F3' C$ J 3' 43$NF3C' F3' ?- J J 34' 8H-C3' 6H4D' f F3EN3' $ HE2' F3' BH-ED$4O' H&' F3' *H ECF 1' H&' @$ D3 2$ 3' < F3' B4 D23' & 4C ' D3CN4 Q3D

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+ a = H&' GH 3EQO' F NF' 3C' Q3 33E' F3' 43C13N 3' *H ECF 1C' H&' I$1N$C 3' ģB4 D3+ 4+ ' $ED' @HN+34 J H- F

64HJ ' F3' I H E ' HE' F3' ?3$' @H$C ' , H4 F' H&' 9 F 3F$ 3E ' $ ' F NF' F3' BH-ED$4O' H&' F3' *H 4$CF 1' H&' I 43C HE' \ -$4 34' J 33 C' F3' BH-ED$4O' H&' F3' *H ECF 1' H&' P H43CQO ' ; $C $4D' $ HE2' F3' BH-ED$4O' H&' F3' *H ECF 1' H&' I 43C HE' \ -$4 34' H' F3' I H E ' $ ' F NF' F3' ? 43$ J ' F NF'
> ' & H C' F4H-2F' F3' $23' H&' 8 3EC E2F$ J ' &$ C' E H' F3' I H3' B 3N+ ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' HE' F3' ?3$' @H$C ' $ ' F NF' F3' BH-ED$4O' H&' F3' *H ECF 1' H&' I 43C HE' J 33 C' F3' BH-ED$4O' H&' F3' *H ECF 1' H&' ?$ED F ' F3EN3' $ HE2' F3' ?3$' @H$C ' H' F3' I H E ' & 4C ' D3CN4 Q3D

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64HJ' F3'E3 'B4 D23'H 34' B4$DD &H4D' 9 $&34 ' HE' F3' , 3 'B4$-E HE' 'H$D' $ HE2' F3' 8 3D23' F NF' C' F3' ; $C 34E' BH-ED$40' H&' F3' ; 4C ' I H 'P$4CF' 6 3 D' H' F3' I H E '$' 4 F NF' F3' C$J3' N- C' I H 3CF #' >$E3' F3EN3' $ HE2' I H 3CF #' >$E3' H' F3' I H E ' $' F NF' F3' C$J3' J33 C' 8$ C' P '>$E3(' F3EN3' $ HE2' 8$ C' P '>$E3' H' F3' I H E '$' &4FNF' F3' C$J3' J33 a' F3' P '>3$ ' F3EN3' $ HE2' F3' P '>3$&' H' F3' I H E ' $' F NF' F3' C$J3' J33 C' ?F3$4&H4D' >$E3' F3EN3' $ HE2' ?F3$4&H4D' >$E3' H' F3' I H E ' $' NF' F3' C$J3' (H EC' F3' 'HQH4H-2F' 'H$D'' F3EN3' $ HE2' F3' 'HQH4H-2F' 'H$D' H' F3' I H E ' $' F NF' D 3' C$J3' %' J3 'QO' ?JH+O' 8H-C3' >$E3' F3EN3' $ HE2' ?JH+O' 8H-C3' >$E3' H' F3' I H E '$' F NF' F3' C$J3' C' N- 'QO' $' 8 3D23' F NF' D D3C' F3' 6 3 D' N$ 3D' M43$ ' P '@ HC3' c' &4HJ' F3' 6 3 D' N$ 3D' `' > 3' P '@ HC3' c ' F3EN3' $ HE2' F3' $C J3E HE3D' 8 3D23 ' $ED' E' $' > E3' E' NHE E-$ HE' H&' F3' G 43N HE' F343H&' H' F3' I H E ' $ ' OF NF' C-NF' > E3' N- C' F3' ' 34' =3H ' F3EN3' ; $C $4D' DHE2' F3' BH-ED$40' H&' F3' H D' BH4H-2F' H&' B$4EC $1 3' H' F3' I H E ' $' F NF' F3' C$J3' J33 C' E' @HHE3O' @- ' F3' ?H- F 3$C 34E' 63EN3' H&' $' 6 3 D' N$ 3D' S' 8 $ J F3EN3' $ HE2' F3' $C ' J3E HE3D' 63EN3' H' F3' I H E '$' F NF' F3' C$J3' N- C' >$ED' %30' 'H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' HE' ' - J CHE' 8 ' $ ' F NF' 9 EDO' CF' >$E3' J33 C' F3' B4 EDHE' @ HCC' 'H$D ' F3EN3' $ HE2' 9 EDO' CF' >$E3' H' F3' I H E ' $' F NF' 9 HHD' ? 433 ' 9 $ 34' N4HCC3C' F3' C$J3' F3EN3' $ HE2' 9 HHD' ? 433 ' 9 $ 34' H' F3' I H E '$' F NF' F3' C$J3' (H EC' F3' ' 34' *$ ' F3EN3' $ HE2' F3' ' 34' *$ ' H' F3' I H E '$' F NF' F3' C$J3' C' (H E3D' QO' F3' ' 34' =3H ' F3EN3' $ HE2' F3' ' 34' =3H' H' F3' ? E2' B4 D23' HE' F3' , 3 'B4$-E HE' 'H$D ' F3EN3' $ HE2' F3' , 3 ' B4$-E HE' 'H$D' H' F3' E3 ' B4 D23' & 4C ' D3CN4 Q3D

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64HJ' F3' I H E ' HE' F3' ?3$' @H$C ' $ ' F NF' F3' BH-ED$40' H&' F3' I$4 CF' H&' *H EC $ ' J33 C' F3' BH-ED$40' H&' F3' I$4 CF' H&' ? H+3' 6 3J E2' , H4 F $4D ' $ HE2' F3' BH-ED$40' H&' F3' I$4 CF' H&' *H EC $ ' H' F3' I H E '$' F NF' F3' C$J3' J33 C' F3' ? H+3' 'H$D ' F3EN3' $ HE2' F3' ? H+3' 'H$D ' 1$CC E2' ? $ $ HE' @4HCC' $ED' ? $ F#HE' M$ 3 ' H' F3' I H E '$' F NF' F3' ? H+3' 'H$D' J33 C' F3' P HE' 'H$D ' F3EN3' $ HE2' F3' P HE' 'H$D' H' F3' I H E '$' F NF' F3' C$J3' C' J3 'QO' F3' BH-ED$40' H&' F3' I$4 CF' H&' *H EC $ ' F3EN3 ' 9 3C $4D ' $ HE2' F3' BH-ED$40' H&' F3' I$4 CF' H&' *H EC $ ' H' F3' I H E '$' F NF' F3' C$J3' 43$NF3C' < D' P ' @433+ ' F3EN3' $ HE2' F3' >H $ 34' P$4+' H' F3' I H E ' & 4C ' D3R CN4 Q3D

E "

8 : ' *F3' I$4 CF' H&' ? H+3' G$J3 ' $ED' F3' *H E CF 1' H&' ? HE3FH-C3

V _ 2 9 ? 6 ' : 6 ' '& #) ! !

64H J F3 * -4E1 +3 M$ 3 HE F3 P H4 HE ' H$D ?H- F $4D $ HE2 @H N+ >$E3 H F3 I H E $ F NF F3 C$ J 3 J 33 C ? HE3 >$E3 F3EN3 $ HE2 ? HE3 >$E3 H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 ' H$D &4H J ; 3 34 H 1F E2 HE F3EN3 ?H- F $4D $ HE2 F3 ' H$D &4H J ; 3 34 H 1F E2 HE H F3 I H E $ F NF F3 C$ J 3 C (H E3D QO P $& B$4 HE >$E3 F3EN3 $ HE2 P $4CF B$4 HE >$E3 H F3 I H E $ F NF F3 C$ J 3 43$NF3C F3 9 3C 34E B4$ENF H& F3 ' 34 ; 3 F3E33 E $ C 4$ 2F > E3 H F3 I H E $ F NF QQ3O >$E3 J 33 C F3 ; $C 34E B4$ENF H& F3 ' 34 ; 3 F3EN3 ?H- F $4D $ HE2 F3 >3$ H F3 I H E $ F NF F3 C$ J 3 C (H E3D QO F3 B4HH+ F NF 4-EC DH E F4H-2F ; $C 9 HE&H4D F3EN3 $ HE2 F3 C$ D B4HH+ H F3 I H E $ F NF F3 C$ J 3 N4HCC3C F3 < D ? H+3 $ED * 34 HE ' H$D E3$4 F3 ' H$D H P EN E2 >$+3 6$4 J F3EN3 $ HE2 F3 < D ? H+3 $ED * 34 HE ' H$D H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 BH-ED$4O H& F3 @H-E O H& F3 @ O F3EN3 , H4 F $4D $ HE2 F3 BH-ED$4O H& F3 @H-E O H& F3 @ O H F3 I H E E3$4 6H F$OC $ F NF $ B4$ENF H& F3 ' 34 ; 3 &H E2 F4H-2F ; N+ (H EC F3 J $ E ? 43$ J F343H& F3EN3 E $ C 4$ 2F > E3 H F3 I H E $ F NF F3 ' H$D &4H J ; N+ H F3 * -4E1 +3 M$ 3 HE F3 P H4 HE ' H$D C (H E3D QO $ ' H$D 3$D E2 &4H J 6H F$OC H @ 3$ 3 F3EN3 $ HE2 F3 C$ D ' H$D &4H J ; N+ H F3 * -4E1 +3 M$ 3 HE F3 P H4 HE ' H$D H F3 I H E $ F NF F3 C$ J 3 43$NF3C C-NF * -4E1 +3 M$ 3

)+) H *5 3 I$4 CF H& 8 HE HE

64H J F3 , H4 F 3$C 34E BH-ED$? HE3 E $ C 4$ 2F > E3 H F3 E3$43C I H E H& F3 > E3 H& F3 ; J Q$E+ J 3E F3EN3 ?H- F $4D $ HE2 F3 > E3 H& F3 ; J Q$E+ J 3E H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 BH-ED$4O H& F3 H D BH4H-2F F3EN3 ?H- F $4D $ HE2 F3 BH-ED$4(/ H& F3 H D BH4H-2F H F3 I H E & 4C D3CN4 Q3D

4 ! E "

8 - * F3 I$4 CF H& * $ C HN+ 3 N31 F3 P $EH4 H& @-D 1 H E

* F3 I$4 CF H& * H E3C $ED F3 P $EH4 H& B4 D23 H E

[h @< # , * = < 6 G< ' ? ; *

64H J F3 * H B$4 HE F3 ; 3 34 ' H$D E $ C 4$ 2F > E3 H F3 , H4 F34E ; 43 J O H& F3 63EN3 F NF C31$4$ 3C F3 6 3 D N$ 3D `` P $4 $ED 6 3 N43C C &4H J F3 6 3 D N$ 3D `` 8 2F34 M 4 -1C $ED GH2FH 3C C F3EN3 $ HE2 F3 9 3C 34E 63EN3 H& F3 6 3 D 8 2F34 M 4 -1C $ED GH2FH 3C H F3 I H E $ F NF F3 C$ J 3 43$NF3C $ >$E3 3$D E2 E H P 3$D >$E3 F3EN3 $ HE2 F3 C$ D >$E3 3$D E2 E H P 3$D >$E3 H F3 I H E $ F NF F3 C$ J 3 43$NF3C P 3$D >$E3 F3EN3 $ HE2 P 3$D >$E3 H F3 I H E $ F NF F3 C$ J 3 (H EC F3 @F$4D ' H$D F3EN3 , H4 F $4D $ HE2 F3 @F$4D ' H$D H F3 I H E $ F NF F3 C$ J 3 C (H E3D QO F3 & 4C >$E3 HE F3 ' 2F N$ 3D `` M433E >$E3 F3EN3 E $ C 4$ 2F > E3 H E2 HE P F3EN3 E $ C 4$ 2F > E3 H F3 I H E $ F NF @HE302343 >$E3 (H EC F3 I O J H43 ' H$D F3EN3 $ HE2 @HE302343 >$E3 H F3 I H E $ F NF F3 C$ J 3 (H EC F3 B3$ J EC 34 ' H$D F3EN3 E $ C 4$ 2F > E3 H F3 B4 D23 H 34 F3 ' 34 CF34 N HC3 QO F3 6 HHD 8 H-C3C F3EN3 $ HE2 F3 ' 34 CF34 H F3 I H E $ F NF F3 C$ J 3 H- D Q3 N- QO $ C 4$ 2F > E3 H Q3 D4$ E &4H J F3 ; $C 34E ; 43 J O H& @HE302343 >$E3

! Y U K S M # > ; > P @$1 Y

>$E3 H F3 * - 4E1 +3 M$ 3 HE F3 GH4NF3C 34 ' H$D F3EN3 $ HE2 F3 C$ D C 4$ 2F > E3 H F3 * - 4E1 +3 M$ 3 HE F3 GH4NF3C 34 ' H$D F3EN3 ?H- F $4D $ HE2 F3 GH4NF3C 34 ' H$D H F3 I H E $ F NF F3 C$ J 3 C (H E3D QO BH F3EF$ 1 HE >$E3 F3EN3 $ HE2 BH F3EF$ J 1 HE >$E3 H F3 I H E $ F NF F3 C$ J 3 C J 3 QO F3 ? 43$ J F NF &H4 J C F3 BH-ED$4O Q3 33E F3 43C13N 3 I $4 CF3C H& 9 $ D NF $ED BH F3ER F$ J 1 HE F3EN3 $ HE2 F3 C$ D ? 43$ J H F3 I H E $ F NF F3 C$ J 3 &$ C E H F3 ' 34 CF34 F3EN3 DH E F3 ' 34 CF34 ^&H H E2 F3 ; $C 34E J HC B4$ENF F343H& $ F3 I H E C $ F NF F3 C$ J 3 D D3C E H * H B4$ENF3C_ H ?X- QC B4 D23 F3EN3 E $ C 4$ 2F > E3 H F3 ?H- F 3$C 34E @H4E34 H& %33 J O @H $23 HE F3 BH F3EF$ J 1 HE ' H$D F3EN3 E $ C 4$ 2F > E3 H F3 ; $C 34E ; 43 J O H& 9 HE D34 3 >$E3 F3EN3 9 3C $4D $ HE2 9 HED34 3 >$E3 H F3 I H E $ F NF F3 C$ J 3 (H EC F3 B-4 HE B4$DC HN+ ' H$D F3EN3 ?H- F $4D $ HE2 F3 B-4 HE B4$DC HN+ ' H$D H 9 NF M$ 3 F3EN3 E $ C 4$ 2F > E3 F4H-2F F3 BH J Q$4D 34 C 8 H-C3 H F3 ?3$ @H$C F3EN3 $ HE2 F3 ?3$ @H$C H F3 ; $C 34E ; 43 J O H& 9 3C @ && F3EN3 , H4 F $4D $ HE2 9 3C @ && $ED $ HE2 F3 9 3C 34E BH-ED$4O H& F3 ?F 1 = $4D H& P 3CC 3-4C P $ F3 C $ED @H J 1$EO H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 BH-ED$4O H& F3 6 3 D N$ 3D ` I & 3 D P $4CF c F3EN3 , H4 F $4D $ HE2 F3 BH-ED$4O H& I & 3 D P $4CF H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 ' 34 B4 $ 43 I HH F3EN3 -1 F3 ' 34 B4 H F3 I H E $ F NF F3 C$ J 3 C (H E3D QO F3 ? 43$ J F 3F &H4 J C F3 BH-ED$4O Q3 33E F3 43C13N 3 I $4 CF3C H& ?O J HEDCQ-4O $ED & E2 HE F3EN3 $ HE2 F3 $C J 3E HE3D ? 43$ J H F3 1H E $ F NF F3 C$ J 3 J 33 C F3 63EN3 F NF 4-EC DH E) F343 H &4H J F3 * H B$4 $ F3 B+3 34 ' H$D F3EN3 $ HE2 F3 $C J 3E HE3D 63EN3 H F3 * H B$4 HE F3 ; 3 34 ' H$D

64H J F3 C3NHED H4 J DD 3 B4 D23 HE F3 ?F34QH4E3 ' H$D $ HE2 F3 , H4 F34E B4$ENF H& F3 ' 34 64H J 3 1$CC E2 -ED34 M430 C B4 D23 H F3 I H E $ F NF C-NF , H4 F34E B4$ENF C J 3 E3$4 ? $E HE C @ H F 6$N H4O QO F3 BH-ED$4O H& F3 I $4 CF H& 6H4D E2 HE F3EN3 ?H- F $4D $ HE2 F3 BH-ED$4O H& F3 I $4 CF H& 6H4D E2 HE H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 9 $43F$ J ' H$D F3EN3 9 3C R $4D $ HE2 F3 9 $43F$ J ' H$D H F3 * - 4E1 +3 M$ 3 F3EN3 E $ C 4$ 2F > E3 H F3 @3E 43 H& F3 B$44H N$ 3D ` * H B$44H C c

- " F3EN3 E $ C 4$ 2F > E3 H F3 @3E 43 H& F3 J 1F F3$ 43 N$ 3D P $- J Q-4O ' E2 F3EN3 F $ C 4$ 2F > E3 H F3 @3E 43 H& F3 B$44H N$ 3D >$ 43EN3 B$44H E3$4 F3 ; 3 34 ' H$D F3EN3 E $ C 4$ 2F > E3 H F3 ?H- F 3C 34E @H4E34 H& F3 B44N+ 9 $ F3EN3 , H4 F $4D $ HE2 F3 B44N+ 9 $ $ED I $ C$D3 H F3 I H E $ F NF C-NF I $ C$D3 J 33 C F3 ?H- F34E B4$ENF H& F3 ' 34 64H J 3 F3EN3 E $ C 4$ 2F > E3 H F3 C3NHED H4 J DD 3 B4 D23 HE F3 ?F34R QH4E3 ' H$D

9 ; * F3 43C13N 3 I $4 CF3C H& >O J 3 ' 32 C $ED @F$4 J H- F

! * F3 @H-E O H& F3 * H E H& I HH 3 F3 I $4 CF H& 8 $ J H4 FO $ED F3 43C13N 3 * F E2C H& I $4+C HE3 $ED J 2& 33

" E * F3 H D BH4H-2F H& ?F$& 3CQ-4O F3 C3 34$ < - I $4 CF H& 8 H O * 4 E O ? 5$ J 3C $ED ? I 3 34 F3 C3 34$ I $4 CF3C H& @$EE ? ' H J Q$ D P H NH J F ; $C ? H 34 ? H 34 I 4H HC * HDQ3(3 P 3 Q-4O QQ& C @H J 1 HE QQ$C GH F3$D ? P $4O $ED ? P $42$43 C P $4CF $ED F3 @F$13 4O H& 8 $4 H 3

@_ V' 9 ? 6 ' : 6 '' '&' #) ' !

*F3' H D' BH4H-2F' 2&' 9 $43 $J ' F3' I $4 CF3C' H&' @H4&3' @$C 3' $ED' B343' ' 32 C ' F3' C3 34$' <- I $4 CF3C' H&' >$DO' ?$ E ' P $4O ' 8 H O' *4 E O ' $ED' ?$ E ' P $4 E ' $ED' F3' @F$13 4O' H&' 4E3 ' F$ ' I $4 ' H&' F3' I $4 CF' H&' ; $C ' ? H+3' F NF' $D(H EC' F3' ; $C 34E' BH-ED$4O' H&' F3' H D' BH4H-2F' H&' 9 $43F$J ' $ED' $ CH' C-NF' I $4 ' H&' F3' I $4 CF' H&' ; $C ' P H4D3E' $C' C' NH J 14 C3D' F E' F3'&H H E2' BH-ED$4O ' ^ F$ ' C' H' C$O _'

5 " 7 64H J ' F3' I H E ' $ ' F NF' F3' BH-ED$4O' H&' F3' I $4 CF' H&' ; $C ' P H4D3E' J 33 C' F3' ?H- F34E' BH-ED$4O' H&' P H4D3E' I $4+' 9 HHD ' ?H- F $4D ' $ HE2' F3' BH-ED$4O' H&' P H4D3E' I $4+' 9 HHD ' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' ?F34&H4D' >$+3 ' F3EN3 ' ; $C $4D ' $ HE2' F3' ?F34&H4D' >$+3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' BH-ED$4O' H&' F3' I $4 CF' H&' ; $C ' P H4D3E ' F3EN3 ' ?H- F $4D ' $ HE2' F3' BH-ED$4O' H&' F3' I $4 CF' H&' ; $C ' P H4D3E' H' F3' I H E ' & 4C ' D3CN4 Q3D

64H J ' F3' H D' ? - N3' HE' F3' 9 $43F$ J ' ' H$D' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ F NF' F3' , H4 F34E' 9 $ ' H&' F3' H D' B44N+' 6 3 D' J 33 C' F3' G H4R NF3C 34' ' H$D ' F3EN3' $ HE2' F3' C$ D' , H4 F34E' 9 $ ' $ED' E' $' > E3' E' F3' D 43N HE' F343H&' H' F3' I H E ' $ F NF' C-NF' > E3' J 33 C' F3' BH-ED$4O' H&' F3' 1 D' BH4H-2F ' F3EN3 ' , H4 F $4D ' $ HE2' F3' BH-ED$ O' H&' F3' H D' BH4H-2F' H' F3' I H E ' $ F NF' F3' C$ J 3' J 33 C' F3' # 1134' 9 O+3' ' H$D ' F3EN3 ' 9 3C $4D ' $ HE2' F3' # 1134' 9 O+3 ' H$D' H' F3' I H E ' $ F NF' F3' C$ J 3' C' (H E3D' QO' $' @4H?C' ' H$D' 3$D E2' H' F3' > H 34' 9 O+3' ' H$D ' H F34R

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C3' N$ 3D' B - HE C' > $E3 ' F3EN3' $ HE2' F3' C$ D' @4HCC' ' H$D' H' F3' I H E_' $ ' F NF' F3' C$ J 3' (H EC' F3' C$ D' > H 34' 9 O+3' ' H$D ' F3EN3' $ HE2' F3' C$ D' > H 34' 9 O+3' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' (H EC' F3' ?$EDC ' &HH ' @$C 3' ' H$D ' F3EN3 ' , H4 F $4D ' $ HE2' F3' ?$EDC&HH ' @$C 3' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' J 3 ' QO' F3' 6HH 1$ F' 3$D E2' QO' > 3 3 C' 6$4 J ' H' B EN 3 3C ' F3EN3' $ HE2' F3' C$ D' 6HH 1$ F' H' F3' I H E ' $ ' F NF' F3' C$ J 3' 43$NF3C' F3' ; D23' H&' F3' @ &&' $ ' B EN 3 3C' F3EN3' $ HE2' F3' ?3$' @H$C ' H' F3' H D' ? - N3' $&H43C$ D

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64H J ' ?F EN &&3' B4 D23' H 34' F3' ' 34' 9 3$4 ' <E' F3' ? HN+ HE' ' H$D ' $ HE2' F3' ? HN+ HE' ' H$D ' H' F3' I H E ' $ ' F NF F3' C$ J 3' C' J 3 ' QO' $' > $E3' 3$D E2' E H' F3' G$4 E2 HE' ' H$D ' F3EN3' $ HE2' F3' C$ D' > $E3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' (H EC' F3' G$4 E2 HE' ' H$D ' F3EN3' $ HE2' F3' G$4 E2 HE' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' J 3 ' QO' I H 34 C' > $E3 ' F3EN3' $ HE2' I H 34 C' > $E3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' \ -$44O' 8 3$D' > $E3 ' F3EN3' $ HE2' \ -$EO' 8 3$D' > $E3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' P $4234O' > $E3 ' F3EN3' $ HE2'. P $4234O' > $E3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' 6 $CC' > $E3 ' F3EN3' $ HE2' 6 $CC' > $E3' H' F3' I H E ' $ ' F NF' F3' ?$ J 3' J 33 C' C' > $E3' 3$D E2' E H' F3' E3 O' N- ' * -4E1 +3' ' H$D' F NF' &H4 J C' F3' @H J J 3EN3R J 3E ' H&' F3' , 3 N$C 3' ' H$D ' F3EN3' $ HE2' F3' $C J 3E HE3D' > $E3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' (H EC' F3' C$ D' E3 O' N- ' ' H$D ' F3EN3 ' , H4 F $4D ' $ HE2' F3' C$ D' E3 O' N- ' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' (H EC' F3' H D' > E3' H&' F3' , 3 N$C 3' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' F4H-2F' F3' , H4 F34E J HC ' H&' F3' * H' < - Q- D E2C' $ $NF3D' H' %31 34 C' 8 HC1 $ ' H' F3' ' 34' 9 3$4 ' F3EN3' $ HE2' F3' ' 34' 9 3$4' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' %31 34' > $E3 ' F3EN3' $ HE2' %31 34' > $E3 ' 1$CC E2' -ED34' F3' D ' 4NF3C' H&' F3' 8 HC1 $ ' H' F3' I H E ' $ ' F NF' F3' C$ J 3' > $E3' C' (H E3D ' HE' F3' ?H- F 3C ' H&' 8 2F'

M' M4$E23

S`KS M#> ;>P ʻ ʻ @$1 Y

M4$E23ʻ 6$4 J ʻ QOʻ $ʻ >$E3ʻ ' 3$D E2ʻ E Hʻ F3ʻ >H$E E2ʻ 8 3$Dʻ ' H$D ʻ 3EN3ʻ $ HE2ʻ F3ʻ $C J 3E HE3Dʻ >$E3 ʻ N4HCC E2ʻ F3ʻ ?-ED34 $EDʻ ' H$D ʻ Hʻ F3ʻ I H E ʻ$ ʻ F NFʻ F3ʻ C $J3ʻ >$E@ʻ (H ECʻ F3ʻ >H$E E2ʻ 8 3$Dʻ ' H$D ʻ F3EN3ʻ $ HE2ʻ F3ʻ >H$E E2ʻ 8 3$Dʻ ' H$Dʻ Hʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$ J 3ʻ Cʻ J 3 ʻ QOʻ $ʻ B3N+ʻ 4-EE E2ʻ N HC3ʻ Hʻ F3ʻ , H4 Fʻ H&ʻ I 3 $ ʻ 9 HHDʻ $EDʻ Hʻ F3ʻ ?H- F H&ʻM 3C2$ 3ʻ @F-4NF ʻ F3EN3ʻ $ HE2ʻ F3ʻ C$ Dʻ B3N+ʻ Hʻ F3ʻ I H E ʻ$ ʻ F NFʻ F3ʻ C$ J 3ʻ &$ Cʻ E Hʻ F3ʻ ' 34ʻ 4 ʻ F3EN3ʻ $ HE2ʻ F3ʻ ' 34ʻ 9 3$4ʻ Hʻ ?F E@ &&3ʻ B4 D23

*F3ʻ I $4 CFʻ H&ʻ M$ 3CF3$D ʻ $EDʻ $ CHʻ $ ʻ C-NFʻ I $4 ʻ H&ʻ F3ʻ @F$13 40ʻ H&ʻ 8 3 H4 Fʻ Eʻ F3ʻ I $4 CFʻ H&ʻ 5$44H ʻ $Cʻ Cʻ C -+ 3Dʻ Hʻ F3ʻ 9 3C ʻ H&ʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ Q3ʻ D4$ 9 Eʻ &4H J ʻ% 4 HEʻ *H ʻ M$ 3ʻ 8 H-C3ʻ Hʻ B -3ʻ \ -$440ʻ P ʻ $EDʻ 14H HE23Dʻ 3$NFʻ 9 $Oʻ Hʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ I $4 CFʻ H&ʻ M$ 3CR F3$D

E "ʻ " ʻ ʻ *F3ʻ 43C13N 3ʻ *H ECF 1Cʻ H&ʻ ?H- Fʻ ?F 3 DCʻ $EDʻ 9 3C H3

n *F3ʻ I $4 CFʻ H&ʻ ?-ED34 $ED ʻ $EDʻ F3ʻ C3 34$ ʻ *H ECF 1Cʻ H&ʻ B CFH1ʻ 9 3$4 J H- F ʻ B CFH1ʻ 9 3$4 J H- Fʻ I $EEC ʻ P HE+ʻ 9 3$4 J H- F ʻ P HE+ʻ 9 3$4 J H- Fʻ ?FH43 ʻ $EDʻ ?H- F N+

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-" *F3ʻ H Dʻ BH4H-2Fʻ H&ʻ 8 $4 NF

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S h @<# , *=ʻ <6ʻ M><#@ ; ?* ; '

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4 - ʻ ʻ ʻ *F3ʻ I $4 CFʻ +?ʻ @ 43EN3C 34

Λ 64H J ʻ F3ʻ H Dʻ @ Oʻ BH-ED$40ʻ ? HE3ʻ HEʻ F3ʻ 9 3C 34Eʻ ? D3ʻ H&ʻ F3ʻ >$E3ʻ N$ 3Dʻ @$CD3ʻ >$E3 3$D E2ʻ &4H J ʻ 9 3C 2$ 3ʻ ? 433 ʻ Hʻ F3ʻ @H-E Oʻ M$H ʻ ʻ , H4 F $4D ʻ $ HE2ʻ F3ʻ H Dʻ @ Oʻ BH-ED$40ʻ Hʻ F3ʻ BH-ED$40ʻ ? N J 3ʻ ʻ ?H- Fʻ H&ʻ F3ʻ >HEDHEʻ ' H$D ʻ F NFʻ J $4+Cʻ F3ʻ ; $C 34E J HC ʻ I H E ʻ H&ʻ F3ʻ ʻ H Dʻ @ Oʻ BH-ED$40 ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ E 3ʻ F4H-2Fʻ F3ʻ ; $C 34Eʻ ʻ @H J 34ʻ H&ʻ F3ʻ P ʻ -1HEʻ F3ʻ ' 34ʻ * 34 ʻ Q3 33Eʻ F3ʻ H Dʻ @ O BH-ED$40

V_ ‹9 ? 6 ' : 6 '' '& ' #) '

E - 'BH-ED$40 $ED F3 *4$J4H$D &4H -' F3 M H-N3C 34 $ED B34+3 30 @$E$' H'@F3 3EF$J ' H' F3 C$ D *4$J4H$D ' F3EN3 $ HE2 F3 C$ D *4$J4H$D H F3 I H E '$' F NF F3 C$J3 C J3 _' QO 'B$4 HE >$E3 ' F3EN3 $ HE2 B$4 HE >$E3 H F3 I H E '$' F NF F3 C$J3 N4HCC3C F3 ?-D B4HH+' F3EN3 $ HE2 F3 ?-D B4HH+ H F3 I H E '$' F NF F3 C$J3 &$ C E H F3 M H-N3C 34 '$ED B34+3 30 @$E$ ' F3EN3 $ HE2 F3 M H-N3C 34 $ED B34+3 30 @$E$' H F3 I H E '$' F NF F3 C$J3 C J3 ' QO F3 H D @ O BH-ED$40 ' F3EN3 ' 9 3C $4D ' $ HE2 F3 H D @ O BH-ED$40 H F3 I H E '&4C 'D3CN4 Q3D

*F3 C3 34$' I$4 CF3C H& ? 4H-D ' B C 30 ' I$ EC N+' I NFNHJQ' '$ED N+' ? HE3FH-C3' >3HE$4D ? $E 30 ' % E2C ? $E 30 ' 'HDQH4H-2F' P ENF EF$J1 HE ' 9 HHDNF3C 34 ' 3E E2 ' $ED 8H4C 30 ' 3 N31 ' F$' I$4 'H& F3 I$4 CF.'H& >3HE$4D ? $E 30 F NF C N$ 3D >H44 D23 C 6$4J ' $ED C C-44H-ED3D QO F3 I$4 CF H& B34+ 30

E ' ' *F3 I$4 CF H& *3 +3CQ-40

NJTT E '.D' ! O

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8 &' *F3 43C13N 3 I$4 CF3C H& EDH 34 $ED %E 2F C ; F$J '$ED F3 * F E2 H& 6H NH

*F3 H D BH4H-2F H& I3 34C& 3 D ' $ED F3 * F E2 H& ?F33 ' F3 C3 34$' I$4 CF3C H& B-4 HE ' >OCC '$ED 64H & 3 D ' F3 C3 34$' * F E2C

! : H& '$J CD3E ' >$E24 CF ' $ED < 3EQH-4E ' E F3 I$4 CF H& ;$C ' P 3HE ' $ED $ CH F3 I$4 CF H& ? 331 '3 N31 ' F3 43C13N 3 * F E2C H& ,H4 F $ED ?H- F JQ3&CF$J

64HJ' ? ' 9 E $ C @F-4NF E $ C 4$ 2F ' > E3 H F3 @H $23 HE F3 E3 ' 43C&H4D 'H$D F NF C ,H4 F 3C ' H& F3 9 F 3 8H-C3 HE ? 'M 3CC 8 ' F3EN3 E $ C 4$ 2F ' > E3 H F3 *-4E1 +3 M$ 3 $' B$44 ;ED ' F3EN3 E $ C 4$ 2F ' > E3 H F3 I H E '$' 9 F NF F3 MHC1H4 ' 'H$D (H EC F3 ?H- F$J1 HE 'H$D ' F3EN3 E $ C 4$ 2F ' > E3 H F3 I H E '$' F NF $E E2 3 C J$D3 E F3 ,H4 F34E B$E+ H& F3 >$E3 3$D E2 &4HJ' ? '@4HCC H @HJ1 HE GH E ' 13413ED N- $4 O $QH 3 F3

5 -" D331 8H H ' E F3 C$ D >$E3 ' F3EN3 E $ C 4$ 2F ' > E3 H F3 @HN+ >$E3 *-4E1 +3 M$ 3 ' F3EN3 E $ C 4$ 2F ' > E3 H F3 *F433 8H4C3 ?FH3C I-Q N 8H-C3 HE F3 9 33+ ' 'H$D ' F3EN3 E $ C 4$ 2F ' > E3 H F3 8H-C3 HE F3 EDH 34 'H$D F NF C JJ3D $ 3 O ,H4 F 3C ' H& F3 I H E '$' F NF F3 BH-ED$40 H& F3 @ O H& 9 ENF3C 34 N4HCC3C F3 C$J3 'H$D ' F3EN3 E $ C 4$ 2F ' > E3 H F3 ?H- F 3$C 34E @H4E34 H& F3 6 4 I $E $ HE HE F3 9 3C 34E ? D3 H& F3 B$C E2C H+3 'H$D ' F3EN3 E $ C 4$ 2F ' > E3 H ? ' 9 EE$ C @F-4NF

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*F3 I$4 CF H& @F4C NF-4NF ' $ED F3 @F$13 40 H& 8H D3EF-4C ' 3 N31 ' C-NF I$4 ' H& F3 * F E2 H& 8 - J ' E F3 I$4 CF H& @F4C R NF-4NF $C C C -$ 3D H F3 ,H4 F H& F3 &H H E2 BH-ED$40 ' ^F$' C H 1 A

64HJ' F3 I H E '$' F NF F3 9 3C 34E BH-ED$40 H& 3 I$4 CF H& @F4C NF-4NF

!Z[U K S M # > ; > P @$1 Y

4"H -"E -" 5 @F4 C NF-4NF N4HCC3C F3 'H$D &4H J G-DCQ-40 H 8 - J B4 D23 E $ C 4$ 2F 5E3 H F3 ?H- F 3C 34E @H4E34 H& P 344 H E @H4H4$HE(F3EN3 D J2 F3 ?H- F34E BH-ED$40 H& P 344 H E @H J JHE $ED H& 8 - J @H J JHE H F3 I H E $ F NF F3 ?H- F34E BH-ED$40 H& 8 - J @H J JHE 43$NF3C F3 P HH4 C ' 34 F3 33 E $ C 4$ 2F > E3 H F3 ?H- F34E BH-ED$40 I HC H& D 3 I $& D H& @F4 C NF-4NF HE F3 ' E2 HHD 'H$D N HC3 QO 6 OQ4HH+ I $E $ HE

*F3 I $4 CF H& >O J + 2 HE $ED $ CH C-NF I $4 H& F3 I $4 CF H& BH D43 $C C NH J 14 C3D F E F3 &H H E2 BH-ED$40 ^ F$ C H a$0

9 64Q J ; $C 3ED B4 D23 HE F3 ; $C 34E BH-ED$40 H& F3 I $4 CF H& BH D43 E $ C 3$ 2F > E3 F4H-2F BH D43 @F-4NF H F3 9 3C 34E B$ + H& >O J E2 HE ' 34 F3EN3 ?H- F $4D $ HE2 F3 9 3C 34E B$E+ H& >O J E2 HE ' 34 H D 3 I H E $ F NF F3 C$ J 3 J 33 C F3 BH-ED$40 H& F3 I $4 CF H& BH D43 F3EN3 ?H- F $4D $ HE2 F3 BH-E 40 H& F3 I $4 CF H& BH D43 H ; $C 3ED B4 D23 $&H43C$ D

.(2%4 .>2 *F3H D BH4H- H& I H4 C J H- F $ED F3 I $4 CF H& I H4 C3$

0.>2 412.) *F3 *H E $ED @H-E O H& F3 *H E H& ?H- F$ J 1 HE

! h @<#, *= <6 8 ; ' ; 6< 'G

: *F3 (FD3 $ N 3 NHE $ E3D F E F3 BH-ED$40 H& F3 > Q34 3C H& F3 @ O H& 8 343&H4D EN -D E2 @$CD3 M43HE

9 *F3 I $4 CF H& >3H J EC 34

Y @<#, *= <6 8 ; ' *6< 'G

02 A@)% 64H J F3 * -4E1 +3 M$ 3 HE F3 >HEDHE 'H$D ; $C H& ?$ E Q$EC N$ 3D ?$ E Q$EC M$ 3 E $ C 4$ 2F > E3 H F3 I H E $ F NF F3 BH-ED$40 H& F3 H D BH4H-2F N4HCC3C F3 ' 3 $ F3 BH H J H& F3 @H HE P >$E3 F3EN3 ?H- F $4D $ HE2 F3 BH-ED$40 H& F3 H D BH4H-2F H F3 I H E $ F NF F3 9 3C 34E BH-ED$40 H& F3 I $4 CF H& ? Q$E 3$ 3C F3 ' 34 F3EN3 E $ C # 2F > E3 F4H-2F F3 ?H- F 3$C 34E @H J 34 H& ? P NF$3 C @F-4NFO$4D H F3 8 3 J 1C 3$D 'H$D F3EN3 , H4 F $4D $ HE2 F3 8 3 J 1C 3$D 'H$D H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 'H$D 3$D E2 H 'MH43F$ J Q-40 &H4 J 34 O F3 '3DQH-4E 'H$D F3EN3 E $ C 4$ 2F > E3 H F3 9 3C 34E ; 43R J O H& F3 *HE2-3 H& >$ED # F3 ' 34 (-C $QH 3 % E2CQ-40 6 CFR 1HED 3EN3 E $ C 4$ 2F > E3 H F3 ? D3 B$4 Q3 HE2 E2 H % E2C4 Q-40 * -4E1 +3 M$ 3 QO F3 ? D3 H& F3 E3 '3DQH-4E 'H$D F3EN3 ; $C $4D E $ C 4$ 2F > E3 H F3 I H E $ F NF F3 BH-ER D$40 H& F3 H D BH4H-2F J 33 C >- HE >$E3 F3EN3 ; $C $4D $ HE2 F3 BH-ED$40 H& F3 H D BH4H-2F H F3 1H E $ F NF F3 C$ J 3 N4HCC3C ? 33 Q4 $4 >$E3 F3EN3 E $ C 4$ 2F > E3 H ? Q$E C * -4E1 +3 M$ 3 $&H43C$ D

@_ @9?6':6 '' '&' #) !

64HJ' F3' @H41H4$ HE' IHC' $' F3' BH HJ' IH&' IH4' 8 ' $HE2' F3' B3E23H' 'H$D' H' F3' IHE' $' FNF' F3' C$J3' C'N-'QO' F3' ,H4 F34E' 63EN3' H&' IH4' 8 '6 3 D' F3EN3' $HE2' F3' ,H4 F34E' $ED' 9 3C 34E' 63EN3C' H&' IH4' 8 '6 3 D' H' F3' IHE' $' FNF' C-NF' 9 3C 34E' 63EN3' N- C' F3' PH 3' 9 HHD' P ' 'H$D' F3EN3' E' $' C 4$ 2F' > E3' F H-2F' ?3 3' 6$4J' B4 D23' H' F3' ? 3 3E$23' 'H$D' F3EN3' E' $' C 4$ 2F' > E3' H' F3' IHE' $' FNF' F3' 834 E2&H4DQ-4O' 'H$D' C' N4HCC3D' QO' F3' BH-ED$4O' H&' F3' < iBH4H-2F' H&' 834 &H4D' F3EN3' ?H- F $4D' $HE2' F3' BH-ED$4O' H&' F3' <- BH4H-2F' H&' 834 &H4D' H' F3' @H41H4$ HE' IHC' $' F3' BH HJ' H&' IH4' 8

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h @<#,*=' <6' 8#,* ,MG<,

E

*F3' H D' BH6H-2F' H&' 8 -E E2DHE' $ED' F3' I$4 CF' H&' MHDJ $ENF3C 34

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64HJ' F3' 9 3C 34E J HC' IHE' E3$4' ? '5$NHQ C' $' FNF' F3' BH-ER D$4O' H&' F3' @ O' > Q34 3C' J 33 C' F3' CF&H4D' 'H$D' E' $' C 4$ 2F' > E3' H' F3' IHE' $' FNF' F3' 3C13N 3' BH-ED$4 3C' H&' F3' I$4 CF3C' H&' 8$4Q 3DH E' ? 'G-EC $E' $ED' 8H O' @4HCC' 9 3C 2$ 3' J 33 ' F3EN3' ,H4 F $4D' $HE2' F3' ;$C 34E' BH-ED$4O' H&' F3' I$4 CF' H&' 8$4Q 3DH E' H' F3' IHE' $' FNF' F3' C$J3' -4EC' ,H4 F 3C $4D' E3$4' F3' 9 F C $Q 3' 'H$D' F3EN3' E' $' C 4$ 2F' > E3' E' F3' G 43N HE' H&' ? '? 31F3E C' @F-4NF' H' F3' IHE' $' FNF' C-NF' C 4$ 2F' b C' F3'

4 E BH-ED$4O' H&' F3' I$4 CF' H&' ? '? 31F3E' F3EN3' ;$C $4D' $HE2' F3' BH-ED$ O' H&' F3' I$4 CF' H&' ? '? 31F3E' H' F3' IHE' $' FNF' F3' C$J3' J 33 C' F3' BH-ED$4O' H&' F3' I$4 CF' H&' 8H O' @4HCC' 9 3C 2$ 3' F3EN3' E' $' C 4$ 2F' > E3' F4H-2F' F3' IHE' $' FNF' F3' 'H$D' H' ? '? 31F3E C' @F-4NF' J 33 C' F3' 'H$D' H' ? -440' H' F3' E3$43C' B4$ENF' H&' F3' ' 34' ? H-4' F3EN3' $HE2' F3' C$D' B4$ENF' H&' F3' ' 34' ? H-4' H' F3' @H4' }1H4$ HE' ?HE3' ,-JQ34' ! ' F3EN3' ;$C $4D' $HE2' F3' BH-ED$4O' H&' ' F3' @ O' > Q34 3C' EN -D E2' F3' FH 3' H&' F3' BH4H-2F' H&' >HE21H4 ' ^ H' F3' IHE' & 4C' D3CN4 Q3D

64HJ' F3' 53 O' $HE2' F3' BH-ED$4O' H&' F3' > Q34 3C' H&' F3' *H E' $ED' IH4' H&' GH 34' HE' F3' ;$C 34E' ? D3' H&' F3' @$C 3' $ED' F4H-2F' F3' I$4 CF' H&' @F$4 HE' H' F3' BH-ED$4O' ? HE3' $' FNF' F3' BH-ED$4O' H&' F3' C$D' > Q34 3C' J 33 C' F3' BH-ED$4O' H&' F3' I$4 CF' H&' B-N+ $&D' E' B$N+' >$E3' F3EN3' $HE2' B$N+' >$E3' H' F3' IHE' $' FNF' F3' C$J3' J 33 C' F3' 'H$D' 3$D E2' DH E' H' @4$QQ3' *-4E1 +3' M$ 3' HE' F3' >HEDHE' 'H$D' F3EN3' E' $' C 4$ 2F' > E3' E' $' 3C 34 O' G 43N HE' H' F3' IHE' $' FNF' F3' BH-ED$4O' H&' F3' I$4 CF' H&' B-N+ $ED' N4HCC3C'

8 ' F3' >HEDHE' 'H$D' F3EN3' $HE2' F3' BH-ED$4O' H&' F3' I$4 CF' H&' B-N+ $ED' H' F3' IHE' $' 4FNF' F3' C$J3' N4HCC3C' F3' ' 34' F3EN3' E' $' C 4$ 2F' > E3' H' F3' IHE' $' FNF' F3' BH-ED$4O' H&' F3' I$4 CF'

8 ' H&

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H&' B-N+$ D' J33 C' F3' 'H$D' 3$D E2' H' MHJQ3' 6$4J ' F3EN3' $HE2'
F3' BH-ED$40' H&' F3' I$4CF' H&' B-N+$ED' H' F3' IHE ' $' FNF'
F3' BH-ED$40' H&' F3' I$4CF' H&' 8H-2F$J' C' E 34C3N 3D' QO' F3'
BH-ED$40' H&' F3' >Q34 3C' $&H43C$D' F3EN3' $HE2' F3' BH-ED$40' H&'
F3' C$D' >Q34 3C' H' F3' ?3$' @H$C ' F3EN3' $HE2' F3' ?3$' @H$C ' H'
F3' 53 0

" n *F3' H D' BH4H-2F' H&' 8 0 F3' F3' >Q34 3C' H&' F3' *HE H&' 6H +C HE3 '
$ED' F3' C3 34$' I$4CF3C' H&' 9 3C ' 8 0 F3' ?$ HHD' @F34 HE' 6H + '
C HE3' $ED' ,3 E2 HE' 3 N31 ' F$' D3 $NF3D' I$4' H&' F3' I$4CF' H&'
,3 E2 HE' N$ 3D' P$4 HHD' >$ED

-" n *F3' C3 34$' I$4CF3C' H&' ? ' P$40' ? ' I3 34' $ED' ? '@ 3J3E ' $ED'
F3' ; 4$ 1$4HNF$' I43N EN' H&' ? ' B$4 FH HJ3 ' ?$ED NF' ' F3'
I$4CF' H&' G3$ ' $ED' F3' I$4CF' H&' 9 $ J34

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4" " 64HJ' F3' ;$C 34EJHC' IHE '$' FNF' F3' BH-ED$40' H&' F3' @ O' H&'
'HNF3C 34' J33 C' F3' ' 2F 'B$E+' H&' F3' ' 34' P3D $O' ?H- F $4D'
$HE2' F3' BH-ED$40' H&' F3' @ O' H&' 'HNF3C 34' H' F3' BH-ED$40' ? HE3' H&'
F3' C$D' @ O' J$4+3D' ! ' F3EN3' E' $' C 4$ 2F' > E3' H' F3' 9 EDJ ' E'
F3' I$4CF' H&' @F$ F$J' HE' F3' *H1' H&' @F$ F$J' 8 ' F3EN3' E' $'
C 4$ 2F' > E3' H' F3' < ' 9 EDJ ' E' F3' I$4CF' H&' M E2F$J' Q3 33E'
F3' $23' H&' M E2F$J' $ED' F3' 6H4 &N$ HEC' F3EN3' E' $' C 4$ 2F'
> E3' F4H-2F' M E2F$J' 6H4' 1' F3' ' 2F 'B$E+' H&' F3' ' 34' P3D $O' '
F3EN3' $HE2' F3' ' 2F ' B$E+' H&' F3' ' 34' P3D $O' H' F3' IHE '&4C'
D3CN4Q3D' '

-"$ ' 64HJ' F3' IHE '$' FNF' F3' 'HO$' 4C3E$' @$E$' $' 9 HH NF'
(H EC' F3' ' 34' *F$J3C' $HE2' F3' C$D' @E' H' F3' ?H- F34E' ; 43J O'
F343H&' F3EN3' E' $' C 4$ 2F' > E3' H' F3' ?H- F 3C 34E' @H4E34' H&' F3'
<4DE$EN3' ? H43+33134C' 8H-C3 ' F3EN3' E' $' C 4$ 2F' > E3' E' F3'
G 43N HE' H&' $' ? 3' E' F3' 6HH 1$ F' &4HJ' 9 HH NF' H' I -JC 3$D'
@HJ JHE' H 34' ?$ED' 8 ' H' F3' BH-ED$40' H&' F3' I$4CF' H&' 9 HH NF' '
F3EN3' ?H- F $4D' $HE2' F3' BH-ED$40' H&' F3' I$4CF' H&' 9 HH NF' H'
F3' IHE ' $' FNF' F3' C$ F3' J33 C' F3' BH-ED$40' H&' F3' I$4CF' H&'
@F$4 HE' F3EN3' 9 3C $4D' $HE2' F3' BH-ED$40' H&' F3' I$4CF' H&'
@F$4 HE' H' F3' IHE '$' FNF' F3' C$J3' -4EC' ?H- F $4D' E3$4' F3'
GH H4' 'H$D' F3EN3' $HE2' F3' GH 34' 'H$D' H' F3' E3$43C ' IHE ' H&'
F3' BH-ED$40' H&' F3' I$4CF' H&' M433E NF' F3EN3' 9 3C $4D' $HE2'
F3' BH-ED$40' H&' F3' I$4CF' H&' M433E NF' H' F3' IHE '$' FNF' F3'
C$J3' -4EC' $Q4-1 O' H' F3' ?H- F' NHC3' QO' F3' GH H4' 'H$D' ' F3EN3' E'
$' C 4$ 2F' > E3' E' $' 3C 34 O' G 43N HE' H' F3' E3$43C ' IHE '' H&' F3'
BH-ED$40' H&' F3' I$4CF' H&' M433E NF' F3EN3' 9 3C $4D' $HE2' F3'
BH-ED$40' H&' F3' I$4CF' H&' M433E NF' H' F3' IHE '$' FNF' F3' C$J3'
J33 C' F3' BH-ED$40' H&' F3' I$4CF' H&' ?$ E ' I$-' G31 &H4D' F3EN3'
?H- F $4D' $HE2' F3' BH-ED$40' H&' F3' I$4CF' H&' ?$ E ' I$-' G31 &H4D'
H' F3' IHE '$' FNF' F3' C$J3' J33 C' F3' ' 34' * $J3C' F3EN3' $HE2'
F3' ' 34' *F$J3C' H' F3' IHE '&4C' D3CN4Q3D

0 *F3' H D' BH4H-2F' H&' P$ DC HE3

*F3' FH 3' ?1$N3' NHJ14C3D' F E' F3' BH-ED$4 3C' H&' F3' >Q34 3C'
H&' F3' H D' @ O' H&' 'HNF3C 34' $ED' $CH' C-NF' I$4C' H&' F3' 43C13N 3'
I$4CF3C' H&' ? 4HHD' $ED' 64 ECQ-40' $C' $43' C -$ 3D' Q3 33E' F3' >3&'
B$E+' H&' F3' ' 34' P3D 9$O' $ED' F3' BH-ED$40' F343$& 34' D3CN4Q3D'
^F$' C' H' C$O_
64HJ' F3' ;E 4$EN3' &4HJ' F3' ' 34' P3D $O' H&' F3' *F$J3C' $ED
P3D $O

UcKS7M#> ;>P ʻ ʻ @$1Y !ZS

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P3D $0ʻ @$E$ ʻ $HE2ʻ $ʻ 6HH 1$ Fʻ F NFʻ 3$DCʻ -1ʻ F3ʻ 8 ʻ H $4DCʻ #1EH4ʻ Hʻ F3ʻ IHE ʻ^HEʻ F3ʻ *H1ʻ H&ʻ F3ʻ 8 _ʻ $ʻ F NFʻ F3ʻ C$J3ʻ Cʻ J3ʻ QOʻ $ʻ 'H$Dʻ H4ʻ I$ Fʻ 3$D E2ʻ H $4DCʻ 64 ECQ-40ʻ @F-4NF ʻ F3EN3ʻ $HE2ʻ C-NFʻ 'H$Dʻ H4ʻ I$ Fʻ Hʻ F3ʻ IHE ʻ $ʻ F NFʻ F3ʻ C$J3ʻ (H EC ʻI$4CHEʻ$23ʻ >$E3ʻ F3EN3ʻ $HE2ʻ I$4CHE$23ʻ >$E3ʻ Hʻ F3ʻ IHE ʻ $ʻ F NFʻ F3ʻ C$J3ʻ (H ECʻ F3ʻ 'H$Dʻ &4HJʻ 64 EDCQ-40ʻ Hʻ 8HH ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ F3ʻ ,H4 F34E JHC ʻ E2 3ʻ H&ʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ I$4 CFʻ H&ʻ ? 4HHDʻ F3EN3ʻ 9 3C $4Dʻ $HE2ʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ I$4 CFʻ H&ʻ ? 4HHDʻ Hʻ F3ʻ IHE ʻ $ʻ F NFʻ F3ʻ C$J3ʻ J33 Cʻ F3ʻ >HEDHEʻ 'H$D ʻ F3EN3ʻ H $4DCʻ 'HNF3C 34ʻ $HE2ʻ F3ʻ >HEDHE ʻ 'H$Dʻ Hʻ F3ʻ IHE ʻ $ʻ F NFʻ F3ʻ C$J3ʻ Cʻ (H E3Dʻ QOʻ F3ʻ 'H$Dʻ &4HJʻ F3ʻ *F433ʻ @4H-NF3C ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ F3ʻ IHE ʻ $ʻ F NFʻ F3ʻ >3& ʻB$E+ʻ H&ʻ F3ʻ ' 34ʻ P3D $0ʻ H-Dʻ Q3ʻ N- ʻ QOʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ Q3ʻ D4$ Eʻ &4HJʻ F3ʻ IHE ʻ $C ʻD3CN4 Q3Dʻ Hʻ 6H4 ʻ @ $43EN3

V h @<#, *=ʻ <6ʻ > ,@ ?*;'

, < ' * 8 ; ' , ʻ G ? < ,

- E ʻ ʻ *F3ʻ *H ECF 1ʻ +?ʻ B $N+Q-4E

n *F3ʻ 43C13N 3ʻ @F$13 4 3Cʻ H&ʻ GH EF$Jʻ $EDʻ @ F34H3 ʻ $EDʻ F3ʻ 6H-4ʻ *H ECF 1Cʻ H&ʻ 9 F$ 30ʻ 9 C $ ʻ I3ED 3 HE ʻ $EDʻ 83ECFH4E ʻ $EDʻ > 3ʻ P HEʻ $EDʻ @H NH$ C

64HJʻ F3ʻ IHE ʻ HEʻ F3ʻ ' 34ʻ >-Q3ʻ $ʻ F NFʻ F3ʻ 43C13N 3ʻ BH-ER D$4 3Cʻ H&ʻ F3ʻ *H ECF 1Cʻ H&ʻ >ENC 34ʻ ?+34 HE ʻ $EDʻ 83$ HE F < ʻ N &&3ʻ J33 ʻ 9 3C $4D ʻ $HE2ʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ *H ECF 1ʻ H&ʻ >ENC 34ʻ Hʻ F3ʻ IHE ʻ $ʻ F NFʻ F3ʻ 43C13N 3ʻ BH-ED$4 3Cʻ H&ʻ F3ʻ

*H ECF 1Cʻ H&ʻ >ENC 34ʻ B- +ʻ $EDʻ \-34E JH43ʻ J33 ʻ F3EN3ʻ Eʻ $ʻ

9 - ʻ ʻC 4$ 2F ʻ > E3ʻ Hʻ F3ʻ X-3D-N ʻ B4 D23ʻ H 34ʻ F3ʻ @$ HEʻ 'H$D ʻ ,H4 F $4Dʻ $HE2ʻ F3ʻ @$E$ʻ &4HJʻ I43C HEʻ Hʻ %3ED$ʻ Hʻ F3ʻ 6H-4 Fʻ B4 D23ʻ H 34 F3ʻ C$J3ʻ &4HJʻ F3ʻ X-3D-N ʻ F3EN3ʻ Eʻ $ C 4$ 2F ʻ > E3ʻ Hʻ F3ʻ IHE ʻ $ʻ F NFʻ B4$N+3Eʻ >$E3ʻ J33 Cʻ ?N$ 3ʻ $E3 ʻ F3EN3ʻ $HE2ʻ ?N$ 3ʻ >$E3ʻ Hʻ F3ʻ IHE ʻ $ʻ F NFʻ F3ʻ C$J3ʻ 43$NF3Cʻ F3ʻ ' 34ʻ >-E3ʻ F3EN3ʻ $HE2ʻ F3ʻ ' 34ʻ >-E3ʻ Hʻ F3ʻ IHE ʻ& 4C ʻD3CN4 Q3D

! k ʻ ʻ *F3ʻ H Dʻ BH4H-2Fʻ H&ʻ I43C HE ʻ $EDʻ F3ʻ *H ECF 1ʻ H&ʻ 6 CFʻ N+

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E $9

*F3ʻ FH 3ʻ ?1$N3ʻ H 34ʻ F NFʻ F3ʻ I4H CHECʻ H&ʻ $Eʻ N ʻ1$CC3Dʻ Eʻ F3ʻ ?3 3E Fʻ $EDʻ ; 2F Fʻ =3$4Cʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P$(3C Oʻ % E2ʻ M3H423ʻ F3ʻ 6H-4 Fʻ $EDʻ E - 3Dʻ `ʻ Eʻ N ʻ &H4ʻ 2F E2ʻ N 3$EC E2ʻ Sʻ $ NF E2ʻ $EDʻ H F34 C3ʻ J 14H E2ʻ F3ʻ *H Eʻ H&ʻ CF HE -ED34 >OE3ʻ Sʻ Eʻ F3ʻ @H-E Oʻ I$ $ E3ʻ H&ʻ >$EN$C 34ʻ $EDʻ &H4ʻ 432- $ E2ʻ F3ʻ IH N3ʻ `ʻ F343H& Cʻ $ʻ143C3E ʻ3 3ED ʻ

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n *F3ʻ C3 34$ʻ *H ECF 1Cʻ H&ʻ M43$ʻ BH HE ʻ > 3ʻ BH HE ʻ $EDʻ 8$- 2F ʻ 3 N31 ʻ F$ʻ D3 $NF3Dʻ I$4ʻ H&ʻ F3ʻ *H ECF 1ʻ H&ʻ > 3ʻ BH HEʻ F NFʻ C C -$ 3ʻ Hʻ F3ʻ ,H4 Fʻ H&ʻ F3ʻ *H Eʻ H&ʻ BH HE

!Z U K S`M#W ;>P ʼ ʼ @$1 Y

64HJʼ F3ʼ IHEʼ Eʼ F3ʼ 8$E3ʼHẞʼ?$4 E2ʼ$ʼ FNFʼ $ʼ BH-ED$4Oʼ ?H13ʼ J$4+Cʼ F3ʼ BH-ED$4OʼHẞʼ F3ʼ 43C13N 3ʼ*H ECF 1CʼHẞʼ; HEʼ $EDʼ 1C H4 Fʼ $HE2ʼ F3ʼ B$E3ʼ ẞ4HJʼ ?$4 E2ʼ Hʼ 9$CF$ ʼ>$E3ʼ Hʼ F3ʼ I1Eʼ Eʼ F3ʼ 8$J3ʼHẞʼ 9CF ʼ>$E3ʼ $ʼ FNFʼ $ʼ BH-ED$4Oʼ ?HE3ʼ J$4+Cʼ F3ʼ BH-ED$OʼHẞʼ F3ʼ 43C13N 3ʼ*H ECF 1CʼHẞʼ; HEʼ $EDʼ *H ʼ E2_.HEʼ >H 34ʼ ;EDʼ F3EN3ʼ ;$C $4Dʼ $HE2ʼ F3ʼ BH-ED$4OʼHẞʼ F3ʼ *H ECF 1ʼHẞʼ; HEʼ Hʼ F3ʼ IHEʼ$ʼ FNFʼ F3ʼC$J3ʼ J33Cʼ F3ʼ 9HHD ʼ B4HH+ʼ F3EN3ʼ Eʼ$ʼ C4$2Fʼ>E3ʼ Hʼ F3ʼ IHEʼ$ʼ FNFʼ F3ʼ I2Cʼ>3$ʼ B4HH+ʼẞ$ Cʼ EHʼ F3ʼ ʼ 34ʼ 4 3 ʼ F3EN3ʼ ;$C $4Dʼ$HE2ʼ F3ʼ BH-ER D$4OʼHẞʼ F3ʼ*H EC(1ʼHẞʼ B-4Oʼ Hʼ F3ʼ IHEʼ$ʼ FNFʼ F3ʼ C$J3ʼ J33C F3ʼ BH-ED$4OʼHẞʼ 43ʼ *H9E 1ʼHẞʼ; HEʼ F3EN3ʼ 93C $4Dʼ $HE2ʼ F3ʼ BH JD$4OʼHẞʼ F3ʼ *H ECF 1ʼ Hẞʼ ; HEʼ Hʼ F3ʼ IHEʼ ẞ4Cʼ D3R CN4 Q3D

64HJʼ F3ʼ 93C 34Eʼ; 43J OʼHẞʼG E2 3ʼ>$E3ʼ HEʼ F3ʼ ?H- FʼHẞʼ F3ʼ *H Eʼ$HE2ʼG E2 3ʼ>$E3ʼ Hʼ F3ʼ IHEʼ$ʼ FNFʼ F3ʼC$J3ʼ J33Cʼ # 3ʼ >$E3ʼ F3EN3ʼ$HE2ʼ ##3ʼ>$E3ʼ Hʼ F3ʼ IHEʼ$ʼ FNFʼ F3ʼC$J3ʼ J33C >HD23ʼ>$E3ʼ F3EN3ʼ $HE2ʼ >HD23ʼ >$E3ʼ Hʼ F3ʼ IHEʼ$ʼ FNFʼ F3ʼ C$J3ʼ J33Cʼ ?J FDH Eʼ>$E3ʼ F3EN3ʼ $HE2ʼ ?J FDH Eʼ >$E3ʼ Hʼ F3ʼ IHEʼ $ʼ FNFʼ F3ʼC$J3ʼ Cʼ J3ʼ QOʼ F3ʼ BH-ED$4OʼHẞʼ F3ʼ*H ECF 1ʼHẞʼ 9$ 34 433ʼ F3EN3ʼ ,H4 F $4Dʼ $HE2ʼ F3ʼ BH-ED$4OʼHẞʼ F3ʼ*H ECF 1ʼ Hẞʼ 9$ 34 433ʼ Hʼ F$ʼ IHEʼ F343Hẞʼ FNFʼ Cʼ E3$ 3Cʼ Hʼ F3ʼ ?H- FR 3$C 34Eʼ @H4E34ʼHẞʼ F3ʼ /?$ʼHẞʼ F3ʼE3 ʼBH $E NʼM$4D3ECʼ F3EN3ʼ Eʼ $ʼ C4$2Fʼ >E3ʼ Hʼ F3ʼ ?$Dʼ ?H- F 3$C 34Eʼ @H4E34ʼ F3EN3ʼ $HE2ʼ F3ʼ ;$C 34Eʼ 9 $FʼHẞʼ F3ʼ E3 ʼBH $E NʼM$4D3ECʼ Hʼ F3ʼ IHEʼ$ʼ FNFʼC-NFʼ 9$ ʼ 43$NF3Cʼ ;D23ʼ>$E3ʼ ʼ FJN3ʼ ;$C $4Dʼ $HE2ʼ ;D23ʼ>$E3ʼ Hʼ $ʼ

9 8 IHEʼ?3 3E O ẞH-4ʼ=$4DCʼD C $Eʼẞ4HJʼ F3ʼ IHEʼ $CʼD3CN4 Q3Dʼ F3EN3ʼ Eʼ$ʼ> E3ʼ 1$4$ 3ʼ Hʼ F3ʼE3 ʼ?433ʼN$ 3DʼM4H 3ʼ?433ʼ Hʼ F3ʼ IHEʼ$ʼ FNFʼ C-NFʼ 1$4$ 3ʼ> E3ʼ 43$NF3Cʼ F3ʼ>HEDHEʼ ʼH$Dʼ F3EN3ʼ $HE2ʼ F3ʼ >HEDHEʼ ʼH$Dʼ Hʼ F3ʼ IHEʼ $ʼ FNFʼ F3ʼ C$J3ʼ Cʼ(H E3Dʼ QOʼ G3$E3ʼ ?433 ʼ F3EN3ʼ Eʼ $ʼ C4$2Fʼ > E3ʼ Hʼ F3ʼ BH-ED$4Oʼ ?HE3ʼ Eʼ ʼ$+3ʼ >$E3ʼ E3$4ʼ F3ʼ ?H- 434Eʼ ; 43J Oʼ Hẞʼ 9Q 3ẞ3Dʼ >$E3ʼ F3EN3ʼ ,H4 F $4Dʼ $HE2ʼ F3ʼ BH-ED$4Oʼ Hẞʼ F3ʼ *H ECF 1ʼ Hẞʼ ; 34 HEʼ Hʼ F3ʼ IHEʼ$ʼ FNFʼ F3ʼC$J3ʼ(H ECʼ F3ʼ BH-ED$4OʼHẞʼ F3ʼ *H ECF 1ʼ Hẞʼ % 4+ʼ D$ 3ʼ F3EN3ʼ ,H4 F $4Dʼ $HE2ʼ F3ʼ BH-ED$4OʼHẞʼ F3ʼ*H ECF 1ʼHẞʼ% 4+ʼ D$ 3ʼ Hʼ F3ʼ IHEʼ$ʼ FNFʼ F3ʼC$J3ʼ 43$NF3Cʼ F3ʼ 8 2F 9$ 34ʼ P$4+ʼ Hẞʼ F3ʼ ʼ 34ʼ P34C3Oʼ F3EN3ʼ $HE2ʼ F3ʼ 8 2F $ 34ʼ P$4+ʼ Hẞʼ F3ʼ ʼ 34ʼ P34C3Oʼ Hʼ F$ʼ IHEʼ F343Hẞʼ FNFʼ Cʼ E3$43Cʼ Hʼ F3ʼ IHEʼ ẞ4Cʼ D3R CN4 Q3Dʼ F3EN3ʼ Eʼ $ʼ C4$2Fʼ> E3ʼ Hʼ F3ʼ IHEʼ ẞ4CʼD3CN4 Q3D

n *F3ʼ C3 34$ʼ *H ECF 1Cʼ Hẞʼ P$ENF3C 34ʼ @F14 HEʼ ʼH ʼ HF34 C3ʼ @FH4 HE -1HE P3D HN+ʼ 4D N+ʼB3C N+ʼ 8- J3ʼ@Q33 F$Jʼ B4$DR ẞH4Dʼ ,3 HEʼ $EDʼ 8$41-4ʼ 830

" ẞʼ *F3ʼ C3 34$ʼ *H ECF 1Cʼ Hẞʼ < DF$Jʼ @F$DD34 HEʼ @4HJ1 HEʼ $EDʼ ʼ ʼHOʼ HE

; -" *F3ʼ ?1$N3ʼ D3ẞ E3Dʼ Eʼ F3ʼ < Cʼ ?3N HEʼHẞʼ $Eʼ Nʼ 1$CC3Dʼ Eʼ F3ʼ ? Fʼ =3$4ʼHẞʼ F3ʼ ʼ3 2EʼHẞʼ 8 Cʼ $ 3ʼ P$(3C Oʼ % E2ʼM3H423ʼ F3ʼ 6H-4 Fʼ $-Dʼ E -3Dʼ Eʼ Nʼ ẞH4ʼ 2F E2ʼN3$EC E2ʼ $NF E2ʼ $EDʼ 432-ʼ `ʼ $ E2ʼ F3ʼ *H Eʼ Hẞʼ ʼHNFD$3ʼ Eʼ F3ʼ @H-E Oʼ I$$ E3ʼ Hẞʼ >$Eʼ `ʼ N$C 34 c

64HJʼ F3ʼ ,H4 F34EJHCʼ IHEʼ$ʼ FNFʼ F3ʼ BH-ED$4(ʼHẞʼ F3ʼ *H ER CF 1ʼHẞʼ ?$ẞH4Dʼ J33Cʼ F3ʼ BH-ED$4OʼHẞʼ F3ʼ *H9ECF Hʼ Hẞʼ B4H-2F HEʼ ,H4 F $4Dʼ$H4 2ʼ F3ʼ BH-ED$4OʼHẞʼ F3ʼ *H ECF 1ʼHẞʼ B4H-2F HEʼ Hʼ F3ʼ IHEʼ$ʼ FNFʼ F3ʼ C$J3ʼ J33Cʼ F3ʼ BH-ED$4OʼHẞʼ F3ʼ*H ECF 1ʼHẞʼ I3ER D3 HE

UčKʻSˀM#> ;>P ʻ ʻ @$1Y !Z!

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D 3 HE ʻ F3EN3 ʻ 9 3C $4D ʻ $ HE2ʻ F3ʻ BH-ED$4Oʻ H&ʻ F3ʻ *H ECF 1ʻ H&ʻ I&3ED 3 HEʻ Hʻ D 3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$ J 3ʻ J 33 Cʻ F3ʻ BH-ED$4Oʻ H&ʻ F3ʻ D3 $NF3Dʻ I H4 HEʻ H&ʻ F3ʻ *H ECF 1ʻ H&ʻ I 3ED 3Q-4O ʻ F3EN3 ʻ ?H- F $4D ʻ $ HE2ʻ F3ʻ BH-ED$4Oʻ H&ʻ F3ʻ D3 $NF3Dʻ I H4 HEʻ H&ʻ F3ʻ *H ECF 1ʻ H&ʻ I 3ER D 3Q-4Oʻ Hʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$ J 3ʻ J 33 Cʻ F3ʻ BH-ED$4Oʻ H&ʻ F3ʻ *H ECF 1ʻ H&ʻ ?$ &H4D ʻ F3EN3 ʻ 9 3C $4D ʻ $ HE2ʻ F3ʻ BH-ED$4Oʻ H&ʻ F3ʻ *H ECF 1ʻ H&ʻ ?$ &H4Dʻ Hʻ F3ʻ I H E ʻ & 4C ʻ D3CN4 Q3D

> A! 3

n *F3ʻ 43C13N 3ʻ *H ECF 1Cʻ H&ʻ 9 $44 E2 HEʻ $EDʻ >$ NF&H4D ʻ $EDʻ $ CHʻ FHC3ʻ * Hʻ D3 $NF3Dʻ I H4 HECʻ H&ʻ F3ʻ *H ECF 1ʻ H&ʻ *F3 $ ʻ F NFʻ 3ʻ Q3 33Eʻ F3ʻ BH-ED$4Oʻ H&ʻ F3ʻ *H ECF 1ʻ H&ʻ >$ NF&H4Dʻ $EDʻ F3ʻ ' 34ʻ 34C3O

9 b , ʻ *F3ʻ *H ECF 1ʻ H&ʻ 9 2$E

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?<#*8; ' ,ʻ G ? <,

9 - ʻ *F3ʻ H Dʻ BH4H-2Fʻ H&ʻ >3 N3C 34 ʻ $EDʻ F3ʻ ?1$N3ʻ H 34ʻ F NFʻ F3ʻ P $2 CR 4$ 3Cʻ H&ʻ F3ʻ H Dʻ BH4H-2Fʻ H&ʻ >3 N3C 34ʻ $ ʻ 143C3E ʻ 3 34N C3ʻ $ʻ 5-4 CD N HEʻ NHEN-443E Oʻ ʻ F3ʻ P $2 C 4$ 3Cʻ H&ʻ F3ʻ @H-E Oʻ H&ʻ >3 N3C 34 ʻ EN -D E2ʻ F3ʻ @$C 3ʻ 3 ʻ ʻ 7

U h @<#, *=ʻ <6ʻ > ,@<>,

I ' *?ʻ <6ʻ > ,G?; =

63) .A) *F3ʻ H Dʻ @ Oʻ H&ʻ > ENH E ʻ F3ʻ B$ ʻ $EDʻ @ HC3 ʻ $EDʻ $ʻ N34 $ Eʻ @H J R J HE ʻ Q3 HE2 E2ʻ Hʻ F3ʻ 6433 J 3Eʻ H&ʻ > ENH E ʻ N$ 3D ʻ @$E N+ʻ @H J J HE ʻ H23 F34ʻ Fʻ ʻ ; 4$ 1$4HNF $ ʻ I $N3C ʻ &ʻ$EO ʻ F NFʻ $43ʻ C-44H-ED3Dʻ QOʻ F3ʻ H Dʻ @ Oʻ H&ʻ > ENH E ʻ F3ʻ B$ ʻ $EDʻ @ HC3 ʻ $EDʻ F3ʻ C$ Dʻ @H J J HE ʻ H4ʻ $EOʻ H4ʻ 3 F34ʻ H&ʻ F3 J ʻ H4ʻ QOʻ F3ʻ BH-ED$4 3Cʻ H4ʻ BH-ED$4Oʻ 1&ʻ$EOʻ H4ʻ 3 F34ʻ H&ʻ F3 J

n *F3ʻ C3 34$ ʻ I $4 CF3Cʻ H&ʻ M43$ ʻ M4 J CQO ʻ M43$ ʻ @H$ 3C ʻ > 3ʻ @H$ 3C ʻ B4$D 3O ʻ >$N3QO ʻ 9 $ F$ J ʻ ?N$4 FH ʻ @ 33 ʻ 9 33 CQO ʻ $EDʻ @ 33 FH413C

I ' *?ʻ <6ʻ %;?*; ; ,ʻ ,Gʻ 8<>> ,G

.%2.) *F3ʻ H Dʻ BH4H-2Fʻ H&ʻ BHC HE ʻ F3ʻ I $4 CFʻ H&ʻ ?+ 4Q3N+ ʻ $EDʻ F3ʻ 8$ J 3 ʻ H&ʻ ?+ 4Q3N+ʻ \-$4 34 ʻ EN -D E2ʻ 3ʻ 63Eʻ H J 3E ʻ H&ʻ F3ʻ 8$ J 3 ʻ H&ʻ ?+ 4Q3N+ʻ \-$4 34 ʻ Q- ʻ EH ʻ F3ʻ 63Eʻ H J 3E ʻ H&ʻ F3ʻ I $4 CFʻ H&ʻ ?+ 4Q3N+

! `_ A 9 ? 6 ' : 6 '' '& ' #) '

*F3' I$4 'H&' M4$ F$J ' ^EN -D E2' F3' C3 34$' &1 ECF 1C' H&' ?1 3 ' 2$ 3 ' P$4 FH413' F' > 3' M1E34QO ' $ED' 8 $ 4H QO _' $ED' F$ ' I $ 'H&' F3' I$4 CF' H&' ?H J 34QO' F NF' C' NHE $ E3D' Q3 33E' F3' BH-ED$4O' H&' F3' I$4 CF' H&' M4$E F$J ' $ED' 8 2F' G O+3

*F3' H D' BH4H-2F ' H&' ? $J &H4D ' $ED' C-NF' I$4 ' H&' F3' I$4 CF' H&' ?$ E ' P$4 E' ? $J &H4D' B$4HE' $C' 3C' Q3 33E' F3' BH-ED$4O' H&' F3' H D' BH4H-2F ' $ D' F3' &H H & 2' BH-ED$4O ' ^F$ ' C' H' C$O _

64H J' F3' 9 3C 34E J HC ' I H E '$ ' F NF' F3' BH-ED$4O' H&' F3' I$4 CF' H&' ?$ E ' P$4 E' J 33 C' F3' BH-ED$4O' H&' F3' H D' BH4H-2F ' ?H- F $4D ' $ HE2' F3' BH-ED$4O' H&' F3' I$4 CF' H&' ?$ E ' P$4 E ' H' F3' , H4 F34E J HC ' I H E ' $ ' F NF' F3' C$J 3' J 33 C' F3' 9 HH FH413' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' ?H- F34E' *H 34 ' HE' F3' >HEDHE' ' H$D ' H&' F3' M$ 3 $O' H' B-42F 3O' 8 H-C3 ' F3EN3 ' , H4 F $4D ' $ HE2' F3' 9 $ ' H&' B-42F 3O' I$4+' H' F3' I H E '$ ' NF' F3' C$J 3' J 33 C' $E' <NN-1$ HE' ' H$D' N$ 3D' F3' `' , 3 ' ' H$D c' F NF' 4-EC' &4H J' F3' B$4E$N+' $ED' I C2$ 3' ' H$D' H' F3' ' 34' 9 3 $ED ' F3EN3' $ HE2' F3' C$ D' <NN-1$ HE' ' H$D ' $ED' E' $ ' > E3' E' NHE E-$ HE' 1&' F3' G 43N HE' F343H&' H' F3' I H E '$ ' F NF' &'C-NF' > E3' N- C' F3' BH-ED$4O' H&' F3' H D' BH4H-2F

UU h @<# , *=' <6' P GG> ; ? ; W

*F3' C3 34$' I$4 CF3C' H&' ?$ E ' > -+3 ' ?$ E ' M3H423' F3' P $4 O4 ' ?$ E ' M 3C E F3 6 3 DC ' ? J E ' M3H423' B HH J CQ-4O ' ?$ E ' P $4O' ? H+3' , 3 R E2 HE ' $ED' ?$ E ' P $4O' C E2 HE ' F3' C3 34$' > Q34 3C' H4' I $N3C' H&' ? H E ' 8 ' 8 $ HE' M$4D3E ' ; O' ' 3E C ' ; O' I $N3 ' F3' ' H C ' M $CC' 8 H-C3' =$4D ' $ED' F3' @F$4 34' 8 H-C3 ' I> ENH EC' EE' $ED' M4$OC' EE' ' F3' I$4 CF' H&' ?$ E '5$J 3C' $ED' ?$ E '5HFE' @ 34+3E 3 ' 3 N31 ' F$ ' I$4 ' F343H&' F NF' C' C -$ 3' H' F3' , H4 F' H&' F3' I$4 CF' H&' C E2 HE ' FHC3' I$4 C' H&' F3' 43C13N 3' I$4 CF3C' H&' ?$ E ' ?31- NF43' $ED' ?$ E ' ED43 ' 8 H QH4E ' $ED' H&' 6-4E $ C' EE' $ED' ? $(D3' EE' 43C13N 3 O ' F NF' $43' C -$ 3D' FH- ' F3' > Q34 O' H&' F3' @ O' H&' >HEDHE

n *F3' FH 3' ?1$N3' NHE $ E3D' F E' F3' 3 34 H4' BH-ED$4 3C' H&' F3' > Q34 3C' H&' F3' @ O' H&' >HEDHE ' EN -D E2' F3' EE34' *3 J 1 3' $ED' F3' P DD 3' *3 J 1 3

0 &' *F3' C3 34$' I$4 CF3C' H&' ?$ E ' P $4O' 3' QHE3 ' ?$ E ' I$EN4$C ' $ED' ' I$DD E2 HE '

' ' . ' /' *F3' C3 34$' G C HEC' H&' F3' > Q34 O' H&' F3' *H 34 ' $ED' F3' *H 34

5 ' ' *F3' H D' @ O' $ED' > Q34 3C' H&' 9 3C J EC 34 ' $ED' F3' G -NFO' > Q34 O

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.) 4 . >2 &' ' *F3' I$4 CF' H&' PHEJH- F' $ED' $ 'C-N ' I$4 C' H&' F3' H D' BH4H-2F' F&' ' PHE4FD- F' $C' 3' FH- ' F3' I$4 CF' H&' PHEJH- F

64HJ' F3' IHE 'HE' F3' ?H- F' H&' F3' *H E' $' FNF' F3' P3 D3' M 3&' 'H$D' C' (H E3D' QO' $' 8-CQ$ED4O' 'H$D' 3$D E2' H' 8-ED43D' N43C' MH- ' $HE2' F3' P3ED 3' M 3&' 'H$D' H' F3' IHE' $' FNF' F3' C$J3' J33 C' F3' @$4D &' 'H$D' F3EN3' 9 3C $4D' $HE2' F3' @$4D &&' 'H$D' H' F3' IHE' $' FNF' F3' C$J3' J33 C' F3' ? 43$J 3' &4HJ' @ 4 0 Q3 $' 9 3 ' F3EN3' $ 1F2' F3' C$D' ? 43$J 3' H' F3' IHH 'HE' F3' 9 3C 34E' ? D3' H&' 64 $4 C' M$4D3E' 9 $ ' F3EN3' $HE2' F3' 9 $ 34NH-4C3' -1' &4HJ' F3' C$D' IHH' H' $EH F34' IHH' HE' F3' 9 3C 34E' ? D3 H&' B- ' 6 3 D' ' F3EN3' $HE2' F3' 9 3C 34E' 63EN3' H&' B- ' 6 3 D' H' F3' IHE' $' FNF' F3' C$J3' 63EN3' N- C' F3' 'H$D' &4HJ' ? H ' H' ' CN$' F3EN3' 9 3C $4D C$HE2' F3' 'H$D' &4HJ' ? H ' H' ' CN$' H' F3' IHE' $' FNF' F3' C$J3' C' N- ' QO' F3' 63EN3' FNF' 4-EC' ,H4 F $4D' &4HJ' F3' ;$C' ;ED' H&' F3' @H $23C' Q3R HE2 E2' H' 5HFE' ' N+3 C' ' F3EN3' $HE2' F3' $C J3E HE3D' 63EN3' H' F3' ,H4 F 3C 34E' @H4E34' H&' F3' 6 3 D' H&' FNF' ' C' F3' 9 3C 34E' BH-ED$4O' F3EN3' ;$C $4D' $HE2' F3' ,H4 F34E' 63EN3' H&' F3' $C ' J3E HE3D' 6 3 D' H' F3' IHE' $' FNF' F3' C$J3' C' E 3&C3N 3D' QO' F3'
+ , 1 . (2 63EN3' H&' F3' $D(H E E2' 6 3 D' F3EN3' ,H4 F $4D $HE2' F3' $C J3ER HE3D' 63EN3' H' $' 9 3 ' 8 3$D' F3EN3' $HE2' F3' ? 43$J' 3$D E2' F343R &4HJ' H' F3' IHE' $' FNF' F3' C$J3' J33 C' F3' BH-ED$4O' H&' F3' H D' BH4H-2F' F3EN3' ,H4 F $4D' $HE2' F3' BH-ED$4O' H&' F3' H D' BH4H-2F' H' F3' IHE' $' FNF' F3' C$J3' J33 C' F3' ' 34' #C+' $' F3' PH- F' H&' @4 D$E' I ' F3EN3' $HE2' F3' ' 34' #C+' H' F3' IHE' $' FNF' F3' C$J3' C' (H E3D' QO' $' I 'H11HC 3' F3' @$C 3' F3EN3 $HE2' F3' C$D' I ' H' F3' MH- ' F3EN3' $HE2' F3' 9 $ 34NH-4C3' E' $' G 43N HE' E3$4 O' D-3' ;$C ' H' F3' IHE' $' FNF' F3' C$J3' J33 C' F3' E3 ' 'H$D' H' @$34 3HE' F3EN3' $HE2' F3' E3 ' 'H$D' H' @$34 3HE' H' F3' IHE' $' FNF' F3' C$J3' (H EC' F3' H D' 'H$D' H' @F4 C' @F-4NF' F3EN3' $HE2' F3' ,3 ' '33E' H' F3' IHE' $' FNF' F3' C$J3' J33 C' >C 3440' I ' F3EN3' $HE2' >C 344d ' I ' H' F3' IHE' $' FNF' F3' C$J3' (H EC' F3' ' 34' #C+' F3EN3' $HE2' F3' ' 34' #C+' H' F3' IHE' $' FNF' F3' C$J3' C' (H E3D' QO' 8-ED43D' N43C' MH- ' F3EN3' $HE2' 8-ED43D' N43C' MH- ' H' F3' IHE' $' FNF' F3' C$J3' C' J3 'QO' F3' C$D' 8-CQ$ED4O' 'H$D' 3$D E2' F343 H' &4HJ' F3' P3ED 3' M 3&' 'H$D' F3EN3' $HE2' F3' C$D' 8-CQ$ED4O' 'H$D' H' F3' IHE' & 4C' D3CN4 Q3D

64HJ' F3' B4 D23' HE' F3' ,H4 F' H&' F3' *H E' N$ 3D' `' @ J N$OH' B4 D23 c' $HE2' F3' B4HH+' H 34' FNF' F3' C$D' B4 D23' C' Q- ' H' F3' IHE' $' FNF' F3' C$J3' &$ C' E H' F3' ' 34' #C+' F3EN3' DH E' F3' ' 34' #C+' $ED' $HE2' F3' BH-ED$4O' H&' F3' H D' BH4H-2F' H' F3' IHE' $' FNF' F3' C$J3' N- C' F3' P ' ? 43$J ' F3EN3' E' $' C 4$ 2F' > E3' H' F3'
H 6$4J4' 8H-C3' H&' > 3' @$C 3' 6$4J ' F3EN3' $HE2' F3' ;$C 34E' ? D3' H&' F3' 63EN3' H&' F3' 6$4J O$4D' H&' > 3' @$C 3' 6$4J' H' F3' ,H4 F 3$C 34E' @H4E34' H&' C-NF' 6$4J O$4D' F3EN3' E' $' C 4$ 2F' > E3' H' F3' <$+' *433' E' F3' 9 HHD' 8 3D23' HE' F3' ?-J J 'H&' >$DO' 8 ' F3EN3' E' $' C 4$ 2F' > E3' H' F3' IHE' $' FNF' @ J N$OH' B4HH+' H- D' Q3' N- 'QO' $' C 4$ 2F' ' > E3' H' Q3' D4$ E' & HJ' F3' *433' $C' D3CN4 Q3D' H' @ J N$OH' B4 D23' F3EN3' $HE2' @ J N$OH' B4HH+' H' @ J N$OH' B4 D23

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* F3 @ O $ED @H-E O H& F3 @ O H& , H4 NF H23 F34 F $ C-NF
; 4$ 1$4HNF $ I $N3C $C $43 NHE $ E3D F E F3 H- 34 BH-ED$4O H&
F3 @ O $ED @H-E O H& F3 @ O H& , H4 NF

J E "

* F3 H D BH4H-2F H& M43$ = $4 J H- F $ED F3 I $4 CF H& MH4 3C HE3

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"3) . $% 6&)) * F3 H D BH4H-2F % E2 C > OEE

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* F3 I $4 CF H& ?$ E 5HFE B$1 C I3 34QH4H-2F H23 F34 F F3
; 4$ 1$4HNF $ G C 4 N +EH E QO F3 , $ J 3 H& `` * F3 P EC 34 I 43R
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- $E $ * * F3 I $4 CF H& B34 N+ $ED F3 43C13N 3 * H ECF 1C H& * 33D J H- F
$ED ?1 $

* F3 C3 34$ * H ECF 1C H& P H413 F B- 34 C M433E , 3 J 1C 34
QQ3O @$ NFQ- J F P H413 F @$C 3 $ED ? HQF 8 31CNH $ED
* 4$ J 3 F 8 2F @F-4NF $ED F3 I $4 CF H& B3D E2 HE

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G - $E $ & * F3 * H E $ED @H-E O H& F3 * H E H& , 3 N$C 3 $ED F3 C3 34$
* H ECF 1C H& BO+34 8 3$ HE 53C J HED 9 3C 2$ 3 $ED ; C N+

E " $ED & * F3 C3 34$ * H ECF 1C H& * OE3 J H- F , H4 F ?F 3 DC @F 4 HE
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E ʻ *F3ʻ I$4 CFʻ H&ʻ B$EQ-4O

64HJʻ F3ʻ *433ʻ HEʻ F3ʻ ;$Cʻ H&ʻ F3ʻ @ Oʻ N$ 3Dʻ ``ʻ5H3ʻ5I- 3ECʻ *433 ʻ Eʻ $ʻ C4$2Fʻ >E3ʻ Hʻ F3ʻ BH-ED$4Oʻ ?HE3ʻ Eʻ F3ʻ >$E3ʻ N$ 3Dʻ ``ʻ P4Cʻ %E$11Cʻ 6433ʻ BH$4Dʻ cʻ F3EN3ʻ $HE2ʻ F3ʻ C$Dʻ >$E3ʻ Hʻ F3ʻ 93C 34Eʻ ; 43J Oʻ F343H&ʻ F3EN3ʻ Eʻ $ʻ C4$2Fʻ >E3ʻ Hʻ F3ʻ @3E 43ʻ H&ʻ F3ʻ C$EDʻ C -$3ʻ $ʻ F3ʻ 5-EN HEʻ H&ʻ F3ʻ ?43$Jʻ N$ 3Dʻ ``ʻ 8$4CHECʻ 83$ cʻ Fʻ F3ʻ ' 34ʻ @F$4 3ʻ (F3EN3ʻ 93C $4Dʻ $HE2ʻ F3ʻ ' 34ʻ @F$4 3ʻ Hʻ F3ʻ IHEʻ $ʻ FNFʻ F3ʻ C$J3ʻ (HECʻ F3ʻ HDʻ @ Oʻ BH-ED$4Oʻ F3EN3ʻ 93C $4Dʻ $HE2ʻ F3ʻ HDʻ @ Oʻ BH-ED$4Oʻ Hʻ F3ʻ IHEʻ $ʻ FNFʻ F3ʻ ' 34ʻ @F$4 3ʻ D D3Cʻ EHʻ * Hʻ ?43$JCʻ F3EN3ʻ $HE2ʻ F3ʻ ;$C 34ER JHCʻ H&ʻ C-NFʻ * Hʻ ?43$JCʻ Hʻ %E2Cʻ P ʻ F3EN3ʻ Eʻ $ʻ C4$2Fʻ >E3ʻ Hʻ F3ʻ ;$C 34EJHCʻ I$4ʻ H&ʻ %E2Cʻ P ʻ F3EN3ʻ Eʻ $ʻ C4$2Fʻ >E3ʻ Hʻ `5H3ʻ I- 3ECʻ *433 c

F:

*F3ʻ HDʻ BH4H-2Fʻ H&ʻ ,3 ʻ 9HHDC HN+ʻ F3ʻ C3 34$ʻ I$4 CF3Cʻ H&ʻ B $DHEʻ B32Q4HH+ʻ ?F1 HE HE @F34 3ʻ 8$J1 HEʻ M$Oʻ *$N+ 3Oʻ 9HH HEʻ G ʻ5 -ʻ$?HE3C&3Dʻ @HHJQ3ʻ $EDʻ 8$EDQH4H-2Fʻ F3ʻ I$4 CFʻ H&ʻ %D E2 HEʻ 3 N31ʻ F3ʻ 43C13N 3ʻ 8$J 3Cʻ H&ʻ MHC&H4Dʻ $EDʻ 9$ 34ʻ ;$ HEʻ F3ʻ 8$J 3ʻ H&ʻ <Dʻ 9HHDC HN+ʻ $EDʻ B 3EF3 Jʻ I$4+

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64HJʻ F3ʻ IHEʻ $ʻ FNFʻ F3ʻ ' 34ʻ ?3 34Eʻ Cʻ (HE3Dʻ QOʻ $ʻ ?43$Jʻ <4 9$3 NHJ C3ʻ FNFʻ &H Cʻ QOʻ F3ʻ GH2ʻ %3EE3ʻ $EDʻ -ED34ʻ BH ʻ B4 D23ʻ $HE2ʻ F3ʻ C$Dʻ ?43$Jʻ H4ʻ 9$ 34NH-4C3ʻ Hʻ F3ʻ IHEʻ $ʻ FNFʻ F3ʻ C$J3ʻ 43$NF3Cʻ F3ʻ 'H$Dʻ 3$D E2ʻ &4HJʻ <Dʻ 83$ Fʻ EHʻ F3ʻ @F3C 34ʻ 'H$Dʻ F3EN3ʻ $HE2ʻ F3ʻ C$Dʻ 'H$Dʻ &4HJʻ <Dʻ 83$ Fʻ Hʻ F3ʻ IHEʻ FNFʻ F3ʻ C$J3ʻ (HECʻ F3ʻ @F3C 34ʻ 'H$Dʻ F3EN3ʻ $HE2ʻ F3ʻ @F3C 34ʻ 'H$Dʻ Hʻ F3ʻ IHEʻ $ʻ FNFʻ F3ʻ C$J3ʻ Cʻ J3ʻ QOʻ $ʻ 9$ 34NH-4C3ʻ FNFʻ 4-ECʻ 4H-EDʻ ʻ%ʻ F3

!V[UƠ &3'S `M # > ; > P ' ' @$1 Y

F3' @H41H4$ HE' M$4D3EC' $ED' ' H-ED' 8 ' $ED' (H EC' F3' ' 34' ?3 34E' E3$4' F3' 8 H-C3' N$ 3D' S' * F3' 6 $CF ' c' F3EN3' $ HE2' F3' $C J 3E HE3D' 9 $ 34NH-4C3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' 43$NF3C' F3' H D ' B$CNF-4NF' ' H$D-' F3EN3' $ HE2' F3' H D' B$CNF-4NF' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' J 3 ' QO' $' 6HH 1$ F' 3$D E2' $ HE2' F3' 9 $ ' H&' 6 $CF' 8 H-C3' H $4DC' F3' ' 34' ?3 34E ' F3EN3' $ HE2' F3' C$ D' 6HH 1$ F' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' 2 E' F3' $C J 3E HE3D' 9 $ 34NH-4C3 ' F3EN3' $ HE2' F3' $C J 3E HE3D' 9 $ 34NH-4C3' H' F3' I H E ' $ ' F NF' F3' C$ J 3'

>) = (H EC' F3' ' 34' ?3 34E' ' F3EN3' $ HE2' F3' ' 34' ?3 34E' H' F3' I H E ' $ ' F NF' F3' C$E 3' C' J 3 ' QO' F3' NH J J HE' BH-ED$40' H&' F3' 43C13N 3' I $4 CF3C' H&' ?$ E ' @F$D' $ED' ?$ E ' 5 - $E ' F3EN3 ' ; $C $4D ' $ HE2' F3' BH-ED$40' H&' F3' I $4 CF' H&' ?$ E ' @F$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' 43$NF3C' $' > $E3' H4' ' H$D' F NF' 3$DC' &4H J ' F3' P HE 2H J 340' ' H$D' E H' > $EDC' Q3 HE2 E2' H' P 4C ' @$4 4 2F ' F3EN3' $ HE2' C-NF' > $E3' H4' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' (H EC' F3' P HE 2H J 340' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' ? 43$ J ' &4H J ' F3' @HED - ' 8 3$D' (H EC' F3' ' $DQ4HH+' ? 43$ J ' F3EN3' $ HE2' F3' ' $DQ4HH+' ? 43$ J ' H' F3' I H E ' $ ' F NF' F3' C$ J 3' 43$NF3C' % E2C $ED' > $E3 ' F3EN3' $ HE2' % E2C $ED' > $E3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' (H EC' F3' B CFH1 C' @$CD3' ' H$D ' F3EN3' $ HE2' F3' B CFH1 C' @$C 3' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' J 3 ' QO' F3' BH-ED$40' H&' F3' I $4 CF' H&' ?$ E ' 5 - $E ' F3EN3 ' ; $C $4D ' $ HE2' F3' BH-ED$40' H&' F3' I $4 CF' H&' ?$ E ' 5 - $E' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' BH-ED$ O' H&' F3' I $4 CF' H&' 8 H O' @4HCC' ' F3EN3 ' ; $C $4D ' $ HE2' F3' BH-ED$40' H&' F3' I $4 CF' H&' 8 H O' @4HC ' H' F3' I H E ' & 4C ' D3CN4 Q3D

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) <3A!+ &' * 3' H D' BH4H-2F' H&' B4 D23EH4 F ' $ED' F3' C3 34$ ' I $4 CF3C' H&' ' \ -$ &H4D ' < DQ-(O ' * $C 3O ' $ED' C 3O' QQH C

64H J ' (3' I H E ' HE' F3' ?H- F' H&' F3' * H E' $ ' F NF' G 4 O' B4HH+' (H EC' F3' ' 34' * 3 J 3 ' , H4 F 3#C $4D ' $ HE2' F3' BH-ED$40' H&' F3' * H ECF 1' H&' > ED&H4D' H' F$ ' I H E ' F343H&' F NF' C' E3$43C ' H' F3' ?H- F 3C 34E' @H4E34' H&' F3' I 3N3' H&' > $ED' N$ 3D' ' HN+' @ HC3 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' C$ D' ?H- F 3C 34E' @H J 34 ' F3EN3' $ HE2' F3' 9 3C 34E' 63EN3' H&' ' HN+' @ HC3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' N- C' F3' ' H$D' H' F3' ?F33 ' ' F3EN 3' H $4DC' > -D H ' $ H12' F3' ' H$D' H' F3' ?F33 ' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' (H E3D' QO' $' ' H$D' 3$D E2' QO' M$ H C' B$E+' E H' ' HN+' > $E3 ' F3EN3' 4&HE2' F3' $C J 3E HE3D' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' 43$NF3C' ' HN+' > $E3 ' F3EN3' $ HE2' ' HN+' > $E3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' (H E3D' QO' $' ' H$D' H' Q3' ?$ED1 C' * -4E1 +3 ' F3EN3' $ HE2' F3' C$ D' ' H$D' H' F3' ?$ED1 C' * -4E1 +3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' J 3 ' QO' F3' ; $C 34E' 63EN3' H&' F3' M$4D3E' H&' F3' I -Q N' 8 H-C3' N$ 3D' F3' @4HCC' % 3OC ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' 6 CQ J H43' B4XH+' 9 H- D' Q3' N- ' QO' $' C 4$ 2F ' > E3' H' Q3' D4$ E' &4H J ' F3' I H E ' $C ' D3CN4 Q3D' H' ? $E HE' > $NO' 8 H-C3 ' F3EN3' $ HE2' F3' 6 CF J H43' B4HH+' H' F3' I H E ' $ ' F NF' F3' C$ J 3' (H EC' F3' ' 34' @H4 3' F3EN3' -1' Q3' ' 34' @H4 3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' 63EN3' F NF' C31$4$ 3C' F3' > $EDC' HNN-1 3D' QO' P 4 ' 9 $ J ' ' -CC3 ' &4H J ' F3' > $EDC' HNN-1 3D' QO' P 4 ' 8 3E4O' > HOD ' F3EN3' $ HE2' F3' $C J 3E HE3D' 63EN3' H' F3' I J H ' $ ' F NF' F3' C$ J 3'

E#3$E > J 33 C' F3' ?F43 CQ-4O' ' H$D ' F3EN3' $ HE2' F3' 63EN3' 9 F NF' C31$4$ 3C' F3' * H' 6 3 DC' 43C13N 3 O' N$ 3D' F3' > 3$C3' I 3N3' $ED' I +3' 6 3 D' H' F3' I H E ' $ ' F NF' C-NF' 63EN3' J 33 C' F3' B-4 $O' ' H$D ' ' F3EN3 ' , H4 FR $4D ' $ HE2' F3' B-4 $O' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' J 3 ' QO' F3' 63EN3' F NF' C31$4$ 3C' F3' * H' 6 3 DC' 43C13N 3 O' N$ 3D' S' * 3' P $4CF3Cc' $ED' `' * F3' < ' I $C -43 c' F3EN3' $ HE2' F3' $C J 3E HE3D' 63EN3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 3' F3' ' 34' * 3 J 3 ' F3EN3' E $' C 4$ 2F

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$' C 4$ 2F ' > E3' H' F3' I H E '$' F NF' F3' 63EN3' F NF' D D3C' F3' >$EDC' H&' F3' 8HEH4$Q 3' 'HQ34 ' 83E40' @ 3' &4H J' >$EDC' H&' F3' @H41H4$ HE' H&' >-D H ' E' F3' <NN-1$ HE' H&' P4' 9 $J' ?J F' J33 C' F3' I4 H4' 8$ HE' 'H$D ' F3EN3' H $4DC' >-D H ' $NJ2' F3' I4 H4' 8$ HE' 'H$D' H' F3' I H E '$' F NF' F3' C$J3' C' J3 ' QO' F3' 63EN3' F NF' D D3C' F3' >$EDC' H&' F3' @H41H4$ HE' H&' >-D H ' HNN-1 3D' QO' F3' $ 3' P4' 5HFEE3C' $ED' P4' M3H423' ED34CHE' &4H J' >$EDC' H&' F3' C$ D' @H41H4$ HE' HNN-R 1 3D' QO' F3' $ 3' P4' E FHEO' 5HE3C' $ED' P4' 'HQ34 ' P 304 N+' F3EN3' $ HE2' F3' $C J3E HE3D' 63EN3' H' F3' I H E '$' F NF' F3' C$J3' J33 C' F3' B4 N+' 8H-C3' 'H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' ;$C 34E' @H4E34' H&' 9 F 3N &&' @H11 N3 ' F34&N3' ?H- F $4D' $ HE2' F3' , H4 FR 3$C 34E' 63EN3' H&' 9 F 3N &&' @H11 N3' H' F3' I H E '$' F NF' F3' C$J3' J33 C' F3' BH-ED$40' H&' F3' *H ECF 1' H&' >-D&H4D ' F3EN3' ?H- F $4D' E 2' D 3' BH-ED$40' H&' F3' *H ECF 1' H&' >-D&H4D' H' F3' I H E '&4f' D3CN4 Q3D

5 - ' * F3' H D' BH4H-2F' H&' 9 3E HN+

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*F3' H D' @ O' H&' B$ F' F3' 43C13N 3' I$4 CF3C' H&' B$ F N+' $ED' >OE ' NHJQ' $ED' 9 OENH J Q ' $ED' $ CH' F$' I$4 ' H&' F3' I$4 CF' H&' 9 $ NH ' F NF' 3C' FH- ' F3' H D' @ O' H&' B$ F' $ED' $D(H EC' F3' BH-ED$40' H&' F3' H D' @ O' H&' B$ F

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' 64H J' F3' I H E ' HE' F3' , H4 F 3$C ' H&' F3' @ O' $' F NF' F3' ;$C 34E' BH-ED$40' H&' F3' <- I$4 CF' H&' ?$ E ' I$- ' J33 C' F3' , H4 F 3C 34E' BH-ED$40' H&' F3' <- I$4 CF' H&' ? ' I F 1' $ED' 5$NHQ' ;$C $4D' $ HE2' F3' BH-ED$40' H&' F3' I$4 CF' H&' ? ' I F 1' $ED' 5$NHQ' H' F$' I H E ' F343H&' F NF' C' E3$43C' H' F3' I H E '$' F NF' F3' 9 3 C' 'H$D' 3$ 3C' F3' B$ F' 'H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' C$ D' I H E '$' F NF' F3' 9 3 C' 'H$D' 3$ 3C' F3' B$ F' 'H$D ' F3EN3' $ HE2' F3' 9 3 C' 'H$D' H' F3' %EH 3' * -4E1 +3' M$ 3 ' F3EN3' $ HE2' F3' 'H$D' F NF' 3$DC' &4H J' F3' %EH 3' * -4E1 +3' M$ 3' H' B3D J EC 34' @F-4NF' H' F3' I H E ' $' F NF' F3' C$J3' C' N4HCC3D' QO' B3D J EC 34' B4HH+ ' F3EN3' $ HE2' B3DR J EC 34' B4HH+' H' F3' I H E '$' F NF' F3' C$J3' N4HCC3C' F3' 'H$D' &4H J' >HN+C' P ' H' B3D J EC 34 ' F3EN3' $ HE2' F3' $C J3E HE3D' 'H$D ' 1$CC E2' F3' ?H- F34E' ; 43J O' H&' F3' $23' H&' B3D J EC 34' H' F3' I H E '$' F NF' F3' C$J3' J33 C' F3' B4HH+' $' P$4CF' I ' F3EN3' $ HE2' F3' $C J3E HE3D' B4HH+' H' F3' I H E '$' F NF' F3' C$J3' J33 C' F3' BH-ED$40' H&' F3' I$4 CF' H&' @ & HE' F3EN3' , H4 F $4D' $ HE2' F3' BH-ED$40' H&' F3' I$4 CF' H&' @ & HE' H' F3' BH-ED$4(' ? HE3' J$4+3D' ^@' I_' $ED' ^9' I_' U_' J$4+ E2' F3' , H4 F 3$C 34E' E2 3' H&' F3' BH-ED$40' H&' F3' I$4 CF' H&' @ & HE' $ED' C -$ 3' ' G-4DF$J' GH E' ;$C' H&' F3' ?F 43F$J1 HE' 'H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' ?H- F34E J HC' I H E '$' F NF' F3' BH-ED$40' H&' F3' * F E2' H&' ? H+3' B CFH1' J33 C' I$440 C' >$E3 ' F3EN3' ;$C $4D' $ HF2' F3' BH-ED$40' H&' F3' * F E2' H&' ? H+3' B CFH1' H' F3' I H E '$' F NF' F3' C$J3' (H EC' F3' BH-ED$40' H&' F3' <- I$4 CF' H&' ? ' I$- ' F3EN3' , H4 F $4D' $ HE2' F3' BH-ED$40' H&' F3' <- I$4 CF' H&' ? ' I$- ' H' F3' I H E '&4C' D3CN4 Q3D

' 64HJ'@H 3 C' <$+' * -4E1 +3' M$ 3'$ HE2' B$4 HE' >$E3' H' F3' I H E '$' F NF' F3' C$J3' J33 C' M433E' > 3 ' F3EN3' $ HE2' M433E' >$E3' H' F3' I H E '$' F NF' F3' C$J3' J33 C' F3' >$E3' H' 8 3 N$4 C' M4$ 3'(' F3EN3' $^ 2' F3' >$E3' H' 8 3 FN$4 C' M4$ 3' H' & 3' ?H- F34E' ; 43 J O' F343H&' F3EN3' E' $' C 4$ 2F ' > E3' F&H- ' I $2-O' 8 H-C3' E H' M4H 3' >$E3' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E '$' F NF' F3' ' H$D' &4HJ' * O F3' 4 E2 HE' C' J 3 ' QO' F3' >$E3']' DD34 3 '$' $' I $N3' N$ 3D' F3' P H-E ' F3EN3' $ HE2' F3' >$E3' H' DD34 3 ' H' F3' ; $C 34E' ; 43 J O' F343H&' E3$4' B3 H C' 8 1 3' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E '$' F NF' 64HJ3' ' 34' H- D' Q3' N- ' QO' $' C 4$ 2F ' > E3' H' Q3' D4$ E' &4HJ' F3' I H E ' $C ' D3CN4 Q3D' H' F3' 8 H-C3' N$ 3D' `' P 4C' 9 F 3C' c' H4' `' ?H- F& 3 D' 6$4J' 8 H-C3 c' F3EN3 ' %H4 F $4D ' $ HE2' 64HJ3' ' 34' H' F3' I H E '$' F NF' F3' C$J3' C' (H E3D' QO' ' HDD3E' >$+3' ? 43$J 3 ' F3EN3' $ HE2' ' 3DD3E' +3' ? 4NJE 3 ' H' ' 3DD3E' B4 D23' $' F3' ; ED' H&' ' HDD3E' >$E3 ' F3EN3' $ HE2' ' HDD3E' >HE3' H' F3' I H E ' N$ 3D' @ E+' @4HCC $OC' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' * 3 & F' P 3' ? HE3' HE' F3' B$ F' ' H$D' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' , H4 F 3$C 34E' @HJ 34' H&' P 4' ?F31 F34DC' M$4D3E' 9 $ ' F3EN3' E' $' C 4$ 2F ' > E3 ' F4H-2F' F3' 8 H-C3' H&' * FHJ $C' B$ ' $ED' P 4C' ? $D3' H' 64HJ3' ' 34' F3EN3' $ HE2' 64HJ3' ' 34' H' F3' , H4 F34EJHC' I $4 ' H&' F3' B- D E2C' H&' F3' G O3' 8 H-C3' $ 3' F3' ' I4H134 O' H&' ?$J -3' B- HE' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' @3E 43' H&' % CC E2' B$ NF' I H-ED ' F3CEN3' E' $' C 4J 2F ' > E3' H' @H 3 C' <$+' * -4E1 +3' M$ 3

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I4HJ' F3' I H E ' HE' F3' , H4 F 3$C ' H&' F3' @ O' $' F NF' F3' H D' @ O' BH-ED$4O' J33 C' B$N+' >$E3 ' $ HE2' B$N+' >$E3' H' F3' I H E ' $' F NF' F3' C$J3' (H EC' F3' B$ F' ' H$D ' 3EN3' E' $' C 4$ 2F ' > E3' $N4HCC' F3' B$ F' ' H$D' H' F3' , H4 F34E' ; 43 J O' H&' G4$E2' >$E3 ' F3EN3' $ HE2' G4$E2' >$E3 ' $ED' $ HE2' F3' 6HH 1$ F' $N4HCC' G4$E2' P 3$DH ' H' F3' I H E ' $' F NF' C-NF' 6HH 1$ F' (H EC' F3' ' H$D' F NF' 3$DC' H' F3' * -4E1 +3' HE' F3' ?F31 HE' P $ 3 ' ' H$D ' F3EN3 ' 9 3C $4D ' $ HE2' F3' ' H$D' CH' (H E3D' H' F3' E3 ' @ O' BH-ED$4O' ? HE3 ' F3EN3 ' ?H- FC' $4D ' $ HE2' F3' H D' @ O' BH-ED$4O' H' F3' I H E ' & 4C ' D3CN4 Q3D

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64HJ' F3' ; $C 34EJHC ' I H E ' $' F NF' F3' BH-ED$4O' H&' * F433' ; J' 6 3 D' J33 C' F3' ' 34' I $443 ' 9 3C $4D ' $ HE2' F3' BH-ED$4O' H&' * F433' ; J' 6 3 D' H' F3' I H E ' $' F NF' F3' C$J3' J33 C' ' 33D' P HH4' I ' ' F3EN3 ' 9 3C $4D ' $ HE2' ' 33D' P HH4' I ' H' F3' I H E ' $' F NF' F3' C$J3' 43$NF3C' F3' ?H- F34E' BH-ED$4O' H&' F3' * H' 6 3 DC' 43C13N 3 O' N$ 3D' F3' I $C -43' M4H-ED ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $' F NF' F3' BH-ED$4O' H&' F3' I $4 CF' H&' 9 3 J QDHE' H- D' Q3' N- ' QO' $' C 4$ 2F ' > E3' H' Q3' D4$ E' &4HJ' F3' I H E ' $C ' D3CN4 Q3D' H' F3' ?1 43' H&' B4 D23 $ 34' @F-4NF ' F3EN3 ' ?H- F $4D ' $ HE2' F3' BH-ED$4O' H&' F3' I $4 CF' H&' 9 3 J QDHE' H' F3' I H E ' $' F NF' F3' C$J3' J33 C' F3' @$E ' E E2 HE' ' H$D ' F3EN3 ' 9 3C $4D ' $ HE2' F3' @$EE E2 HE' ' H$D' H' F3' I H E ' $' F NF' F3' C$J3' C' J@' QO' F3' BH-ED$4O' H&' F3' 6 3 D' N$ 3D' ? ' N43C ' F3EN3 ' 9 3C $4D ' $ HE2' F3' BH-ED$4O' ' F3' 6 3 D' N$ 3D' ? ' N43C' H' F3' I H E ' $' F NF' F3' ?$J3' J33 C' E3$4' F3' 8 H4C3' $ED' 5HN+3O' EE ' F3' ' H$D' &4HJ' 9 3C ' ? 433 ' F3EN3 ' 9 3C $4D ' $ HE2' F3' C$ D' ' H$D' &4HJ' 9 3C ' ? 433 ' H' D 3' I H E '$' F NF' F3' C$J3' C' J 3 ' QO' F3' 9 3C 34E' BH-ED$4O' H&' P $ F3 C' 6 3 D ' F3EN3' $ HE2' F3' 9 3C 34E' ' BH-ED$4O' H&' P $ F3 C' 6 3 D' H' F3' I H E '$' F NF' F3' C$J3' J33 C' F3' * H E' P ' >3$ ' F3EN3' $ HE2' F3' * H & ' P ' >3$ ' H' F3' I H E ' $' F NF' F3' C$J3' 43$NF3C' F3' ?H- F 3$C 34E' @H4E34' H&' P $ F3 C' 6 3 D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $' F NF' 8 $J 1' B4HH+' J33 C' 8 $J 1' >$E3 ' F3EN3' $ HE2' 8 $J 1' >$13' H' F3' I H E '$' F NF' F3' C$J3'

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(H EC' 9 3C ' ' H$D ' F3EN3' $ HE2' 9 3C ' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' (H E3D' QO' ' H C' > $E3 ' F3EN3' $ HE2' ' H C' > $E3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' 63EN3' F NF' EN HC3C' F3' M4H - EDC' H&' F3' 8 H - C3' N$ 3D' `' 8 $ J 1 c' Q3 HE2 E2' H' 5HFE' @F$1 J $E' ; CX - 43 ' F3EN3 ' ?H - F $4D ' $ HE2' F3' $C J 3E HE3D' 63EN3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' $' ? 43$ J' $ ' B$4 $ED' > $E3' B 4 D23 ' F3EN3' $ HE2' F3' C$ D' ? 43$ J' H' F3' I H E ' $ ' F NF' F3' C$ J 3' &$ C' E H' F3' ' 34' I $443 ' $ ' B$4 $ED' @ T3 ' F3EN3 ' 9 3C $4D ' $ HE2' F3' ' 34' I $443 ' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' (H E3D' QO' F3' BH - ED$4O' H&' F3' , H4 F34E J HC ' H&' F3' * H' NHE 2 - H - C' 6 3 DC' 43C13N 3 O' N$ 3D' 6 3' N43C ' F3EN3 ' ; $C R $4DC' $ HE2' F3' BH - ED$4O' H&' F3' $C J 3E HE3D' 6 3 D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' BH - ED$4O' H&' F3' 6 3 D' N$ 3D' 6H - 4' N43C ' F3EN3 ' , H4 F $4D ' $ HE2' F3' BH - ED$4O' H&' F3' 6 3 D' N$ 3D' 6H - 4' N43C' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' BH - ED$4O' H&' $' 6 3 D' N$ 3D' 6 3' N43C ' F3EN3 ' ; $C $4D ' $ HE2' F3' BH - ED$4O' H&' F3' $C J 3ER HE3D' 6 3 D' N$ 3D' 6 3' N43C' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' 9 3C HE' eHO $ED' ' H$D ' F3EN3 ' ; $C $4D ' $ HE2' F3' 9 3C HE' eHO $ED' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' J 3 ' QO' $E' < NN - 1$ HE' ' H$D' 3$D E2' H $4DC' F3' , H4 F ' F3EN3' $ HE2' F3' C$ D' < NN - 1$ HE' ' H$D' H' F3' , H4 F34E' ; 43 J O' F343H&' F3EN3' $ HE2' F3' 63EN3' F NF' C' F3' 9 3C 34E' BH - ED$4O' H&' F3' 6 3 DC' 43C13N 3 O' N$ 3D' * 3E' N43C ' ?3 3E' N43C ' $ED' 6 3' N43C ' &H4 J 34 O' Q3 HE2 E2' H' 3 $ED34' I H1F$ J' ; CX - 43 ' H' F3' I H E ' $ ' F NF' C - NF' 63EN3' J 33 C' F3' 63EN3' H&' $' 6 3 D' N$ 3D' * F3' 8 - ED43D' N43C ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' ?H - F34E' ; 43 J O ' N HC3' QO' $' I 3E&H D ' H&' F3' 63EN3' F NF' D D3C' F3' * H' 6 3 DC' 43C13N 3 O' N$ 3D' `' I $4 ' H&' F3' 8 - ED43D' N 3C F 3 E N 3 ' ; $C $4D ' $ HE2' F3' BH - ED$4O' H&' F3' ; $C 34E J HC ' H&' F3' * H' $C J 3E HE3D' 6 3 DC' H' F3' I H E ' $ ' F NF' C - NF' BH - ED$4O' J 33 C' F3' B$ F' ' H$D ' F3EN3 ' , H4 F $4D ' $ HE2' F3' BH - ED$4O' H&' F3' 6 3 D' N$ 3D' ? J $ ' @4H& ' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' B4 C H ' ' H$D' ' F3EN3 ' 9 3C $4D ' $ HE2' F3' BH - ED$4O' H&' M43$ ' @$C 3' 6 3 D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' ' 34' I $443 ' F3EN3' $ HE2' F3' ' 34' I $443 ' H' F3' I H E ' & 4C ' D3CN4 Q3D

64H J ' F3' I H E ' HE' F3' , H4 F 3C ' H&' F3' * H E' $ ' F NF' P ' > 3$C3' ? 43$ J ' N4HCC3C' M433E $O' > $E3 ' $ HE2' M433E $O' > $E3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' (H EC' F3' % E2C HE' ' H$D ' F3EN3' $ HE2' F3' % E2C HE' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' (H E3D' QO' F3' @F3DDHE' ' H$D ' F3EN3' $ HE2' F3' @F3DDHE' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' (H E3D' QO' I 4 H4C' 9 HHD' > $E3 ' F3EN3' $ HE2' I 4 H4C' 9 HHD' > $E3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' J 3 ' QO' F3' < Q4 D23' ? 43$ J ' F3EN3' $ HE2' F3' < Q4 D23' ? 43$ J' H' F3' I H E ' $ ' F NF' F3' C$ J 3' &$ C' E H' F3' ' 34' * HE3 ' F3EN3 ' ?H - F $4D ' $ HE2' F3' ' 34' * HE3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' J 3 ' QO' P ' > $E3 ' F3EN3' $ HE2' P ' > $E3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' (H EC' F3' B4 D23 $ 34' ' H$D ' F3EN3' $ HE2' F3' B4 D23 $ 34' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' (H E3D' QO' B$ F' I HH ' > $E3 ' F3EN3' E' $' C 4$ 2F ' > E3' H' ? 43$ J' I $ ' B4 D23 ' F3EN3' $ HE2' F3' ? 43$ J' H 34' F NF' ? 43$ J' I $ ' B4 D23' C' Q - ' F4H - 2F' 8 H $O' B4 D23 ' H' F3' I H E ' $ ' F NF' F3' C$ J 3' ? 43$ J' J 33 C' F3' BH - ED$4O' H&' F3' I $4 CF' H&' 9 HE' $ ' @ - N+HH' @H4E34 ' F3EN3 ' 9 3C $4D ' $ HE2' F3' BH - ED$4O' H&' F3' I $4 CF' H&' 9 HE' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' ?F34&H4D' ? 43$ J ' F3EN3' $ HE2' ?F34&H4D' ? 43$ J' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' ?F34&H4D' > $E3 ' F3EN3' $ HE2' ?F34&H4D' > $E3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' (H EC' F3' 8 HE HE' ' H$D ' F3EN3' $ HE2' F3' 8 HE HE' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' (H E3D' QO' 8 H 34 $ED' > $E3 ' F3EN3' $ HE2' 8 H 34 $ED' > $E3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' M$E HE' ? 43$ J ' F3EN3' $ HE2' M$E HE' ? 43$ J' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' BH - ED$4O' H&' F3' I $4 CF' H&' 9 HE ' F3EN3 ' , H4 F $4D ' $ HE2' F3' BH - ED$4O' H&' F3' I $4 CF

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YV UćK SL M # > ; > P @$1 Y

I$4 CF H& 9 HE H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 B CFH1C 8 - ' H$D F3EN3 , H4 F $4D $ HE2 F3 B CFH1C 8 - ' H$D H F3 I H E $ F NF F3 C$ J 3 C (H E3D QO > HE2 ' - E > $E3 F3EN3 E $ C 4$ 2F > E3 H F3 * - 4E1 +3 8 H - C3 HE F3 ? $1 324H 3 ' H$D F3EN3 $ HE2 F3 ? $1 324H 3 ' H$D H F3 I H E $ F NF F3 C$ J 3 C N4HCC3D QO P > 3$C3 ? 43$ J F3EN3 $ HE2 P > 3$C3 ? 43$ J H F3 I H E & 3 D3CN4 Q3D

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* F3 H D BH4H - 2F H& , 3 N$C 3 EED34 > 0 J 3 $ED F3 I H4 HE H& F3 I$4 CF H& ? H+3 - 1HE * 4$ F NF C C - 44H J D3D 1$4D0 QO F3 BH - ER D$40 H& F3 H D BH4H - 2F H& , 3 N$CD3 - ED34 > 0 J 3 $ED 1$4 O QO F3 gBH - ED$40 H& F3 * H ECF 1 H& %E - HE

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I4H J F3 I H E $ F NF F3 BH - ED$40 H& F3 H D BH4H - 2F C N - QO $ C 4$ 2F * E3 D4$ E &4H J F3 9 ED J E3$4 F3 B4 D23 HE F3 GH 30 ' H$D H F3 ? 0 3 $ F3 ?H - F34E ; ED H& F3 6HH 1$ F &4H J F3 , 3 1H4 ' H$D E H F3 I 3E+4 D23 ' H$D $ HE2 F3 C$ D C 4$ 2F > E3 H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 I 3E+4 D23 ' H$D F3EN3 ?# - F $4D $ HE2 F3 I 3E+4 D23 ' H$D H F3 I H E $ F NF $? 43$ J H& 9 $ 34 4 - EE E2 $ HE2 F3 ; $C 34E ? D3 H& F$ ' H$D - 4EC ; $C R $4D F343&4H J F3EN3 $ HE2 F3 C$ D ? 43$ J H F3 I H E $ F NF F3 C$ J 3 J 33 C ?1 $ B4HH+ F3EN3 $ HE2 ?1 $ B4HH+ H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 ' 34 ?H F3EN3 $ HE2 F3 ' 34 ?H H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 BH - ED$40 H& F3 H D BH4H - 2F F3EN3 , H4 F $4D $ HE2 F3 BH - ED$40 H& F3 H D BH4H - 2F H F3 I H E & 4C D3CN4 Q3D

$E $

* F3 C3 34$ * H ECF 1C H& I 3E+F - F BHH F3E * - EC $ B - 4C 3 J 8$E 30 ?F3 HE 63E HE $E > $E3 ; ED 63E HE @ - 34 $ED > HE2 HE F3 H& ' - CF HE < 4$E23 $ED F3 8 $ J 3 H& ?E3OD

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* F3 I$4 CF H& * $ J H4 F

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& * F3 I$4 CF H& 9 $ C$ 3 N31 F$ D3 $NF3D I$4 F343H& F NF C C - 44H - ED3D QO F3 43C13N 3 I$4 CF3C H& D4 D23 $ED ' - CF$ $ED F3 I @F$13 40 H& I 3 CF$

9 P & C3 34$ * H ECF 1C H& 9 H 34F$ J 1 HE B C HE 9 3EF$ $ED b 9 3DE3C& 3 D $ED F3 I$4 CF H& ?3D23 30

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&+ * F3ʽ C3 34$ʽ I $4 CF3Cʽ H&ʽ ; O3 ʽ 8 H E3 ʽ G3EF$ J ʽ ' 3D E2& 3 D ʽ < NNH Dʽ * FH4EDHE ʽ B4$ C H4 F ʽ = $ 3O ʽ * F4$ED C HE ʽ B4HH J 3 ʽ $EDʽ < $+ 3O

E E * F3ʽ H Dʽ BH4H-2Fʽ H&ʽ ?-DQ-4O ʽ $EDʽ F3ʽ * H ECF 1ʽ H4ʽ 8 $ J 3 ʽ H&ʽ B$ ʽ E2DHEʽ N-J ʽ B4-ED3E ʽ H23 F34ʽ Fʽ $ ʽ H4ʽ $EOʽ ; 4$ 1$4HNF $ ʽ I $N3Cʽ H4ʽ I $N3ʽ C-44H-ED3Dʽ QOʽ F3ʽ BH J D$4 3Cʽ 3 F34ʽ H&ʽ F3ʽ H Dʽ BH4H-2Fʽ H&ʽ ?-DQ-4Oʽ H4ʽ H&ʽ F3ʽ * H ECF 1ʽ H4ʽ 8 $ J 3 ʽ H&ʽ B$ E2DHEʽ N-J ʽ B4-ED3E

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* F3ʽ I $4 CFʽ H&ʽ ?$ E ʽ P $4Oʽ , 3 E2 HE ʽ F3ʽ I $4 CFʽ H&ʽ ?$ E ʽ M 3Cʽ @$ J R Q34 3 ʽ 3 N31 ʽ F3ʽ P $EH4ʽ $EDʽ 8 $ J 3 ʽ H&ʽ G- NF ʽ $EDʽ $ CHʽ C-NFʽ I $4 ʽ H&ʽ F3ʽ I $4 CFʽ H&ʽ > $ J Q3 Fʽ $Cʽ Cʽ C -$ 3ʽ Hʽ F3ʽ , H4 Fʽ H&ʽ F3ʽ > E3ʽ F343 ER $& 34ʽ D3CN4 Q3D ʽ EN -D E2ʽ F3ʽ ; 4$ 1$4HNF $ ʽ ?1$N3ʽ 3ENH J 1$CC3Dʽ QOʽ C-NFʽ I $4 .

6 4@+2 ʽ 64H J ʽ F3ʽ I H E ʽ $ ʽ F NFʽ F3ʽ ' H$Dʽ &4H J ʽ > HEDHEʽ Hʽ G- NFʽ QOʽ ' 3D I HC ʽ 8 ʽ 3$ 3Cʽ F3ʽ ' H$Dʽ &4H J ʽ > HEDHEʽ H 34ʽ 8 34E3ʽ 8 ʽ Eʽ $ʽ C 4$ 2F ʽ > E3ʽ Hʽ ?$ E ʽ P $ F3 Cʽ @F-4NFʽ $ ʽ B4 HE ʽ F3EN3ʽ Eʽ $ʽ C 4$ 2F ʽ > E3ʽ Hʽ $ʽ I H E ʽ Eʽ F3ʽ BH-ED$4Oʽ Q3 33Eʽ F3ʽ 43C13N 3ʽ I $4 CF3Cʽ H&ʽ > $ J Q3 Fʽ $EDʽ @ $1F$ J ʽ < E3ʽ F-ED43Dʽ $EDʽ & & Oʽ = $4DCʽ ?H- Fʽ H&ʽ F3ʽ P DD 3ʽ H&ʽ F3ʽ @$44 $23 $Oʽ $ HE2ʽ N43ʽ > $E3

+3/ 2+ʽ ʽ * F3ʽ I $4 CFʽ H&ʽ ' 3 2$ 3

* F3ʽ H Dʽ BH4H-2Fʽ H&ʽ ?H- F $4+ʽ EN -D E2ʽ F3ʽ P E ʽ $EDʽ P $EH4ʽ H&ʽ ?-&&H + ʽ F3ʽ C3 34$ʽ I $4 CF3Cʽ H&ʽ ' H F34F F3 ʽ B34 J HEDC3O ʽ $EDʽ @F4 C ʽ @F-4NF ʽ $EDʽ F3ʽ @ E+ʽ > Q34 Oʽ H&ʽ F3ʽ I $4 CFʽ H&ʽ ?$ E ʽ ?$ H-4

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64H J ʽ F3ʽ I H E ʽ HEʽ F3ʽ , H4 Fʽ H&ʽ F3ʽ * H Eʽ $ ʽ F NFʽ $ʽ @433+ʽ 3$D E2ʽ &4H J ʽ G$1D-E3ʽ 8 H-C3ʽ (H ECʽ F3ʽ ' 34ʽ 9 3O ʽ Eʽ $ʽ C 4$ 2F ʽ > E3ʽ Hʽ F3ʽ I H E ʽ $ ʽ F NFʽ F3ʽ ' H$Dʽ N$ 3Dʽ F3ʽ , 3 ʽ ' H$Dʽ (H ECʽ F3ʽ ? H+3ʽ ' H$D ʽ F3EN3ʽ $ HE2ʽ F3ʽ , 3 ʽ ' H$Dʽ Hʽ F3ʽ I H E ʽ $ ʽ F NFʽ F3ʽ C$ J 3ʽ (H ECʽ F3ʽ % E2C HEʽ ' H$D ʽ F3EN3ʽ $ HE2ʽ F3ʽ % E2C HEʽ ' H$Dʽ Hʽ F3ʽ I H E ʽ $ ʽ F NFʽ F3ʽ C$ J 3ʽ (H ECʽ @4HCCʽ > $E3 ʽ F3EN3ʽ $ HE2ʽ @4HCCʽ > $E3ʽ Hʽ F3ʽ I H E ʽ $ ʽ F NFʽ F3ʽ C$ J 3ʽ (H ECʽ F3ʽ ; 1CH J ʽ ' H$D ʽ F3EN3ʽ Eʽ $ʽ C 4$ 2F > E3

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> E3 H F3 I H E E @F$ +O >$E3 $ F NF F3 BH-ED$40 H& * 4 E O
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I $4 CF H F3 I H E $ F NF C-NF BH-ED$40 3E 34C M$H > $E3 F3EN3
E $ C 4$ 2F > E3 H F3 I H E $ F NF F3 34 9 3O -4EC $Q4-1 O
H F3 , H4 F $ $ 9 F$4& N HC3 QO F3 8 H4CF$ J H$D F3EN3 E $
C 4$ 2F > E3 H F3 1 1 E $ ENF F3 I $ F &4H J M- D&H4D $N4HCC
B-4O 6 3 DC $Q- C HE F3 I H4 C J H- F H$D F3EN3 E $ C 4$ 2F > E3
H F3 ?H- F 3C 34E @H4E34 H& @4$D 3 6 3 D F3EN3 $ HE2 F3 9 3C 34E
8 3D23 H& @4$D 3 6 3 D H F3 I H E $ F NF F3 C$ J 3 N- C F3 H D
6$4EF$ J H$D F3EN3 E $ C 4$ 2F > E3 H $4DC 9 H41 3CDHE ?3 J $
1FH43 H F3 I H E $ F NF C-NF > E3 N- C F3 E3 6$4EF$ J H$D
F3EN3 E $ C 4$ 2F > E3 H F3 I H E & 4C D3CN4 Q3D

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* F3 * H E $ED I H4 8 $C E2C $ED C > Q34 3C EN -D E2 F$ D3 $NF3D I $4 H& F3 I $4 CF H& I $ E > 3HE$4D F NF 3C E3$4 F3 * H E H& 9 4 NF3 C3$ $ED EN -D E2 $ CH F3 > Q34 O H& F3 ? - N3 Q- 3 N -DR E2 $ C-3F < F34 I $4 C H& F3 H D BH4H-2F H& 8 $C E2C $C $43 D3 $NF3D g&4H E F3 J $ E BHDO F343H&

64H J F3 * H E P HE F3 , H4 F 3C 34E ? D3 H& F3 * H E E $ C 4$ 2F > E3 H F3 ? J <N+ 9 ED J F NF C F3 J HC CH- F34 O H& F3 * H 9 ED J C N$ 3D ` * F3 % E2C HE3 P C c F3EN3 E $ C 4$ 2F > E3 H F3 I H E $ F NF F3 BH-ED$40 H& F3 I $4 CF H& ?H- FH 34 N4HCC3C F3 @HN+CQ- ? 43$ J F3EN3 $ HE2 F3 @HN+CF- ? 43$ J H F3 I H E $ F NF F3 C$ J 3 (H EC F3 34 < -C3 F3EN3 $ HE2 F3 34
9 < -C3 H F3 I H E $ 9 F NF F3 C$ J 3 H- D Q3 N- &3O $ C 4$ 2F > E3 H Q3 D4$ E &4H J F3 I H E $C D3CN4 Q3D H F3 I H E HE F3 ; $C 34E @ &&/ +EH E $C F3 ?N 3 H& $E H D 9 ED J F3EN3 E $ C 4$ 2F > E3 H F3 C$ D I H E HE F3 ; $C 34E @ && F3EN3 E $ C 4$ 2F > E3 H F3 9 ED J N$ 3D P $ E2 P F3EN3 E $ C 4$ 2F > E3 H F3 I H E $ F NF F3 ? 43$ J F NF -4EC F3 I $134 P &$ C E H F3 34 < -C3 F3EN3 E $ C 4$ 2F > E3 H F3 * H E P

+ * F3 $EN 3E * H EC H& O3 $ED 9 ENF3 C3$ F3 C3 34$ I $4 CF3C H& O3 I 3$C3 J $4CF D3E I $OD3E 9 ENF3 C3$; $C M- D&H4D N+ 3CF$ J $ED # D J 34 $ED $ CH F$ I $4 H& F3 I $4 CF H& B43D3 F NF 3C Q3 33E F3 I $4 CF3C H& # D J 34 $ED N+ 3CF$ J

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" ʻ *F3ʻ I$4 CFʻ H&ʻ 8H4CF$J

*F3ʻ C3 34$ʻ I$4 CF3Cʻ H&ʻ P DF-4C ʻ ;$C3QH-4E ʻ 83OCFH ʻ @F F-4C ʻ M4$&&FJE ʻ G D8E2ʻ $EDʻ @HN+ E2 ʻ $EDʻ F3ʻ * F E2ʻ H&ʻ ?H- Fʻ J ʻ Q34CF$Jʻ Eʻ F3ʻ I$4 CFʻ H&ʻ ? 331ʻ ʻ F$ ʻ I$4 ʻ H&ʻ F3ʻ I$4 CFʻ H&ʻ B 2EH4ʻ FNFʻ Cʻ C-44H-ED3DʻQOʻ F3ʻ I$4 CFʻ H&ʻ ;$C3QH-4E3 ʻ FHC3ʻ I$4 Cʻ H&ʻ F3ʻ C3 34$ʻ I$4 CF3Cʻ H&ʻ 9 HH ʻ >$ E2 HE ʻ B31 <E ʻ$EDʻ 9 HH Q3D E2ʻ FNFʻ $D(H Eʻ F3ʻ I$4 CFʻ H&ʻ P DF-4C ʻ F$ ʻ I$4 ʻ H&ʻ F3ʻ I$4 CFʻ H&ʻ >OENFʻ FNFʻ $D(H E3ʻ 8F3ʻ C$ Dʻ I$4 ʻ H&ʻ F3ʻ I$4 CFʻ H&ʻ B31 HE ʻ $EDʻ $ CHʻ F$ ʻ I$4 ʻ H&ʻ F3ʻ I$4 CFʻ H&ʻ >OENFʻ Eʻ FNFʻ 9 HHD J$ECʻ M433Eʻ Cʻ C -$ 3ʻ
0 " " $ ʻ C-NFʻ 1$4 Cʻ H&ʻ D 3ʻ 43C13N 3ʻ I$4 CF3Cʻ H&ʻ ? 3DF$Jʻ$EDʻ 1 E2ʻ $Cʻ$43ʻ EH ʻ4 -$ 3Dʻ Hʻ F3ʻ ,H4 Fʻ H&ʻ F3ʻ @4HCCʻ 'H$Dʻ FNFʻ 4-ECʻ &4HJʻ 9 HHDR J$ECʻ M433E ʻ Q3 33Eʻ ,H4 Fʻ ;EDʻ 6$4Jʻ $EDʻ 8HQQ34 Cʻ 6$4J ʻ Hʻ P $EDʻ P$4CF ʻ (3ʻ I$4 CFʻ H&ʻ *4H HE ʻ3 N31 ʻ FJʻ I$4 ʻ F343H&ʻ FNFʻ 3Cʻ Hʻ F3ʻ ,H4 Fʻ H&ʻ F3ʻ @4HCCʻ 'H$Dʻ &4HJʻ E E2ʻ @HJ JHEʻ Hʻ 8HJ3ʻ 8 ʻ $EDʻ@HQ3Dʻ 8$ ʻ N$ 3Dʻ >HE3Q33NFʻ >$E3 ʻ $EDʻ $ ʻ C-NFʻ I$4 Cʻ H&ʻ F3ʻ43C13N 3ʻ I$4 CF3Cʻ H&ʻ ?3 F$Jʻ$EDʻ >HDC H4 Fʻ $EDʻ H&ʻ F3ʻ * F E2ʻ H&ʻ ,H4 Fʻ JQ34CF$J ʻ $Cʻ $43ʻ EH ʻ C -$ 3Dʻ Hʻ F3ʻ ,H4 Fʻ H&ʻ F3ʻ B4HH+ʻ FNFʻ 4-ECʻ &4HJʻ @HH+Cʻ B4 D23ʻ HEʻ F3ʻ>HEDHEʻ 'H$Dʻ Hʻ > N+&H Dʻ B4 D23

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64HJ' F3' IHE'HE' F3' ?H- F' H&' F3' *H E' $' F NF' F3' 6HH 1$ F' H' ?F D3' (H EC' F3' , HE' 'H$D' $' *4$ 3C' B- ' E' $' C 4$ 2F' > E3' H' F3' 8H-C3' E' F3' I$4 CF' H&' @$4 CQ4HH+3' F NF' Q3 HE2C' H' 5HCF-$' N+@*E3 '$ED' C'EH ' E' F3'<NN-1$ HE'H&' P4C'? $EQH4H-2F' F3EN3' E' $' C 4$ 2F' > E<' $N4HCC' F3' M$ NHJQ3' 'H$D' H' F3' 8H-C3' F NF' Q3 HE2C' H' 5 HE3C' B$4 H ' 8HO' ; CX- 43'$ED' C' EH ' E' F3' <NN-1$ HE' H&'5$J3C' G3EE3 ' F3EN3' E' $' C 4$ 2F' > E3' E' F3' G 43N HE' H&' 9 3C ' P ' H' F3' IHE'$' F NF' C-NF' C 4$ 2F' > E3' N- C' F3' >-+3 30' H4' @$4 CQ4HH+' ? 43$J' ' F3EN3' , H4 F $4D' $ HE2' F3' >-+3 30' H4' @$4 C' Q4HH+' ? 43$J' H' F3' IHE'$' F NF' F3' C$J3' J33 C' F3' BH-ED$40' H&' &3' H D' BH4H-2(' F3EN3' , H4 F $4D' $ HE2' F3' BH-ED$40' H&' F3' H D' BH4H-2F' H' I$E' B4 D23' F3EN3' E' $' C 4$ 2F' > E3' H' F3' IHE' $' F NF' J3' 6H3 $ F' H') D3' J33 C' @F-4NF' > HE' >$E3' F3EN3' $ HE2' F3' C$ D' 6HH 1$ F' H' F3' IHE' & 4C' D3CN4 Q3D

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4" " &' *F3' C3 34CD' I$4 CF3C' H&' @F 113EF$J ' 8 $4D3EF- CF' $ED' >$E2 30' I' B-443 '$ED' F3' ; 4$ 1$4HNF $' ?1$N3' N 3D' I3 CF$J

*F3' H D' BH4H-2F' H&' G3 T3C' EN -D E2' F3' 43C13N 3' I$4 CF3C' H&' ? '5HFE' F3' B$1 C' $ED' F3' B 3CC3D' 42 E' P $40' $ED' $ CH' CH' J -NF' ,+' F3' @F$13 40' H&' ? '5$J3C' $ ED' H&' F3' I$4 CF' H&' 'H D3' $C' 3C' Q3 33E' F3' BH-ED$40' H&' F3' H D' BH4H-2F' $ED' F3' &H H E2' BH-ED$40' ' ^ F$' C' H' C$O_'

8 K 64HJ' F3' IHE'$' F NF' F3' BH-ED$40' H&' F3' I$4 CF' H&' ? '5HFE' F3' B$1 C' H- D' Q3' N- ' QO' $' C 4$ 2F' > E3' H' Q3' D4$ E' &4HJ' F3' G$ 40' 6$4J' 8H-C3' HE' F3' @F 113EF$J' 'H$D' N$ 3D' < ' 8H-C3' H' F3' 'H-ED' *H 34' H&' F3' E3 9' @H-E O' B4 D3 3 ' E' $' C 4$ 2F' > E3' H' < ' 8H-C3' F3EN3' E' $' C 4$ 2F' > E3' H' $' 8H-C3' HNN-1 3D' QO' P 4' P $OH' N$ 3D' B4H '@H $23' F3EN3' E' $' C 4$ 2F' > E3' H' F3' IHE'$' F NF' F3' *H E2' I$ F' H&' F3' %3EE3' @E' J33 C' GO3' 8H-C3' >$E3' F3EN3' ; $C $4D' $ HE2' F3' %3EE3' @E' H' F3' IHE'$' F NF' F3' C$J3' -4EC' , H4 F $4D' E3$4' >HEDHE' B4 D23' F3EN3' E' $' C 4$ 2F' > E3' D4$ E' D-3' ; $C' H' $' IHE' <E3' F-ED43D' =$4DC' D C $E ' F3EN3' E' $' C 4$ 2F' > E3' H' P 4' M-ED40 C' 8H-C3' HE' F3' ?$ CQ-40' 'H$D' F3EN3' E' $' C 4$ 2F' > E3' H' $' 8H-C3' N$ 3D' ?H- F2$ 3' HNN-1 3D' QO' P 4' ? $D3' F3EN3' E' $' C 4$ 2F' > E3' H' F3' ?H- F34E JHC' IHE' $' F NF' M$ H C' N43' >$E3' C' J3' QO' F3' BH-ED$40' H&' F3' I$4 CF' H&' ? '5HFE' F3' B$1 C' ?

0 E 8 *F3' H D' BH4H-2F' H&' P$ JCQ-40' F3' 43C13N 3' <- I$4 CFCC' H&' ? ' I$-' P$ JCQ-40' $ED' ? ' P $40' 9 3C HH4 ' $ED' F3' C3 34$' I$4 CF3C' H&' B4H+3EQH4H-2F' @F$4 HE' M$4CDHE' >3$' M43$' ?HJ34&H4D' > 3' ?HJ34&H4D' 6H 30' $ED' B43 HF F$J '

0 E "' ' *F3' H D' BH4H-2F' H&' P$4 QH4H-2F' $ED' F3' I$4 CF' H&' 143CF- 3

U KSLM # > ; > P ʿ ʿ @$1 Y !VV

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64H J ʿ F3ʿ ?H - F 3C 34Eʿ ; 43 J Oʿ H&ʿ F3ʿ 9 $ ʿ H&ʿ F3ʿ I HH4FH - C3ʿ $ ʿ 6 CF34 HEʿ E234 ʿ Eʿ $ʿ C 4$ 2F ʿ > E3ʿ Hʿ $ʿ I H E ʿ Eʿ F3ʿ 9 HEʿ ' H$Dʿ F NFʿ Cʿ * F433ʿ F - ED43Dʿ $EDʿ F 4 Oʿ = $ DCʿ D C $E ʿ &4H J ʿ F3ʿ I H E ʿ $ ʿ F NFʿ F3ʿ 9 HEʿ ' H$Dʿ (H ECʿ F3ʿ G3 T3Cʿ ' H$D ʿ F3EN3ʿ Eʿ $ʿ C 4$ 2F ʿ > E3ʿ Hʿ $ʿ I H E ʿ Eʿ F3ʿ G3 T3Cʿ ' H$Dʿ F NFʿ Cʿ ? ʿ F - ED43Dʿ $EDʿ &H4 Oʿ = $4DCʿ D C $E ʿ &4H J ʿ F3ʿ I H E ʿ $ ʿ F NFʿ F3ʿ 9 HEʿ ' H$Dʿ (H ECʿ F3ʿ G3 T3Cʿ ' H$D ʿ F3EN3ʿ Eʿ $ʿ C 4$ 2F ʿ > E3ʿ Hʿ F3ʿ I H E ʿ $ ʿ F NFʿ F3ʿ ? 4$ &H4Dʿ ' H$Dʿ (H ECʿ F3ʿ P $4 QH4H - 2Fʿ ' H$D ʿ F3EN3ʿ Eʿ $ʿ C 4$ 2F ʿ > E3ʿ Hʿ F3ʿ I H E ʿ N$ 3Dʿ 9 F 11 E2ʿ @4HCCʿ * 433 ʿ F3EN3ʿ Eʿ $ʿ C 4$ 2F ʿ > E3ʿ Hʿ F3ʿ I H E ʿ $ ʿ F NFʿ F3ʿ ' H$Dʿ &4H J ʿ ?$ CQ - 4Oʿ Hʿ > $ 34C HN+ʿ (H ECʿ F3ʿ ' H$Dʿ &4H J ʿ ?$ CQ - 4Oʿ Hʿ @ $43EDHE ʿ F3EN3ʿ Eʿ $ʿ C 4$ 2F ʿ > E3ʿ Hʿ F3ʿ I H E ʿ $ ʿ F NFʿ F3ʿ ; $C 34Eʿ BH - ED$4Oʿ H&ʿ F3ʿ @ Oʿ J 33 Cʿ F3ʿ ' 34ʿ HE ʿ F3EN3ʿ $ HE2ʿ F3ʿ ' 34ʿ HEʿ Hʿ F3ʿ I H E ʿ $ ʿ F NFʿ F3ʿ C$ J 3ʿ (H ECʿ F3ʿ ' 34ʿ , $DD34 ʿ F3EN3ʿ $ HE2ʿ F3ʿ ' 34ʿ , $DD34ʿ Hʿ F3ʿ I H E ʿ & 4C ʿ D3CN4 Q3D

5 E ʿ * F3ʿ I $4 CFʿ H&ʿ 9 3C Q - 4O

* F3ʿ C3 34$ ʿ I $4 CF3Cʿ H&ʿ 9 HE ʿ 6 - 22 3C HE&3 ʿ ? 4$ &H4D - ED34 F3 ʿ @$CDQ ʿ M43$ ʿ G - 4E&H4D ʿ 9 HHD&H4D ʿ ?H - Fʿ , 3 HE ʿ 9 CF&H4D ʿ B$4&H4D ʿ B - 4NH J Q3 ʿ , 3 F34F$ J 1 HE ʿ 9 3C ʿ 8 $4EF$ J ʿ $EDʿ B4 &H4D ʿ C - NFʿ I $4 ʿ H&ʿ F3ʿ I $4 CFʿ H&ʿ 6 CF34 HEʿ E234ʿ $Cʿ ʿ EH ʿ QOʿ F3ʿ I 4H C HECʿ H&ʿ F Cʿ N ʿ Q3ʿ EN - D3Dʿ F Eʿ F3ʿ BH - ED$4Oʿ H&ʿ F3ʿ @ Oʿ H&ʿ ?$ CQ - 4O ʿ $EDʿ $ CHʿ $ ʿ C - NFʿ I $4 Cʿ H&ʿ F3ʿ C3 34$ ʿ I $4 CF3Cʿ H&ʿ B CFH1C HE ʿ * HE3Oʿ ? 4$ R &H4D ʿ @H J Q3ʿ B CC3 ʿ $EDʿ 8 - J E2 HEʿ $Cʿ $43ʿ C - $ 3Dʿ Hʿ F3ʿ , H4 Fʿ H&ʿ $ C 4$ 2F ʿ > E3ʿ Hʿ Q3ʿ D4$ Eʿ &4H J ʿ < DC HN+ʿ @F - 4NFʿ Hʿ F3ʿ I H E ʿ HEʿ @H J Q3ʿ 8 ʿ $ ʿ F NFʿ $ʿ 63EN3ʿ D D E2ʿ F3ʿ GH Eʿ &4H J ʿ F3ʿ N - $ 3Dʿ > $EDʿ J 33 Cʿ F3ʿ H Dʿ ' H$Dʿ &4H J ʿ ?$ CQ - 4Oʿ Hʿ B $ED&H4D ʿ $EDʿ F3EN3ʿ F4H - 2Fʿ F3ʿ @3E 43ʿ H&ʿ F3ʿ @ - J 1ʿ H&ʿ * 433Cʿ N$ 3Dʿ 6$ C HE3ʿ P DD 3ʿ , - 4C34Oʿ Hʿ F3ʿ 9 3C 34Eʿ BH - ED$4Oʿ H&ʿ F3ʿ I $4 CFʿ H&ʿ B CFH1C HE ʿ H23 F34ʿ Fʿ $ ʿ C - NFʿ I $4 ʿ H&ʿ F3ʿ ; 4$ 1$4HNF $ ʿ I $N3ʿ N$ 3Dʿ M4H 3 Oʿ 9 HHDʿ $Cʿ Cʿ C - $ 3ʿ Hʿ F3ʿ ; $C ʿ H&ʿ $ʿ C 4$ 2F ʿ > E3ʿ Hʿ Q3ʿ D4$ Eʿ &4H J ʿ F3ʿ I H E ʿ $ ʿ F NFʿ F3ʿ 9 3C 34Eʿ BH - ED$4Oʿ H&ʿ F3ʿ I $4 CFʿ H&ʿ 9 CF&H4Dʿ J 33 Cʿ F3ʿ , H4 F34Eʿ BH - ED$4Oʿ H&ʿ M4H 3 Oʿ 9 HHD ʿ Hʿ F3ʿ I H E ʿ $ ʿ F NFʿ F3ʿ 9 3C 34Eʿ BH - ED$4Oʿ H&ʿ F3ʿ I $4 CFʿ H&ʿ B$4&H4Dʿ J 33 Cʿ F3ʿ ?H - F34Eʿ BH - ER D$4Oʿ H&ʿ M4H 3 Oʿ 9 HHD

5

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; ? * ; ' , ʿ G ? < ,

* F3ʿ H Dʿ BH4H - 2Fʿ H&ʿ G4H NF ʿ F3ʿ C3 34$ ʿ I $4 CF3Cʿ H&ʿ GHDD34F ʿ 8 $ J 1 HEʿ > H 3 ʿ GH 34D$ 3 ʿ ?$ $41 ʿ P $4 Eʿ 8 - CC E2 433 ʿ < DD E2 3O ʿ 8 $DCH4 ʿ 8 ED 1 ʿ 8 J Q 3 HE ʿ $EDʿ ; J Q4 D23 ʿ F3ʿ P H43 $O 3EDʿ G R C HEʿ $EDʿ F3ʿ B4H - 2F HEʿ G C HEʿ H&ʿ F3ʿ I $4 CFʿ H&ʿ 8 $EQ - 4O ʿ ʿ F3ʿ ; 4$ ʿ 1$4HNF $ ʿ I $N3Cʿ N$ 3Dʿ @4 - NFʿ $EDʿ 9 3C H < Dʿ I $4 + ʿ H23 F34ʿ P Fʿ F3ʿ

- " ʿ * Hʿ I $4 Cʿ H&ʿ F3ʿ 43C13N 3ʿ I $4 CF3Cʿ H&ʿ @ $ E3Cʿ $EDʿ 9 $4EDHEʿ F NF $43ʿ C - 44H - ED3Dʿ QOʿ F3ʿ 43C13N 3ʿ I $4 CF3Cʿ H&ʿ 8 ED 1ʿ $EDʿ P $4 Eʿ 8 - CC E2 433 ʿ $EDʿ $ CHʿ F3ʿ ; 4$ 1$4HNF $ ʿ I $N3ʿ N$ 3Dʿ ?F3 ʿ $EDʿ F3ʿ D3 $NF3Dʿ I $4 ʿ H&ʿ F3ʿ I $4 CFʿ H&ʿ E+Q344H ʿ F NFʿ $43ʿ 43C13N 3 Oʿ NHER $ E3Dʿ Q3 33Eʿ F3ʿ I $4 CFʿ H&ʿ 8 J Q 3 HEʿ $EDʿ F3ʿ B4H - 2F HEʿ G C HEʿ H&ʿ F3ʿ I $4 CFʿ H&ʿ 8 $EQ - 4O

E ʿ ʿ * F3ʿ I $4 CFʿ H&ʿ G - D 3O

8 " ʿ ʿ * F3ʿ H Dʿ BH4H - 2Fʿ H&ʿ ; 3CF$ J

UcKS"M#> ;> P ʿ ʿ @$1 Y

9 ;?*; ' ,ʿG ?<,

&ʿ *F3ʿ 1$4 CFʿ H&ʿ ' QQ3C&H4Dʿ$EDʿ F3ʿC3 34$ʿ 8$J 3 CʿH&ʿ 9 4 QQ3EF$ ʿ 8H$4C H 3ʿB $N+C HE3ʿ ,3 F34 HEʿ$EDʿ >H 34ʿ P HEʿ Fʿ> N+F

64HJʿ F3ʿ IHE ʿ$ʿ H4ʿ E3$4ʿ I4H-Dʿ @4HCCʿ$ʿ FNFʿ F3ʿBH-ED$40ʿH&ʿ F3ʿH DʿBH4H-2Fʿ J33 Cʿ F3ʿB4HHJ&3 Dʿ 'H$Dʿ$ HE2ʿ F3ʿBH-ED$40ʿH&ʿ F3ʿ H DʿBH4<-2Fʿ Hʿ F3ʿIHE ʿ$ʿ FNFʿ F3ʿ QQ34 30ʿ 'H$Dʿ J33 Cʿ F3ʿB $N+ʿ B4HH+ʿ F3EN3ʿ 9 3C $4Dʿ$ HE2ʿ F3ʿ QQ34 30ʿ 'H$Dʿ Hʿ F3ʿ&4C ʿIHE ʿ $ʿ FNFʿ F3ʿC$J3ʿ Cʿ J3ʿQ0ʿ$ʿ 8 3D23ʿ 4-EE E2ʿ D-3ʿ?H- Fʿ F343&4HJ ʿ F N3ʿ $HE2ʿ F3ʿ2$Dʿ 8 3D23ʿ Hʿ Cʿ?H- F34Eʿ; 43J 0ʿ E3$4ʿ $ʿ? HE3ʿ \-$440ʿ F3EN3ʿ Eʿ$ʿC 4$ 2Fʿ> E3ʿ Hʿ F3ʿ C$Dʿ? HE3ʿ \-$440ʿ F3EN3ʿ Eʿ$ʿC 4$ 2Fʿ* E3ʿ Hʿ F3; Cʿ P 3ʿ? NJ3ʿHEʿ F3ʿB3 D 30ʿ 'H$Dʿ F3EN3ʿ 9 3C $4Dʿ$ HE2ʿ F3ʿ B3 D 30ʿ 'H$Dʿ Hʿ F3ʿ IHE ʿ$ʿ FNFʿ F3ʿ C$J3ʿ Cʿ(JE3DʿQ0ʿ$ʿ6HH 1$ Fʿ 3$D E2ʿ Hʿ F3ʿ? H-41H4ʿ 'H$Dʿ F3EN3ʿ$ HE2ʿ F3ʿC$Dʿ6HH 1$ Fʿ Hʿ F3ʿ IHE ʿ$ʿ FNFʿ F3ʿC$J3ʿ J33 Cʿ F3ʿBH-ED$40ʿ

"3**+(43)%2+(

H&ʿ F3ʿH DʿBH4H-2Fʿ F3EN3ʿ?H- F $4Dʿ$ HE2ʿ F3ʿBH-ED$40ʿH&ʿ F3ʿH Dʿ BH4H-2Fʿ Hʿ F3ʿ IJE ʿ$ʿ ENFʿ F3ʿ C$J3ʿ J33 Cʿ F3ʿ?H- F 3$C 34Eʿ 63EN3ʿ H&ʿ $ʿ 9 HHDʿN$ 3Dʿ ``*F3ʿ @H1C3 cʿC -$ 3DʿHEʿ F3ʿ ;$C 34EʿB$E+ʿ H&ʿ F3ʿ ' 34ʿ? H-4ʿ! F3EN3ʿ$ H& 2ʿ F3ʿC$ Dʿ 63EN3ʿ Hʿ F3ʿ IHE ʿ$ʿ FNFʿ F3ʿ C$J3ʿ J33 Cʿ 8 HHʿ>$E3ʿ F3EN3ʿ $N4HCCʿ 8 HHʿ>$E3ʿ H 34ʿ $ʿ ? 3ʿN$ 3Dʿ ``M$ H Cʿ? #3 cʿ$ HE2ʿ$ʿ 6HH 1$ Fʿ 3$D E2ʿ &4HJʿ F3ʿ C$ Dʿ ? 3ʿ Hʿ F3ʿ> 3ʿ &4HJʿ B4HH+ʿ Hʿ@HJQ34 HEʿ 8 ʿ Hʿ F3ʿIHE ʿ $ʿ FNFʿ F3ʿ $C J3E HE3Dʿ 6HH 1$ Fʿ J33 Cʿ F3ʿ>$E3ʿ&4HJʿ 8 HH B4HH+ʿ Hʿ @HJQ34 HEʿ 8 ʿ5 F3EN3ʿ, $4Dʿ $ NJ2 F3ʿ >$E3ʿ &4HJʿ 8 HHʿ B4HH+ʿ Hʿ@HJQ34 HEʿ 8 ʿ Hʿ F3ʿ IHE ʿ$ʿ FNFʿ F3ʿ C$J3ʿ J33 Cʿ F3ʿ BH-ED$ 0ʿH&ʿ F3ʿH DʿBH4H-2Fʿ F3EN3ʿ, H4 F $4Dʿ$ HE2ʿ F3ʿBH-ED$40ʿ H&ʿ F3ʿH Dʿ BH4H-2Fʿ Hʿ F3ʿ IHE ʿ& 4C ʿD3CN4 Q3D

64HJʿ F3ʿ> Q34 0ʿ 'HCʿHEʿ F3ʿ*3 +3CQ-40ʿ 'H$Dʿ?H- F $4Dʿ$ HE2ʿ F3ʿ*3 +3CQ-40ʿ 'H$Dʿ Hʿ F3ʿ IHE ʿQ3OHEDʿ F3ʿ*-4E1 +3ʿ$ʿ FNFʿ F3ʿ C$J3ʿ 'H$Dʿ(Cʿ J3ʿQ0ʿG-N+ʿB4HH+ʿ F3EN3ʿ$ HE2ʿG-N+ʿB4HH+ʿ Hʿ F3ʿ IHE ʿ$ʿ FNFʿ F3ʿC$J3ʿN4HCC3Cʿ F3ʿ>HEDHEʿ 'H$Dʿ F3EN3ʿ Eʿ$ʿC 4$ 2Fʿ > E3ʿ Hʿ F3ʿ 9 3C 34Eʿ; 43J 0ʿ H&ʿ F3ʿ 'H$Dʿ FNFʿ 3$DCʿ H- ʿH&ʿ F3ʿ >HEDHEʿ 'H$Dʿ Hʿ>$4+ʿ 8 ʿ F3EN3ʿ$ HE2ʿ F3ʿ C$ Dʿ 'H$Dʿ Hʿ>$4+ʿ 8 ʿ Hʿ F3ʿ;$C 34Eʿ; 43J 0ʿ F343H&ʿ F3EN3ʿ $ HE2ʿ$ʿ 6HH 1$ Fʿ 3$D E2ʿ Hʿ F3ʿ, 3 ʿ*H Eʿ 'H$Dʿ Hʿ F3ʿIHE ʿ$ʿ FNFʿ F3ʿC$J3ʿ 43$NF3Cʿ F3ʿ, 3 ʿ *H Eʿ 'H$Dʿ F3EN3ʿ 9 3C $4Dʿ$ HE2ʿ F3ʿ, 3 ʿ*H Eʿ 'H$Dʿ Hʿ F3ʿ IHE ʿ$ʿ FNFʿ F3ʿ C$J3ʿ Cʿ N4HCC3Dʿ Q0ʿ $ʿ 6HH 1$ Fʿ 3$D E2ʿ&4HJʿ F3ʿ 8 H-C3ʿ H&ʿ ED-C 40ʿ Hʿ F3ʿ IH4 3ʿ6 3 DCʿ 'H$Dʿ F3EN3ʿ$ HE2ʿ F3ʿ $C Hʿ J3E HE3Dʿ 6HH 1$ Fʿ Hʿ F3ʿ IHE ʿ$ʿ FNFʿ F3ʿ C$J3ʿ(H ECʿ F3ʿ IH4 3ʿ 6 3 DCʿ 'H$Dʿ F3EN3ʿ$ HE2ʿ $ʿ 6HH 1$ Fʿ FNFʿ 3$DCʿ &4HJʿ F3ʿ IH4 3ʿ 6 3 DCʿ 'H$Dʿ1$Cʿ '$ EQH ʿ $ʿ E Hʿ F3ʿ C HHDʿ 'H$Dʿ Hʿ F3ʿ IHE ʿ $ʿ FNFʿ C-NFʿ 6HH 1$ Fʿ(H ECʿ F3ʿ C HHDʿ 'H$Dʿ F3EN3ʿ $ HE2ʿ $ʿ 'H$Dʿ FNFʿ 3$DCʿ &4HJʿ F3ʿ C HHDʿ 'X$Dʿ Hʿ F3ʿ 9 30ʿ *$ 34Eʿ Hʿ F3ʿ IHE ʿ$ʿ NFʿC-NFʿ 'H$DʿN4HCC3Cʿ F3ʿ 9 H4N3C 34ʿ $EDʿB 4J E2F$Jʿ @E ʿ F3E@3ʿ $ J 2ʿ F3ʿ 9 H4N3C 34ʿ $EDʿ B 4J J2F$Jʿ @Eʿ Hʿ F3ʿ B4 D23ʿ FNFʿ Cʿ E3$43Cʿ Hʿ M432H40 Cʿ P ʿ F3EN3ʿ $ HE2ʿ F3ʿ 'H$Dʿ 3$D E2ʿ &4HJʿ F3ʿ C$ Dʿ B4 D23ʿ Hʿ F3ʿ B 4J E2F$Jʿ 'H$Dʿ Hʿ F3ʿ IHE ʿ$ʿ FNFʿ F3ʿ C$J3ʿ Cʿ N4HCC3Dʿ Q0ʿ F3ʿ B$4QH4E3ʿ B4HH+ʿ F3EN3ʿ $ HE2ʿ D 3ʿ B$4QH4E3ʿ B4HH+ʿ Hʿ F3ʿ IHE ʿ $ʿ FNFʿ F3ʿ C$J3ʿ &$ Cʿ E Hʿ F3ʿ ' 34ʿ ?3 34Eʿ F3EN3ʿ $ HE2ʿ F3ʿ ' 34ʿ ?3 34Eʿ Hʿ F3ʿ IHE ʿ $ʿ FNFʿ F3ʿ C$J3ʿ Cʿ J3ʿQ0ʿ F3ʿ BH-ED$40ʿ H&ʿ F3ʿ I$4 CFʿ H&ʿ? ʿ@ 3J3E ʿ F3EN3ʿ 9 3C $4Dʿ $ H2ʿ F3ʿBH-ED$40ʿH&ʿ F3ʿ I$4 CFʿ H&ʿ? ʿ@ 3J3Eʿ Hʿ F3ʿ IHE ʿ $ʿ FNFʿ F3ʿC$J3ʿ J33 Cʿ F3ʿBH-ED$40ʿH&ʿ F3ʿ*H ECF 1ʿH&ʿ? ʿ5HFE ʿ F3EN3ʿ 9 3C $4Dʿ $ HE2ʿ F3ʿBH-ED$40ʿH&ʿ F3ʿ*H ECF 1ʿH&ʿ? ʿ5HFEʿ <ʿ F3ʿ IHE ʿ $ʿ FNFʿ F3ʿ C$J3ʿ J33 Cʿ F3ʿ 8 343&H4Dʿ 'H$Dʿ F3EN3ʿ$ HE2ʿ F3ʿ 8 343&H4Dʿ 'H$Dʿ Hʿ F3ʿIHE ʿ$ʿ FNF F3

0 0 4' : =E E ' ' &'1' 9

F3' C$J3' C' J3' QO' IH N+' >$E3' 3$D E2' H' IH N+' B4 D23' F3EN3' ?H- F $4D' $HE2' IH N+' >$E3' H' F3' IHE' $' FNF' F3' C$J3' 34J E$ 3C' E' $' 6HH 1$ F' F3EN3' E' $' C 4$ 2F' > E3' H' F3' IHE' $' FNF' @- ' *F4H$' >$E3' C' J3' QO' $' 6HH 1$ F' 3$D E2' &4HJ' BH-2F HE' 6 3 DC' H' F3' P$ 34E' 'H$D' F3EN3' $HE2' F3' $C J3E HE3D' 6HH 1$ F' H' F3' IHE' $' FNF' F3' C$J3' (H EC' F3' P$ 34E' 'H$D' F3EN3' ,H4 F $4D' $HE2' F3' P$ 34E' 'H$D' H' F3' IHE' $' FNF' F3' C$J3' J33 C' F3' BH-ED$(O' H&' F3' *H ECF 1' H&' ? '5HFE' F3EN3' ;$C $4D' $HE2' F3' BH-ED$4O' H&' F3' *H ECF 1' H&' ? '5HFE' H' F3' IHE' $' FNF' F3' C$J3' J33 C' F3' BH-ED$4O' H&' F3' I$4 CF' H&' ? '@ 3J3E'' F3EN3' ;$C $4D' $HE2' F3' BH-ED$4O' H&' F3' I$4 CF' H&' ? '@ 3J3E' H' F3' IHE' $' FNF' F3' C$J3' J33 C' F3' ' 34' ?3 34E' F3EN3' ?H- F $4D' $HE2' D 3' ' 34' ?3 34E' H' F3' IHE' $' FNF' F3' C$J3' C' J3' QO' F3' H D' @ O' BH-ED$4O' F3EN3' ?H- F $4D' $HE2' F3' H D' @ O' BH-ED$4O' H' F3' > Q34 O' IHC' $&H43C$ D

_g@< # , *=' <6' =< ' %

, < ' * 8' ' G , M

0 ' *F3' 43C13N 3' I$4 CF3C' H&' ? '>3HE$4D' $ED' ? ' P NF$3 ' , 3 ' P$ HE' ' F3' I$4 CF' H&' < D' P$ HE' $ED'' F3' I$4 CF' H&' , H4 HE

G " ' &' *F3' 43C13N 3' *H ECF 1C' H&' ,H4 F$ 34 HE' $ED' 'HJ$EQO' $ED' F3' NF$13 4OH&B4HJ 1 HE

; - " ' *F3' 43C13N 3' I$4 CF3C' H&' ' NFJHED' $ED' ;$CQO

= # : 4' *F3' I$4 CF' H&' ?N$4QH4H-2F' H23 F34' F' F3' ; 4$ 1$4HNF $' ' I43N EN' H&' ?N$4QH4H-2F' @$C 3

&' Y' C3 34$' *H ECF 1C' H&' *F 4C+' ?H 34QO' @$4 HE' P E H ' ?$ED' n' 8 - HE' B$2QO' $ED' ?H- F' % E2 HE

5 " L &' *F3' C3 34$' *H ECF 1C' H&' 9 F QO' ' -C $41 '$ED' 8$ C+34 N-J ' '? $ EC$N43

64HJ' F3' $EN 3E' B$4E' HE' F3' ;$C E2 H D' 'H$D' * H' F-ED43D' =$4DC' Q3OHED' F3' 6 4C' P 3' ? HE3' HE' F$' 'H$D' E' $' C 4$ 2F' > E3' H' F3' >$DO' H4' @ & HE' P ' F3EN3' E' $' C 4$ 2F' > E3' H' 3' I31134' H4' ? 4$O' P ' F3EN3' E' $' C 4$ 2F' > E3' H' F3' IHE' $' FNF' F3' ? HN+ HE' 'H$D' H- D' Q3' N- ' QO' $' C 4$ 2F' > E3' H' Q3' D4$ E' F343 H' &4HJ' F3' I31134' ' H4' ? 4$O' P ' F4H-2F' F3' , 3 ' P$EH4' 8H-C3 ' F3EN3' $HE2' F3' ? HN+ HE' 'H$D' H' F3' IHE' $' FNF' F3' C$J3' C' (H E3D' QO' $' >$E3' 3$D E2' &4HJ' F3' ;$C 34E' ; 43J OH&' F3' $23 H&' 8 3 H4 F' H $4DC' F3' ,H4 F' F3EN3' E' $' C 4$ 2F' > E3' H' F3' IHE' $' FNF' F3' *$E2' 8$ ' B3N+' H- D' Q3' N- ' QO' $' C 4$ 2F' > E3' H' Q3' D4$ E' &4HJ' F3 ' IHE' $C' D3CN4 Q3D' H' 8 3C E2 HE' P ' F3EN3' $HE2' *$E2' 8$ ' B3D3' H' F3' IHE' $' FNF' F3' C$J3' N4HCC3C' F3' BH-ED$4O' H&' F3' @H-E O' H&' F3' @ O' H&' =H4+' F3EN3' ?H- F $4D' $HE2' F3' BH-ED$4O' H&' F3' @H-E O' H&' F3' @ O' H&' =H4+' H' F3' IHE' $' FNF' F3' C$J3' H- D' Q3' N- ' QO' $' C 4$ 2F' > E3' H' Q3' D4$ E' F343 H' &4H ' F3' ?H- F 3$C 34E'

J ' , ' ' ' ' @H4E34

Y[U UcKS`M#> ;>P ʻ ʻ @$1ʻY

@H4134ʻ H&ʻ F3ʻ B44N+Cʻ F4 (-2Fʻ >$ 3ʻ P ʻ(F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ F3ʻ ?H F 3$C 3 J ʻ @H J 34ʻ H&ʻ F3ʻ B44N+C ʻ F3EN3ʻ $ HE2ʻ F3ʻ ?H- F34Eʻ 9 D ʻ H&ʻ F3ʻ B$J $N+Cʻ Hʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$J 3ʻ N- Cʻ F3ʻ ?3 QOʻ ' H$Dʻ ! F3EN3ʻ $ HE2ʻ F3ʻ ?3 QOʻ ' H$Dʻ Hʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$J 3ʻ Cʻ (H E3Dʻ QOʻ 6- &H4Dʻ @F-4NFʻ >$E3 ʻ F3EN3ʻ $ HE2ʻ F3ʻ , H4 F34Eʻ 8 3D23ʻ <&ʻ 6- &H4Dʻ @F-4NFʻ >$E3ʻ Hʻ F3ʻ I H E ʻ $ ʻ F NFʻ D 3ʻ C$J 3ʻ N3$C3Cʻ Hʻ Q3ʻ NHE E-H-C ʻ N HC3ʻ QOʻ $ʻ 6$4 J ʻ B- D E2ʻ Q3 HE2 E2ʻ Hʻ P 4 ʻ ; C ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3 ʻ Eʻ F3ʻ G 43N HEʻ H&ʻ F3ʻ C$ Dʻ 8 3D23 ʻ Hʻ F3ʻ ' 34ʻ < -C3ʻ $ D 3EN3ʻ $ HE2ʻ F3ʻ ' 34ʻ < -C3ʻ Hʻ F3ʻ ?H- F34E J HC ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$J 3ʻ Cʻ J 3 ʻ QOʻ F3ʻ BH-ED$4Oʻ H&ʻ F3ʻ @ Oʻ > Q34 O ʻ F3EN3 ʻ 9 3C $4D ʻ $ HE2ʻ F3ʻ BH-ED$4Oʻ H&ʻ F3ʻ @ Oʻ > Q34 Oʻ Hʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$J 3ʻ 2 Eʻ J 33 Cʻ F3ʻ ' 34ʻ < -C3 ʻ 3EN3ʻ $ HE2ʻ F3ʻ ' 34ʻ < -C3ʻ Hʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$J 3ʻ H- Dʻ Q3ʻ N- ʻ QOʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ Q3ʻ D4$ Eʻ &4H J ʻ F3ʻ B$4Eʻ & 4C ʻ D3CN4 Q3Dʻ Hʻ NH J Qʻ @F-4NF ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ F3ʻ B$4Eʻ & 4C ʻ D3CN4 Q3D

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&ʻ *F3ʻ C3 34$ʻ I$4 CF3Cʻ H&ʻ ? ʻ P $40ʻ ? ʻ P $4 E ʻ $EDʻ ? ʻ , NFH $C ʻ $EDʻ

8 ʻ $ CHʻ ?-NFʻ I$4 ʻ H&ʻ F3ʻ I$4 CFʻ H&ʻ ? ʻ 5HFEʻ $Cʻ Cʻ NH J 14 C3Dʻ F Eʻ F3ʻ > Q34 3Cʻ H&ʻ B3 34 30

ʻ E ʻ E *F3ʻ C3 34$ʻ I$4 CF3Cʻ H&ʻ ? ʻ P $40ʻ F3ʻ 8 H Oʻ *4 E O ʻ ?N- NH$ 3C ʻ $EDʻ G401HH ʻ H23 F34ʻ Fʻ F3ʻ ; 4$ 1$4HNF $ʻ ?1$N3ʻ N$ 3Dʻ M$44 CHE ʻ C D3ʻ $EDʻ $ ʻ H F34ʻ ; 4$ 1$4HNF $ʻ I $N3C ʻ &ʻ $EO ʻ F NFʻ $43ʻ C-4R 4H-ED3DʻQOʻ F3ʻ BH-ED$4 3Cʻ H&ʻ 43ʻ C$ Dʻ I$4 CF3Cʻ ? ʻ P $40ʻ F3ʻ 8 H Oʻ *4 E O ʻ ?N- NH$ 3C ʻ $EDʻ G401HH ʻ H4ʻ $EOʻ H4ʻ 3 F34ʻ H&ʻ F3 J ʻ $EDʻ $ CHʻ $ ʻ C-NFʻ I$4 ʻ H&ʻ F3ʻ I$4 CFʻ H&ʻ ?- HEʻ $Cʻ Cʻ C -$ 3Dʻ Hʻ F3ʻ ?H- Fʻ H&ʻ $ʻ C 4$ 2F ʻʻ > E3ʻ H ʻ Q3ʻ D4$ Eʻ &4H J ʻ ?N- NH$ 3Cʻ @F-4NFʻ Hʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ ?- HEʻ G4$ Eʻ J 33 Cʻ F3ʻ ?- J J 342$E2Cʻ G4$ E

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:) *F3ʻ C3 34$ʻ *H ECF 1Cʻ H&ʻ B4$D&H4Dʻ $EDʻ P $EE E2F$ J ʻ $EDʻ BH E2 ʻ $EDʻ F3ʻ *H ECF 1ʻ H&ʻ 8 H4 HE ʻ EN -D E2ʻ F3ʻ 8 $ J 3 Cʻ H&ʻ M43$ ʻ $EDʻ > 3ʻ 8 H4 HE ʻ ʻ

<</D%M 64H J ʻ F3ʻ 1H E ʻ HEʻ F3ʻ , H4 Fʻ H&ʻ F3ʻ *H Eʻ $ ʻ F NFʻ F3ʻ 43C13N 3ʻ BH-ED$4 3Cʻ H&ʻ F3ʻ C3 34$ʻ *H ECF 1Cʻ H&ʻ 8 $ &$ ʻ , H4 Fʻ < 4$ J ʻ $EDʻ < 3ED3Eʻ J 33 ʻ 9 3C $4D ʻ $ HE2ʻ F3ʻ BH-ED$4Oʻ H&ʻ F3ʻ *H ECF 1ʻ H&ʻ 8 $ &$ ʻ Hʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$J 3ʻ J 33 Cʻ F3ʻ ' H$Dʻ 3$D E2ʻ &4H J ʻ $ʻ 8 H-C3ʻ N$ 3Dʻ ?F$Oʻ Hʻ B$E+ʻ *H 1 ʻ F3EN3ʻ $ HE2ʻ F3ʻ C$ Dʻ ' H$Dʻ &4H J ʻ ?F$Oʻ Hʻ B$E+ʻ *H1ʻ Hʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$J 3ʻ J 33 Cʻ F3ʻ ' H$Dʻ 3$D E2ʻ &4H J ʻ ?H- Fʻ < 4$ J ʻ Hʻ , H4 Fʻ < 4$ J ʻʻ F3EN3ʻ $ HE2ʻ F3ʻ C$ Dʻ ' H$Dʻ &4H J ʻ ?H- Fʻ < 4$ J ʻ Hʻ , ^" Fʻ < 4$ J ʻ Hʻ MHDʻ >$E3ʻ B4 D23 ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ F3ʻ ?H- F 3$C 34Eʻ @H4E34ʻ H&ʻ , 3 ʻ *H Eʻ HEʻ F3ʻ B4$D&H4Dʻ ' H$D ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ F3ʻ I H E ʻ & 4C ʻ D3CN4 Q3D ʻ

E : ʻ ʻ *F3ʻ *H ECF 1ʻ H&ʻ 8 -DD34C& 3 D

E " *F3ʻ BH-ED$4Oʻ D3CN4 Q3Dʻ Eʻ F#ʻ ?3NH& Dʻ ?3N HEʻ H&ʻ $Eʻ N ʻ 1$CC3Dʻ Eʻ F3ʻ 6H-4 Fʻ =3$4ʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C Oʻ % E2ʻ M3H423ʻ F3ʻ 6H-4 F ʻ $EDʻ E - 3Dʻ `ʻ Eʻ N ʻ &H4ʻ 1$ E2 ʻ 2F E2 ʻ $ NF E2 ʻ N 3$EC E2 ʻ `ʻ $EDʻ J 14H E2ʻ F3ʻ *H EʻH&ʻ %E$43CQH4 H-2Fʻ Eʻ F3ʻ 9 3C ʻ ' D E2ʻ H&ʻ F3ʻ ʻ @H-E Oʻ H&ʻ =H4+ ʻ $EDʻ F$ ʻ I$4 ʻ H&ʻ F3ʻ *H ECF 1ʻ H&ʻ ?N4 3E F ʻ ʻ *3E 342$ 3ʻ F NFʻ $D(H ECʻ F3ʻ C$ Dʻ *H E ʻ $EDʻ CʻN$ 3Dʻ *3E 342$ 3 c

; ; G? Hʻ *F3ʻ I$4 CFʻ H&ʻ >33DC

U/' K' ? ' M # > ; > P ' ' @$1 Y Y[S

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*F3' H D' BH4H-2F' $ED' *H ECF 1' H&' I HE 3&4$N ' $ED' F3' ; 4$ ' 1$4HNF $ ' ?1$N3' N$ 3D' F3' I HE 3&4$N ' I $4+' G C 4 N ' F3' @$C 3' I 43N EN C ' $ED' $ CH' F3' C3 34$ ' *H ECF 1C' H&' *$ECF3 &' P HE+F ' %EH E2 30' ǵ63440Q4 D23 ' $ED' @$4 3 HE

' 1H 4

*F3' *H ECF 1' H&' ' 1HE ' $ED' $ CH' C-NF' I $4 ' H&' F3' *H ECF 1' H&' C J -ED34QO N- J BHED2$ 3' $C' C' C -$ 3' H' F3' , H4 F' H&' F3' I H E ' HE' F3' ?H- F' H&' F3' *H E' H&' ' 1HE' $ ' F NF' F3' ' 1 30' ' H$D' J 33 C' F3' > 3 FH413' ' H$D ' $ED' F NF' C' F3' ?H- F34E' ; 43 J O' H&' F3' E3$4 O' D C(H E 3D' I H4 HE' H&' F3' *H ECF 1' H&' C J -ED34QO N- J BHED2$ 3

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*F3' I $4 CF' H&' ?F3&& 3 D

64H J ' F3' ?H- F34E J HC ' I H E ' $ ' F NF' F3' BH-ED$40' H&' F3' *H ER CF 1' H&' 9 $+3& 3 D' 3$ 3C' F3' ' 34' @$ D34 ' $ HE2' F3' BH-ED$40' H&' F3' *H ECF 1' H&' 9 $+3& 3 D ' H' F3' I H E ' $ ' F NF' F3' C$J 3' C' E 34C3N 3D' QO' $' 8 3D23' 4-EE E2' E3$4 O' , H4 F' N HC3' QO' F3' 9 3C 34E' ? D3' H&' I $4+' M$ 3' 6$4 J ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' 6HH R 1$ F' 3$D E2' H' ? ' ? F EC' 9 3 ' (H EC' F3' 6HH 1$ F' &4H J ' ; $C ' P HH4' H' < D' I $4+' (' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' ? $E 30' ' H$D' H- D' Q3' N- ' QO' $' C 4$ 2F ' > E3' H' Q3' D4$ E' &4H J ' F3' I H E ' $C ' D3CN4 Q3D' H' F3' @-1H $' H&' F3' >-E$ N' CO - J ' F3EN3' $ HE2' F3' ? $E 30' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$J 3' C' J 3 ' QO' F3' ; $C ' P HH4' ' H$D(' F3EN3' $ HE2' F3' ; $C ' P HH4' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$J 3' J 33 C' F3' BH-ED$40' H&' F3' *H ECF 1' H&' 9 $+3& 3 D ' F3EN3 ' 9 3C $4D ' $ HE2' F3' BH-ED$40' H&' F3' *H ECF 1' H&' 9 $+3& 3 D' H' F3' I H E ' $ ' F NF' F3' C$J 3' J 33 C' F3' BH-ED$40' H&' F3' D3 $NF3D' I H4 HE' H&' F3' *H ECF 1' H&' 34 FH41' F NF' 3C' , H4 F' H&' F3' *H ER CF 1' H&' 9 $+3& 3 D ' F3EN3 ' 9 3C $4D ' $ HE2' F3' BH-ED$40' H&' F3' C$ D' D3 $NF3D' I H4 HE' H&' F3' *H ECF 1' H&' 34 FH41' H' F3' I H E ' $ ' F NF' F3' C$J 3' (H EC' 2 E' F3' BH-ED$40' H&' F3' *H ECF 1' H&' 9 $+3& 3 D ' F3EN3 ' ?H- F $4D ' $ HE2' F3' BH-ED$ O' H&' F3' *H ECF 1' H&' 9 $+3& 3 D' H' F3' I H E ' $ ' F NF' F3' C$J 3' J 33 C' B$ E3' >$E3 ' F3EN3' $ HE2' B$ E3' >$E3' H' F3' I H E ' $ ' F NF' F3' C$J 3' C' J 3 ' QO' 8 - J Q 3' 5 - J Q 3' >$E3 ' F3EN3' $ HE2' 8 - J Q 3' 5 - J Q 3' >$E3' H' F3' I H E ' $ ' F NF' F3' C$J 3' J 33 C' F3' 6HH 1$ F' H' 6 ECF ' >$E3 ' F3EN3' $ HE2' F3' 6HH 1$ F' H' 6 ECF ' >$E3' H' F3' I H E ' $ ' F NF' F3' C$J 3' J 33 C' ? J FCHEC' ' $ 4H$D ' F3EN3' $ HE2' ? J FCHEC' ' $ 4H$D' H' F3' I H E ' $ ' F NF' F3' C$J 3' J 33 C' F3' G3 CQ- O' ' H$D ' F3EN3' $ HE2' F3' G3 CQ-40' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$J 3' J 33 C' F3' , 3 ' H4' <NN-1$ HE' ' H$D' F NF' -E 3C' F3' G3 CQ-40' $ED' 8 H4Q- O' ' H$DC ' F3EN3' $ HE2' F3' C$ D' , 3 ' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$J 3' J 33 C' F3' I $4+' 9 $ ' H&' *FH4E3C' 8 H-C3 ' F3EN3 ' , H4 F $4D ' $ HE2' F3' C$ D' 9 $ ' H' F3' I H E ' $ ' F NF' F3' C$J 3' J 33 C' F3' ' H$D' &4H J ' *FH4E3C' H' 8 H4Q-40 ' F3EN3' $ HE2' F3' ' H$D' &4H J ' *FH4E3C' H' 8 H4Q-40' H' F3' I H E ' $ ' F NF' F3' C$J 3' J 33 C' F3' ? 43$ J ' N$ 3D' `' *F3' M C +3(C' F3EN3' $ HE2' F3' C$ D' ? 43$ J ' H' F3' I H E ' $ ' F NF' F3' C$J 3' &$ C' E H' F3' ' 34' @$ D34 ' F3EN3' $ HE2' F3' ǵ ' 34' @$ D34' H' F3' I H E ' & 4C ' D3CN4 Q3D

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Y[U K SL M # > ; P M$1 Y

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@<# , *= < I , M> ; ? ;

B; #P ' ?G ?* ' 3

I4H J F3 I H $ HE F3 , H4 F 3$C H& 4 3 * HOE $ 7 F HF ' FOD * $ H2 B4HH+ &$ C E H F3 ?3$ $ I34 F F34 @$ 3 ?H- F $4D $ HE2 F3 BD-ED$4O H& F3 I $4 CF H& J NF H F3 I H E N$ 3D @4H3C ; $E 3EN3 $ HE2 F3 I $C I - $C ' H$D H F3 I H E N$ 3D I 3E $3 FDO P $ 4 F3EN3 $ HE2 F3 ' H$D 3$D E2 H I 3E 43 63 E $N4HCC F3 # $E34NF 0 J 3DD ' H$D H F3 I H K @ D I 3E 03 63 E DD$ @4HCC ' H$DC F3EN3 HE2 $ ' H$D H $4DC I $40 C 6$4 J H F3 I H E $ F NF F3 C$J 3 C J 3 QO F3 & 4C BO3 ' H$D HE F3 ' 2F 3$D E2 H BHD 2$D&$ 6$4 J F3EN3 $ HE2 F3 C$ D BO3 ' H$D 1$CC E2 BHD 2$D&$ 6$4 J H F3 I H E $ F NF F3 C$J 3 BO3 ' H$D C N4HCC3D ^Q3 33E BHD 2$D&$ 6$4 J $ED $ @H $23 N$ 3D =4 F3E <DOE_ QO F3 >$C 43 B4HH+ F3EN3 $ HE2 F3 >$C 43 B4HH+ N4HCC E2 F3 8 H OF3$D ' H$D H F3 I H E $ F NF F3 C$J 3 B4HH+ &$ C E H F3 ' 34 N$F3D &HE I $4+ > 3NFH2 F3EN3 $ HE2 F3 &HE I $4+ > 3@FH2 H $ 6H4D E F3 @3 J J $3C ' H$D N$ 3D ' FOD N$4432 N$ F F3 N3 $ HE2 F3 @3 J J $3C

4A , . ' <$D H F3 @H $23 N$ 3D B40E 0 @0 $ F NF F3 C$J 3 ' H$D C J 3 QO F3 @F-4NF I $ F $O F3EN3 $ HE2 F3 @F-4NF I $ F $O H F3 ? 3 H 34 $ B4HH+ F NF D D3C F3 >$ED H& F3 P $4X- C H& E2 3C3$ &4H J F3 @H3D 83 E $ED >OCD- $C I 4H134 0 $ED F NF ? 3 C N HC3 QO $?14 E2 N$ 3D 6&0EEHE @$CO4 C F3EN3 $ HE2 F3 $C J 34 HE3D B4HH+ H F3 I H E $ F NF F3 ?$J F C J 3 QO $ BH-ED$4O 63F13 ^$ &3 =$4DC 7 , H4 F H& $ @H $23 N$ 3D @$3 Q$NF_ 4-EE E2 E F3 G 43N HE H& P HE$ P F3EN3 $ HE2 F3 C$ D 6 EN3] F3 I H E $ F NF F3 C$J 3 N- C F3 6H4 F > 3NFH2 ' H$D F3EN3 H $4DC J NF $ HE2 F3 6H4 F > 3NFH2 ' H$D H F3 I H E $ F NF F3 C$J 3 C J 3 QO F3 6&0EEHE 0 M$4432 &$ 4 I $ F $O F3EN3 $ HE2 3 6&0EE<E 0 M$4432 &$ 4 I $ F $O H F3 ?14 E2 N$ 3D 6&0E4 HE 0 M$4432 &$ 4 F3EN3 $ HE2 F3 ? 43$ J F NF 14HN33DC &4H J F3 C$ D ?14 E2 H F3 I H E $ F NF F3 C$J 3 ? 43$ J &$ C E H F3 ?3$ 3EN3 $ HE2 F3 ?3$ H F3 I H E & 4C D3CN4 Q3D

+ >4 3>%= * F3 H D BH4H-2F H& B3$- J $4 C

64H J F$ I $4 H& F3 @H J J HE N$ 3D ` * F3 * H 9 0-(c HE 3 ?H- F 3$C H& F3 * H E F NF C E3$43C H 8 H OF4$D @H J J HE $ HE2 F3 ' H$D 3$D E2 H 63E4FHC F NF $D(H EC F3 * H OE ^$ED C H F3 ; $C H& $ @H $23 N$ 3D / I 3E * H OE c HNN-1 3D QO 5HFE G$ C_ H F3 I H E $ F NF F3 C$ D ' H$D H I 3E FHC C J 3 QO $EH F34 ' H$D 3$D E2 H $ I 3N3 H& 9 $C 3 >$ED N$ 3D ` / * F3 @0 4 / / F3EN3 $ HE2 F3 C$ D ' H$D H F3 @0 4 H F3 I H E $ F NF F3 C$J 3 J 33 C F3 ' H$D F NF 3$DC $N4HCC F3 @0 4 3EN3 $ HE2 F3 C$ D ' H$D $N4HCC F3 @0 4 H F3 I H E $ F NF F3 C$J 3 J 33 C F3 H D I HC ' H$D H B$E2H4 F3EN3 $ HE2 F3 H D I HC ' H$D H B$E2H4 H I 3E 4$3 F F3EN3 $ HE2 F3 ' H$D F NF 3$DC &4H J I 3E 4$3 F E $ 9 3C 34 0 G 43N HE $ED ?H- F H& F3 E3 B43 340 H F3 I H E $ F NF F3

" (C$J 3 (H EC $EH F34 ' H$D F3EN3 , H4 F $4D $ HE2 F3 ' H$D CH (H E3D H F3 I H E $ F NF F3 C$J 3 J 33 C F3 I 3E4FHC &H $ ' H$D F3EN3

ULKS`M#> ;>P ' ' @$1Y Y[!

F3EN3'$HE2' F3' I3E4FHC'&H $' 'H$D' H' F3' IHE'$' FNF' F3' C$J3' J33C' F3' 'H$D' FNF' 3$DC' QO' F3' #NF3D&3' 9 EDJ ' 1' F3' ?H-F' ?$N+' F3EN3'$HE2' F3' C$D' 'H$D' H' F3' ?H-F' ?$N+' EN-DE2' F3' P3CC-$23' F' F3' <& ;N3C' $ED' M$4D3E' F343-EH' Q3HE2E2' EH ' E' F3' <NN-1$ HE' H&' @1E' @H E' 5HE3C' H' F3' 93C34EJHC'IHE' ^E3$4'$'@H $23'N$ 3D' @344 2 0 H _'$' FNF' F3' C$J3' C' N4HCC3D' QO'$'?43$J'&-EE E2'&4HJ' F3' 8HOF3$D' PH-E $E' F3E@3'$HE2' F3' C$D' ?43$J' H' F3' IHE'$' FNF' F3' C$J3'&$ C' EH' F3' ?3$' F3EN3' $HE2' F3' ?3$'@H$C' H' F$'IHE' F343H&' FNF' C'E3$43C' H' F3' IHE' &4C'D3CN4Q3D'(F3EN3' E' $' C 4$ 2F' > E3' H' F3' IHE'&4C'D3CN4Q3D

I4HJ' F3' IHE'$' FNF' F3' BH-ED$40' 9$ 'Q3 33E' F3' I4H134O' H&' DJ 4$'> <0D'$ED' F3' I4H134O' H&' < 3E' 9 $JC' ;CX-43' J33C' F3' HD' B$E2H4' 'H$D' ;$C H&'$'@H $23'N$ 3D' P E&&H4D'$HE2' F3' ?$D' BH-ED$40' 9$ ' H' F3' IHE'$' FNF' F3' C$J3' 43$NF3C'$'?14E2'$ED' $' 6HH 1$ F' N$ 3D'> 0Q04' *432$4E3DD Q$NF' F3EN3' $HE2' $' 83D23' FNF(4-EE E2'&4HJ' F3' C$D' ?14E2'$ED' 6HH 1$ F' &H4JC'$'@HE E-$R HE' H&' F3' > E3' H&' F3' C$D' BH-ED$O' 9$ '$ED' 4-EC' F4H-2F' F3' >$ED' H&' 5HFE' 8$J1 HE' >3 C' ;CX-43' H' F3' IHE'$' 9FNF' C-NF' 83D23' J33C' F3' ' 34'@3&E ' F3E@3'?H-F $4D'$HE2' F3' ' 34'@3&E' H'' F3' IHE'$' FNF' F3' C$J3' C' J3'QO' F3' BH-ED$40' H&' F3' I$4CF' H&' ; $E23&E ' F3EN3' 93C $4D' $HE2' F3' BH-ED$40' H&' F3' I$4CF' H&' > $E23&E' H' F3' IHE'$' FNF' F3' C$J3' J33C' F3' BO3' 'H$D' N$ 3D' > D$4 0 I$EDO(' F3EN3' $HE2' F3' C$D' BO3' 'H$D'> D$4 0 I$EDO' H' F3' ?1H' N$ 3D' @4H3C HE 13E 0 ,$E ' F3EN3' ?H-F $4D' $HE2' F3' P$4+3' 'H$D' H' F3' IHE'$' FNF' K3' C$J3'(HEC' F3' 'FHC4 0 J34NF' 'H$D' F3EN3' $HE2' F3' 'QHC 0 J34NF' 'H$D' H' F3' &4C' IHE'$' FNF' F3' C$J3' C' N-'^Q3OHED' F3' 'H$D' 3$D E2' H' @$_' QO' 83D23C' 4-EE E2'&4HJ'3$NF'?D3' H&' F3' 'H$D'$'' 2F' E2 3C' F3EN3'$HE2' F3' 83D23' FNF' 4-EC'&4HJ' F3' $C J3E HE3D' IHE' H $4DC' I3EN4$2' H' F3' IHE'$' FNF' F3' C$J3' 43$NF3C' $E' D D' \-$440' F3EN3' $HE2' $' 83D23' FNF' 14HN33DC'&4HJ' F3' C$D' H D' \-$440'$ED'&H4JC'$'@HE E-$R HE' H&' F3' 83D23' $C' D3CN4Q3D' 1$CC E2' *OE 0 NH3D' 6$4J' <' F3' IHE'$' FNF' F3' C$J3' 83D23''N-C' F3' >$EDDO&E$E' 'H$D' F3EN3' $HE2' F3' >$EDDO&E$E' 'H$D' H $4DC' >$EDDO&E$E' H' F3' IHE'$' FNF' F3' C$J3' J33C' F3' BH-ED$40' H&' F3' I3EN4$2&$ 4' 6$ J' F3EN3' ?H-F $4D'$HE2' F3' BH-ED$40' H&' F3' I3EN4$2&$ 4' 6$4J' H' F3' IHE' $' FNF' F3' C$J3' J33C' F3' HD' B$E2H4' 'H$D' F3EN3' $HE2' F3' HD' B$E2H4' 'H$D' H' FE' IHE'&4C'D3CN4Q3D

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(+ .) n *F3' HD' BH4H-2F' H&' B43NHE'$ED' F3' ; 4$ 1$4HNF$'G C 4 N C' H&' F3' @$C 3'$ED' @F4CC' @H 323

S h@<#,*=' <6' @ ;'P '*8; ,

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4 7E "GG *F3' HD' BH4H-2F' H&' @$34J$4 F3E

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Y[^_ U/ K S/ M # > ; > P @$1 Y

64H J F3 I H E E 9 J O MHHCO P 3$DH HE F3 , H4 F 3C H& F3 * H E $ F NF F3 H D @H - 4C3 H& F3 ? 43$ J F NF C F3 H D BH4H - 2F BH - ED$4O J $+3C $ CF$41 * - 4E E $ C 4$ 2F > E3 H F3 ?H - F34E ; 43 J O H& F3 9 3C 34E 63EN3 H& @$3 P $ 4 CC$ 6 3 D F3EN3 , H4 F $4D $ HE2 F3 63EN3 H& F3 @$3 P $ 4 CC$ 6 3 D H F3 I H E $ ENF F3 C$ J 3 J 33 C F3 9 $ F 3F C F3 9 3C 34E BH - ED$4O H& 6 - 4E$N3 M$4D3E F3& N3 $ HE F3 C$ D 9 $ H F3 I H E $ F NF F3 C$ J 3 J 33 C I&3E O 6$ > $E3 F3EN3 $ HE2 I 3E O 6$ > $E3 H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 @$34 J $4 F3E ' H$D F3EN3 E $
9 C 4$ 2F > E3 H F3 , H4 F 9 3C 34E @H4E34 H& F3 M$4D3E H& @$3 P $ 4 @H $23 $ 3 O Q - 4E DH E F3EN3 $ HE2 F3 63EN3 9 F NF D D3C F3 M$4D3E H& @$3 P $ 4 @H $23 $ED F3 6 3 D @$3 CQ$ &4H J F3 6 3 D @$3 O3F$ H F3 I H E $ F NF F3 C$ J 3 J 33 C & 3 6 J N3 F NF D D3C F3 6 3 D @$3 ONF$ &4H J F3 6 3 D M$3 Q$E+ F3EN3 $ HE2 F3)$C J 3E HE3D 63EN3 H F3 , H4 F34E @H4E34 H& F3 6 3 D @$3 Q$E+ F3E@3 E $ C 4$ 2F > E3 F4H - 2F F3 ?H - F34E ; 43 J O H& F3 , H4 FR 3$C 34E BH - ED$4O H& F3 6 3 D @$3 Q$E+ $N4HCC F3 * 4$ J 4H$D H F3 H D BH4H - 2F BH - ED$4O F3EN3 ; $C J D $ HE2 F3 H D BH4H - 2F BH - ED$4O H F3 I H E & 4C D3CN4 Q3D

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64H J F3 H - 34 J HC I H E H& F3 ' HN+ M4$ 2 $ C HE F3 ?3$ @H$C C Q 3 &4H J F3 I H E E3 D3CN4 Q3D E $ C 4$ 2F > E3 H F3 , H4 F3E ; 43 J O H& F3 ? HE3 9 $ F 3F D D3C F3 > $ED < $ 3D 1$E O 2O J &4H J F3 > $ED @$ 3D 64DE F3EN3 $ HE2 F3 C$ D 9 $ H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 9 $ F NF D D3C F3 > $ED I $E O 2S4 J &4H J F3 W ED 64HE - D $& F3EN3 ; $C $4D $ HE2 F3 BH - ED$4O H& " 64DE - NF$& H F3 * - 4EC 3 $ F3 ?H - F 3$C 34E @H4E34 F343H& F3EN3 E $ C 4$ 2F > E3 H F3 P E F3 * EO4D E3$4 F3 ' H$D 3$D E2 H > EQD$ J &$ 4 F3EN3 E $ C 4$ 2F > E3 H F3 9 HHD3# G$ J (- C $QH 3 I $C 243 2 F3EN3 ?H - F $4D $ HE2 F3 BH - ED$4O H& F3 H D BH4H - 2F H F3 ?3$ @H$C F3EN3 $ HE2 F3 $M H$C H F3 I H E & 4C D3CN4 Q3D

$ & * F3 H D BH4H - 2F H& D1$4 $ED F3 8 $ J 3 H& ; J OE E F3 I $4 CF H&@3EE$4 F

4 4 * F3 H D BH4H - 2F H& @$4D 2$E $ED $ CH B4 D23ED 8 $ J 3 $ED QQ3O 8 $ J 3 E F3 I $4 CF H& ?$ E GH2 J 3 E F3 @H - E O H& > I 3 J Q4H+3

64H J F3 I H E HE F3 @43 F E B&HH+ $ 9 F NF F3 , H4 F34E BH - ED$4O H& F3 M 3Q3 J 33 C F3 BH - ED$4O H& F3 H D BH4H - 2F $ HE2
9 5 F3 , H4 F34E BH - ED$4O < & F3 M 3Q3 H F3 I H E $ F NF F3 C$ J 3 J 33 C 2 E F3 BH - ED$4O H& F3 H D BH4H - 2F F3E@3 , H4 F $4D > $ HE2 F3 BH - ED$4O H& F3 H D BH4H - 2F H F3 I H E & 4C D3CN4 Q3D

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64HJʻ F3ʻ IHEʻHEʻ F3ʻ ,H4F3$Cʻ H&ʻ F3ʻ *H Eʻ $ʻ FNFʻ F3ʻ 'H$Dʻ &4HJʻ F3ʻ I$4+ʻ 9$ ʻH&ʻ I3E4FOEʻ @$C 3ʻ Hʻ F3ʻ P3E$ʻ?4$ Cʻ (HECʻ F3ʻ P3E$ʻ?4$ Cʻ $ʻ F3ʻ 8 2F $34ʻ P$4+ʻ $HE2ʻ F3ʻ C$Dʻ 'H$Dʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻC$J3ʻ J33Cʻ F3ʻC$Dʻ I$4+ʻ 9$ ʻ F3EN3ʻ 93C $4Dʻ $+J2ʻ F3ʻC$Dʻ I$4+ʻ 9$ ʻ Hʻ F3ʻ ;E4$EN3ʻ M$3ʻ Hʻ> J3ʻ M4H 3ʻ F3EN3ʻ Eʻ $ʻ C4$2Fʻ >E3ʻ $N4HCCʻ F3ʻ 'H$Dʻ Hʻ F3ʻ E3$43Cʻ IHEʻ Eʻ F3ʻ BH-ED$4Oʻ 9$ ʻ JJ3D$3OʻH11HC 3ʻ FNFʻQH-EDCʻ $ʻ6 3Dʻ Q3HE2 E2ʻ Hʻ> J3ʻ M4H 3ʻ D3EN3ʻ$HE2ʻ F3ʻ C$DʻBH-ED$4Oʻ 9$ ʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ ' 34ʻ @32 Eʻ 3E 34Cʻ F3ʻM4H-EDCʻH&ʻ I3EE$Eʻ ;CX- 43 F3EN3ʻ $HE2ʻ F3ʻ ' 34ʻ @32 Eʻ Hʻ F3ʻ B4D23ʻ $N4HCCʻ F3ʻ ?F43 CQ-4Oʻ 'H$Dʻ ʻ F3EN3ʻ $ʻC4$2Fʻ>E3ʻ Hʻ$ʻCX-$43ʻB4N+ʻ?3$ʻ H4ʻ PHE-J3Eʻ C -$3ʻ HEʻ $ʻ%EH ʻ Eʻ $ʻ6 3Dʻ N$ 3Dʻ @$3ʻ I$E ʻ F3EN3ʻ Eʻ $ʻ C4$2Fʻ >E3ʻ Yʻ F3ʻ E3$43Cʻ1HEʻ H&ʻ F3ʻ 'H$Dʻ Hʻ63 Eʻ ;C2HQʻ F3EN3ʻ Eʻ $ʻ C4$2Fʻ>E3ʻ Hʻ F3ʻE3$43Cʻ IHEʻH&ʻ F3ʻ 'H$Dʻ Hʻ B4OEE$-ʻ F3EN3ʻ Eʻ $ʻC4$2Fʻ>E3ʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ 'H$Dʻ&4HJʻ B$E2H4ʻ Hʻ F3ʻ P3E$ʻ B4D23ʻ 3$ 3Cʻ F3ʻ 'H$Dʻ &4HJʻ B$E2H4ʻ Hʻ @$4E$4 HEʻ F3EN3ʻ $HE2ʻ D3ʻ C$Dʻ 'H$Dʻ Hʻ F3ʻ P3E$ʻB4D23ʻ Eʻ F3ʻ G43N HEʻH&ʻC-NFʻ B4D23ʻ Hʻ F3ʻ M$3ʻ HEʻ F3ʻ ' 2F F$EDʻ?D3ʻ FNFʻ H13ECʻ EHʻ $Eʻ <NN-1$ HEʻ 'H$Dʻ 3$D E2ʻ Hʻ I3E4$ ʻ F3EN3ʻ Eʻ $ʻC4$2Fʻ>E3ʻ Hʻ F3ʻ IHEʻ ' ʻ FNFʻ F3ʻ>H $34ʻ P$4+ʻ Eʻ F3ʻ?4$ CʻH&ʻ P3E$ʻ H-Dʻ Q3ʻN-ʻQOʻ$ʻC4$2Fʻ>E3ʻ HʻQ3ʻD4$ Eʻ &4HJʻ F3ʻM$3ʻ $Cʻ D3CN4Q3Dʻ Hʻ F3ʻ 9 EDJ ʻN$ 3Dʻ>$ED32&$Eʻ P ʻ FNFʻ CʻHEʻ F3ʻH11HC 3ʻ?D3ʻH&ʻ F3ʻ ?4$ Cʻ F3EN3ʻ $HE2ʻ F3ʻ C$Dʻ >H $34ʻ P$4+ʻ Hʻ F3ʻ IHEʻ F343H&ʻ FNFʻ CʻE3$43Cʻ Hʻ F3ʻ IHEʻ&4CʻD3CN4Q3Dʻ F3EN3ʻ Eʻ$ʻC4$2Fʻ >E3ʻ Hʻ F3ʻ IHEʻ&4CʻD3CN4Q3D

4 8 ʻ *F3ʻHDʻBH4H-2FʻH&ʻ@$4E$4 HE

4 ʻ *F3ʻHDʻBH4H-2FʻH&ʻ@HE $O

4 -- " ʻ *F3ʻHDʻBH4H-2FʻH&ʻ@4NN3 F

G 8 8 ʻ *F3ʻHDʻBH4H-2FʻH&ʻ,3 E

64HJʻ F3ʻ ?H- F 3C34Eʻ ; 43J Oʻ H&ʻ F3ʻ BH-ED$4OʻH&ʻ F3ʻ HDʻ BH4H-2FʻHEʻ F3ʻ?3$ʻ@H$C ʻ $HE2ʻ F3ʻBH-ED$4OʻH&ʻ F3ʻHDʻBH4H-2Fʻ ^3$ E2ʻ F3ʻ?3$ʻ@H$C_ʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ Cʻ J3ʻ QOʻ$ʻ CJ$ ʻ?43$Jʻ @$ 3Dʻ `ʻ &HE2H323E cʻ F3EN3ʻ$HE2ʻ F3ʻ C$Dʻ?43$Jʻ Hʻ F3ʻ B4D23ʻ N$ 3Dʻ `ʻ?$4Eʻ H4ʻ IHE 13EJ$3E cʻ F3EN3ʻ $HE2ʻ F3ʻ ?H- F34EʻB4$ENFʻH&ʻ F3ʻ C$Dʻ?43$Jʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻC$J3ʻ J33Cʻ F3ʻ BH-ED$4OʻH&ʻ F3ʻ HDʻ BH4H-2Fʻ F3EN3ʻ ,H4F $4Dʻ $HE2ʻ F3ʻBH-ED$4OʻH&ʻ F3ʻ HDʻ BH4H-2Fʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ J33Cʻ$ʻ 'H$Dʻ 3$D E2ʻ &4HJʻG3E3 Hʻ@F-4NFʻ EHʻ F3ʻ @$4E$4 HEʻ 'H$Dʻ F3EN3ʻ $HE2ʻ F3ʻC$Dʻ 'H$Dʻ&4<JʻG3E3 Hʻ@F-4NFʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻC$J3ʻ CʻN-ʻQOʻ F3ʻ63EN3ʻH&ʻ$ʻ6 3DʻN$ 3Dʻ `ʻ@$3ʻ6OEEH cʻ Eʻ F3ʻ

I9; 8;> <NN-1$ HEʻH&ʻ8-2Fʻ9 $JCʻH&ʻB4OEʻ@4Eʻ F3EN3ʻ$HE2ʻ F3ʻ $C ʻ J3E HE3Dʻ63EN3ʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻN-ʻ Cʻ $Eʻ <NN-1$ HEʻ 'H$Dʻ 3$D E2ʻ &4HJʻ B4OEʻ @4 Eʻ6$4JFH-C3ʻ EHʻ F3ʻ@$4E$4 HEʻ 'H$Dʻ F3EN3ʻ$HE2ʻ F3ʻC$Dʻ <NN-1$ HEʻ 'H$Dʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻC$J3ʻ (HECʻ F3ʻ@$4E$4 HEʻ 'H$Dʻ F3EN3ʻ ,H4F $4Dʻ $HF2ʻ F3ʻ @$4E$4 HEʻ 'H$Dʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻC$J3ʻ Cʻ J3ʻ QOʻ$ʻ 'H$DʻHEʻ F3ʻ ' 2Fʻ 3$D E2ʻ Hʻ Q343 4NFʻ F3EN3ʻ$HE2ʻ F3ʻC$Dʻ 'H$Dʻ Hʻ Q343 4NFʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ J33Cʻ $ʻ 'H$Dʻ 3$D E2ʻ &4HJʻ I F3ʻ Hʻ *43J$DHNʻ F3EN3ʻ Eʻ$ʻC4$2Fʻ>E3ʻ Hʻ F3ʻ?3$ʻ$ʻ F3ʻ E3$43CʻIHE ʻ F3EN3ʻ 93C $4Dʻ$HE2ʻ F3ʻ?3$ʻ@H$Cʻ <ʻ F3ʻ IHEʻ&4CʻD3CN4Q3D

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4ʿKʿSʿM#> ;>P ʿ ʿ @$1 Y

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G; ,B M8ʿG ?*' @*

$?)= : ʿ *F3ʿH Dʿ BH4H-2Fʿ H&ʿ G3EQ 2F

ʿ *F3ʿH Dʿ BH4H-2Fʿ H&ʿ 8H

; E " ʿ *F3ʿH Dʿ BH4H-2Fʿ H&ʿ ' D F (

5 F" 8 3ʿ43C13N 3ʿ*H 1CF 3Cʿ H&ʿ 9 43WQ$ ʿ QH ʿ$EDʿ 9 43 F$Jʿ '32 Cʿ($EDʿ $ CHʿ C-NFʿ I$4 ʿH&ʿ F3ʿ *H ECF 1ʿ H&ʿ ;CN -C$J Q3 1 ʿ$Cʿ Cʿ C-44H-ED3Dʿ FOʿ F3ʿ *H ECF 1Cʿ H&ʿ 9 43 F$J ʿ QQH ʿ $EDʿ 9 43 F$J ʿ '32 C ʿ H4ʿ <E3ʿ H&ʿ F3J

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6> ,*ʿG ?*' @*

ʿ 64HJʿ F3ʿ IHE ʿ HEʿ F3ʿ ,H4 F 93C ʿ H&ʿ F3ʿ *H Eʿ $ʿ F NFʿ F3ʿ BH-ED$40ʿ H&ʿ F3ʿ *H ECF 1ʿ H&ʿ *$ $4ʿ J33 Cʿ F3ʿ ' 34ʿ ; O ʿ 93C $4D ʿ $ HE2ʿ F3ʿ BH-ED$40ʿ H&ʿ F3ʿ *H ECF 1ʿ H&ʿ *$ $4ʿ Hʿ F3ʿ M433Eʿ M$ 3ʿ B4 D23ʿ H 34ʿ F3ʿ B4HH+ʿ ,$E O &4$EH ʿ F3EN3ʿ $ HE2ʿ F3ʿ B4HH+ʿ ,$E O &4$EH ʿ Hʿ F3ʿ IHE ʿ $ʿ F NFʿ F3ʿ C$J3ʿ J33 Cʿ F3ʿ 8H OF3$Dʿ 'H$D ʿ D 3EN3 ʿ ;$C $4D ʿ $ HE2ʿ F3ʿ 8H OF3$Dʿ 'H$Dʿ Hʿ F3ʿ IHE ʿ $ʿ F NFʿ F3ʿ C$J3ʿ Cʿ J3 ʿ QOʿ F3ʿ BH-ED$40ʿ H&ʿ F3ʿ *H ECF 1ʿ H&ʿ *$ $4ʿ F3EN3 ʿ ;$C $4D ʿ $ HE2ʿ F3ʿ BH-ED$40ʿ H&ʿ F3ʿ *H ECF 1ʿ H&ʿ *$ $4ʿ Hʿ F3ʿ IHE ʿ $ʿ F NFʿ F3ʿ C$J3ʿ J33 Cʿ F3ʿ BH-ED$40ʿ H&ʿ F3ʿ *H ECF 1ʿ H&ʿ B40Eʿ IHE ʿ

ʿ " F3EN3 ʿ ?H- F $4D ʿ $ HE2ʿ F3ʿ BH-ED$40ʿ H&ʿ F3ʿ *H ECF 1ʿ H&ʿ B OEʿ IHE ʿ Hʿ F3ʿ IHE ʿ $ʿ F NFʿ F3ʿ C$J3ʿ J33 Cʿ F3ʿ #1134ʿ G3EQ 2Fʿ 'H$D ʿ F3EN3 ʿ ,H4 F $4D ʿ $ HE2ʿ F3ʿ #1134ʿ G3EQ 2Fʿ 'H$Dʿ Hʿ F3ʿ IHE ʿ $ʿ F NFʿ F3ʿ C$J3ʿ Cʿ J3 ʿ QOʿ $ʿ 'H$Dʿ H4ʿ >$E3ʿ 3$D E2ʿ Hʿ =C2-QH42H3D ʿ F3EN3ʿ $ HE2ʿ C-NFʿ 'H$Dʿ H4ʿ >$E3ʿ 3$D E2ʿ Hʿ =C2-QH 2H3Dʿ Hʿ F3ʿ IHE ʿ $ʿ F NFʿ F3ʿ C$J3ʿ J33 Cʿ F3ʿ ' 34ʿ @ OD=ʿ F3EN3ʿ $ HE2ʿ F3ʿ ' 34ʿ @ ODʿ Hʿ F3ʿ IHE ʿ $ʿ F NFʿ F3ʿ C$J3ʿ Cʿ J3 ʿ QOʿ F3ʿ ?H- F34Eʿ BH-ED$40ʿ H&ʿ F3ʿ *H ECF 1ʿ H&ʿ @O4NFOE$Eʿ(F3EN3ʿ Eʿ $ʿ C 4$ 2F ʿ > E3ʿ Hʿ F3ʿ IHE ʿ & 4C ʿ D3CN4 Q3D

4 *F3ʿH Dʿ BH4H-2Fʿ H&ʿ @$342 O3

4 *F3ʿH Dʿ BH4H-2Fʿ H&ʿ @$34 OC

/ *F3ʿH Dʿ BH4H-2Fʿ H&ʿ 6 E

64HJʿ F3ʿ BH-ED$40ʿ ?HE3ʿ HEʿ F3ʿ 8 ʿ I3E O Q40E ʿ $EDʿ HEʿ F3ʿ 93C 34Eʿ ?D3ʿ H&ʿ F3ʿ 8 3D23ʿ ^ F NFʿ Cʿ Q3 33Eʿ F3ʿ @H $23ʿ HNN-1 3Dʿ QOʿ 9 $J ʿ 9 $J Cʿ $EDʿ F3ʿ ?<E F 3$C 34Eʿ @H4E34ʿ H&ʿ F3ʿ I $E $ HEʿ H&ʿ ' NF$4Dʿ ?$E+30ʿ ;CX- 43_ʿ Eʿ $ʿ C 4$ 2F ʿ > E3ʿ Hʿ F3ʿ BH-ED$40ʿ ?HE3ʿ H&ʿ F3ʿ *H ECF 1ʿ H&ʿ 8H O 3 ʿ F NFʿ Cʿ HEʿ F3ʿ ;$C 34Eʿ ?D3ʿ H&ʿ F3ʿ ? ʿ C$1Fʿ 'H$D ʿ F3EN3ʿ Eʿ $ʿ C 4$ 2F ʿ > E3ʿ Hʿ $ʿ B4 D23ʿ ^ Eʿ F3ʿ >$E3ʿ 3$D E2ʿ Hʿ ʿ $EDʿ 1$C ʿ M433E& 3 Dʿ 8 $ _ʿ H 34ʿ $ʿ 9 $ 34NH-4C3ʿ 4-EE E2 E Hʿ F3ʿ ' 34ʿ ʿ G33 ʿ F3EN3 ʿ ;$C $4D ʿ $ HE2ʿ F3ʿ C$ Dʿ 9 $ 34NH-4C3ʿ &ʿ F3ʿ IHE ʿ $ʿ ʿ F NFʿ F3ʿ C$J3ʿ J33 Cʿ F3ʿ BH-ED$40ʿ H&ʿ F3ʿ *H ECQ 1ʿ H&ʿ M433E& 3 D ʿ ʿ F3EN3

' K' S ' M # > ; > P ' ' @$1 'Y

F3EN3 ' ?H- F $4D ' $ HE2' F3' BH-ED$40' H&' F3' *H ECF 1' H&' M433E& 3 D/' H' F3' 6H '$ ' F NF' F3' C$ J 3' J 33 C' F3' BH-ED$40' H&' F3' *H ECF 1' H&' 8 H O 3 ' F3EN3' $ HE2' F3' ; $C 34E' $ED' ?H- F34E' (_4' 3 34 H4' BH-ED$40' H&' F3' *H ECF 1' H&' 8 H O 3 ' H' F3' BH-ED$40' ? HE3' & 4C ' D3CN4 Q3D

0 ' * F3' *H ECF 1' H&' P H D

8 ' * F3' H D' BH4H-2F' H&' < 34 H

; " E ; ' * F3' H D' BH4H-2F' H&' ' F-DD $E

$ h @<# , *=' <6' M> P < ' M ,

64H J ' F3' I H E ' HE' F3' , H4 F' H&' P 34 F04' * OD ' $ ' F NF' F3' ?&H4 F34E' BH-ED$40' H&' F3' 8 $ J &3 ' H&' M3 8 0D32' J 33 C' F3' ' 34' N$ 3D' F3' M43$ ' * $&& ' , H4 F $4D ' $ HE2' F3' M43$ ' * $&6 ' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' N- ' QO' F3' ?H- F34E' 63EN3' H&' @ C$ (HC' @H J J HE ' F3EN3' ; $C $4D ' $ HE2' F3' 63EN3' H&' @ C$EHC' @H J J HE' H' F3' I H E ' $ ' F NF' F3' C$ J 3' N- C' F3' B43NHE' ' H$D ' F3EN3 ' ?H- F $4D ' $ HE2' F3' B43NHE' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' / $EH4' ' H$D ' F3EN3' ; $C $4D ' $ HE2' F3' /6$ EH4' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' $' BO3' ' H$D' 3$D E2' H' @3&F NH3D O @ O J E34 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' > 3' * $&&' H- D' Q3' N- ' QO' $' C 4$ 2F ' > E3' H' Q3' D4$ E' &4H J ' F3' I H E ' $C ' D3CN4 Q3D' H' F3' ?H- F34E' P H- F' H&' $' @- 34 ' HE' F3' ; $C 34E' ? D3' H&' F3' > 3' * $&& ' F3EN3 ' -1' F3' > 3' * $&& ' $ HE2' F3' BH-ED$40' H&' F3' I $4 CF' H&' P 34 F04' * OD ' H' F3' I H E ' $ ' F NF' F3' @ J ' B$42H3D' ? 43$ J ' C' (H E3D' QO' $' 3' B4HH+' &4H J ' F3' @H ' ' $ E3 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' , H4 F 3$C 34E' @H4E34' H&' F3' ? HE3' 63EN3' H&' 63E D O N$3' $ 4' 6$4 J ' F3EN3' $ HE2' F3' ' H$D' F NF' 1$CC3C' I 3E D O N$3' $ 4' 6$4 J FH-C3' H' F3' I H E ' $ ' F NF' F3'

0 " ' &@ A C$ J 3' J 33 C' F3' P H-E $ E' * 4$N+' &4H J ' GH $ C H' \ -$+34C' =$4D ' F3EN3' ?H- F $4D ' $ HE2' F3' C$ D' * 4$N+ ' Q3 33E' F3' 6$4 J C' H&' I 3E D O N$3' $NF' $ED' I 3E D O N$3' =$ 4 ' H' F3' I H E ' $ ' F NF' C-NF' * 4$N+' J 33 C' $' ' H$D' 4-EE E2' E3$4 O' D-3' 9 3C ' QO' $' ? HE3' \ -$EO ' H' I 3E O 4F ' MO J 4$' @H $23 ' F3EN3' $ HE2' F3' $C J 3E HE3D' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' 43$NF3C' F3' ?H- F34E' ? D3' H&' I 3E O 4F ' MO J 4$' @H $23 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' ?H- F34E' BH-ED$40' H&' * 4H3D O 4F ' 6$4F ' J 33 C' F3' @$4D &&' ' H$D ' F3EN3' $ HE2' F3' ?H- F34E' BH-ED$40' H&' * 4H3D O 6 ' 6$4 J ' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' M43$ ' * $&& ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' B4 D23' H 34' F3' @$4D &&' @#E$ ' N$ 3D' * HF O E$E ' P $3E ' F3EN3 ' , H4 F $4D ' $ HE2' F3' @$4D &&' @$E$ ' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' E 34C3N 3D' QO' F3' @ J D-' B4HH+ ' F3EN3' $ HE2' F3' @ J D-' B4HH+' H' C' ?H-4N3 ' F3EN3' E' $' C 4$ 2F ' > E3' D4$ E' D-3' 9 3C ' H' F3' BH-ED$40' H&' F3' I $4 CF' H&' Q34D$43 ' F3EN3 ' ?H- F $4D ' $ HE2' F3' BH-ED$40' H&' F3' I $4 CF' H&' Q34D$43' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' BH-ED$40' H&' F3' 8 $ J 3 ' H&' M3 0D32 ' F3EN3 ' ; $C $4D ' $ HE2' F3' BH-ED$40' H&' F3' 8 $ J 3 ' H&' M3 0D32' H' F3' I H E ' & 4C ' D3CN4 Q3D

Y [U" K S M#> ; > P @$1 Y

@ 'G 66 G ?* ' @*

4 : : *F3 H D BH4H-2F H& @$4D && $ED CH J -NF & $EO H& 3 F34 H4 H F H& F3 43C13N 3 I$4 CF3C H& ? 5HFE $ED ?$ E P $4O $C 3C FH- F3 H D BH4H-2F

> $: 3 H D BH4H-2F H& @H Q4 D23

9 4 *F3 DD BH4H-2F H& G $E 4 CC3E

?9 , ? ; G ?* ' @*

64HJ F3 IHE HE F3 ?H- F H& F3 *H E $ FNF F3 ' 34 HE &$ C E H F3 ?3$, H4 F $4D $HE2 F3 ; $C 34E BH-ED$4O H& F3 8$J 3 H& 8$ HD O IH4 F H F$ IHE E $? HE3 63EN3 9 FNF C JJ3D $3 O H11HC 3 $?J$ 4H-ED IHH F3EN3 $HE2 F3 C$D ? HE3 63EN3 H F3 IHE $ FNF FH C$J3 J33 C $ >$E3 H4 I$ F d3$D H $ JE$ @H 3 F3EN3 $FJ2 $ <F>$E3 H4 I$ F H F3 6H4D $N4HCC $ B4HH+ JJ3D $3 O H11HC 3 P 42J @F$13 F3EN3 $HE2 F3 'H$D H GO&&4OE-NF$ H F3 IHE $ FNF F3 C$J3 J33 C F3 '$ 4H$D &4HJ F3 *$ Q$NF @H1134 9 H4+C H P NF$ C HE F3EN3 , H4 F $4D $HE2 F3 C$D '$ 4H$D H F3 IHE $ FNF F3 C$J3 H4H?C3C $ CJ$? 43$J 4-EE E2 E H F3 ' 34 HE F3EN3 $HE2 F3 C$D ? 43$J H F3 1HE $ FNF Fb C$J3 &3 C E H F3 ' 34 HE F3EN3 E $ C4$ 2F > E3 H F3 IHE $ FNF $? 43$J FNF 4-EC F4H-2F F3 @ J BONF$E '$ E3 &$ C E H F3 ' 34 HE F3EN3 $HE2 F3 $C J3E H13D ? 43$J H F3 IHE $ FNF F3 C$J3 J33 C F3 BH-ED$4O H& F3 1$4 CF H& B$2 $E F3EN3 ?H- FR $4D $HE2 F3 BH-ED$4O <& F3 I$4 CF H& B $E H F3 IHE $ FNF F3 C$J3 J33 C F3 BH-ED$4O H& F3 I$4 CF H& Q34$ HE ! F3E@3 9 3C $4D $HE2 F3 BH-ED$4O H& F3 I$4 CF H& Q34$ HE H F3 IHE $ FNF F3 BH-ED$4O 1& F3 H D BH4H-2F 3$ 3C F3 C$J3 F3EN3 $HE2 F3 BH-ED$4O H& F3 H D BH4H-2F H F3 IHE $ FNF F3 C$J3 J33 C F3 BH-ED$4O H& F3 8$J 3 H& 8$ HD O IH4 F(F3EN3 ?H- F $4D $HE2 F3 BH-ED$4O H& F3 8$J 3 8$ HD O`1H4 F H F3 IHE & 4C D3CN4 Q3D

L

: *F3 H D BH4H-2F H& %3E& 2

9 E " *F3 H D BH4H-2F H& >H-2FH4

64HJ F3 IHE H 3C D1 E F3 ' 34 , '@$ F $ FNF F3 BH-ER D$4O H& F3 H D BH4H-2F 3$ 3C F3 ' 34 , 3$ F $HE2 F3 BH-ED J O H& F3 H D BH4H-2F 3$ E2 Fb ' 34 , 3$ F H F3 IHE $ FNF @$34& 3 G NF (H EC F3 ' 34 , 3$ F F3E13 $HE2 @$34& 3 G NF H F3 IHE $ FNF F3 C$J3 J33 C F3 >$F3 N$ 3D 83H JH4&$ F3EN3 $HE2 F3 >$E3 83H JH4&$ H F3 IHE $ &$ NF F3 C$J3 (H EC Q3 8 2F 'H$D H P 34 O4 F3EN3 $HE2 F3 8 2F 'H$D b P 34 FO4 H F3 IHE $ FNF F3 'H$D H IHE $4D$ 3O 3$ 3C F3 C$J3 F3EN3 $HE2 F3 'H$D H IHE $4D$ 3O H F3 IHE $ FNF F3 C$J3 C (H E3D QO $ >$E3 N$ 3D 'F3H O 2H F3EN3 $HE2 F3 >$E3 'F3H O 2H H F3 IHE $ FNF F3 C$J3 J33 C $ B4HH+ F3EN3 $HE2 C-NF B4HH+ H F3 IHE $ FNF F3 C$J3 J33 C 'F3H 9 34E 4$ F >$E3 F3EN3 $HE2 'F3H 34E &4$ F >$E3 H F3 IHE $ FNF F3 C$J3 C N- QO $ 63EN3 &H4J E2 F3 , H4 F 3C 34E BH-ED$4O H& @$3 NEDD 9 6 3 D F3EN3 $HE2 F3 $C J3E HE3D 63EN3 H F3 IHE $ FNF F3

G "

'_ V9 ? 6 ' : 6 ' ' '& ' #) '

F3' C$J3' J33 C' F3' B4HH+' 4-EE E2' H' , $E O4HC ' F3EN3' $HE2' F3' B4HH+' 4-EE E2' H' , $E O4HC' H' F3' I H E ' $ ' F NF' F3' C$J3' (H EC' F3' @$E$ =' F3EN3' $HE2' F3' @$E$ ' H' F3' I H E ' $ ' F NF' F3' C$J3' N4HCC3C' F3' ? 43$J' @ OD$NF' ' F3EN3' $HE2' F3' ? 43$J' @ OD$NF' H' F3' I H E ' $ ' F NF' D 3' C$J3' (H EC' F3' ' 34' , 3$ F ' F3EN3' $HE2' F3' ' 34' , 3$ F' H' F3' I H E ' & 4C ' D3CN4 Q3D

I4H4$' F3' I H E ' $ ' F NF' F3' , H4 F34E' BH-ED$ O' H&' F3' I$4 CF' H&' ? '5HFE' C' N "C3D' QO' F3' 'H$D' H' > $E23&3 $NF' @F-4NF' , H4 F $4D' $HE2' F3' H$D' H' > $E23&3 $NF' @F-4NF' H' F3' I H E ' $ ' F NF' F3' C$J3' C' (H E3D' QO' $' >$E3' N$ 3D' 'F3H O NE$1' F3EN3' $HE2' F3' >$E3' 'F3H O NE$1' $ED' $HE2' $' >$E3' F NF' C' $' @HE E-$ HE' F343H&' $ED' F NF' (H EC' D 3' * -4E1 +3' 'H$D' H' , 3$ F' H11HC 3' F3' > $ED 4' ; E2 E3' H' F3' I1 E ' $ ' F NF' C-NF' $C J3E HE3D' >$E3' (H EC' F3' * -4E1 +3' 'H$D' H' , 3$ F ' F3EN3' , H4 F $4D' $HE2' D 3' * -4E1 +3' 'H$D' H' , 3$ F' H' F3' I H E ' $ ' F NF' F3' C$E 3' C' (H E3D' Q3 33E' F3' G-+3C' 4 J C' I-Q N' 8H-C3' $ED' $' B $N+C J FC' ?FH1' QO' $' 'H$D' 3$D E2' H $4DC' @ $C' P HE ' 6$4 J ' F3EN3' $HE2' F3' $C J3E HE3D' 'H$D' H' F3' I H E ' $ ' F NF' F3' C$J3' C' J3 'H11HC 3' F3' >$E3' &4HJ' I3E $E' NH J J HE O' N$ 3D' I3E $E' 'H$D' QO' $' *4$N+' 3$D E2' H' $' 9 3 ' 8 3$D ' F3EN3' $HE2' F3' C$ D' *4$N+' H' F3' I H E ' $ ' F NF' F3' C$J3' 43$NF3C' F3' C$ D' 9 3 ' 8 3$D ' F3EN3' $HE2' F3' ? 43$J' F NF' & H C' &4HJ' F3' C$ D' 9 3 ' 8 3$D' H' F3' I H E ' $ ' F NF' F3' C$ D' ? 43$J' &$ C' E H' F3' ? 43$J' N$ 3D' , $E ' 3 E ' F3EN3' $HE2' F3' ? 43$J' , $E ' 3 E' H' F3' I H E ' $ ' F NF' F3' C$J3' N4HCC3C' F3' 'H$D' F NF' 3$DC' &4HJ' P H44 C ' HE' E H' F3' A H$D' &4HJ' > $E23&3 $NF' @F-4NF' H' F3' B4 D23' H 34' F3' ' ' 34' *$ 30 ' F3EN3' $HE2' F3' C$ D' 'H$D' &4HJ' P H44 C HE' H' F3' I J E ' $ ' F NF' F3' C$J3' (H EC' F3' 'H$D' &4HJ' > $E23&3 $NF' @F-4NF' H' F3' B4 D23' H 34' F3' ' 34' *$ 30 ' F3EN3' $HE2' F3' $C J3E HE3D' 'H$D' H' F3' I H E ' $ ' F NF' F3' C$J3' 43$NF3C' F3' C$ D' B4 D23' H 34' F3' ' 34' *$ 30 ' F3EN3 ' ; $C $4D' $HE2' F3' * -4E1 +3' 'H$D' H' , 3$ F' H' F3' I H E ' $ ' F NF' F3' C$J3' C' J3 'E3$4' F3' ? $4' I-Q N' 8H-C3' QO' $' >$E3' F NF' 3$DC' &4HJ' F3' ?H- F34E' ; 43 J O' H&' F3' I$4 CF' H&' > ECJ 3' H 34' @ &$O' 8 ' $ED' QO' B YE O J$3E' H' > ECJ 3' @F-4NF' F3EN3' $HE2' F3' $C J3E HE3D' >$E3' H' F3' I H E ' $ ' F NF' F3' C$J3' J33 C' F3' BH-ED$4O' H&' F3' 8$J 3' H&' ? ' *FHJ$C' E3$4' *432 ' F3EN3 ' ; $C R $4D' $HE2' F3' BH-ED$4O' H&' F3' 8$J 3' H&' ? ' *FHJ$C' H' F3' I H E ' $ ' F NF' F3' C$J3' J33 C' F3' BH-ED$4O' H&' F3' *H E' $ED' 64$ENF C3' F3EN3' 9 3C $4D' $HE2' F3' BH-ED$4O' H&' F3' *H E' $ED' 64$ENF C3' H' F3' I H E ' $ ' F NF' F3' C$J3' J33 C' F3' BH-ED$4O' H&' F3' I$4 CF' H&' ? '5HFE ' F3EN3 ' 9 3C $4D' $HE2' F3' BH-ED$4O' H&' F3' I$4 CF' H&' ? '5HFE' H' F3' I H E ' & 4C ' D3CN4 Q3D

V h@<#, *=' <6' P<, *M<P; '=

P < , *M < P ; ' =' G ?* ' @*

64HJ' F3' ?H- F34E' ; 43 J O' HE' F3' , H4 F 3C ' H&' F3' *H E' H&' F3' 14 $ 3' 'H$D' F NF' 3$DC' &4HJ' F3' > $E2OEH2' * -4E1 +3' ; H$D' H' BHD&$NF' 8$ ' $HE2' F3' C$ D' 14 $ 3' 'H$D' H' F3' I H E ' $ ' F NF' F3' C$J3' C' J3 ' QO' F3' BH-ED$4O' H&' F3' 6 3 D' @$3' ; $E' M4 && D ' F3EN3' , H4 F $4D' $HE2' F3' BH-ED$4O' H&' F3' 6 3 D' @$3' ; $E' M4 && F' H' F3' I H E ' $ ' F NF' F3' C$J3' J33 C' F3' BH-ED$4O' H&' F3' 6 3 D' P $3C' #1F$ F3EN3

Y Ư U"KScM # > J P ʻ ʻ @$1 Y

F3EN3ʻ ;$C $4Dʻ$ HE2ʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ 6 3 Dʻ P $3Cʻ #NF$ʻ Hʻ 3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ J Cʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ 6 3 Dʻ @$3 13 $ʻ B NF O $Eʻ F3EN3ʻ ,H4 F $4Dʻ$ HE2ʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ 6 3 Dʻ @$3 13 $ʻB NF O $Eʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ J33 Cʻ F3ʻ #$E23D OEʻ BH$Dʻ F3EN3$ HF2ʻ F3ʻ ,H4 F34Eʻ 63EN3Cʻ H&ʻ F3ʻ 43C13N 3ʻ 6 3 DCʻ @$3ʻ GFʻ @$3ʻ P $ Eʻ $EDʻ @$3ʻ G -ʻ P $ 4ʻ $EDʻ $ HE2ʻ F3ʻ ;$C 34Eʻ 63EN3ʻ H&ʻ F3ʻ 6 3 Dʻ @$3ʻ GFʻ P $ 4ʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ $C J3Eʻ HE3Dʻ 63<N343$NF3Cʻ F3ʻ G34 ʻ 9 HHDʻ F3EN3ʻ Eʻ $ʻ C 4$ 2Fʻ > E3ʻ $N4HCCʻ F3ʻ G34 OEʻ 9 HHDʻ Hʻ F3ʻ ,H4 F34Eʻ ; 43 J Oʻ H&ʻ F3ʻ ;$C 34Eʻ 63EN3ʻ H&ʻ M OE 3ʻ Cʻ *3E3 J 3E ʻ F3EN3ʻ $ HE2ʻ F3ʻ ;$C 34Eʻ 63EN3ʻ H&ʻ M OE 3ʻ Cʻ *3E3 J 3Eʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ J33 Cʻ F3ʻ B4OE3 DOEʻ 'H$Dʻ F3EN3ʻ $ HE2ʻ F3ʻ B4OE3 D Eʻ 'H$Dʻ Hʻ F3ʻ IHEʻ$ʻ F ʻ F3ʻ C$J3ʻ 43$NF3Cʻ M433Eʻ ?$ ʻ IF4+ʻ J3EN3ʻ ?H- F $4Dʻ$ HE2ʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ 6 3 Dʻ @$34ʻ 64DEʻ Hʻ F3ʻ IHEʻ$ʻ F Dʻ F3ʻ C$J3ʻ J33 Cʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ 6 3 Dʻ @$3 (ʻM 3E FD 4ʻ F3EN3ʻ ?H- F $4Dʻ $ HE2ʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ 6 DDʻ @$34ʻ M 3E FD 4ʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ J33 Cʻ F3ʻ ' 34ʻ @$ Eʻ D 3EN3ʻ $ HE2ʻ F3ʻ ' 34ʻ @$ Eʻ 1ʻ F3ʻ B4 D23ʻ N$ 3Dʻ IHE O4G34 9 OEʻ F3EN3ʻ $ HE2ʻ IHE O G34 OEʻ >$E3ʻʻ Hʻ F3ʻ IHEʻ$ʻ 9FNFʻ F3ʻ C$13ʻ J33 Cʻ F3ʻ B$NF 3ʻ 'H$Dʻ F3EN3ʻ $ HE2ʻ F3ʻ B$NF 3ʻ 'H$Dʻ Hʻ F3ʻ ;$C 34Eʻ @H4E34ʻ H&ʻ M$4 Fʻ 9 HHDʻ F3EN3ʻ $ HE2ʻ F3ʻ ?H- F 3C 34Eʻ 63EN3Cʻ H&ʻ F3ʻ 6 3 DCʻ @$34ʻ M$4 Fʻ $EDʻ @O& 3ʻ #NF$ʻ $EDʻ F3ʻ 9 HHDʻ @H3Dʻ oE O7 M$4 Fʻ $EDʻ 9 3C $4Dʻ $ HE2ʻ F3ʻ ?H- F34Eʻ 6HEN3ʻ H&ʻ F3ʻ 6 3 Dʻ @$3ʻ M 3E Fʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ CENFʻ ?H- F34Eʻ 63EN3ʻ N- Cʻ F3ʻ <NN-1$ HEʻ 'H$Dʻ Hʻ I3E O M$4 Fʻ 6$4 Jʻʻ F3EN3ʻ Eʻ $ʻ C 4$ 2Fʻ > E3ʻ Hʻ F3ʻ ;$C 34Eʻ ; 43 J Oʻ H&ʻ F3ʻ ?H- F34Eʻ 63EN3ʻ H&ʻ F3ʻ 6 3 Dʻ * OEʻ B4 N+Cʻ F3EN3ʻ 9 3C $4Dʻ $ HE2ʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ 6 3 Dʻ > O ʻB4 N+Cʻ Hʻ F3ʻ IHEʻ$ʻ F 4ʻ F3ʻ C$J3ʻ J33 Cʻ F3ʻ 63EN3ʻ H&ʻ F3ʻ 6 3 Dʻ @$3ʻ B$ Fʻ D 3EN3ʻ 9 3C $4Dʻ $ HE2ʻ F3ʻ 63EN3ʻ H&ʻ F3ʻ 6 3 Dʻ @$3ʻ B$ Fʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ -33 Cʻ F3ʻ B4HH+ʻ Q3 ʻ F3EN3ʻ $ HE2ʻ F3ʻ B4HH+ʻ Q3ʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ &N J3ʻ QOʻ F3ʻ 9 3C 34Eʻ 63EN3ʻ H&ʻ F3ʻ ;$C 34E JHCʻ H&ʻ F3ʻ 6 3 DCʻ 43C13N 3 Oʻ N$ 3Dʻ W3 9 ʻ P 3$DH ʻʻ F3EN3ʻ $ HE2ʻ D 3ʻ 9 3C 34Eʻ 63EN3ʻ H&ʻ F3ʻ $C J3E HE3Dʻ 6 3 Dʻ Hʻ D 3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ N- Cʻ F3ʻ >$E3ʻ Hʻ *O#3 ODDʻ F3EN3ʻ ,H4 F $4Dʻ $ HE2ʻ F3ʻ B--ED$ ʻ <&ʻ F3ʻ 6 3 Dʻ > OEʻ 8 4ʻ Hʻ F3ʻ I4$Eʻ$ʻ FNFʻ F3ʻ C$J3ʻ J33 Cʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ 6 3 Dʻ @$3ʻ P $ 9 4ʻ F3EN3ʻ ,H4 F $4Dʻ $ HE2ʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ 6 3 Dʻ @$3ʻ P $ 4ʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ J33 Cʻ D 3ʻ BH-ED$40ʻ H&ʻ F3ʻ 6 3 Dʻ @$3ʻ B$NFʻʻ F3EN3ʻ ;$C $4Dʻ $ HE2ʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ 6 3 Dʻ @$3ʻ B$NFʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ J33 Cʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ 6 3 Dʻ #1134ʻ @H3Dʻ > $Eʻ F3EN3ʻ ;$ $4Dʻ $ HE2ʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ 6 3 Dʻ #1134ʻ @H3Dʻ > $Eʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ D 3ʻ C$J3ʻ J33 Cʻ F3ʻ BH-ED$ Oʻ H&ʻ F3ʻ 6 3 Dʻ >H 34ʻ @H3Dʻ > $Eʻ F3EN3ʻ ,H4 F $4Dʻ $ HE2ʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ 6 3 Dʻ >H 34ʻ @H3Dʻ > $Eʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ J33 Cʻ F3ʻ <NN-1$ HEʻ 'H$Dʻ Hʻ I3Eʻ @H3Dʻ > $Eʻ F3EN3ʻ Eʻ $ʻ C 4$ 2Fʻ > E3ʻ Hʻ F3ʻ IHEʻ &-Cʻ D3CN4 Q3Dʻ

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64H Jʻ F3ʻ IHEʻ HEʻ F3ʻ ?H- F 3$Cʻ H&ʻ F3ʻ *H Eʻ $ʻ FDFʻ @ Jʻ 5HE$ F$Eʻ ' ʻ N4HCC3Cʻ F3ʻ 'F$OD4ʻ 'H$Dʻ ?H- F $4Dʻ $ HE2ʻ @ Jʻ 5HE$ F$Eʻ ' ʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ Cʻ J3ʻ QOʻ F3ʻ 8 3D23ʻ HEʻ F3ʻ ' 2Fʻ 8 $EDʻ NFʻ CʻE3$43Cʻ Hʻ 3ʻ IHEʻ$ʻ FNFʻ @ Jʻ 5HE$ F$Eʻ ' ʻ N4HCC3Cʻ F3ʻ @$4 > $E3ʻ &4H Jʻ *O NHNFʻ Hʻ > $E D H3Cʻ F3EN3ʻ $ HE2ʻ F3ʻ C$ Dʻ 8 3D23ʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ J33 Cʻ F3ʻ *O"NH@Fʻ ? 43$ Jʻ F3EN3ʻ $ HE2ʻ F3ʻ *O NHNFʻ ? 43$ Jʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ 43$NF3Cʻ F3ʻ > $E2- 2ʻ 'H$Dʻʻ F3EN3ʻ ,H4 F $4Dʻ $ HE2ʻ F3ʻ > $E2-4 2ʻ 'H$Dʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ Cʻ @-ʻ BOʻ F3ʻ E3$43Cʻ 8 3D23ʻ HEʻ F3ʻ >3&ʻ 8 $EDʻ F3EN3ʻ $ HE2ʻ F3ʻ $C 4$3EDHE3Dʻ 8 3^ o 3ʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ 43$NF3Cʻ $ʻ 9 $ 34 N# ʻB$E+ʻ F31@3ʻ ?H- F $4Dʻ $ HE2ʻ F3ʻ C$ Dʻ 9 $ 34 N- ʻB$ +ʻ Hʻ F3ʻ IHEʻ$ʻ FNFʻ F3ʻ C$J3ʻ 43$NF3Cʻ $ʻ 8 3D23ʻ 4-EE E2ʻ Eʻ F3ʻ G 43N HEʻ H&ʻ D 3ʻ *-4E1 +3ʻ HEʻ F3ʻ IOE O J HE 'H$D

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' H$D ' F3EN3 $ HE2 F3 $C J 3E HE3D 8 3D23 H F3 I H E ' $ ' F NF F3 C$ J 3 43$NF3C F3 ' 34 ?3 34E ' F3EN3 $ HE2 F3 ' 34 ?3 34E H F3 I H E ' $ ' F NF F3 C$ J 3 C N- ' QO $ > E3 D4$ E F343 H E NHE E-$ HE H& F3 G 43N HE H& F3 8 3D23 HE F3 , H4 F34E ; ED H& I 3E O M433E ' F3EN3 $ HE2 F3 $C J 3E HE3D > E3 ' $ED $ HE2 F3 8 3D23 E NHE E-$ HE F343H& ' C D4$ E ' H F3 I H E ' $ ' F NF C-NF 8 3D23 43$NF3C F3 8 3D23 H& P 4 I 4 N3 C 9 HHD ' F3EN3 E $ C 4$ 2F ' > E3 H F3 I H E ' $ ' F NF F3 ? 43$ J ' N$ 3D @3&E @- J J 343 G E2 3 J 33 C F3 I 3E O Q$E+ ' H$D ' F3EN3 $ HE2 F3 @3&E @- J J 343 G E2 3 H F3 ' I H E ' $ ' F NF F3 C$ J 3 (H EC F3 @ O 3DH2 ' 34 ' F3EN3 ' 9 3C $4D ' $ HE2 F3 BH-ED$40 H& F3 * H ECF 1 H& @ J NF ' H F3 I H E ' $ ' F NF F3 C$ J 3 J 33 C $ C J $ ' 9 $ 34NH-4C3 F NF 4-EC $ HE2 F3 9 3C 34E ; D23 H& B34 F > HOD @H11 N3 ' F3EN3 $ HE2 F3 C$ D 9 $ 34NH-4C3 H F3 I H E ' $ ' F NF F3 C$ J 3 43$NF3C F3 > $E3 &4H J ' > $& D H3C H M H4E ' F3EN3 ' 9 3C $4D ' $ HE2 F3 > $E3 &4H J ' > $E D H3C H MH4E H F3 I H E ' $ ' F NF F3 C$ J 3 43$NF3C F3 8 3 3 ' F NF 4-EC $ HE2 F3 ; $C 34E ? D3 H& F3 @F$13 ' 8 H-C3 ' F3EN3 $ HE2 F3 $C J 3E HE3D 8 3D23 H F3 I H E ' $ ' F NF F3 C$ J 3 43$NF3C > 3 O NHNF O E$E ' B4HH+ ' F3EN3 ' 9 3C $4D ' $ HE2 > 3 O NHNF O E$E ' B4HH+ H F3 I H E ' $ ' F NF F3 C$ J 3 C J 3 ' HE F3 > 3& ' 8 $ED QO $ C J $ ' ? 43$ J ' ' F3EN3 $ HE2 F3 $C J 3E HE3D ? 43$ J ' H F3 ?14 E2 &4H J ' F NF F3 C$ J 3 14HN33DC ' F3EN3 E $ ' C 4$ 2F ' > E3 H F3 E3$43C ' I H E ' E F3 ' H$D &4H J ' > $E D H3C H F3 B$4E > 3$CH ' F3EN3 ' 9 3C R $4D ' $ HE2 F3 ' H$D &4H J ' > $E D H3C H F3 B$4E > 3$CH ' H F3 I H E ' $ ' F NF F3 C$ J 3 J 33 C F3 BH-ED$40 H& F3 BH4H-2F H& > $E D H3C ' F3EN3 ' ?H- F $4D ' $ HE2 F3 BH4H-2F H& > $E D H3C H F3 I H E ' $ ' F NF F3 C$ J 3 J 33 C @ J ' 5HE$ F$E ' ' F3EN3 $ HE2 @ J ' 5HE$ F$E ' ' H F3 I H E ' & 4C ' D3CN4 Q3D

^ * F3 * H ECF 1 ' $ED > Q34 3C H& P $NFOE 3 F ' $ED $ CH F$ ' D3 $NF3D I $4 ' H& F3 * H ECF 1 ' H& CO2$4432 F NF $D(H EC F3 , H4 F 3$C 34E BH-ED$40 H& F3 * H ECF 1 ' $ED > Q34 3C H& P $NFOE 3 F

' * F3 H D BH4H-2F H& P HE 2H J 34O

&' * F3 I 4 CF H& , 3 H E ' $ED F3 43C13N 3 * H ECF 1C H& 8 3ED D 3O I $ED M 3C ODD

* F3 I $4 CF H& I HH ' $ED F3 * H ECF 1 ' H& M-E24H2 63NF$E E F3 I $4 CF H& M- C& 3 D ' 3 N31 ' F$ ' I $4 ' H& F3 * H ECF 1 ' H& @O&4HEEODD E F3 I $4 CF H& I HH ' F NF C D3 $NF3D &4H J ' F3 J $ E BHDO H& C-NF I $4 CF

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8 ; ' 6 < ' G 9 ; ? * ' G ? * ' @ *

64H J ' F3 I H E ' $ ' F NF F3 > H $ 34 P $4+ H- D Q3 N- ' QO $ C 4$ 2F ' > E3 H Q3 D4$ E F343 H &4H J ' F3 M$ 3 H& F3 6H4 ' F4H-2F F3 ; $C 34E ; 43 J O H& F3 ?H- F34E 9 $ ' H& F3 6H4 ' E $ C 4$ 2F ' > E3 H F3 M$ 3 H& F3 6H4 ' ' F3EN3 E $ C 4$ 2F ' > E3 H F3 , H4 FR 3C 34E @H4E34 H& I $4N O P H4&$ P 3$DH ' F3EN3 $ HE2 F3 9 3C 34E 63EN3 H& I $4N O P H4&$ P 3$DH ' H F3 ?H- F 3C 34E @H4E34 F343H& ' U Y ' F3EN3

U/ K S L M#> ; >P @$1 Y

6?8M# BQ

F3EN3 E $ C 4$ 2 > E3 H F3 F 2 3C I H E H& I $4N O P H4&$ ' HN+ F3EN3 E $ C 4$ 2F > E 3 H F3 , H4 F 3C 34E @H4E34 H& F3 6 3EN3 F NF D D3C F3 ^0 OE J 3 I 4H134 O &4H J F3 I 4H134 O H& P 4 $ - 2F$E F 3EN3 ?H- F $4D $ HE2 F3 C$ D 6 3EN3 H& F3 M O J 3 I 4H134 O H F3 I H E $ F NF F3 C$ J 3 E(33 C F3 , H4 F34E ? 43$E H& F3 ' 34 M $ E3 A F3EN3 H1 F3 C$ D ? 43$ J H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 BH-ED$4O H& F3 H D BH4H-2F F3EN3 ; $C $4D $ HE2 F3 BH-ED$4O H& F3 H D BH4H-2F H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 >H 9 $ 34 P $4+ F3EN3 ; $C $4D $ HE2 F3 >H $ 34 P $4+ H n F3 I H E & 4C D3CN4 Q3D

64H J F3 I N$E $ F NF $ C 4$ 2F > E3 D4E E &4H J ?$ E * FH J $C C @F-4NF H F3 M$ 3 $ F3 , H4 F 3$C 34E @H4E34 H& F3 6 3 D N$ 3D 8 I $4+ N- C F3 BH-ED$4O H& F3 H D BH4H-2F $ HE2 C-NF C 4$ 2F > E3 H F3 C$ D M$ 3 F3EN3 E $ C 4$ 2F > E3 H F3 M$ 3 F NF @4HCC3C F3 ' H$D 3$D E2 H ?NH NF 9 3 8 H-C3 F3EN3 $ HE2 F3 $C J 3E HE3D ' H$D H F3 I H E $ F NF F3 C#4$3 43$NF3C ?NH NF 9 3 8 H-C3 F3EN3 $ HE2 F3 ' H$D F NF 3$DC QO ?$ED1<H E H F3 @$4R D 2$E BH$D H F3 , H4 F 3$C 34E @H4E34 H& ?$ED1HH F@EN3 E $ C 4$ 2F > E3 H F3 @H $23 H& I F 1 9 F 3 F3EN3 E $ C 4$ 2F > E3 H F3 >3& I 34 H& F3 9 3 4 HE F3 ' 34 @ 3DDO F3EN3 $ HE2 F3 ' 34 @ 3DDO H F3 I H E $ F NF F3 C$ J 3 H- D Q3 N- QO $ C 4$ 2F > E3 H Q3 D4$ &E &4H J 143ED342$C @F-4NF H F3 M$ 3 3$D E2 &4H J F3 >$E3 HE F3 , H4 F 3$C H& > 3 ? $D3 6$4 J E H F3 I $D DHN+ H& > 3 ? $D3 6 $ J F3EN3 E $ C 4$ 2F > E3 H F3 $C J 3E HE3D M$ 3 F3EN3 E $ C 4$ 2F > E3 H F3 I H E $ F NF F3 BH-ED$4O @& F3 H D BH4H-2F H- D Q3 N- QO $ C 4$ 2F > E3 H Q3 D4$ E & <J F3 $C J 3E HE3D M$ 3 H F3 I H E $ F NF F3 I HH4 & 3 D ' H$D ^H F34 C3 N$ 3D 5-4O >$E3_ 3$ 3C F3 ?$ E G$ D C ' H$D F3EN3 9 3C $4D $ 1 F3 BH-ED$4O H& 3 H D BH4H-2F H F3 1H E & 4C D3CN4 Q3D

$> %

64H J F3 ?H- F34E ; ED H& F3 * -4E1 +3 M$ 3 8 H-C3 HE N ' 3DC HE3 ' H$D 9 3C $4D $ HE2 F3 6 3EN3 F NF $Q- C HE F3 C 8 H-C3 $ED C F3 , H4 F34E BH-ED$4O H& $ 6 3 D H& F M3H423 8 $44 C C * 3E$E $ED P 4 * FH J $C ; $ HE >$ED H4D H F3 , H4 FR 3C 34E @H4E34 H& F3 C$ D 6 3 D F3EN3 E $ C 4$ 2F > E3 H F3 , H4 F 3$C 34E @H4E34 <& $ 6 3 D Q3 HE2 E2 H M3H423 G3 HE$ D ; CX- 43 $ED QH-ED3D HE F3 ?H- F QO F3 * -4E1 +3 ' H$D H 8 $ 34R &H4D 3C F3EN3 $ HE2 F3 14 $ 3 ' H$D F NF 4 Ea &4H J F3 $C J 3E HE3D 6 3 D H F3 I H E $ F NF F3 C$ D 14 $ 3 ' H$D J 33 C F3 C$ ' H$D H 8 $ 34&H4D 3C F3EN3 E $ C 4$ 2F > E3 $N4HCC F3 C$ D ' H$D H 8 $ 34&H4D 3C H F3 I H E $ F NF F3 C$ J 3 C J 3 QO F3 9 3C 34E BH-ED$4O H& F3 * H E P HH4 F3EN3 ?H- F $4D $ HE2 F3 9 3C 34E $ED ?H- F34E BH-ED$4O H& F3 * H E P HH4 H F3 M$ 3 H& $ >$E3 $ F3 ?H- F 3$C 34E @H4E34 F343H& F3EN3 $ HE2 F3 C$ D >$E3 H F3 I H E $ NF F3 C$ J 3 J 33 C F3 BH-ED$4O H& , $4Q34 F @F-4NFR O$4D F3EN3 9 3C $4D $ HE2 F3 BH-ED$4O H& , $4Q34 F @F-4NFO$4D H F3 ?H- F 3C 34E @H4E34 F343H& F3EN3 E $ C 4$ 2F > E3 H F3 1H E $ F NF F3 ? 43$ J &4H J , $4Q34 F B4 D23 9 H- D Q3 N- QO $ C 4$ 2F > E3 H Q3 D4$ E &4H J F3 I H E $C D3CN4 Q3D H F3 I H E $ F NF F3 ' H$D &4H J F3 I $ J HE$23 J 33 C F3 ' H$D &4H J I 3 J Q4H+3 F3EN3 -1 F3 C$ D ? 43$ J H F3 I H E $ F NF F3 f$ J 3 C (H E3D QO F3 ? 43$ J &4H J , $4Q34 F P F3EN3 -1 F3 ? 4&3$ J & H E2 &4H J , $4Q34 F P H F3 ?H- F 3C 34E @H4E34 H& F3 6 3 D H& F NF g >3 C 9 $ + EC C * 3E$E $ED B$4HE ' 3 T3E C >$ED H4D (F3EN3 ; $C $4D $ HE2 F3 BH-ED$4O H& F3 $C J 3E HE3D 6 3 D H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 ?H- F34E BH-ED$4O H& F3 6 3 D Q3 HE2 E2 H P 4 83E4O G$ 3C &4 F NF F343 C $ * -44 C& 3 F3EN3 ; $C $4D $ HE2

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64HJʻ F3ʻ IHE ʻ$ʻ FNFʻ I4 ʻI ʻ&$ Cʻ E Hʻ F3ʻ ?3$ʻ $HE2ʻ I4 ʻI ʻ Hʻ F3ʻ IHE ʻ $ʻ FNFʻ F3ʻ C$J3ʻ Cʻ J3ʻ QOʻ F3ʻ >$E3ʻ NHJ E2ʻ DH Eʻ Q ʻ @ Jʻ $EDʻ CHJ3 J3Cʻ N$ 3Dʻ @ Jʻ >$E3ʻ F3EN3ʻ $HE2ʻ @ Jʻ >$E3ʻ Hʻ F3ʻ IHE ʻ $ʻ FNFʻ F3ʻ C$J3ʻ J33Cʻ F3ʻ 'H$Dʻ &4HJʻ I$ 34 Q4D 3Cʻ F3EN3ʻ $HE2ʻ F3ʻ 'H$Dʻ &4HJʻ 8$ 34&H4D 3Cʻ Hʻ F3ʻ IHE ʻ $ʻ FNFʻ F3ʻ C$J3ʻ Cʻ J3ʻ QOʻ I4 H40ʻ >$E3ʻ F3EN3ʻ $HE2ʻ I4 H40ʻ >$E3ʻ Hʻ F3ʻ IHE ʻ$ʻ FNFʻ F3ʻ C$J3ʻ J33 Cʻ HEʻ F3ʻ >3&ʻ $ʻ 'H$Dʻ CHJ3 J3Cʻ N$ 3Dʻ F3ʻ ,3 ʻ 'H$Dʻ F3EN3ʻ $HE2ʻ F3ʻ ,3 ʻ 'H$Dʻ Hʻ F3ʻ IHE ʻ$ʻ FNFʻ F3ʻ C$J3ʻ J33Cʻ $ʻ >$E3ʻ CHJ3 J3Cʻ N$ 3Dʻ 9 F 3ʻ >$DO Cʻ >$E3ʻ 3$D E2ʻ Hʻ $ʻ 6 3 Dʻ ,H4 Fʻ H&ʻ F3ʻ B43 340ʻ CHJ3 J3Cʻ N$ 3Dʻ 8$22$4Dʻ 6 3 Dʻ Q3E33ʻ $HE2ʻ 9 F 3ʻ >$DO Cʻ >$E3ʻ Hʻ F3ʻ IHE ʻ$ʻ FNFʻ F3ʻ C$J3ʻ Cʻ N- ʻQOʻ F3ʻ 63EN3ʻ
0 : H&ʻ 8$22$4Dʻ 6 3 Dʻ F3EN3ʻ ,H4 F $4Dʻ $HE2ʻ F3ʻ 63EN3ʻ H&ʻ 8$22$4Dʻ 6 3 Dʻ Hʻ F3ʻ ,H4 F 3C 34Eʻ @H4E34ʻ F343H&ʻ 3EN3ʻ Eʻ $ʻ C 4$ 2Fʻ > E3ʻ Eʻ F3.ʻ G 43N HEʻ H&ʻ F3ʻ ,H4 F34Eʻ 63EN3ʻ H&ʻ 8$22$4Dʻ 6 3 Dʻ Hʻ I4 H40ʻ I ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2Fʻ > E3ʻ Hʻ F3ʻ 9 F 3ʻ 9 $43FH-C3ʻ C $ED E2ʻ $ʻ F3ʻ 8 3$Dʻ H&ʻ F3ʻ 'H13ʻ 9 $ +ʻ Eʻ 8 -QQ34C HE3ʻ I$4 CFʻ F3EN3ʻ $HE2ʻ ?1 +3ʻ >$E3ʻ FNFʻ 14HN33DCʻ &4HJʻ F3ʻ C$Dʻ 9 F 3ʻ 9 $43FH-C3ʻ Hʻ F3ʻ IHE ʻ$ʻ FNFʻ F3ʻ C$J3ʻ J33Cʻ @HE(N+ʻ >$E3ʻ F3EN3ʻ $HE2ʻ @HE(N+ʻ >$E3ʻ Hʻ F3ʻ IHE ʻ$ʻ FNFʻ F3ʻ C$J3ʻ J33Cʻ F3ʻ >$E3ʻ FNFʻ $Cʻ $ 3 Oʻ I$4ʻH&ʻ IHE ʻ 6 3 Dʻ F3EN3ʻ $HE2ʻ F3ʻ >$E3ʻ $ 3 Oʻ I$4ʻH&ʻ IHE ʻ 6 3 Dʻ Hʻ F3ʻ IHE ʻ $ʻ FNFʻ F3ʻ C$J3ʻ 3EDCʻ HEʻ F3ʻ @HJ JHEʻ F3EN3ʻ Eʻ $ʻ C 4$ 2Fʻ > E3ʻ F4H-2Fʻ F3ʻ 9 3C 34E JHCʻ IHE ʻH&ʻ F3ʻ 6H4ʻ Hʻ F3ʻ ?3$ʻ @H$C ʻ F3EN3ʻ $HE2ʻ F3ʻ ?3$ʻ @H$Cʻ Hʻ F3ʻ IHE ʻ&4Cʻ D3CN4 Q3D

*F3ʻ 43C13N 3ʻ I$4 CF3Cʻ H&ʻ ?$ E ʻ P$40ʻ $EDʻ ? ʻ P NF$3 ʻ$EDʻ $ CHʻ F3ʻ ?1$N3ʻ NHJ14 C3Dʻ F Eʻ F3ʻ BH-ED$40ʻ F343$& 34ʻ D3CN4 Q3Dʻ ^ H23 F34ʻ Fʻ $ ʻ C-NFʻ I$4 Cʻ &ʻ $EOʻ H&ʻ F3ʻ H Dʻ BH4H-2Fʻ H&ʻ I3J Q4H+3ʻ $Cʻ 3ʻ FH- ʻ F3ʻ C$Dʻ BH-ED$40_.

64HJʻ F3ʻ IHE ʻ HEʻ F3ʻ ?H- F 3Cʻ H&ʻ F3ʻ *H Eʻ $ʻ FNFʻ F3ʻ B4HH+ʻ
5 a N$ 3Dʻ F3ʻ *$O H4 Cʻ >$+3ʻ J33Cʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ I$4 CFʻ H&ʻ ? P$40ʻ ,H4 F $4Dʻ $HE2ʻ F3ʻ C$Dʻ B4HH+ʻ Hʻ F3ʻ IHE ʻ$ʻ FNFʻ F3ʻ C$J3ʻ (H ECʻ F3ʻ I ʻE3$4ʻ \ -H Cʻ P ʻ F3EN3ʻ $HE2ʻ F3ʻ C$Dʻ I ʻ Hʻ F3ʻ IHE ʻ$ʻ FNFʻ F3ʻ C$J3ʻ J33Cʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ I$4 CFʻ H&ʻ ? ʻ P$40ʻ F3EN3ʻ ;$C R $4Dʻ $HE2ʻ F3ʻ BH-ED$40ʻ H&ʻ F3ʻ I$4 CFʻ H&ʻ ? ʻ P$40ʻ Hʻ F3ʻ IHE ʻ&4Cʻ D3CN4 Q3D

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! 64H J F3 I H E HE F3 , H4 F H& F3 * H E $ F NF , H4 HE B4HH+ &$ C E H F3 ' 34 > - 2 E $ C 4$ 2F > E3 H F3 I H E $ F NF F3 ' H$D H 9 2 J H43 $ED > - D H C J 3 QO F3 ' H$D H % ECF$ J $23 F3EN3 E $ C 4$ 2F > E3 < F3 1H E $ F NF F3 ' 2F F$ED B4$ENF H& F3 @ $ 34 B4HH+ &$ C E H F3 ' 34 > - 2 F3EN3 $ HE2 F3 ' 34 > - 2 H F3 I H E & 4C D3CN4 Q3D

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; " $ E 6 3 D H F3 M$ 3 3$D E2 E H F3 = $4D H& F3 M4 C P $ED 9 HH 3E P $E - &$N H4O Q3 HE2 E2 H G$ D ; $EC F3EN3 $ HE2 F3 ' H$D F NF N4HCC3C F3 C$ D = $4D H $EH F34 M$ 3 $ F3 ?H - F 3$C 34E @H4E34 F343H& F3EN3 E $ C 4$ 2F > E3 H F3 , H4 F 3$C 34E @H4E34 H& F3 6$4 J FH - C3 N$ 3D * O , 3 DD H4 , 3 8 H - C3 F3EN3 E $ C 4$ 2F > E3 H F3 I H E $ F NF F3 BH - ED$4O H& F3 H D BH4H - 2F H - D Q3 N - QO $ C 4$ 2F > E3 H Q3 D4$ E &4H J F3 , 3 8 H - C3 H F3 B4 D23 H 34 F3 ' 34 9 O 3 F3EN3 ?H - F $4D $ HE2 F3 BH - ER D$4O H& F3 H D BH4H - 2F H F3 I H E & 4C D3CN4 Q3D

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> 8 ; ' ; ?ʽ F3ʽ >$ Cʽ F NFʽ 432- $ 3ʽ F3ʽ ; 3N HEʽ H&ʽ P 3 J R Q34Cʽ Hʽ C34 3ʽ Eʽ F3ʽ @H J J HECʽ 8 H-C3ʽ H&ʽ I $4 $ J 3E ʽ &H4ʽ +' , % #&ʽ $43ʽ D3&3N 3ʽ F343QOʽ 243$ ʽ ENHE 3E 3EN3Cʽ $EDʽ Q-C3Cʽ F$ 3ʽ Q33Eʽ HNN$C HE3D.ʽ EDʽ F343$Cʽ ʽ Cʽ 3 13D 3E ʽ $EDʽ D Dʽ Q&3ʽ &H&ʽ F3ʽ3 D3E ʽ # Oʽ H&ʽ F3ʽ ?-Q(3N Cʽ F Eʽ +' , % #&ʽ F$ʽ FHC3ʽ G3&3N Cʽ CFD Dʽ Q3ʽ 43 J 3D 3Dʽ $EDʽ 3C13N $ Oʽ F$ʽ P 3 J Q34Cʽ CFH- Dʽ Q3ʽ 14H D3Dʽ &H4ʽ I $N3Cʽ F F34 Hʽ -E43143C3E 3Dʽ $EDʽ F3ʽ L ( ) ʽ H&ʽ ; 3N HEʽ 3 3ED3Dʽ Hʽ I 34CHECʽ H&ʽ I 4H134 Oʽ $EDʽ E 3 23EN3ʽ $EDʽ F$ʽ F3ʽ P HD3ʽ H&ʽ NHED-N E2ʽ ; 3N HECʽ CFH- Dʽ Q3ʽ Q3 34ʽ 432- $ 3Dʽ $EDʽ #4D34 P .ʽ B3ʽ ʽ F343&H43ʽ 3E$N 3Dʽ QOʽ F3ʽ % E2 Cʽ J HCʽ ; N3 3E ʽ P $ʽ (3C O ʽQO $EDʽ Fʽ F3ʽ D N3ʽ $EDʽ @HEC3E ʽ , ʽ F3ʽ >H4DCʽ ?1 4 -$ʽ $E ' ʽ *3 P 11 4$Fʽ $EDʽ @H J J HECʽ Eʽ F Cʽ 143C3E ʽ I $4 $ J 3E ʽ $CC3 J Q 3Dʽ $EDʽ QOʽ && 3ʽ D FQ4 Oʽ H&ʽ F3ʽ C$ J 3ʽ *F$ʽ &4H Jʽ $EDʽ $& 34ʽ F3ʽ ; EDʽ H&ʽ F Cʽ 143C3E ʽ I $& -3F ʽ $EDʽ Eʽ $ ʽ&- -43ʽ I $4 $ J 3E Cʽ Hʽ Q3ʽ $CC3 J Q 3Dʽ F343ʽ CF$ ʽ Q3ʽ 6 & O ' 433ʽ ' 3143C3E $ 3Cʽ 43 -4E3Dʽ &H4ʽ +' , % #&ʽ Hʽ F3ʽ @H J J HECʽ 8 H-C3ʽ H&ʽ I $4 $ J 3E ʽ H&ʽ FH Jʽ *F 4 Oʽ CF$ ʽ Q3ʽ &H4ʽ F3ʽ C3 34$ʽ H4ʽ NHE(H E3Dʽ ?F 43Cʽ H4ʽ ? 3 $4 4 3Cʽ F343 E $& 34ʽ 3E- J 34$ 3Dʽ $EDʽ * 3E O F433ʽ &H4ʽ F3ʽ ?3 34$ʽ @ 3Cʽ B-42FCʽ $EDʽ *H ECʽ H4ʽ G C 4 N Cʽ H&ʽ @ 3Cʽ B-42FCʽ $EDʽ *H ECʽ F343 E $& 34ʽ 3E- J 34$ 3Dʽ H4ʽ D3CN4 Q3D

?NH $EDʽ F343$& 34ʽ Hʽ F$ 3ʽ 6 & Oʽ F433ʽ ' 3143R C3E $ 3Cʽ *F 4 Oʽ &H4ʽ @H-E 3Cʽ $EDʽ * 3E Oʽ F433ʽ &H4ʽ *H EC

' ʽ ED

B-42FC H&' I33Q 3C $ED' ?3 + 4+' H' Q3' F3 D' $C I$4 C H&' @H-E 3C H&' I33Q 3C $ED' ?3 + 4+' B-42F' H&' ' H F3C$O' H' &H4 J' I$4 ' H&' B- 3'

' ED' Q3' ' 3E$N 3D' * F$' $& 34' F3' ; ED' H&' F C' 143C3E ' I$4 $R J3E ' F3' B-42FC H&' *!!4%!1' $ED' CF$ ' EH' HE234' &H4 J' I$4 C H&' F3' G C 4 N ' H' F NF' F30' EH ' Q3 HE2 ' H4' Q3' 3E 3D' H' NHE 4 Q- 3' F' $EO' H F34' B-42FC E' F3' ; 3N HE' H&' $EO' P 3 J Q34' H&' I$4 $ J 3E ' Q- ' CF$ ' E' F3' P$ 34' H&' ; 3N HEC ' QH' F3 D' H' Q3' B$4 C H&' F3' @H-E 3C H&' *!!4%!1' $ED' +!% ' 43C13N 3 O' ' $ED' E' +3' P $EE34' F$' F3' B-42F' H&' L ,) 1 ' E' F3' @H-E O' H&' " 3 !' CF$ ' EH' HE234' &H4 J' I$4 ' H&' F3' G C 4 N ' H' F NF' ' EH ' Q3 HE2C ' Q- ' Q3' F3 D' H' F3' P$ 34' H&' ; 3N HEC ' H' Q3' I$4 ' H&' F3' @H-E O' H&' " 3 !

;E- J34$ ' H&' @H-E 3C F343$& 34' H' 43 -4E' P 3 J R Q34C C3 34$ O' H4' (H E O

' ' ED' Q3' ' 3E$N 3D' * F$' H&' F3' * F 4 O' P 3 J Q34C F343$& 34' H' Q3' 43 -4E3D' H' I$4 $ J 3E ' QO' F3' C31$4$ 3' H4' NH J Q E3D' ?F 43C H&' +' , % #& ' < E3' CF$ ' $ $OC Q3' 43 -4E3D' QO' 3$NF' H&' F3' C31$4$ 3' ?F 43C H4' I$4 C H&' ?F 43C 3E- J 34$ 3D' E' F3' ?NF3D- 3' ^ _' F343-E H' $EE3 3D_' $ED' < E3' QO' 3$NF' * H' H&' F3' NH J Q E3D' ?F 43C H4' I$4 C H&' ?F 43C 3E- J 34$ 3D' $ED' D3CN4 Q3D' H' ?NF3D- 3' ^ B _' F343-E H' $EE3 3D ' I4H D3D' $ $OC ' F$' $ ' I4H134 3C O E2' HN$ O' F E' F3' > J C' H&' $EO' @H-E O' < 4' ?F 43(' FH-2F' F F34 H' NHEC - E2' I$4 ' H&' CH J 3' H F34' @H-E O ' CF$ ' &H4' F3' I -41HC3C H&' F C' N ' Q3' F3 D' H' Q3' I$4 ' H&' F3' @H-E O' F E' F NF' F30' $43' < N$8O' EN -D3D

; E- J 34$ HE' H&' B-42FC $ED' * H EC F343$& 34' H' 43 -4E' P 3 J R Q34C C3 34$ O' H4' (H E O

' ED' Q3' ' 3E$N 3D' * F$' H&' F3' * 3E O F433' P 3 J Q34C H' Q3' 43 -4E3D' &H4' F3' C3 34$' H4' NH J Q E3D' @ 3C ' B-42FC ' $ED' * H EC H&' +' , % #& ' * H' CF$ ' $ $OC Q3' 43 -4E3D' QO' 3$NF' H&' FH' C31$4$ 3' @ 3C ' B-42FC ' $ED' * H EC 3E- J 34$ 3D' $ED' D3CN4 Q3D' E' ?NF3D- 3' ^M _' F343R -E H' $EE3 3D ' < E3' QO' 3$NF' H&' F3' C31$4$ 3' @ 3C ' B-42FC ' $ED' * H EC 3E- J 34$ 3D' $ED' D3CN4 Q3D' E' ?NF3D- 3' ^G _' F3$ 3-E H' $EE3 3D ' $ED' < E3' QO' 3$NF' H&' F3' G C 4 N C' H4' ?3 C' H&' @ 3C ' B-42FC ' $ED' * H EC 3E- J 34$ 3D' $ED' D3CN4 Q3D' H' ?NF3D- 3' ^ ; _' F343-E H' $EE3 3D

BH-ED$4 3C H&' @ 3C ' B-42FC ' $ED' * H EC

' ED' Q3' ' 3E$N 3D' * F$' F3' > J C' $ED' BH-ED$4 3C H&' $ ' F3' @ 3C ' B-42FC ' $ED' * H EC 3E- J 34$ 3D' E' $EO' H&' F3' $QH 3 J 3E HE3D' ?NF3D- 3C CF$ ' &H4' F3' I -41HC3C H&' F C' N ' Q3' $+3E' $ED' F3 D' H' Q3' $NNH4D E2' H' F3' G3CN4 1 HE' $ED' ?13N & N$ HE' H&' C-NF' > J C' $ED' BH-ED$4 3C C3 ' &H4 F' $ED' NHE $ E3D' H' ?NF3D- 3' ^ P _' H' F C' N ' $EE3 3D ' $ED' $ ' F3' I4H134 3C F E' F3' BH-ED$4 3C F34 3 E' C13N R & 3D' CF$ ' F343$& 34' &H4' F3' I -41HC3C H&' F C' N ' Q3' I$4 C H&' F3' C$ D' @ 3C ' B-42FC ' $ED' * H EC ' $ED' EH ' H&' F3' $D(H $ H2' H4' H&' $EO' H F34' @H-E O'. I4H D3D' $ $OC ' F$' F3' &H H E2' ' - 3C CF$ ' Q3' HQC34 3D' E' F3' @HEC 4-N HE' H&' F3' C3 34$' G3CN4 1 HEC H&' BH-ED$4 3C NHE $ E3D' E' F3' C$ D' ?NF3D- 3' ^ P _' F343-E H' $EE3 3D' ' ^ F$' C' H' C$O _

' - 3C &H4' F3 @HEC 4-N HE' H&' F3' G 3' ' CN4 1 HEC NHE $ E3D' E' F3' ?NF3D- 3'

' h * F$' F3' 9 H4DC 77 , H4 F $4D c' ` ?H- F $4D c' ` ; $C $4D c `' 9 3C $4D c' 4 $ ' 43C13N 3 O' Q3' -ED34C HHD' H' D3EH 3' HE O' F3' 23E34$' G 43N HE' E' F NF' $EO' BH-ED$4O' 14HN33DC &4H J' F3' I H E ' $C ' D3CN4 Q3D ' $ED' EH ' F$' C-NF' BH-ED$4O' CF$ ' NHE E-3' H' 14HN33D' F4H-2FH- ' E' F3' C$ J 3' G 43N HE' H' F3' I H E ' E3 ' D3CN4 Q3D.

U' h * F$' F3E' $EO' ' 3$D' C' J 3E HE3D' J 343 O' QO' F3' , $ J 3' H&' F3 I $N3' H' F NF' C-NF' ' H$D' 3$DC ' F3' 14 EN 1$' ' H$D' F F34' &H4 J' F3' @ O' B-42F' H4' * H E' H&' F NF' F3' BH-ED$4O' C' E' NH-4C3' H&' G3CN4 1 HE' CF$ ' Q3' -ED34C HHD.

? h * F$ ' F3E3 34' $' > E3' C' C$ D' H' Q3' D4$ E' &4H J ' H ' F4H-2F '
H4' E' F3' G 43N HE' H& ' H4' $EO' G C $EN3' H' Q3' J 3$C-43D' &4H J ' H4'
H ' $E' < Q(3N ' C-NF' > E3' CF$ ' E' F3' QC3EN3' H&' $EO' G 43N HE'
H' F3' NHE 4$40 ' Q3' -ED34C HHD' H' Q3' D4$ E' &4H J ' H ' F4H-2F '
H4' E' F3' G 43N HE' H& ' H4' C-NF' G C $EN3' H' Q3' J 3$C-43D' &4H J '
H4' H ' F3' @3E 43' H&' C-NF' < Q(3N ' $C' E3$4 O' $C' F3' @3E 43' F343H&'
N$E' Q3' $CN34 $ E3D.

' h * F$ ' 3 340' B- D E2' F4H-2F' F NF' H4' F4H-2F' $EO' I $4 ' F343H&
$EO' BH-ED$40' F343QO' 3C $Q CF3D' CF$ ' 1$CC' CF$ ' Q3' NHEC D343D'
$C' F E' C-NF' BH-ED$40.' I4H D3D' $ $OC ' F$ ' &' F3' BH-ER
D$4 3C' H&' $EO' * H' H4' J H43' H&' F3' @ 3C ' B-42FC ' $ED' * H EC '
F343H&' F3' BH-ED$4 3C' $43' F343QO' D3CN4 Q3D ' CF$ ' 1$CC' F4H-2F'
F3' C$ J 3' B- D E2 ' H4' $EO' I $4 ' F343H& ' C-NF' B- D E2' CF$ ' Q3'
NHEC D343D' $C' E' F$ ' < E3' H&' C-NF' * H' H4' J H43' H&' F3' C$ D'
@ 3C ' B-42FC ' $ED' * H EC' F NF' $C' Q3&H43' F3' 1$CC E2' H&'
F C' N ' 3E 3D' H' 43 -4E' P 3 J Q34C' H4' $' P 3 J Q34' H' C34 3' E'
I $4 $ J 3E ' H4' &' E3 F34' H4' J H43' F$E' < E3' H&' C-NF' * H' H4'
J H43' H&' F3' C$ D' @ 3C ' B-42FC ' $ED' * H EC' CF$ ' F$ 3' Q33E'
CH' 3E 3D ' F3E' F E' F$ ' HE3' H&' F3 J ' F343H&' F3' 43$' $C'
F343QO' 3C $Q CF3D' C' F3' C J $ 3C .

! ' h * F$ ' F3E3 34' $EO' BH-ED$40' QO' F C' N ' 3C $Q CF3D' C' C$ D' H
1$CC ' H4' $EO' G C $EN3' H' Q3' J 3$C-43D ' $ HE2' $EO' ? 433 ' ' H$D '
> $E3 ' H4' > H$E E2 ' H4' -1 ' DH E ' H4' $ HE2' $EO' ' 34 ' ? 43$ J '
@E ' H4' B-4E ' F3' P DD 3' ^$C' E3$4 O' $C' F3' C$ J 3' N$E' Q3' $CN34R
$ E3D_' H&' C-NF' ? 433 ' ' H$D ' > $E3 ' > H$E E2 ' ' 34 ' ? 43$ J '
@E ' H4' B-4E' CF$ ' Q3' -ED34C HHD'.

Y ' h * F$ ' F3' P DD 3' H&' $EO' ? 433 ' ' H$D ' H4' > $E3' CF$ ' Q3' -ED34R
C HHD' $C' F3' P DD 3' H&' F3' @$44 $23 $O' $ HE2' F3' C$ J 3.

' h * F$ ' F3E' $EO' BH-ED$40' QO' F C' N ' 3C $Q CF3D' C' C$ D' H' 14HR
N33D ' H4' $EO' G C $EN3' H' Q3' J 3$C-43D ' $ HE2' $' ? 433 ' ' H$D ' H4'
> $E3 ' H4' -1 ' DH E ' H4' $ HE2' $' ' 34 ' &4H J ' H4' H' $E' < Q(3N ' C-NF'
BH-ED$40' CF$ ' Q3' -ED34C HHD' H' 14HN33D ' H4' C-NF' G C $EN3' H'
Q3' J 3$C-43D' ^$C' F3' @$C3' J $O' Q3_' &4H J ' H4' H' F$ ' I H E ' E' F3'
P P D 3' H&' C-NF' ' H$D ' > $E3 ' H4' ' 34' &4H J ' F NF' F3' CFH4 3C '
> E3' H- D' Q3' D4$ E' H' F3' @3E 43' H&' C-NF' < Q(3N ' $C' E3$4 O' $C'
F3' @3E 43' F343H&' N$E' Q3' $CN34 $ E3D'.

Z ' h * F$ ' F3' I H E ' $' F NF' $EO' 9 $ ' P $4NF ' BH-ED$40 ' ? 433
' H$D ' > $E3 ' > H$E E2 ' 3E-3 ' ' $ $O ' 9 $ + ' I $ F ' ' 34 '
? 43$ J ' @E ' H4' B-4E' C' C$ D' H' J 33 ' (H E ' N4HCC ' 43$NF ' H4'
3$ 3' $EO' P $4NF ' BH-ED$40 ' ? 433 ' ' H$D ' > $E3 ' > H$E E2 '
3E-3 ' ' $ $O ' 9 $ + ' ' 34 ' ? 43$ J ' @E ' H4' B-4E ' CF$ '
Q3' -ED34C HHD' $C' F$ ' I H E ' $' F NF' $' > E3' 1$CC E2' $ HE2' F3'
P DD 3' H&' F3' P $4NF ' BH-ED$40 ' ? 433 ' ' H$D ' > $E3 ' > H$E E2 '
3E-3 ' ' $ $O ' 9 $ + ' ' 34 ' ? 43$ J ' @E ' H4' B-4E CH'
J 3 ' (H E3D ' N4HCC3D ' 43$NF3D ' H4' 3& ' 9H- D' Q3' E 34C3N 3D' QO'
$' > E3' D4$ E' $ HE2' F3' P DD 3' H&' F3' 9 $ ' P $4NF ' BH-ED$40 '
? 433 ' ' H$D ' > $E3 ' > H$E E2 ' 3E-3 ' ' $ $O ' 9 $ + ' I $ F '
' 34 ' ? 43$ J ' @E ' H4' B-4E' CH' J 33 E2 ' (H E E2 ' N4HCC E2 '
43$NF E2 ' H4' 3$ E2 ' &' C-NF' > E3' 343' 14H HE23D' C-&& N 3E O'
&$4' &' $ED' F$ ' F3' I H E ' $' F NF' $EO' B-4E' H4' ' 34' (H EC' $EO'
6 4 F' H4' F3' ?3$' CF$ ' Q3' -ED34C HHD' $C' F$ ' I H E ' $' F NF'
$' > E3' 1$CC E2' $ HE2' F3' > H $ 34' P $4+' H&' C-NF' 6 4 F' H4' F3
?3$

?3$' H-D' Q3' N-'QO'$'>E3' H' Q3' D4$ E' $HE2' F3' P DD 3' H&'
C-NF' B-4E' H4' ' 34' &' C-NF' >E3' 343' 14H HE23D' C-&& N 3E O'
&$4(' $ED' F$' F3' IHE'$' FNF' $' B-4E' H4' 633D34'(H <C' $'
>HNF' CF$ ' Q3' -ED34C HHD'$C' F$' IHE'$' FNF' $'>E3' D4$ E'
$HE2' F3'?FH43' H&' C-NF' >HNF' H-D' Q3' N-'QO'$'>E3' D4$ E'
F343 H' $HE2' F3' P DD 3' H&' C-NF' B-4E' H4' 633D34.

V h *F$' F3E' $'>E3' C'C$ D' H' Q3' D4$ E' H' $' 'H$D'>$E3' ' 34'
?43$J' H4' @$E$' C-NF' >E3' CF$ ' Q3' NHEC D343D' $C' 14H HE23D'
H' F3' P DD 3' H&' C-@F' 'H$D'>$E3' ' 34'? 43$J' H4' @$E$.

[' h *F$' QO' F3' 9H4DC' `'?3$c' $ED' ?FH43c' CF$ ' Q3' -ED34C HHD
F3'>H $ 34' P $4+.

' h *F$' &' $EO' G3& N 3ENO' CF$ ' Q3' &H-ED' H' 3 C' E' F3'>E3' H&
$EO' BH-ED$4O' D3CN4 Q3D' E' F3' C$ D' ?NF3D-3' H' F C' N'
$EE3 3D' QO' 43$CHE' H&' F3' E 34 3E HE' H&' $EO' ?1$N3' Q3 33E'
$EO' * H' J J3D $ 3 O' NHEC3N- 3' IHE C' C-NF' G3& N 3QNO' CF$ '
Q3' C-11 3D' QO' $' C 4$ 2F'>E3' H' Q3' D4$ E' &4HJ' F3' HE3' H'
F3' H F34' H&' C-NF' * H' J J3D $ 3 O' NHEC3N- 3' IHE C'

,HE3' F343R $& 34' H' $NX-43 H 3C' 3 N31'$C' F343 E $& 34' 14H D3D'Q-' 6433FH D34C' EH '3E4H 3D' E' ?F 43C' H' Q3' 3E 3D' H' H 3' &H4' F3 4'> 3C

' ED' Q3' '3E$N 3D'*F$' &4HJ' $ED' $& 34' F3' 1$CC E2' H&' F C'
N 'EH' I34CHE' CF$ ' $NX-43' QO' ?-NN3CC HE' I-4NF$C3' M & ' <4 H F34R
C3' F3' ' 2F' H&' H E2' &H4' $' P3JQ34' H&' I$4 $J3E ' 3 F34' E'
?F 43C' H4' E' @ 3C' B-42FC' H4' *H EC' 3 N31'QO' HE3' H4' H F34' H&' F3'
\-$ & N$ HEC' F343 E $& 34' 143CN4 Q3D' $ED' D 43N 3D' ' I4H D3D' $ $OC'
F$' $ ' I34CHEC' FH' $' F3' 1$CC E2' H&' F C' N ' CF$ ' Q3' $ &- O' HE'
F3' 'H ' H&' 6433FH D34C' H&' $EO' ?F 43' E'+', % #&' H&' FH' CF$ ' F3E'
Q3' 3E 3D' H' Q3' 1-' HE' C-NF' 'H 'H4' FH' CF$ '143 H-C' H' F3' 6 4C'
G$O' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O HE3' F$ 3' Q3R
NHJ 3' F3' < E34C' H4'?-134 H4C' H&' >$EDC' $&&H4D E2' F3' \-$ & N$ HE' &H4'
Q3 E2' CH' 3E4H 3D' CF$ ' CH' HE2' $C' F3O' 43 $ E' F3' E3N3CC$4O' \-$ & R
N$ HE' HE' F NF' F3O' $43' EH '3E4H 3D' H4' $43' 3E 3D' H' Q3' 3E4H 3D'
$C' $&H43C$ D' Q3' 3E 3D' H' Q3' 432 C 343D' $-D' H' H 3' $C' F343 E $& 34'
D 43N 3D' E' F3' ; 3N HE' H&' $' P3JQ34' &H4' C-NF' ?F 43

'\#$ FN$ HE' H&' @H-E O' H 34C

' ED' Q3' '3E$N 3D'*F$' &4HJ' $ED' $& 34' F3' 1$CC E2' H&' F C'
N ' 3 34O' I34CHE' EH ' C-Q(3N ' H' $EO' 32$' EN1N O' CF$ ' Q3'
3E 3D' H' Q3' 432 C 343D' $C' F343 E $& 34' D 43N 3D' $ED' F343$& 34' H'
H 3' $' $EO' ; 3N HE' &H4' $' ?F 43' E'+', % #&>' FH' F3E' F3'?F34 &&'
14HN33DC' H' NHEC D34' F C' @ $ J' &H4' '32 C 4$ HE' E' F3' 143C3E ' H4' E'
$EO' &- -43' =3$4' CF$ ' F$ 3' Q33E' &H4' $' I34 HD' H&' EH ' 3CC' F$E' ? '
@$ 3ED$4' PHE FC' E3 ' 143 H-C' H' F3' $C' G$O' H&' /3(31' E' F3'
143C3E' H4' F3' $C' G$O' H&'?3% O '$EO' &- -43'=3$4' F3' < E34'^ F3 F34'
F3' F$C' J$D3' -1' F C' * 3C' H4' C' E&3& ' H4' EH _' H&' $EO' >$EDC' 8H-C3C'
63-' G- 3C' H4' H F34' 834 $Q 3' ?-Q(3N C' ^3 N31 ' G3Q C' F34 $Q O'
C3N-43D_' F E' F3' C$ D' ?F 43' 14H D3D' F3' ?-Q(3N ' H4' ?-Q(3N C' HE'
F NF' F3' CH' N $ JC' CF$ ' Q3' H&' F3' O3$4 O' $ -3' H&' *3E' IH-EDC' $ED'
CF$ ' $N -$ O' O 3 D' H4' Q3' N1Q 3' H&' O 3 D E2' F$' $ -3' H' F3'
@ $ J$E ' $& 34' D3D-N E2' $EO' 63-' G- O' M4H-ED' EE-$ ' H4' H F34'
@HEC D34$ HE' F NF' F3' J$O' Q3' QH-ED' H' 1$O' H4' H' 2 3' H4' $NNH-E '
&H4' $C' $' @HED HE' H&' F C' ' 2F ' 14H D3D' F3' Q3 'QO' F JC3 &' F C'
*3E$E C' CC C' H4' H F34C' E' IHCC3CC HE' H&' F3' C$ D' ?-Q(3N C' $ED'
Q3' 3 F34' F JC3 &' E' F3' $N -$' <NN-1$ HE' H4' E' 43N3E ' H&' F3' I4H& C'
$ED' CC-3C' F343H&' H' F3' ; 3E '$QH 3' J3E HE3D.' I4H D3D' $ $OC
F$

F$ ' F343' F3' FH 3' I4H& C' $ED' CC-3C' H&' $EO' C-NF' ?-Q(3N ' DH' EH '
$4 C3' $EE-$ O' Q- ' $ ' HE234' E 34 $ C ' F3' 9 H4 F' $ED' J H-E ' H&'
C-NF' HNN$C HE$ ' I4H& C' CF$ ' Q3' $+3E' E H' @H J 1- $ HE' E' 3C J $ E2'
F3' $EE-$ ' $ -3 ' I4H D3D' $ CH ' F$ ' F343' $EO' I4H134 O' F NF'
H- D' 3E 3' F3' < E34' H' Q3' 432 C 343D' $ED' H' H 3' $C' $QH 3' CF$ '
NH J 3' H' $EO' I34CHE ' F E' F3' C$ D' I34 HD' H&' ? ' P HE FC ' QO'
EF34 $EN3 ' P $44 $23 ' P $44 $23 ' ?3 3 J 3E ' H4' , 1' ' 31 ' G CR
1HC HE ' H4' QO' 11H E J 3E ' H' $EO' I $N3' H4' <&& N3 ' C-NF' I34CHE'
CF$ ' Q3' 3E 3D' H' Q3' 432 C 343D' HE' F3' & 4C ' < NN$C HE' H&' J $+ E2'
-1' F3' > C C' H&' H 34C ' $C' F343 E $& 34' 14H D3D ' E3 ' &H H E2' C-NF'
?-NN3CC HE' H4' NX- C HE

' ED' Q3' ' 3E$N 3D ' * F$ ' E' ; 3N HEC' &H4' ?F 43C ' F343' * H' ' - 3' $C' '"
H4' J H43' I34CHEC' $43' E 343C 3D' E' $EO' ?-Q(3N ' H' F NF' $' ' 2F ' H&' > &3 43E 34C'
H E2' C' &H4' F3' & 4C ' * J 3' $ $NF3D' QO' F C' N ' $C' > &3 43E 34' $ED'
$C' 6 $ ' F3' ' 2F ' H&' H E2' CF$ ' Q3' E' F3' > &3 43E 34 ' $ED' EH ' E' H k 34C/ '
F3' 6 $4 ' $ED' $ ' @H 14H14 3 H4C' H4' (H E ' < E34C' CF$ ' Q3' 3E 3D'
3$NF' H' H 3' E' 43C13N ' H&' F3 4' (H E ' I4H134 O' F E' F3' ?F 43 ' 14HR
D3D' F3' ?F$43' H4' E 343C ' H&' 3$NF' (H E ' < E34' CH' N $ J E2' HE' C-NF'
I4H134 O' C' H&' F3' O3$4 O' $ -3' H&' * 3E' I H-EDC ' $C' $QH 3' C13N & 3D '
Q- ' EH ' H F34 C3' :' I4H D3D' $ CH ' F$ ' 8 -CQ$EDC' CF$ ' Q3' 3E 3D' H'
H 3' E' 43C13N ' H&' I4H134 O' Q3 HE2 E2' H' F3 4' 9 3C ' H4' H E3D' H4' '
1HCC3CC3D' QO' C-NF' 8 -CQ$EDC' $& 34' F3' G3$ F' H&' F3 4' 9 3C' QO' F3'
@H-4 3CO' , ' + ' , % #&

W ' ED' Q3' ' 3E$N 3D ' * F$ ' * 3E$E C' E' > $EDC ' 8 H-C3C ' H4' H F34' * 3E$E C' 1HC '
8 34 $Q 3' ?-Q(3N C' CF$ ' $ CH' Q3' 3E 3D' H' Q3' 432 C 343D ' $ED' H' H 3' C3CC E2' HE'
$ ' ; 3N HEC' &H4' F3' ?F 43C' E' F NF' F3' C$ D' 8 34 $Q 3' ?-Q(3N C' $43' > 3$C3C' ^4&$
C -$ 3D ' 14H D3D' 3$NF' * 3E$E ' ^ F3 F34' (H E ' H4' C3 34$ _ F3E' F3' CN4 1 HE' 3E '
?F34 &&' 14HN33DC' H' NHEC D34 F C' @ $ J' &H4' ' 32 C 4$ HE ' CF$ ' &H4' $' 3D' H' H 3'
I34 HD' H&' EH ' 3CC' F$E' * 3 3' P HE FC' E3 ' 143 H-C' H' F3' $C ' E' ?F 43C'
G$O' H&' / 3 (31 ' E' F3' 143C3E ' H4' F3' $C ' G$O' H&' ?3% ' E' $EO' &- -43'
=3$4 ' F$ 3' F3 D' C-NF' ?-Q(3N C' H4' * 3E3 J 3E C ' F3 F34' E' F C' 134CHE$ '
I HCC3CC HE' H4' EH ' -ED34' $' > 3$C3' H4' > 3$C3C ' P CC 3' H&' > 3$C3 ' H4' H F34'
4 3E' * 3 ' &H4' $' I34 HD' H&' EH ' 3CC' F$E' 6 & O C3 3E' =3$4C' ^3 N -C 3'
H&' B43$+C_ ' $ ' F3' < 1 HE' H&' F3' > $ED H4D ' H4' &H4' F3' > &3 J 3' H&' F3'
C$ D' * 3E$E ' F343' F3' N 3$4' O3$4 O' $ -3' H&' C-NF' * 3E$E C' E 343C '
$& 34' 1$O E2' F3' ' 3E ' $ED' $EO' H F34' @HEC D34$ HE' D-3' QO' F J' &H4' F C'
C$ D' ' 2F ' C' EH ' 3CC' F$E' * 3E' I H-EDC ' H4' &H4' $' I34 HD' H&' EH ' 3CC' F$E'
, E3 33E=3$4C' F343' F3' N 3$4' O3$4 O' $ -3' H&' C-NF' * 3E$E C' E 343C ' C'
EH ' 3CC' F$E' 6 & O' I H-EDC ' H4' F343' C-NF' * 3E$E ' CF$ ' &H4' F3' &H43C$ D'
I34 HD' H&' * 3 3' P HE FC ' F$ 3' Q33E' E' F3' $N -$ ' 134CHE$ ' < NN-R
1$ENO' H&' $EO' C-NF' ?-Q(3N ' F343' F3' O3$4 O' ' 3E ' C' EH ' 3CC' F $E'
6 & O' I H-EDC ' H4' F343' F3' * 3E$E ' F$ 3 34' F3' ' 3E ' J $O' Q3 ' F$C' '
4- O' 1$ D' &H4' F C' E 343C ' E' C-NF' ?-Q(3N ' $' I 4 N3 ' M4$CC- J ' H4' @HER
C D34$ HE' H&' EH ' 3CC' F$E' * F433' F-ED43D' I H-EDC' :' I4H D3D' $ $OC '
F$ ' F343 ' E' $EO' H&' F3C3' @$C3C ' F3' ' 3E ' C' 1OQ 3' E' FH 3' H4' E'
1$4 ' E' M4$ E ' F3' $ -3' CF$ ' Q3' 3C J $ 3D' $NNH4D E2' H' F3' $ 34$23'
6 $4C' H&' F3' @H-E 3C' E' F NF' F3' 8 34 $Q 3' ?-Q(3N C' $43' C -$ 3D'
&H4' F3' * F433' 143N3D E2' =3$4C ' $ED' F343' 1$O$Q 3' E' $EO' H F34'
?13N 3C' H&' I4HD-N3 ' $NNH4D E2 ' H' F3' $ 34$23' P $4+3 ' I 4 N3C' H&' F3'

,3 2FQH-4FHHDʽ &H4ʽ F3ʽ C$ '3ʽ 634 HD($EDʽ F3ʽ ?$Dʽ $ -3Cʽ Q3 E2ʽ HEN3ʽ CHʽ & 3Dʽ $ʽ F3ʽ * J3ʽ H&ʽ 432 C 34 E2ʽ H4ʽ 43&-C E2ʽ Hʽ 432 C 34ʽ CF$ ʽ Q3ʽ F3 Dʽ $Cʽ C3 3Dʽ &H4ʽ F3ʽ FH 3ʽ I34 HDʽ H&ʽ F3ʽ >3$C3.ʽ I4H D3Dʽ $CHʽ F$ʽ F343ʽ F3ʽ ' 2F ʽ Hʽ $EOʽ C-NFʽ >3$C3ʽ $Cʽ H- Dʽ 3E 3ʽ F3ʽ *3E$E ʽ Hʽ Q3ʽ 432 C 343Dʽ $EDʽ Hʽ H 3ʽ $Cʽ F343 E Q3&H43ʽ 14H D3Dʽ CF$ ʽ NHJ3ʽ Hʽ $EOʽ I34CHE ʽ F Eʽ F3ʽ 143N3D E2ʽ * 3 3ʽ @$ 3ED$4ʽ PHE FCʽ $QH 3ʽ C13N & 3Dʽ QOʽ EF34 $EN3ʽ P$44 $23ʽ P$44 $23ʽ ?3 3J3E ʽ H4ʽ G C1HC HEʽ C-NFʽ I34CHEʽ CF$ ʽ Q3ʽ 3E 3Dʽ Hʽ Q3ʽ 432 C 343Dʽ HEʽ F3ʽ & 4Cʽ <NN$C HEʽ H&ʽ J$+ E2ʽ -1ʽ F3ʽ > C Cʽ H&ʽ H 34Cʽ $Cʽ F343 E $& 34ʽ 14H D3Dʽ E3 ʽ &H H E2ʽ C-NFʽ ?-NN3CC HEʽ H4ʽ NX- C HE.ʽ I4H D3Dʽ $CHʽ F$ʽ EHʽ ?-Q 3E$E ʽ H4ʽʽ CC 2E33ʽ Hʽ $EOʽ ?-Q 3$C3ʽ &H4ʽ 6 & O C3 3Eʽ H4ʽ , E3 33Eʽ =3$4Cʽ CF$ ʽ Q3ʽ 3E 3Dʽ Hʽ Q3ʽ 432 C 343Dʽ H4ʽ Hʽ H 3ʽ Eʽ 43C13Nʽ H&ʽ F Cʽ E 343C ʽ -ED34ʽ C-NFʽ >3$C3ʽ -E 3CCʽ F3ʽ CF$ ʽ Q3ʽ Eʽ F3ʽ $N -$ʽ <NN-1$ HEʽ H&ʽ F3ʽ I43J C3Cʽ F343QOʽ C3

' 2Fʽ H&ʽ H E2ʽ &H4 B-42FCʽ $EDʽ *H ECʽ EH HE234ʽ HQ3ʽ Eʽ *H Eʽ @H-EN Cʽ $EDʽ G3 32$ 3Cʽ Q- ʽ Eʽ X-$ R & 3Dʽ EF$Q R $E C

Wʽ EDʽ Q3ʽ ʽ 3E$N 3Dʽ *F$ʽ &4HJʽ $EDʽ $& 34ʽ F3ʽ ;EDʽ H&ʽ F Cʽ 143C3E ʽ I$4 $J3E ʽ F3ʽ P3JQ34Cʽ FHʽ $43ʽ Hʽ Q3ʽ 43 -4E3Dʽ Hʽ C34 3ʽ Eʽ $EOʽ &- -43ʽ I$4 $J3E ʽ &H4ʽ $EOʽ C E2 3ʽ @ Oʽ *H Eʽ H4ʽ B-42Fʽ HEʽ F NFʽ F3ʽ ' 2F ʽ H&ʽ 43 -4E E2ʽ $ʽ P3JQ34ʽ H4ʽ P3JQ34Cʽ Cʽ QOʽ F Cʽ N ʽ NHER &3443Dʽ CF$ ʽ EHʽ HE234ʽ Q3ʽ 3 3N 3Dʽ QOʽ F3ʽ *H Eʽ @H-EN Cʽ H&ʽ C-NFʽ @ 3Cʽ B-42FCʽ H4ʽ *H ECʽ F- ʽ D 43N Oʽ QOʽ F3ʽ C3 34$ʽ ED D-$ Cʽ HEʽ FHJʽ Q3ʽ ' 2F ʽ H&ʽ 3 3N E2ʽ C-NFʽ P3JQ34Cʽ Hʽ C34 3ʽ Eʽ I$4 $J3E ʽ Cʽ QOʽ F Cʽ N ʽ NHE&3443Dʽ ʽ $EDʽ F343ʽ F3ʽ ; 3N HEʽ Cʽ QOʽ G C 4 N Cʽ H4ʽ ?3 Cʽ H&ʽ @ 3Cʽ B-42FCʽ H4ʽ *H ECʽ NHE(H E3Dʽ F3ʽ ' 2F ʽ H&ʽ 3 3N E2ʽ CF$ ʽ B< HE234ʽ Q3ʽ Eʽ F3ʽ *H Eʽ @H-EN Cʽ H4ʽ @H41H4$ HECʽ H&ʽ F3ʽ C$ Dʽ @ 3Cʽ B-42FCʽ H4ʽ *H ECʽ H4ʽ Eʽ G3 32$ 3Cʽ $11H E 3Dʽ QOʽ F3J ʽ Q- ʽ Eʽ F3ʽ ED D-$ʽ H 34Cʽ HEʽ FHJʽ F3ʽ ' 2F ʽ H&ʽ ; 3N HEʽ Cʽ QOʽ F Cʽ N ʽ NHE&3443Dʽ ʽ $EDʽ F3ʽ P3JQ34ʽ Hʽ C34 3ʽ Eʽ I$4 $J3E ʽ &H4ʽ $EOʽ C-NFʽ G C 4 N ʽ CF$ ʽ Q3ʽ 43 -4E3Dʽ $NNH4D E2ʽ Hʽ F3ʽ P$(H4 Oʽ H&ʽ ED D-$ʽ H 3Cʽ 2 3Eʽ Eʽ F3ʽ FH 3ʽ G C 4 N

<NN-1$E Cʽ H&ʽ 8H-C3Cʽ H4 Fʽ [ʽ $ʽ =3$4ʽ 3E 3Dʽ Hʽ H 3ʽ Eʽ @ 3Cʽ B-42FCʽ $EDʽ *H EC

W ʽ EDʽ Q3ʽ ʽ 3E$N 3Dʽ *F$ʽ 3 34Oʽ I34CHEʽ EHʽ C-Q(3N ʽ Hʽ $EOʽ 32$ ʽ EN1N Oʽ CF$ ʽ Q3ʽ 3E 3Dʽ Hʽ Q3ʽ 432 C 343Dʽ $Cʽ F343 E $& 34ʽ D 43N 3Dʽ $EDʽ Hʽ H 3ʽ $ʽ ; 3N HECʽ &H4ʽ $EOʽ H&ʽ F3ʽ @ 3Cʽ B-42FCʽ H4ʽ *H ECʽ H4ʽ G C 4 N Cʽ H&ʽ @ 3Cʽ B-42FCʽ H4ʽ *H ECʽ F343 E Q3&H43ʽ J3E HE3Dʽ FHʽ F3Eʽ F3ʽ ?F34 && 14HN33DCʽ Hʽ NHEC D34ʽ F Cʽ @$ Jʽ &H4ʽ '32 C 4$ HE ʽ CF$ ʽ F$ 3ʽ Q33E ʽ &H4ʽ $ʽ I34 HDʽ H&ʽ EH ʽ 3CCʽ F$Eʽ * 3 O3ʽ @$ 3ED$4ʽ PHE FCʽ E3 ʽ 143 H-Cʽ Hʽ F3ʽ $C ʽ G$Oʽ H&ʽ /3(31 ʽ Eʽ F3ʽ 143C3E ʽ H4ʽ F3ʽ $C ʽ G$Oʽ H&ʽ ?3% ʽ Eʽ $EOʽ &- -43ʽ =3$4ʽ Eʽ F3ʽ <NN-1$ENO ʽ 3 F34ʽ $Cʽ I4H14 3 H4ʽ *3E$E ʽ H4ʽ > &3 43E 34ʽ H&ʽ $EOʽ 8H-C3ʽ 9$43FH-C3ʽ @H-E E2 ʽ FH-C3ʽ ?FH1ʽ H4ʽ H F34ʽ B- D E2ʽ F Eʽ F3ʽ > J Cʽ H&ʽ C-NFʽ @ Oʽ B-42Fʽ H4ʽ *H Eʽ F NFʽ 3 F34ʽ C31$4$ 3 Oʽ <4 (H E Oʽ Fʽ $EOʽ H F34ʽ 8H-C3ʽ 9$43FH-C3ʽ @H-E E2 FH-C3ʽ ?FH1ʽ H4ʽ H F34ʽ B- D E2ʽ F Eʽ Q3ʽ C$J3ʽ > J Cʽ H4ʽ Fʽ $EOʽ >$EDʽ H E3Dʽ $EDʽ HNN-1 3Dʽ QOʽ F Jʽ H4ʽ HNN-1 3Dʽ -ED34ʽ F3ʽ C$J3ʽ >$ED H4Dʽ $EDʽ $ CHʽ C -$ 3ʽ F Eʽ F3ʽ C$J3ʽ > J Cʽ CF$ ʽ Q3ʽ H&ʽ F3ʽ O3$4 Oʽ $ -3ʽ H&ʽ *3Eʽ I H-EDCʽ 4 I4H D3Dʽ $ $OCʽ F$ʽ F3ʽ @$ J$Eʽ CF$ ʽ F$ 3ʽ 1$ Dʽ HEʽ H4ʽ Q3&H43ʽ F3ʽ * 3E 3 Fʽ G$Oʽ H&ʽ /3(31 ʽ Eʽ F3ʽ 143C3E ʽ H4ʽ F3ʽ * 3E 3 Fʽ G$Oʽ H&ʽ ?3% ʽ Eʽ $EOʽ &- -43ʽ =3$4ʽ $ ʽ CC3CC3Dʽ *$ 3Cʽ F NFʽ CF$ ʽ F$ 3ʽ Q3NHJ3ʽ 1OQ 3ʽ QOʽ F Jʽ Eʽ 43C13Nʽ H&ʽ C-NFʽ I43J C3Cʽ 143 H-C Oʽ Hʽ F3ʽ ? Fʽ G$Oʽ , ʽ /5 %ʽ F3Eʽ E3 ʽ 143N3D E2ʽ. I4H D3Dʽ $ CHʽ F$ʽ EHʽ C-NFʽ I34CHEʽ CF$ ʽ Q3ʽ 3E 3Dʽ Hʽ Q3ʽ 432 C 343Dʽ H4ʽ Hʽ H 3ʽ Eʽ F3ʽ 143C3E ʽ H4ʽ $EOʽ &- -43ʽ =3$4ʽ -E 3CCʽ F3ʽ CF$ ʽ F$ 3 43C D3D

43C D3D' &H4' ? ' @$ 3ED$4' P HE FC' E3 ' 143 H-C' H' F3' $C ' G$O' H&' / 3 (31 ' E' F3' 143C3E ' H4' F3' $C ' G$O' H&' ?3% ' E' $EO' &- -43' =3$4' F E' ' C-NF' @ O' B-42F ' H4' * H E ' H4' F E' ?3 3E' ? $ - 3' P 3C' H&' CH J 3' I $4 ' F343H&' I4H D3D' $ CH ' F$ ' I 34CHEC' CH' 43C D3E ' CF$ ' Q3' 3E 3D' H' Q3' 432 C 343D' $ED' H' H 3' &' F3O' $43' F3' 4-3' < E34C' H&' C-NF' I 43 J C3C' $C' $43' F343 E Q3&H43' J 3E HE3D' F E' C-NF' @ O' B-42F ' H4' * H E ' H&' F3' O3$4 O' $ -3' H&' * 3E' I H-EDC' H4' -1 $4DC ' $ FH-2F' F3O' CFH- D' EH ' HNN-1O' $EO' I 43 J C3C' F E' C' > J C ' H4' $ FH-2F' F3' I 43 J C3C' $N -$ O' HNN-1 3D' QO' F3 J ' CFH- D' Q3' H&' 3CC' O3$4 O' $ -3' F$E' * 3E' I H-EDC ' $ED' F$ ' F3' 8 -CQ$EDC' H&' C-NF' < E34C' CF$ ' Q3' 3E 3D' H' H 3 ' 3 F34' E' F3' > &3 J 3' H&' F3 4' 9 3C ' H4' $& 34' F3 4' G3$ F ' &' F3E' FH D E2' C-NF' I 4H134 O' QO' F3' @H-4 3CO' H&' + ' , % #& I 4H D3D' $ CH ' F$ ' EH' I 34CHE' CF$ ' Q3' 3E 3D' H' Q3' 432 C 343D' H4' H' H 3' &H4' $EO' @ O' B-42F ' H4' * H E ' FH' CF$ ' F$ 3' Q33E' E' F3' ' 3N3 1 ' H&' I $(HNQ $' ' 3 3&' F E' * 3 3' @$ 3ED$4' P HE FC' E3 ' 143 H-C' H' F3' $C ' G$O' H&' / 3 (31 ' E' F3' =3$4' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H ' H4' E3 ' 143 H-C' H' F3' $C ' G$O' H&' ?3% ' E' $EO' C-NN33D E2' =3$4

W ' ED' Q3' ' 3E$N 3D ' * F$ ' F3' I 43 J C3C' E' 43C13N ' H&' F NF' $EO' I 34CHE' CF$ ' Q3' D33 J 3D' 3E 3D ' H' Q3' 432 C 343D ' $ED' H' H 3' E' F3' ; 3N HE' &H4' $EO' @ O' B-42F ' H4' * H E ' H4' G C 4 N ' CF$ ' EH ' Q3' 43 ' X- 43D' H' F$ 3' Q33E' F3' C$ J 3' I 43 J C3C' &H4' F3' FH 3' * 3 3' P HE FC' H&' F C' < NN-1 $ENO ' Q- ' J $O' Q3' D &&343E ' I 43 J C3C' ^Q- ' $ $OC' H&' F3' 43X- C 3' $ -3_' HNN-1 3D' E' C-NN3CC HE' QO' C-NF' I 34CHE ' 14H D3D' $ $OC ' F$ ' C-NF' I 34CHE' CF$ ' F$ 3' 1$ D' $ ' F3' CC3CC3D' * $ 3C 32$ O' 3 2 Q 3' &4H J ' F J ' E' 43C13N ' H&' $ ' C-NF' I 43 J C3C ' $ED' F$ ' F343' C-NF' I 43 J C3C' CF$ ' Q3' H&' F3' O3$4 O' $ -3' H&' * 3E O' I H-EDC' H4' -1 $4DC ' $ED' CF$ ' Q3' (H E O' HNN-1 3D' QO' J H43' F$E' < E3' I 34CHE ' 3$NF' H&' C-NF' (H E ' < NN-1 34C' CF$ ' Q3' 3E 3D' H' Q3' 432 C 343D' $ED' H' H 3 ' 14H D3D' F C' ?F$43' $ED' E 343C ' E' F3' C$ J 3' CF$ ' Q3' H&' F3' O3$4 O' $ -3' H&' * 3E' I H-EDC' H4' -1 $4DC

I4H C HE' $C' H' I 43 J C3C' b7 N-13D J' $ED' $C' H' (H E ' < NN- ' 1$E C'

W ' ED' Q3' ' 3E$N 3D ' * F$ ' HE' H4' Q3&H43' F3' * 3E 3 F' G$O' H&' / 3 (31 ' E' F3' 143C3E ' =3$4' 3 34O' I 34CHE' N $ J E2' ' 2F ' H' H 3' -ED34' $EO' H&' F3' \ -$ & N$ HEC' F343 E Q3&H43' C13N & 3D ' $ ' $EO' ; 3N HE' H&' $' P 3 J Q34' H' C34 3' E' I $4 $ J 3E ' &H4' $EO' @H-E O' E' + ' , % #& ' CF$ ' 2 3' E' $' @ $ J ' C-QCN4 Q3D' QO' F J C3 &' H4' F C' 23E ' H' F3' ?NFHH J $C 34' H&' F$ ' I $4 CF' H&' F3' @H-E O' F E' F NF' F3' I 4H134 O' ^H4' F3 243$ 34' I $4 ' H&' _' HE' F NF' F3' N $ J C' C' C -$ 3 ' H4' E' N$C3' , ' F3' EN$1$N O' H&' C-NF' ?NFHH J $C 34 ' H4' H&' F3' < && N3' Q3 E2' NE ' H' $EO' 134CHE' $N -$ O' H&& N $ E2' $C' C-NF' ?NFHH J $C 34 ' H4' H' F3' ?NFHH R J $C 34' H&' F3' E3 ' $D(H E E2' I $4 CF' FHC3' ' 3C D3EN3' C' E3$43C ' H' F3' NE ' ?NFHH ' F NF' @ $ J ' CF$ ' Q3' E' F3' 6H4 J ' H&' F3' 6 4C ' I $4 ' H&' F3' ?NF3D- 3' ^6 _' H' F C' N ' $EE3 3D ' 14 E 3D' @H1 3C' H&' F NF' 6H4 J C' H ?NF3D- 3C' F' F3' E3N3CC$4O' B $E+C' F343 E ' H' Q3' & 3D' -1' QO' F3' @ $ J $E ' 3 34O' ?F34 &&/' @ 34+' C' F343QO' 43X- 43D' H' 14H D3 ' $ED' H' &-4E CF' H' F3' ?NFHH J $C 34C' H&' F3' D &343E ' I $4 CF3C' F E' F C' @H-E O' $C' C133D O' $C' 1HCC Q 3' $& 34' F3' 1$CC E2' H&' F C' N ' F NF' C3 34$ ' ?NFHH J $C 34C' CF$ ' &-4E CF' @H1 3C' H&' F3' C$ J 3' H' $ ' 11 R N$E C' -1HE' I $O J 3E ' H&' F3' ?- J ' H&' ? 13EN3' HE O' &H4' 3$NF' @H1O ' -1HE' F N>' @H1 3C' $ ' F3' @ $ J C' H' Q3' 2 3E' E' CF$ ' Q3' 3E24HCC3D' Q O F3

\ -$ & 3D I 34' CHEC' E' @H-E ' A bN+ JC' H F3' I $4 CF' ?NFHH J $C'

' U K ScM#> ;>P ' ' @$1 Y$

' F3' C$ D' @ $ J $E C ' $ED' 3$NF' C-NF' ?NFHH J $C 34' -1HE' 43N3 E2' Q$N+'
C-NF' @ $ J ' & 3D' -1' $ED' C-QCN4 Q3D' $C' $QH 3' D 43N 3D ' CF$ ' J J 3R
D $ 3 O' J$4+' -1HE' ' F3' * J 3' H&' C' Q3 E2' CH' HD23D' $ED' 143C3E 3D ' QO'
& E2' -1' $ED' C-QCN4 Q E2' F3' 14 E 3D' 6H4 J ' $ ' F3' BH H J ' $ED' &H4 J E2'
F3' ?3NHED' I $4 ' H&' F3' C$ D' ?NF3D- 3' ^6 _' $ED' 3$NF' C-NF' ?NFHH J $C 34'
CF$ ' J E 3D $ 3 O' $& 34' F3' C$ D' * 3E 3 F' _$O' J $+3' -1' $E
1F$Q3 N$ ' * C ' H&' F3' , $ J 3C ' G3C 2E$ HEC ' $ED' I $N3C' H&' QHD3'
H&' $ ' F3' I 34CHEC' 9 F E' F C' I $4 CF' &H4' FH J ' C-NF' @ $ J C' CF$ ' F$ 3'
Q33E' 143C3E 3D ' $ED' CF$ ' N$-C3' $' @H1O' H&' C-NF' > C ' H' Q3' $&& 3D' H'
F3' GHH4' H&' F3' @F-4NF' H&' C-NF' I $4 CF' <E' H4' Q3&H43' F3' * 3E O &H-4 F'
G$O' H&' / 3 (31 ' E' F3' 143C3E ' =3$4 ' $ED' CF$ ' $EE3 ' H' 3$NF' > C ' CH'
$&& 3D' $' , H N3' H&' F3' * (E3C' F3E' $ED' F3' I $N3C' F343' F3'
?F34 & *' CF$ ' Q32 E' H' 3 $ J E3' F3' @ $ J C' H' F NF' EH' <Q(3N HEC'
CF$ ' F$ 3' Q33E' HD23D ' $ED' $ CH' $' D C EN ' , H N3' H' $ ' I 34CHEC' FH'
J $O' F$ 3' N $ J 3D' H' Q3' 432 C 343D' &H4' F3' @H-E O ' $ED' E 3ED' H'
HQ(3N ' H' F3' ' 32 C 4$ HE' H&' $EO' H&' F3' I 34CHEC' E$ J 3D' E' F3' C$ D'
> C ' H' 2 3' E' $' , H 3' H&' F3 4' <Q(3N HEC' H' F3' C$ D' ?NFHH J $C 34'
HE' H4' Q3&H43' F3' 6 & F' G$O' H&' +!5 ! 4! ' E3 ' 3EC- E2 ' F NF' , H 3' H&'
<Q(3N HEC' CF$ ' Q3' C 2E3D' QO' F3' I 34CHE' &H4' FH J ' ' C' ' 143C3E 3D '
H4' QO' $E' 23E ' HE' F C' B3F$ & ' $ED' CF$ ' Q3' E' F3' 6H4 J ' H&' F3' 6 4C '
I $4 ' H&' F3' ?NF3D- 3' ^8 _' H' F C' N ' $EE3 3D ' $ED' 14 E 3D' @H1 3C'
H&' ?-NF' 6H4 J C' H4' ?NF3D- 3C' CF$ ' Q3' 14H D3D' QO' 3$NF' ?F34 &&' @ 34+ '
$ED' D C 4 Q- 3D' H' F3' C3 34$ ' ?NFHH J $C 34C ' QO' FH J ' F3O' CF$ ' Q3'
&-4E CF3D' H' $EO' I 34CHE' $11 O E2 ' -1HE' I $O J 3E ' H&' F3' ?- J ' H&'
? 13EN3' HE O' &H4' 3$NF' @H1O' ($ED' -1HE' F3C3' @H1 3C' $ ' F3' <Q(3NR
HEC' CF$ ' Q3' 3E24HCC3D' QO' F3' <Q(3N H4C' ($ED' 3$NF' C-NF' ?NFHH J $C 34'
CF$ ' HE' 4333 E2' Q$N+' F3' C$ J 3 ' & 3D' -1' $ED' C-QCN4 Q3D' $C' $QH 3
' J $4+' F343HE' F3' 4-3' G$ 3' H&' C' Q3 E2' CH' HD23D' $ED' 43N3 3D ' QO'
& E2' -1' $ED' C-QCN4 Q E2' F3' ?3NHED' I $4 ' H&' F3' C$ D' ?NF3D- 3' ^8 _' (
$ED' 3 34O' C-NF' < 233 H4' CF$ ' F E' * H' G$OC' $& 34' HD2 E2' C-NF'
<Q(3N HE ' 2 3' , H N3' H' F3' I $4 O' H' FHC3' * 3' F3' HQ(3N C ' QO'
D3 34 E2' H' F J ' H4' &H4 $4D E2' H' F C' G 3 E2' 8H-C3 ' H4' 4$ECR
J E2' H' F J ' H4' F C' +EH E' 23E ' F4H-2F' F3' I HC ' <&& N3 ' $' @H1O' H&'
F3' C$ D' <Q(3N HE' CH' 2 3E' E ' $ED' I 4HH&' H&' C-NF' , H N3' F$ E2' Q33E'
2 3E' CF$ ' Q3' J $D3' H' F3' ?F34 &&' Q3&H43' F3' 3E 34C' HE' F3' @HEC D34$ HE'
' H&' $EO' C-NF' <Q(3N HE' ' $ED' EH' @ $ J C' H4' <Q(3N HEC' $C' $QH 3' CF$ '
Q3' 43N3 3D' QO' $EO' ?NFHH J $C 34' $& 34' F3' ; 1 4$ HE' H&' F3' * J 3'
F343 E Q3&H43' $ H 3D' $ED' $11H E 3D' &H4' F3' 2 E2' E' H&' C-NF' @ $ J C'
$ED' <Q(3N HEC' 43C13N 3 Od $ED' 3$NF' C-NF' ?NFHH J $C 34' CF$ ' HE' H4'
Q3&H43' F3' ; 2F F' G$O' H&' +!5 ! 4! ' E' F C' 143C3E ' =3$4 ' D3 F 34' H4'
4$EC J ' H' F3' ?F34 &&' @ 34+' H&' F3' @H-E O' F3' FH 3' @ $ J C' $ED'
<Q(3N HEC' CH' 43N3 3D' QO' F J ' H23 F34' F' $' @H1O' H4' G-1 N$ 3' H&'
F3' 1F$Q3 N$ ' > C ' H&' @ $ J $E C' $&& 3D' QO' F J ' H' F3' @F-4NF' GHH4'
H&' F C' I $4 CF ' $ED' ' CF$ ' Q3' NH J 13 3E ' H' $EO' C-NF' @ $ J $E ' FN'
J $O' NHEN3 3' F$ ' F C' ' 2F ' H' Q3' 432 C 343D' C' 3C $Q CF3D' QO' $'
4 3E' * 3 ' $ ' $EO' * J 3' $& 34' 2 E2' E' Q C' @ $ J ' $ED' 143 H-C' H'
F3' * 3E F' G$O' <&+!5 ! 4! ' E' F C' 143C3E ' =3$4 ' H' D3 34' H4' 4$EC J '
H' F3' ?F34 &&' @ 34+' $EO' C-NF' * 3 ' H4' ; 4$N ' F343H&' $C' 43' J $O' CF'
CH' H' D3 34' &H4' F NF' F3' C$ D' ?F34 &&' @ 34+' CF$ ' Q3' QH-ED' H' 24$E '
F C' ' 3N3 1 : I 4H D3D' $ $OC ' F$ ' F3' I $4 CF3C' H&' 73%% 3O #' I 3% ,11 '
$ED' <, (!' E' F3' @H-E O' H&' *!) ' $ED' F3' I $4 CF' H&' /) ' E' F3'
@H-E O' H&' + % #(1' CF$ ' &H4' F3' I -41HC3C' H&' F C' N ' Q3' F3 D' H' &H4 J
I $4 C

U / K S ` M # > ; > P ʻ ʻ @$1 Y!

I$4 Cʻ H&ʻ F3ʻ @H-E Oʻ H&ʻ I% ') # #-ʻ $EDʻ F3ʻ I$4 CF3Cʻ H&ʻ 3') ʻ $EDʻ R,11,F ʻ Eʻ F3ʻ @H-E Oʻ H&ʻ *!)ʻ CF$ ʻ &H4ʻ F3ʻ I-41HC3Cʻ H&ʻ F Cʻ N ʻ Q3ʻ F3 Dʻ Hʻ &H Jʻ I$4 Cʻ H&ʻ F3ʻ @H-E Oʻ H&ʻ # ,11-ʻ $EDʻ $ ʻ @ $ JCʻ ʻ$EDʻ <Q(3N HECʻ $EDʻ * 3Cʻ 43 $ E2ʻ Hʻ I4H134 3Cʻ C -$ 3ʻ Eʻ $EOʻ H&ʻ F3C3ʻ I$4 CF3Cʻ CF$ ʻ Q3ʻ D3 343Dʻ H4ʻ 4$EC J 3Dʻ Hʻ F3ʻ ?F34 &&ʻ @ 34+Cʻ H&ʻ I% ' ## #ʻ $ED 4HCC43C13N 3 O ʻ $EDʻ F$ ʻ $ ʻ @ $ JC ʻ <Q(3N HEC ʻ $EDʻ * 3Cʻ 43 $ E2ʻ Hʻ I4H134 3Cʻ Eʻ F3ʻ C3 34$ ʻ G C 4 N Cʻ H& ʻ 6 #! ʻ +)! % #&ʻ CF$ ʻ Q3ʻ D3 343Dʻ H4ʻ 4$EC J 3Dʻ Hʻ F3ʻ ?F34 &&ʻ @ 34+Cʻ H&ʻ 6 #! ʻ $EDʻ H&ʻ +)! % #&ʻ 43C13N 3 O

ʻ EDʻ Q3ʻ ʻ3E$N 3D ʻ *F$ ʻ3$NFʻ ?F34 &&ʻ CF$ ʻQ3 33Eʻ F3ʻ * 3 & Fʻ AJ(!)??Aʻ #+ʻ G$Oʻ H&ʻ +!5 ! 4! ʻ F3ʻ 6 & 33E Fʻ G$Oʻ H&ʻ 6' ,4! ʻ Eʻ F3ʻ 143C3E ʻ J+ <ʻ +G!#Aʻ =3$4 ʻ 3 $ J E3ʻ $EDʻ D3N D3ʻ -1HEʻ F3ʻ P 34 Cʻ H&ʻ $ ʻ @ $ JCʻ &H4ʻ ' 32 C 4$ ʻ HEʻ F Eʻ F Cʻ @H-E O ʻ $EDʻ F$ ʻ &H4ʻ F Cʻ I-41HC3ʻ F3ʻ ?F34 &&Cʻ H&ʻ F3ʻ @H-E 3Cʻ H&ʻ /4! &!!# ʻ / ʻ / (%! ʻ R !ʻ $#0! #!11 ʻ < # ʻR, *!) ʻ L!# !F ʻ $EDʻ L,11ʻ $EDʻ I , ʻCF$ ʻ FH Dʻ H13Eʻ @H-4 Cʻ D-4 E2ʻ F Cʻ I34 HDʻ $ ʻ EH ʻ 3CCʻ F$Eʻ *F433ʻ C3 34$ ʻ *H ECʻ H4ʻ I $N3Cʻ Eʻ F3 4ʻ C$ Dʻ @H-E 3C ʻ EN -D E2ʻ F343 Eʻ C-NFʻ *H ECʻ H4ʻ H F34ʻ I $N3Cʻ F343ʻ F3ʻ ?F34 &&Cʻ H4ʻ F3 4ʻ ?-QC - 3Cʻ F$ 3ʻ Q33Eʻ Eʻ -C3ʻ Hʻ FH Dʻ F3 4ʻ H4D E$4Oʻ @H-4 C ʻ F343ʻ F343ʻ $43ʻ C-NFʻ I $N3C ʻ $EDʻ F3ʻ ?F34 &&Cʻ Eʻ $ ʻ F3ʻ H F34ʻ @H-E 3Cʻ CF$ ʻ FH Dʻ H13Eʻ @H-4 Cʻ $ ʻ EH ʻ 3CCʻ F$Eʻ * Hʻ C3 34$ ʻ I $N3C ʻ F NFʻ I $N3Cʻ CF$ ʻ Q3ʻ CHʻ C3 3N 3Dʻ $Cʻ Hʻ Q3ʻ JHC ʻ NHE 3E 3E ʻ &H4ʻ F3ʻ ʻ @ $ J$E Cʻ Eʻ F3ʻ D &&343E ʻ G C 4 N Cʻ H&ʻ F3ʻ C$ Dʻ @H-E 3C ʻ $EDʻ 3$NFʻ ?F34 &&ʻ CF$ ʻ HEʻ H4ʻ Q3&H43ʻ F3ʻ 6 & 33E Fʻ G$Oʻ H&ʻ /3(31 ʻ Eʻ F3ʻ 143C3E ʻ =3$4 ʻ D3 34ʻ Hʻ F3ʻ ?F34 &&ʻ @ 34+ʻ $ 4 3Eʻ , H N3ʻ H&ʻ F3ʻ G$OC ʻ F Eʻ F3ʻ I34 HDʻ $QH 3ʻ J3E HE3D ʻ HEʻ F NFʻ F3ʻ Cʻ Hʻ FH Dʻ F Cʻ @H-4 Cʻ &H4ʻ F3ʻ I-41HC3ʻ H&ʻ C-NFʻ ' 32 C 4$ HECʻ $ ʻ 3$NFʻ H&ʻ F3ʻ C$ Dʻ I $N3Cʻ Eʻ F3ʻ @H-E O ʻ @H1 3Cʻ H&ʻ F NFʻ , H N3ʻ CF$ ʻ Q3ʻ 4$EC J 3Dʻ QOʻ F3ʻ ?F34 &&ʻ @ 34+Cʻ Hʻ 3$NFʻ H&ʻ F3ʻ *H Eʻ @ 34+Cʻ $EDʻ I$4 CFʻ ?NFHH J $C 34Cʻ Eʻ F3 ʻ @H-E O ʻ HEʻ H4ʻ Q3&H43ʻ F3ʻ ; 2F 33E Fʻ G$Oʻ H&ʻ F3ʻ C$ Dʻ PHE F ʻ H&ʻ /3(31

W ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ *F$ ʻ HEʻ H4ʻ Q3&H43ʻ F3ʻ C$ Dʻ * 3E 3 @ʻ $ JCʻ &H4ʻ G$Oʻ , ʻ /3(31 ʻ Eʻ F Cʻ 143C3E ʻ =3$4ʻ 3 34Oʻ I34CHEʻ N $ J E2ʻ $ʻ ' 2F ʻ Hʻ H 3Cʻ Eʻ H 3ʻ &H4ʻ $ʻ P3 J Q34ʻ H4ʻ P3 J Q34Cʻ Hʻ C34 3ʻ Eʻ I$4 $ J 3E ʻ &H4ʻ $EOʻ @ O ʻ B-42 Cʻ [ʻ Q3ʻ B-42F ʻ H4ʻ *H E ʻ H4ʻ G C 4 N ʻ H&ʻ @ 3C ʻ B-42FC ʻ H4ʻ *H EC ʻ Eʻ +' , % #&ʻ 2 3Eʻ E H CF$ ʻ 2 3ʻ Eʻ $ʻ @ $ J ʻ C-QCN4 Q3Dʻ QOʻ F J C3 &ʻ H4ʻ F Cʻ 23E ʻ $EDʻ $NNH J R *H Eʻ @&4+ 1$E 3Dʻ QOʻ C-NFʻ 4 3Eʻ * 3ʻ $Cʻ F3ʻ J $Oʻ NFHHC3ʻ Hʻ 14HD-N3 ʻ Hʻ F3ʻ *H Eʻ @ 34+ʻ H&ʻ F3ʻ @ O ʻ B-42F ʻ H4ʻ *H Eʻ F Eʻ F NFʻ F3ʻ I43 J C3Cʻ Eʻ 43C13N ʻ H&ʻ F NFʻ F3ʻ CHʻ N $ JCʻ $43ʻ C -$ 3 ʻ 14H D3Dʻ F343ʻ Q3ʻ $ ʻ F3ʻ * J 3ʻ $ʻ *H Eʻ @ 34+ʻ $11H E 3Dʻ $EDʻ H&& N $ E2ʻ &H4ʻ C-NFʻ *H E ʻ F NFʻ @ $ Jʻ CF$ ʻ Q3ʻ Eʻ $ ʻ 43C13N Cʻ Eʻ F3ʻ C$ J 3ʻ 6H4 J ʻ $Cʻ Cʻ F343 E Q3&H43ʻ D 43N 3Dʻ $Cʻ Hʻ @ $ JCʻ Hʻ H 3ʻ &H4ʻ $ʻ @H-E O ʻ $EDʻ CF$ ʻ Q3ʻ CC-3D ʻ 43N3 3Dʻ Q$N+ ʻ J $4+3D ʻ $EDʻ 3E 343Dʻ Eʻ $ʻ BHH+ʻ H4ʻ ' 32 C 34ʻ QOʻ F3ʻ *H Eʻ @ 34+ʻ HEʻ F3ʻ C$ J 3ʻ *34 J Cʻ $EDʻ Eʻ F3ʻ C$ J 3ʻ P $EE34ʻ Eʻ $ ʻ 43C13N Cʻ $Cʻ F3ʻ @ $ JCʻ &H4ʻ @H-E Oʻ H 3Cʻ $43ʻ F343 E Q3&H43ʻ D 43N 3Dʻ Hʻ Q3ʻ CC-3D ʻ 43N3 3Dʻ Q$N+ ʻ J $4+3D ʻ $EDʻ 3E 343Dʻ QOʻ F3ʻ C3 34$ ʻ I$4 CFʻ ?NFHH J $C 34Cʻ $EDʻ ?F34 &&ʻ @ 34+Cʻ H&ʻ 3$NFʻ @H-E O.ʻ I4H D3Dʻ $ $OC ʻ F$ ʻ F343ʻ F3ʻ > J Cʻ H&ʻ $EOʻ @ O ʻ B-42F ʻ H4ʻ *H Eʻ $Cʻ D3CN4 Q3Dʻ Eʻ F3ʻ ?NF3D- 3ʻ ^P _ʻ Hʻ F Cʻ N ʻ $EE3 3D ʻ CF$ ʻ EN -D3ʻ F3ʻ 9 FH 3ʻ H4ʻ I$4 ʻ H&ʻ $EOʻ H F34ʻ B-42Fʻ H4ʻ *H E ʻ F3ʻ FH 3ʻ @ $ JCʻ $4 C E2ʻ F Eʻ C-NFʻ > J Cʻ CF$ ʻ Q3ʻ 2 3Eʻ Eʻ Hʻ F3ʻ @ 34+ʻ H&ʻ F3ʻ 14 EN 1$ ʻ

ʻ *ʻ

@ O

@ O' B-42F 'H4 *H E C13N & 3D $ED DHCN Q3D E C-NF ?NF3DE 3' $ED EH' H F3 @ 34+C H& $EO H& F3 C-QH4D E$ 3 B-42FC H4 *H EC 1$4 O H4 FH O EN -D3D F E F3 C$ D > J C: I4H D3D $ CH' F$' F343 F343 C EH *H E @ 34+ E $EO C-NF B-42F H4 *H E' F3 @ $ JC J$D3 E 43C13N 'H& I4H134 3C C -$ 3 E C-NF B-42F H4 *H E CF$ ' Q3 2 3E E H $ I34CHE 43C D3E' F E C-NF B-42F H4 *H E' H Q3 EHJ E$ 3D QO F3 ?F34 (? 'H& F3 @H-E O F E 6 & 33E G$OC $& 34 F3 1$CC E2 H& F C N

G ! ' ! ' - ' - # -2' ' #„ -? 0, _ - ') ' 2 W >' ED Q3 '3E$3 3D '*F$ '3$HF *H E @ 34+ CF$ '1431$43 $E 1F$Q3 N$' > C' H& F3 ,$ E3C 'G3C 2E$ HEC '$ED I $N3C H& QHD3 H& $' F3 I3 CHEC F E F3 @ O' B-42F 'H4 *H E H& F NF F3 C @ 34+ &H4 FH E C-NF @ $ J' CF$ 'E$ 3 Q33E 143C3E 3D' $ED CF$ ' HE H4 Q3&H43 F3 * 3E O C F G$O H& / 3 (31' E F C 143C3E '=3$4' N$-C3 $@H1O H& C-NF I$4 'H& C-NF > C '$C EN -D3C F3 @ $ J$E C F E 3$NF I$4 CF H Q3 $&& 3D HE H4 E3$4 F3 GHH4 H& F3 @F-4NF H& 3 34O C-NF I$4 CF F E C-NF B-42F H4 *H E' $EE3 E2 H 3$NF C-NF > C '$,H N3 H I34CHEC E 3ED E2 H HQ(3N ' H 3 E F3 4 <Q(3N HEC H F3 C$ D *H E @ 34+ HE H4 Q3&H43 F3 *3E F G$O 'H& +!5 ! 4! 'E3 ' 3EC- E2' $ED $ CH $,H N3 H& F3 * J 3 9 F3E $ED I $N3 F343' F3 ?F34 && H& F3 @H-E O F E F NF C-NF @ O' B-42F' H4 *H E J$O Q3 C -$ 3 'Q32 E H 3 $J E3 F3 @ $ JC H F NF EH <Q(3NR HEC CF$ ' Q3 HD23D ! $ED $ ' C-NF <Q(3N HEC CF$ ' Q3 &4$ J 3D E F3 C$ J 3 *34 J C' $ED CC-3D $ED 43N3 3D Q$N+ QO F3 C$ D *H E @ 34+' E $ '43C13N C 'HE F3 C$ J 3 @HEC D34$ HEC $ED E F3 C$ J 3 9 $O $ED P $EE34 $C C F343 E Q3&H 3 14H D3D $C H F3 <Q(3N HEC 2 EC '@ $ JC H& ' 32 C 4$ HE &H4 F3 @H-E O CH H Q3 CC-3D $ED D3$ ' F QO F3 ?NFHH J $C 34C E C-NF @H-E O' $ED F3 C$ J 3 ,H N3C CF$ 'Q3 2 3E QO F3 I $4 3C HQ(3N E2 H F3 I $4 O HQ(3N 3D H $C C 14H D3D E 432$4D H C#NF @ $ JC &H4 F3 @H-E O' $ED EH *H E @ 34+ CF$ '43N3 3 $EO @ $ J' H4 <Q(3N HE $& 34 F3 ; 1 4$ HE H& F3 * J 3 Q3&H43 $ H 3D $ED $11H E 3D &H4 2 E2 E C-NF @ $ JC $ED <Q(3N HEC 43C13N 3 O

?F34 && H D C1HC3 & 4C' H& @ $ JC EH' HQ(3N 3D H' W ' ED Q3 '3E$N 3D '*F$ '-1HE F# * 3 & F G$O H& +!5 ! 4! ' E F C 143C3E '=3$4 3$NF ?F34 && @ 34+ $ED 3$NF *H E @ 34+ H& $EO @ O' B-42F 'H4 *H E F E $EO <E3 @H-E O' H4 $EO * H @H-E 3C H4 I$4 C H& @H-E 3C -E 3D &H4 F3 I -41HC3C H& F C N ' CF$ ' $O Q3&H43 F3 ?F34 && F3 C3 34$ '@ $ JC $ED <Q(3N HEC F NF F$ 3 Q33E 43N3 3D QO $EO H& F3 C$ D @ 34+C ' H23 F34 F F3 * 3C H4 GHN-R J 3E C F NF J $O F$ 3 Q33E HD23D $ HE2 F $EO H& FHC3 @ $ 4$C ' $ED F3 C$ D ?F34 && CF$ ' &H4 F F 14HN33D H 3 $J E3 F3 @ $ JC H F NF EH <Q(3N HEC F$ 3 Q33E HD23D ' $#D F NF F$ 3 Q33E C-1R 1H4 3D QO I4HD-N HE 'H& $ 4 3E * 3 ' E F3 <4D34 ' $C E3$4 O $C 1HCC Q 3 ' E F NF F3O 343 143C3E 3D ' $ED F3E3 34 F3 C C$ C& 3D F$ ' F3 * 3 CH 14HD-N3D DH3C H& C3 & $&&H4D ; D3EN3 H& F3 $ D O H& F3 @ $ J ' F3 CF$ ' 4 3 -1HE F3 <$ J' F3 9 H4D `' DJ c $ED J$4+ F3 C$ J 3 F F C E $ C' $ED &H4 F F 43 -4E' F3 C$ D @ $ J' H F3 ?F34 && @ 34+ H4 F3 *H E @ 34+ QO FH J' ' $C 143C3E 3D ' F NF C3 34$ '@ 34+C CF$ ' F3E 3E 34 F3 @ $ J $E ' E F3 BHH+C H4 ' 32 C 34C H& X-$ & 3D H 34C H Q3 +31 'QO F3 J' &H4 F3 @H-E O' $ED &H4 F3 C3 34$ 'B-42FC F E F3 @H-E O 43C13N 3 O

E F3 1F$Q3 N$ <4D34 H& F3 H 34C , $ J 3C F3 , $ J 3C H& F3
@H - E O H 34C E 3$NF I $4 CF Q3 E2 3E 343D E $ C31$4$ 3 1F$Q3 N$
?34 3C $ED E F3 6H4 J H& F3 ?NF3D - 3 ^M _ H F C N $EE3 3D
$ED F3 C$ D ?F34 && @ 34+ $ED * H E @ 34+C CF$ F343 C 2E 3$NF ; E 4O
F F3 4 E $ C $ED 3$NF I $23 H& F3 ' 32 C 34 F F3 4 , $ J 3C
EED CF$ & - 4E CF $ C 2E3D @H1O H& C - NF ; E 4O H 3$NF H 34 H4 H
$EO I 34CHE FH J $O 43X - 43 - 1HE I $0 J 3E H& F3 ? - J H& ? 13EN3
HE O &H4 3$NF C - NF @H 1 0 $ED J J 3D $ 3 O $& 34 $ F3 @ $ J C H&
F C G3CN4 1 HE F NF $113$4 C - && N 3E O 3C $Q CF3D F$ 3 Q33E $DR
J 3D F3 ?F34 && CF$ 14HN33D H F3 @HEC D34$ HE H& F3 H F34
@ $ J C H F NF EH < Q(3N HEC F$ 3 Q33E 2 3E E Q - F NF F$ 3
3 F34 EH Q33E $NNH J 1$E 3D QO $EO 4 3E * 3 H4 F343 F3 * 3C
14HD - N3D DH EH $113$4 H F J H $&&H4D 5 & ' ! ; D3EN3 E
F3 4 6$ H - 4 $ED F$ E F3 <4D34 H& F3 G$ 3C HE F NF F3O 343
C3 34$ O 143C3E 3D $ED CF$ C - J J $4 O EX - 43 E H $ED 3 $ J E3
F3 ; D3EN3 QO F NF F3 I $4 3C H4 F3 4 23E C J $O F3E Q3 143R
1$43D H C - 11H4 F3 J QO F3 ; $ J E$ HE H& 4 3E GHN - J 3E C
9 E3CC3C H4 <$ F H4 G3N 4 HE H& I $4 3C H4 H F34 C3 $C F3
@$C3 J $O 43X - 43 H4 $D J H & $ED F3E F3 C$ D ?F34 && C C$ C& 3D
F$ $EO @ $ J $E F$C J $D3 H - $ 5 & ' ! @$C3 E C - 11H4 H& F C
@ $ J F3 CF$ 4 3 - 1HE F3 9 H4D ` D J c $ED J $4+ F
F C E $ C $ED 43 - 4E H F3 ?F34 && @ 34+ H4 F3 C3 34$ * H E
@ 34+C $C F343 E Q3&H43 14H D3D FH CF$ F343 - 1HE 3E 34 F3
@ $ J $E E F3 ' 32 C 34 E F3 C$ J 3 P $EE34 $ED H F3 C$ J 3 ; &&3N
$C C $QH 3 14H D3D $C H $D J 3D @ $ J C H& F3 & 4C G3CN4 1 HE
Q - F3E F3 ?F34 && C EH C$ C& 3D F$ F343 C 5 & ' ! ; D3EN3
H C - 11H4 $EO C - NF @ $ J F3 CF$ 4 3 - 1HE F3 9 H4D S ' 3(3N
$ED J $4+ F F C E $ C $C $QH 3 $ED 43 - 4E F3 C$ J 3 H F3
C$ D @ 34+C H Q3 +31 QO F3 J $11 3D &H4 QO F3 I $4 3C 143R
C3E E2 F3 C$ J 3 H4 F3 4 23E C H FH J - 1HE C - NF 11 N$ HE
F3O CF$ Q3 &H4 F F D3 343D

W ED Q3 3E$N 3D * F$ F3E F3 ?F34 && F$C E J $EE34 ?F34 && H
$&H43C$ D 2HE3 F4H - 2F $ED D C1HC3D H& $ F3 @ $ J C H F NF EH F3$4 $4 3C
< Q(3N HEC $43 H&&343D F3 CF$ 14HN33D H NHEC D34 $ED F3$4 F3 I $4 3C
H4 F3 4 23E C - 1HE F3 C3 34$ @ $ J C H F NF < Q(3N HEC $43 HD23D
$ED F$ E F3 <4D34 H& F3 G$ 3C H& 143C3E E2 F3 C$ D @ $ J C $ED
CF$ F3$4 $ED 43N3 3 $ NH J 13 3E ; D3EN3 F NF 3 F34 I $4 O
J $O 14HD - N3 E C - 11H4 H& F C @ $ J H4 < Q(3N HE 43C13N 3 O $ED
F343 F3 C C$ C& 3D F$ F3 @ $ J C 3 &H - ED3D F3 CF$ 4 3 HE
F3 9 H4D ` D J c $ - F3E N$ 3D $C $QH 3 $ED 43 - 4E H F3
@ 34+ &H4 ' 32 C 4$ HE $C E F3 H F34 @$C3C H& D J CC HE $ 43$DO
14H D3D &H4 $ED F343 F3 C C$ C& 3D F$ C EH 3 &H - ED3D
F3 CF$ J $4+ F F3 9 H4D ` ' 3(3N c $ED D3$ F E H F34
43C13N C $C F F3 43(3N 3D @ $ J C F343 E $ 43$DO 14H D3D &H4.
I 4H D3D $ $OC F$ E $ @$C3C F343 EH I $4 O CF$ $113$4 H
C - 11H4 $ @ $ J H F NF < Q(3N HEC F$ 3 Q33E HD23D CF$ Q3
43(3N 3D - 1HE F3 ?F34 && Q3 E2 C$ C& 3D F$ $ 5 & ' ! @$C3 F$C
Q33E J $D3 H - E C - 11H4 H& F3 < Q(3N HE $ED F343 EH I $4 O
CF$ $113$4 H J $ E $ E F C < Q(3N HE F3 @ $ J H F NF $11 3C
CF$ Q3 D3$ F $C & EH < Q(3N HE F$D Q33E HD23D 2 EC
$ED CF$ Q3 $D J 3D & F3 ?F34 && C C$ C& 3D F$ $ 5 & ! !
@$C3 F$C Q33E J $D3 H - E C - 11H4 H&

W W ED

& ' 4 3E' I 3$D E2C' H' @ H C' ' W W ' ED' Q3' ' 3E$N 3D ' * J ' EH' 4 3E' I 3$D E2C' CF$ ' E' $EO' ^ $C3' Q3' $ H 3D' E' C-11H4 ' H&' @ $ J C' H4' <Q(3N HEC' ' Q- ' F3E' F3' ?F34 & 6' CF$ ' 43(3N ' $E "@ $ J' H' F NF' EH' <Q(3N HE' F$C' Q33E' H&&343D $ED' F3E' Q3' CF$ ' F3$4' I $4 3C' -1HE' $EO' @ $ J' H' F NF' $EO' <Q(3N HE' F$C' Q33E' H&&343D ' F3' CF$ ' J $+3' $' , H 3' H&' F3' ? $ 3 J 3E ' H&' 6$N ' $ED' 7 H&' F3' I 3$C' &H-ED3D' HE ' $ED' H&' F3' , $ J 3C' H&' F3' 9 E3CC3C ' $ED' CF$ ' $&& ' F C' ? 2E$ -43' H' F3' G33DC ' 9 4 E2C ' $ED' H F34' GHN- J 3E C' 14HD-N3D' QO' F3' I $4 3C' E' C-11H4 ' H&' C-@F' @ $ J' H4' <Q(3N HE' ' $ED' ' CF$ ' EH ' H3' NH J 13 3E ' H' C-11H4 ' $EO' 113$ ' -1HE' $EO' M4H-ED' H&' 6$N ' H4' H&' >$ ' EH ' C3 ' &H4 F' E' C-NF' , H 3' H&' F3' ?F34 && ' H4' H' 14HR D-N3' $EO' 9 E3CC3C' EH ' E$ J 3D' E' F3' C$ D' , H 3 ' H4' $EO' G33DC ' 9 4 E2C ' H4' H F34' GHN- J 3E C' H' F NF' F3' ? 2E$ -43' H&' F3' C$ D' ?F34 && C' EH ' $&& 3D

= % ! ' ! ' +FL c 3& !' ' 4 # ' ! '$! f WW ' ED' Q3' ' 3E$N 3D ' * F$ ' HE' H4' Q3&H43' F3' 6 & 33E F' G$O' H&' <N HQ34' E' F3' 143C3E ' =3$4' 3$NF' ?F34 && @ 34+' CF$ ' NH J 1 3 3' F C' 1F$Q3 N$ ' > C C' H4' ' 32 C 34C' H&' H 34C' &H4' F3' @H-E O ' I 4H D3D' $ $OC ' F$ ' HE' H4' Q3&H43' F3' C$ D' 6 & 33E F' G$O' H&' 6 ' ,4! ' 3$NF' ?F34 && ' @ 34+ ' Q3 E2' F3' %33134' H&' F3' ' H ' H&' 6433FH D34C' &H4' F3' @H-E O' H&' F NF' F3' C' @ 34+ ' CF$ ' 4$EC&34' F3' , $ J 3C' H&' $ ' F3' 6433FH D34C' C $ED E2' HE' C-NF' ' H ' $& 34' F3' 1$CC E2' H&' F C' N ' H' F3' C$ D' > C C' H4' ' 32 C 34C' H&' H 34C' FH- ' 43X- 4 E2' $EO' @ $ J' H' Q3' 143C3E 3D' HE' Q3F$ & H&' C-NF' 6433FH D34C' ' $ED' &' $EO' ; 3N HE' CF$ ' $+3' 1 $N3' &H4' C-NF' @H-E O' Q3&H43' F3' C$ D' ' 32 C 34' CF$ ' Q3' NH443N 3D' $ ' F3' E3 ' O3$4 O' ' 3 C$ ' $C' F343 E $& 34' 14H D3D ' F3' H 3C' $ ' F C' 6 4C ' ; 3N HE' CF$ ' Q3' $+3E' $NNH4D E2' H' F C' 6 4C ' 1F$Q3 N$ ' ' 32 C 34 ' $E' $- F3E N$ 3D' @H1O' H4' @H1 3C' H&' F NF' CF$ $NNH4D E2 O' Q3' C3E ' &H4' F C' I -41HC3' H' 3$NF' H&' F3' I H E2' I $N3C' $11H E 3D' &H4' F3' @H-E O'. I 4H D3D' $ $OC ' F$ ' $ ' $ ' &- -43' ; 3N HEC' F NF' CF$ ' $+3' 1 $N3' $& 34' F3' O3$4 O' @H443N HE' H&' C-NF' ' 32 C 34?(' F3' H 3C' CF$ ' Q3' $+3E' $NNH4D E2' H' F3' $C ' NH J 1 3 3D' ' 32 C 34 ' $C' F343 E $& 34' J 3E HE3D

' 32 C 34C' &H4' 1F 3D F E' N34 $ E' * J 3C' F343$& 34' WW ' ED' Q3' ' 3E$N 3D ' * F$ ' HE' H4' Q3&H43' F3' * 3 & F' G$O' H&' E' F3' 143C3E ' =3$4' 3$NF' * H E' @ 34+' CF$ ' NH J 1 3 3' F C' 1F$Q3 N$ ' > C ' H4' ' 32 C 34' H&' H 3C' &H4' F3' @ O ' B-42F ' H4' * H E' H&' F NF' F3' C' @ 34+ ' $ED' F$ ' F343 34' C-NF' @ O ' B-42F ' H4' * H E' C' HE3' H&' $' G C 4 N ' NHE 4 Q- E2' F' H F34' B-42FC' &H4' F3' ' 3 -4E' H&' $' P 3 J Q34' H' I $4 $ J 3E ' $ED' C' EH ' F3' B-42F$ ' F NF' F3' 9 4 ' C' H' Q3' 14HN $ J 3D' $ED' F3' ; 3N HE' F3 D ' F3' * H E' @ 34+' CF$ ' F E' * F433' G$OC' $& 34' F3' C$ D' * 3 & F' G$O' H&' 6 ' ,4! ' J $+3' -1' $ED' 4$EC J ' $E' $- F3E N$ 3D' @H1O' H4' G-1 N$ 3' H&' C-NF' > C ' H4' ' 32 C 34' H' F3' * H E' @ 34+' H&' F3' @ O ' B-42F ' H4' * H E' $ ' F 1F' ' C' F343 E $& 34' 14H D3D' F$ ' F3' ; 3N HE' CF$ ' $+3' 1 $N3 ' $ED' F3 * H E' @ 34+' H&' F3' C$ D' 14 EN 1$ ' H&' 43 -4E E2' B-42F ' $& 34' F$ E2' 43N3 3D' C-NF' G-1 N$ 3C' &4H J' F3' H F34' B-42FC' H&' F3' G CR 4 N ' CF$ ' &H4 F F' NH J Q E3' $ED' 43D-N3' F3' FH 3' E H' <E3' > C ' H4' ' 32 C 34' H&' H 34C' &H4' F3' FH 3' G C 4 N ' FHC3' &H4' 3$NF' B-42F ' Q3 E2' $ $OC' +31 ' H23 F34 ' H' Q3' +31 ' QO' F J' E' F3' C$ D' 14 ER N 1$ ' B-&2F ' &H4' F3' I -41HC3' H&' ' 3&343EN3' $ED' EC13N HE ' $ED' &' $EO' ; 3N HE' CF$ ' $+3' 1 $N3' &H4' C-NF' G C 4 N ' Q3&H43' F3' C$ D' ' 32 C 34C' CF$ ' Q3' NH443N 3D' $ ' F3' E3 ' O3$4 O' ' 3 C$ ' $C' F343 ER $& 34' 14H D3D ' F3' H 3C' $ ' C-NF' ; 3N HE' CF$ ' Q3' $+3E' E' 3$NF

B-42F

B-42F' $NNH4D E2' H' F3 4' 6 4C' 1F$Q3 N$' '32 C 34C' &H4' C-NF' B-42F' F3 <4 2 E$ C' H4' $- F3E N$ 3D' @H1 3C' H&' F NF' CF$ ' $NNH4D E2 O' Q3' C3E ' H' 3$NF' H&' F3' I H E2' I $N3C' F$' J $O' Q3' $11H E 3D' E' 3$NF' C-NF' B-42F'.' 14H D3D' $ $OC' F$' E' $ '&- -43' ; 3N HEC' F3' H 3C' CF$ ' Q3' $+3E' $NNH4D E2' H' F3' $C' NH J 1 3 3D' $ED' NH443N 3D' '32 C 34' ' $C' F343 E $& 34' 3E$N 3D

WW ' ED' Q3' '3E$N 3D' *F$' 3$NF' ?F34 &&' CF$ ' HEN3' 3 34O' =3$4' ?F34 &&C CF$ ' $& 34' F3' 143C3E' =3$4' 3 $J E3' $ED' @H443N' F C' C$ D' '32 C 34C' $ED' 3$NF' ?F34 &&' @ 34+' $ED' *H E' @ 34+' F E' F3' @H-E O' CF$ '&H4' F C' I-41HC3' NH443N F3 4' E' F3' PHE F' H&' 5 4$3' $ED' Q3 33E' F3' *3E F' $ED' * 3E 3 F' G$OC' '32 C 34C' F343H&' E' 3 34O' C-NF' &- -43' =3$4' 2 3' 1-Q N' ,H N3' QO' D 34 C3R J3E C' $&& 3D' H' F3' @F-4NF' GHH4C' H&' $ ' F3' @H-E 4O' B-42F' $ED' *H E' < J 4NF3C' F E' F3' ?F 43' 43C13N 3 O' $ED' $ CH' &' F3O' CF$ ' C33' @$-C3' QO' D 34 C3 J 3E' E' F3' ,3 C1$134' H&' 243$ 3C' 431- 3D' @ 4N-R $ HE' E' F3' ?F 43' H' $ ' I 34CHEC' E 3ED E2' H' N $ J' H' Q3' 432 C 343D' H4' H' HQ(3N' H' F3' * 3' H&' $EO' H 34' $ 43$DO' HE' F3' '32 C 34' H' 2 3' E' F3 4' C3 34$' @ $ J C' * 3C' $ED' <Q(3N HEC' H' F3' ?NFHH J $C 34C' $ED' *H E' @ 34+C' $C' C-NF' @ $ J C' * 3C' $ED' <Q(3N HEC' 43C13NR 3 O' $43' QO' F C' N' D 43N 3D' H4' $- FH4 T3D' H' Q3' 2 3E' E' $ED' F$' E' F3' 6H4 J C' $ 43$DO' 14H D3D' ' ?NF3D- 3C' &6 _' $ED' ^8 _' H' F C' N' $EE3 3D' HE' H4' Q3&H43' F3' * 3E 3 F' G$O' H&' ?3% ' F3E' E3 ' 3EC- E2' $& 34' F NF' EH' C-NF' @ $ J C' H4' <Q(3N HEC' CF$ ' Q3' 43N3 3D' ' $ED' F3E' F3' E3 ' @ $ J C' $43' CH' 2 3E' E' F3' ?NFHH J $C 34C' $ED' F3' ?F34 &&' $ED' F3' ?F34 &&' @ 34+' $ED' C3 34$' *H E' @ 34+C' F E' 3$NF' @H-E O' CF$ ' D3$' F' $ED' D C1HC3' H&' F3 J' E' F3' C$ J 3' <4D34' $ED' P$EE34' QH F' $C' H' I-Q N$ HE' H&' F3' @ $ J C' $ED' ,H N3C' H' <Q(3N H4C' $ED' $C' H' F3' I 34 HDC' H4' E 34 $ C' $' F NF' F3O' CF$ ' C3 34$ O' Q3' 43N3 3D' EH & 3D' $ED' D C1HC3D' H&' $C' C' $QH 3' 14H D3D' F' 432$4D' H' F3' & 4C' H4' H4 2 E$' @ $ J C' &H4' '32 C 4$ HE' -ED34' F C' N ' ^F$' C' H' C$O _' F$' E' CH' &$4' $C' 43 $ 3C' H' @ $ J $E C' &H4' @H-E 3C' F3' C3 34$' ?NFHH J $C 34C' CF$ ' $&& ' F3' > C C' H&' C-NF' E3 ' @ $ J $E C' F' F3' ,H N3C' F343 E Q3&H43' D 43N 3D' H' F3' @F-4NF' GHH4C' HE' H4' Q3&H43' F3 * 3E O &H-4 F' G$O' H&' ?3% ' E' 3$NF' C-NF' =3$4' F$' $ '<Q(3N HEC' H' C-NF' @ $ J C' CF$ ' Q3' 2 3E' E' H' C-NF' ?NFHH J $C 34C' HE' H4' Q3&H43' F3' 6 & F' G$O' , '/3(31' F343$& 34' F$' F3' @ $ J C' $ED' <Q(3N HEC' CF$ ' Q3' D3 343D' H4' 4$EC J 3D' H' F3' ?F34 &&' @ 34+C' HE' H4' Q3&H43' F3' ; 2F F' G$O' H&' F3' C$ D' PHE F' H&' /3(31' E' 3$NF' C-NF' =3$4' F3' @ $ J $E C' Q3 E2' $' Q34 O' H' HD23' F3 4' 4 3E' * 3C' F' F3' ?F34 &&' @ 34+' $' $EO' * J 3' 143 H-C' H' F3' *3E F' G$O' H&' F3' C$ D' PHE F' $ED' F$' F3' FH 3' @ $ J C <Q(3N HEC' $ED' * 3C' CF$ ' Q3' $ D' Q3&H43' F3' ?F34 &&' HE' H4' Q3&H43' F&3' * 3 & F' G$O' H&' F$' PHE F' FH' CF$ ' D3N D3' -1HE' F3 4' P34 C' Q3 33E' F$' G$O' $ED' F3' 6 & 33E F' G$O' H&' +!5 ! 4! ' F343$& 34' $ED' F$ ' E' CH' &$4' $C' 432$4DC' @ $ J $E C' E' B-42FC' F3' C3 34$' *H E' @ 34+C' CF$ ' $&& ' F3' > C C' H&' E3 ' @ $ J $E C' F' F3' ,H N3C' F343 ER Q3&H43' D 43N 3D' H' F3' @F-4NF' GHH4C' H&' F3 4' B-42FC' HE' H4' Q3&H43' F3' * 3E O C F' ?? , ?3% ' E' 3$NF' C-NF' =3$4' ' F$' F3' <Q(3N HEC' H' C-NF' @ $ J C' CF$ ' Q3' 2 3E' E' HE' H4' Q3&H43' F3' *3E F' G$O' H&' /3(31' F343$& 34' $ED' F$' F3' FH 3' @ $ J C' <Q(3N HEC' $ED' * 3C' CF$ ' Q3' $ D' Q3&H43' F3' ?F34 &&' HE' H4' Q3&H43' F3' * 3 & F' G$O' H&' F3' C$ D' PHE F' H&' /3(31 ' FH' CF$ ' 3 $J E3' $ED' D3N D3' -1HE' F3' C$ J 3'

HE

HE H4 Q3&H43 F3 6 & 33E F G$O H&+!5 ! 4! E 3$NF C-NF =3$4 F3 C$ D ?F34 &&C $ $OC 14HN33D E2 H *F433 H4 H * H C3 34$ I $N3C $C $QH 3 14H D3D E F3 4 C3 34$ @H-E 3C $ED EH &O E2 H F3 ?F34 && @ 34+ HE H4 Q3&H43 F3 6 & 33E F G$O H& E 3$NF C-NF =3$4 F3 G$OC $ F NF F3O $43 H FH D F3 4 @H-4 C $ 3$NF H& F3 C$ D I $N3C H& F NF G$OC 4 3E , H N3 CF$ Q3 2 3E QO F3 ?F34 && @ 34+C H 3$NF *H E @ 34+ $ED I $4 CF ?NFHH J $C 34 E F3 @H-E O HE H4 Q3&H43 F3 ; 2F 33E F G$O H&?3% E 3$NF C-NF =3$4. I 4H D3D $ $OC F$ F3 ?F34 &&C CF$ -1HE F C <NN$C H$ NH443N $EO P C $+3C H4 < J CC HEC F NF J $O Q3 1H E 3D H- H4 D CNH 343D E F3 ; 32 C 34C E F3 , $ J 3 ' 3C D3EN3 H4 @HED HE H& $EO I 34CHE $ 43$DO 432 C 343D H4 H F34 C3 $ED 3$NF ?F34 &&@ 34+ CF$ &H4 F C I -41HC3 Q3 HQ 23D H +331 $ NH443N @H1O H& F3 ' 32 C 34 &H4 F3 @H-E O $ CH J 3 NHE 3E 3E I $N3 E F3 F3$D B-42F H& F3 ?F 43 ^ F3 *H E H& >30 N (E +) ! % #& Q3 E2 F3 D &H4 F C I -41HC3 F3 F3$D B-42F &H4 F$ I $4 H& F3 @H-E O_ $ED 3$NF *H E @ 34+ CF$ +331 $ @H1O H& F3 ' 32 C 34 &H4 F C B-42F $ CH J 3 NHE 3E 3E I $N3 E F3 C$ D B-42F F NF C3 34$ ' 32 C 34C CF$ &H4 $ I 34 HD H& *3E G$OC E3 $& 34 F3 * 3E 3 F G$O H& ?3#! E 3$NF =3$4 Q3 H13E H F3 EC13N HE H& $ I 34CHEC FH J $O D3C 43 H C33 F3 C$ J 3 FH- I $O J 3E H& $EO 633 &H4 C-NF ER &3N HE $ED 3$NF ?F34 && CF$ HE H4 Q3&H43 F3 6 & 33E F G$O H&+!5 ! 4! O3$4 O F$ 3 F C C$ D ' 32 C 34C & E$ O NH443N 3D $ED NH J 1 3 3D $ED 44E23D $C $QH 3 D 43N 3D E F3 1F$Q3 N$ <4D34 H& F3 H 34C , $ J 3C F F3 C3 34$ @H - J EC H& I $4R N- $4C F343 H $EE3 3D $C E F3 ?NF3D- 3 ^M _ H F C N $ER E3 3D $ED $& 34 F3 C$ D 6 & 33E F G$O H& +!5 ! #4! EH @F$E23 CF$ Q3 J $D3 QO $EO ?F34 && HE F C ' 32 C 34C &H4 F$ =3$4 3 N31 HE O E NHEC3X-3EN3 H& F3 5-D2 J 3E H& HE3 H4 H F34 H& F3 @H-4 C H& '3 3 F343 E$& 34 14H D3D. I 4H D3D $ $OC F$ E N$C3 $EO H& F3 G$OC F343 E Q3&H43 J 3E HE3D CF$ F$113E H Q3 +3#& H4 H F34 8H D$O HE F D EH B-C E3CC C -C-$ O 4ECN 3D F3E $ED E F$ @$C3 F3 C3 34$ N C $ED I 4HN33D E2C $11H E 3D H $+3 1 $N3 HE C-NF G$OC CF$ $+3 1 $N3 HE F3 G$O E3 3EC- E2

?F34 & & C 5-D2 J 3E C H Q3 $Q 3 H 43 3

WW ED Q3 3E$N 3D *F$ F3 ?F34 && C 5-D2 J 3E C 24$E E2 H4 43&-C E2 ' 32 C 4$ HE CF$ CH HE2 $C F3O 43 J $ E -E$ 343D Q3 NHEN -C 3 H& F3 ' 2F C H& I $4 3C N $ J E2 <4 H 23N 2 $C $QH 3 Q- F$ CF$ Q3 NH J 13 3E H $EO I $4 O NHEC D34 E2 F J C3 & $224 3 3D QO $EO C-NF 5-D2 J 3E H 113 $ED $11 O &H4 $E 34$R HE F343H& F3 $ $OC 2 E2 , H N3 E 9 4 E2 H F3 ?F34 && @ 34+ H4 *H E @ 34+ $ED < F3 H11HC 3 I $4 O 343 F3@ J J F$C Q33E D C1- 3D H& C-NF F C E 3E HE H 113 F E 6 3 G$OC $& 34 &F3 5-D2 J 3E NH J 1 $ E3D H& $ED 14HD-N E2 ; D3EN3 H& C-NF , H N3 H F3 5-D23 H& 113$ Q3&H43 3E 34 E2 HE C P 34 C

6H4 D C1HC E2 H& 113$ C $4 C E2 HE F3 & 4C H4 H4 2 E$ ' 3R 2 C 4$ HE

WW ED E H4D34 F$ F3 243$ 34 , - J Q34 H& 113$ C F NF J $O Q3 3 13N 3D H Q3 2 3E E $& 34 F3 6 4C M3E34$ ' 32 C 4$ &HE -ED34 F C N J $O Q3 J H43 3$C O $ED 3 13D H-C O D C1HC3D H& Q3 3E$N 3D *F$ F3 ?F34 && , (# & O $! #!11 $ED 6 #! $ED +) ! % #& CF$ &H4 J $ @H-4 H& '3 3 &H4 D3N D E2 -1HE $ C-NF 113$ C $C J $O Q3 $+3E &4H J F3 5-D2 J 3E C 14H

EH-EN3D' E' F C' 143C3E ' =3$4' HE' $EO' C-NF' @ $ J' &H4' ' 32 C 4$ HE '
-ED34' F C' N ' QO' F3' ?F34 &&C' H&' $EO' H&' F3C3' * F433' @H-E 3C ' H4' QO'
F3' ?F34 &&C' H&' F3' @H-E 3C' H&' I)#!11 ' +3) ! % #& ' L ,11' $ED' I ,[
' $ED' $ED' F$ ' F3' ?F34 &&C' H&' / 4! &!!# ' / (%! ' $ED
* !)' CF$ ' &H4 J' $' @$-4 ' 1&' ' 3 3 ' &H4' D3N D E2' -1HE' $ ' C-NF' 1R
13$ C' $C' J $O' F3' $FYE' &4H J' F3' 5-D2 J 3E C' 14HEH-EN3D' E' F C' 143C3E '
=3$4' HE' $EO' C-NF' @ $ J' &H4' ' 32 C 4$ HE ' -ED34' F C' N ' QO' F3' ?F3R
4 &&C' H&' $EO' H&' F3C3' * F433' @H-E 3C ' H4' QO' F3' ?F34 &&C' H&' F3' @H-E 3C'
H&' R , ' #' & #! ' H4' R !'=' $ED' F$ ' F3' ?F34 &&C' H&' < # ' / '
$ED' + % # (' CF$ ' &H4 J' $' @H-4 ' H&' ' 3 3 ' &H4' D3N D E2' -1HE' $ ' C-NF'
113$ C' $C' J $O' Q3' $+3E' &4H J' F3' 5-D2 J 3E C' 14HEH-EN3D' E' F C'
143C3E ' =3$4' HE' $EO' C-NF' @ $ J' &H4' ' 32 C 4$ HE ' -ED34' F C' N ' QO'
F3' ?F34 &&C' H&' $EO' H&' F3C3' * F433' @H-E 3C ' H4' QO' F3' ?F34 &&C' H&' F3'
@H-E 3C' H&' 23 4 ,#' # ,11 ' $ED' I % ' ## # $ED' " 3 !=' $ED' F$ '
F3' ?F34 &&C' H&' L !# !F ' '3&4 ( ) ' $ED' 23 !1' CF$ ' &H4 J' $'
@H-4 ' H&' ' 3 3 ' &H4' D3N D E2' HE' $ ' C-NF' 113$ C' $C' J $O' Q3' $+3E'
&4H J' F3' 5-D2 J 3E C' 14HEH-EN3D' E' F C' 143C3E ' =3$4' QE' $EO' C-NF'
@ $ J' &H4' ' 32 C 4$ HE ' -ED34' F C' N ' QO' F3' ?F34 &&C' H&' $EO' H&' F3C3'
* F433' @H-E 3C ' H4' QO' F3' ?F34 &&C' H&' F3' @H-E 3C' H&' * !!4%!1 ' + !% '
$ED' (,#=' $ED' F$ ' F3?F34 && ' H&' 8& #43 ( ) ' < #%) (, F ' $ED' " ! [
F ' ' CF$ ' &H4 J' $' @H-4 ' H&' ' 3 3 ' &H4' D3N D E2' -1HE' C-NF' 113$ C'
$C' J $O' Q3' $+3E' &4H J' F3' 5-D2 J 3E C' 14HEH-EN3D' E' F C' 143C3E ' =3$4'
HE' $EO' C-NF' @ $ J' &H4' ' 32 C 4$ HE ' -ED34' F C' N ' QO' F3' ?F34 &&C' H&'
$EO' H&' F3C3' * F433' @H-E 3C ' H4' QO' F3' ?F34 &&C' H&' F3' @H-E 3C' H&'
L ,J43 ( )' $ED' && # (,#=' $ED' 3$NF' * F433' H&' F3' ?F34 &&C' $QH 3'
E$ J 3D ' $C' (H E ' 5-D23C' H&' 113$ ' &H4' F3' @H-E 3C' F343 E' $QH 3'
C13N & 3D ' CF$ ' F E' ; 2F ' G$OC' $& 34' F3' C$ D' 6 4C ' ' 32 C 34C' CF$ '
Q3' NH J 1 3 3D' $C' F343 E Q3&H43' 14H D3D ' 14HN33D' -1HE' $' @ 4N- ' E H'
F3' G C 4 N ' $C' H' F NF' F3O' $43' F343QO' NHEC - 3D' 5-D23C' H&' 1R
13$ ' $ED' CF$ ' 431$ 4' C-NN3CC 3 O' H' F3' @H-E O' * H E ' $ED' H' $ ' 3$C '
< E3' H F34' * H E' E' 3$NF' H&' F3' @H-E 3C ' E' 3$NF' C-NF' G C 4 N ' ^3 R
N31 E2' $ $OC' NH J Q E3D' @H-E 3C ' F NF' CF$ ' &H4' F C' I -41HC3' Q3'
F3 D' Q- ' $C' < E3' @H-E O ' $ED' 3 N31 E2' $ CH' F3' @H-E O' H&' 6 % ! '
$ED' +) ! % #& ' &H4' F NF' F3' @H-4 ' H&' ' 3 3 ' CF$ ' Q3' F3 D' HE O' $ '
F %%' # 6 #! A' $ED' CF$ ' F343' F3$4' $ED' D3 34 J E3' HE' $ ' C-NF'
113$ C ' , H N3' F$ E2' Q33E' 2 3E' QO' D 34 C3 J 3E C' E' F3' , 3 CR
1$134C' H&' F3' D &&343E ' I $N3C' $ ' F NF' F3O' $43' C-NN3CC 3 O' H' FH D'
F3 4' @H-4 C ' $ED' H&' F3' G$OC' 43C13N 3 O' HE' F NF' F3 4' C$ D' @H-4 C' '
$43' H' Q3' H13E3D' E' 3$NF' I $N3 ' $ED' E' N$C3' H&' F3' E3N3CC$4O' QR
C3EN3' H&' $EO' H&' F3' * F433' ?F34 &&C' F343 E Q3&H43' J 3E HE3D ' F3'
43 J $ E E2' * H' CF$ ' Q3' $' \ -H4- J' &H4' (-D2 E2' E' C-NF' 113$ C ' Q- '
E' N$C3' H&' F3 4' D &&34 E2' E' < 1 E HE ' F3O' CF$ ' Q3' HQ 23D' H' 43&34'
F3' @$C3' &H4' F3' 5-D2 J 3E ' H&' F3' ?F34 &&' FH' CF$ ' Q3' $QC3E ' $ED'
E' F3' ; 3E ' H&' $EO' H&' F3' ?F34 &&C' F343 E' E$ J 3D' $C' 5-D23C' H&' 113$ '
Q3 E2' EN1N $ 3D' H4' DO E2 ' $ED' EH' ?-NN3CCH4' Q3 E2' $11H E 3D '
$& 34' F3' 1$CC E2' H&' F C' N ' $ED' Q3&H43' F3' * J 3' $44 3C' &H4' FH D E2'
F3' @H-4 C' H&' 113$ ' F343 E Q3&H43' D 43N 3D ' F3' > H4D' I 43C D3E '
H&' F3' @H-4 ' H&' ?3CC HE' CF$ ' $11H E ' CH J 3' H F34' ?F34 &&' H' $N ' E'
Q C' I $N3 ' FH' CF$ ' $N ' $ED' 14HN33D' $NNH4D E2 O ' $ED' EH' 4 3E'
I 3$D E2C' CF$ ' Q3' $ H 3D' Q3&H43' C-NF' @H-4 C' H&' ' 3 3 ' EH4' $EO'
' 3NH4D' Q3' J $D3' -1' H&' F3 4' I 4HN33D E2C ' $ED' EH' 4 3E' ?3E 3EN3'
CF$ ' Q3' 14HEH-EN3D ' 3 N31 ' QO' < E3' H&' F3' C$ D' ?F34 &&C' 4 E2' F3
9 H4D

9 H4D' `' DJ 'c' H4' /'%3(3N 'c' ^$C' F3' @$C3' J $O' Q3_' HE' F3' @ $ J' E' D C1- 3' $ED' QO' F J' $ED' F3' H F34' ?F34 &3' C-QCN4 Q E2' F3 4' , $ J 3C' H' F3' 9 H4D' CH' 4 3E ' I 4H D3D' $ $OC ' F$ ' ' CF$ ' Q3' NH J 13 3E '&H4' C-NF' ?F34 &&C' $N E2' $C' 5-D23C' H&' 113$ ' H' & ED' F3' 113 $E ' $Q 3' E' @HC C' F3E' F3O' $&& 4 J' F3' 5-D2 J 3E ' 113 3D' &4H J ' $ED' H' J HD &O' $ED' D3N34E' &H4' F3' C$ J 3' (HE' F NF' G3N3&E -43' F3' ' 3C1HED3E ' CF$ ' Q3' 3E 3D' H' 3E&H4N3' I $O J 3E ' $C' H&' $E' H4D E$4O' G3Q ' F E' F3' @H-E O' F343' F3' D C1- 3D' @ $ J' $C' 143C3E 3D' ($ED' F3' 5-D2 J 3E C' H&' C-NF' ?F34 &&C' HE' $ ' C-NF' 113$ C' CF$ ' Q3' 14HEH-EN3D' HE' H4' Q3&H43' F3' * 3E O & & F' G$O' H&' E , 0! 4! ' E' F C' 143C3E ' =3$4 ' $ED' CF$ ' Q3' & E$ ' $ED' NHEN -C 3' H' $ ' E 3E C' $ED' I -41HC3C' $ED' EH ' $Q 3' H' $EO' I 4HN3CC' H&' ' 3 3 ' $ED' CF$ ' F3E3 34' F3O' $4O' H4' 43 34C3' F3' 5-D2 J 3E ' NH J 1 $ E3D' H& ' Q3 ' -1HE' F3 4' I 4HD-N HE' C-QCN4 Q3D' $C' $QH 3' $' 9 44E '&H4' F3' ?F34 &&' FH' J $D3' -1' F3' ' 32 C 34' H' $ 34' $ED' NH443N ' F C' ' 32 C 34C' E' NHE&H ' J O' F343 H ' $ED' F3' CF$ ' CH' $ 34' $ED' NH443N ' F3 J' $NNH4D E2 O ' $ED' CF$ ' F$ 3' F3' C$ D' ' 32 C 34C' NH J 1 3 3D' F' C-NF' @H443N HEC' HE' H4' Q3&H43' F3' * F 4 3 F' G$O' H&' E , 0! 4! ' E' F C' 143C3E ' =3$4

113$ C' (&4H J ?Q34 *C' 5-D2 J 3E C' HE' $EO' $E ' E-$' ' 32 CR 4$ HE' D' Q3' H' ?F34 &&C' $Q 3' E' $ R 3ED$EN3' $ ' @ 4N- ' @H-4 C' H&' 5-C N $4O

' WW ' ED' Q3' ' 3E$N 3D ' * F$ ' F3E3 34' $EO' I $4 O' CF$ ' Q3' D CC$ C& 3D' F' $EO' 5-D2 J 3E ' H&' $' ?F34 &&' $D J E2' H4' 43&-C E2' ' 32 C 4$ HE ' H4' 3 1-E2 E2' H4' 43&-C E2' H' 3 1-E23' $EO' , $ J 3C' $ 43$DO' HE' F C' ' 32 C 34 ' $ ' $EO' H&' F3' $EE-$ ' ' 32 C 4$ HEC' $ED' @H443N HEC' F343 EQ3&H43' D 43N 3D' H' Q3' F3 D' E' $EO' &- -43' =3$4 ' ' CF$ ' Q3' NH J 13 3E ' &H4' $EO' C-NF' I $4 O ' F343 34' F3' @H-E O' H&' C-NF' ?F34 && C' F E' $EO' @ 4N- ' H&' F3' @H-4 ' H&' 5-C N $4O ' H' 113 ' &4H J' C-NF' 5-D2 J 3E ' H' F3' ?F34 &&C' $Q 3' E' $ 3ED$EN3' $ ' C-NF' @ 4N- ' &H4' F3' G C 4 N ' F E' F NF' C-NF' @H-E O' C' C -$ 3' F NF' ?F34 & C' H4' CH J 3' * F433' H&' F3 4' , - J Q34 ' CF$ ' 43 J $ E' $ ' H4' 43 -4E' H' F3' M4N- ' * H E' H&' C-NF' G C 4 N ' $& 34' F3' - - J E$ ' @ 4N- ' E' 3$NF' C-NF' =3$4 ' $ED' F343' Q32 E' H' FH D' F3 4' @H-4 ' &H4' D C1HC E2' H&' C-NF' 113$ C' HE' CH J 3' G$O' Q3 33E' F3' 6 & 33E F' $ED' * 3E O&& & F' G$OC' , ' + !5 ! 4! ' ' 3$NF' C-NF' =3$4 ' H&' F NF' G$O' , H N3' CF$ ' < E3' 9 33+' Q3&H43 ' Q3' 2 3E' QO' D 34 C3 J 3E ' E' F3' , 3 C1$134' H&' 243$ 3C ' @ 4N- $ HE' F E' 3$NF' C-NF' @H-E O ' $ED' F3' C$ D' ?F34 &&C' CF$ ' F343' & E$ O' D3 34 J E3' $ ' C-NF' 113$ C' HE' H4' Q3&H43' F3' * 3E 3 F' G$O' H&' 6 ' , 4! ' F343$& 34 ' F3' ?F34 && H J' H&' 6 #! ' $ED' +) ! % #&' Q3 E2' $ $OC' F3 D' &H4' F C' I -41HC3' H' Q3' F E' F3' G C 4 N ' H&' $#0! #!11 ' $ED' F3' ?F34 &&' F3E' 143C3E ' Q3 E2' 3E 3D' H' $N ' $C' $' 5-D23' H&' 113$: I 4H D3D' $ $OC ' F$ ' F343' F3' ?F34 &&C' $Q 3' E' $ 3ED$EN3' $ ' $EO' C-NF' @ 4N- ' $43' &3 34' F$E' * F433 ' H4' F343' $EO' H&' F3 J)' C' -E$ H DR $Q O' 143 3E 3D' &4H J ' $ 3ED E2' QO' ? N+E3CC' H4' H F34' $NN D3E $ ' @$-C3 ' F3' 5-D23' H4' 5-D23C' $ ' F3' C$ D' - - J E$ ' @ 4N- ' CF$ ' EH J E$ 3' $ED' $11H E ' < E3' H4' J H43' H F34' ?F34 &&C ' H4' D HN$ 3C' H&' EH ' 3CC' F$E' 6H-4' =3$4C' C $ED E2 ' H' $N ' $ HE2' F' F3' $ 3ED E2' ?F34 &&C ' CH' $C' F$ ' F343' CF$ ' $ $OC' Q3' * F433' 5-D23C' E' C-NF' @H-4 ' H&' ' 3R 3 ' ($ED' F' 432$4D' H' F3' 5-D2 J 3E C' 14HEH-EN3D' E' C-NF' $ER E-$ ' ' 32 C 4$ HEC' QO' F3' ?F34 &&C' H&' F3' , '8& #43 ( ) ' &[& #(, # ' H4' < #%) (, F' 43C13N 3 O ' F3' 113$ ' CF$ ' Q3' H' F3' ?F34 &&C' H&' F3' * F433' C$ D' @H-E 3C' (H E O ' $ED' F3O' $43' F343QO' 4 - 43D' H' FH D' $' @H-4 ' &H4' F C' I -41HC3' $ ' 8& #43 ( ) ' $ ' CH J 3' * J 3' O H-C O' $EEH-EN3D ' Q3 33E' F3' 6 & 33E F' $ED' * 3E O & & F' G$OC H&

H&' +!5 ! 4! ' -' 3$NF' =3$4' $ED' & E$ O' H' D3 34 J E3' HE' $ ' 113$ C'
HE' H4' Q3&H43' F3' * 3E 3 F' G$O' H&' 6 ' ,4! ' F343$& 34'.' I4H D3D'
$ $OC ' F$ ' E' F3' ; 3E ' H&' F3' ? N+E3CC' H4' -E$ H D$Q 3' QC3EN3' H&'
$EO' H&' F3' C$ D' * F433' ?F34 6C' ' CF$ ' Q3' NH J 13 3E ' H' F3' >H4D' I 43R
C D3E ' H& ' F3' @H-4 ' H&' ?3CC HE ' HE' F3' 11 N$ HE' H&' $EO' H&' F3' C$ D'
?F34 &&C' H' $11H E ' CH J 3' H F34' ?F34 &&' H4' D HN$ 3' H&' 6H-4' =3$4C'
C $ED E2 ' H' $N ' $ED' H&& N $ 3' E' 1 $N3' H&' F3' ?F34 &&' CH' EN1N $ 3D'
$ED' F3' 5-D2 J 3E C' H&' F3' C$ D' @H-4 C' H&' ' 3 3 ' CF$ ' E' $ ' @$C3C' Q3'
& E$' $ED' NHEN -C 3' $ED' $Q 3' H' EH' I 4HN3CC' H&' ' 3 3 ' $ED' CF$ '
F3E3 34' F3O' 43 34C3' H4' $4O' F3' 5-D2 J 3E C' H&' F3' ?F34 &&' 113 3D'
&4H J ' Q3' 9 44E C' H' F J' H' $ 34' $ED' NH443N ' F C' ' 32 C 34C' E' NHER
&H4 J O' F343 H ' $ED' F3' CF$ ' HE' C-NF' 5-D2 J 3E C' Q3 E2' J $D3' +EH E'
H' F J' QO' F3' I $4 3C ' $ 34' $ED' NH443N ' C-NF' ' 32 C 34C' $NNH4D E2 O '
I 4H D3D' $ $OC ' F$ ' EH' 34$ HE' H&' F3' ?F34 &&C' 5-D2 J 3E C' 3 F34'
QO' F3' @H-4 C' H&' ' 3 3 ' $QH 3' E$J 3D' ' H4' QO' $EO' H F34' 5-D23C' H&'
113$ ' CF$ ' $&&3N ' F3' P 34 C' H&' $EO' ; 3N HE' $N -$ O' NH J 1 3 3D' $ED'
N$44 3D' F4H-2F' Q3&H43' F3' G$ 3' H&' C-NF' 34$ HE' 3 N31 ' E' CH' &$4'
$C' ; &&3N ' J $O' Q3' 2 3E' H' C-NF' 34$ HE' QO' $EO' @H J J 33' H&' F3'
@H J J HEC' 8H-C3' H&' I $4 $ J 3E ' H' F NF' $' I 3 HE' 2 EC ' C-NF'
; 3N HE' J $O' Q3' 43&3443D.' I 4H D3D' $ CH' F$ ' EH F E2' F343 E' NHER
$ E3D' CF$ ' Q3' F3 D' H' J ' H4' 43C 4$ E' F3' I H 34C' H&' C-NF' @H J J 33'
H' $+3' E H' @HEC D34$ HE' F3' $ D O' H&' $EO' H 3' H4' @ $ J' &H4'
' 32 C 4$ HE' $D J 3D' H4' 43(3N 3D' QO' F3' ?F34 & I' H&' F3' 5-D23C' H&'
113$ ' $ED' H' $ 34' F3' ' 32 C 34' I H ' H4' ' 3 -4E' $NNH4D E2 O ' E' CH'
&$4' $C' NHEN34EC' F3' ; 3N HE' 13 HE3D' 2 EC .' I 4H D3D' $ CH' F$ '
E' $ ' I 4HN33D E2C' Q3&H43' C-NF' @H J J 33' &H4' D3 34 J E E2' F3' $ D O'
H&' $EO' ; 3N HE' &H4' +' , % #&' $ ' G33DC ' EC 4- J 3E C' ; 4$N C' H4' H F34'
9 4 E2C' F NF' $43' 14HQ$ 3' QO' F3' >$ ' H&' +' , % #&' CF$ ' Q3' D33 J 3D'
$ED' $+3E' H' Q3' 14HQ$ 3' $ED' CF$ ' Q3' 43N3 3D' E' ; D3EN3' QO' C-NF'
@H J J 33' FH- ' I 4HH&' H&' F3' ; 3N- HE ' ? 2E E2' H4' ; $ J E$ HE'
F343H& ' E' F3' C$ J 3' P $EE34' $C' C-NF' G33DC ' EC 4- J 3E C' ; 4$N C' H4'
H F34' 9 4 E2C' $43' EH ' $D J 3D' E' @H-4 C' H&' >$ ' $ED' ; X- O' E'
+' , % #&

WW >' ED' Q3' ' 3E$N 3D * F$ ' E' $ ' ; 3N HEC' $& 34' F3' ; ED' H&' F C' ' 32 C 343D'
143C3E ' I $4 $ J 3E ' 3 34O' X-$ & 3D' I 34CHE' FHC3' , $ J 3' CF$ ' $113$4' H 34C' HE O'
E F3' $C ' NH443N 3D' ' 32 C 34' $ED' EHE3' H F34' CF$ ' Q3' 3E 3D' H' H' Q3' $ H 3D'
H 3' ' $ED' ' CF$ ' EH ' Q3' NH J 13 3E ' H' EX- 43' HE' F$ ' <NN$C HE' E H' H' H 3
$EO' H F34' 6$N C' 3 N31 ' FHC3' H&' F3' I $4 O' 3ED34 E2' F3' H 3' Q3 E2' > J $ HE' H&'
4- O' F3' ED D-$ ' J 3E HE3D' E' F3' C$ D' ' 32 C 34' H&' F C' Q3 E2' C ' EX- 4O' $ '
1HCC3CC3D' H&' F3' \ -$ & N$ HE' F343' 43NH4D3D ' HE' F C' H E' NNH-E ' $ED' ; 3N HEC
EH ' E' * 4-C ' &H4' H4' $ ' F3' I 3$C-43' H&' $EO' H F34' I 34CHE ' $ED' H&' F C' EH '
F$ E2' 143 H-C O' H 3D' $ ' F$ ' ; 3N HE' .' I 4H D3D' $ $OC ' F$ ' F3'
EX- 4O' E H' F3C3' 6$N C' CF$ ' HE' F C' <NN$C HE ' Q3' NHE& E3D' H' F3'
1- E2' H' F3' I 34CHE' CH' 3ED34 E2' F C' H 3 ' &' F3' ?F34 &&' CF$ ' Q3'
43X- 43D' CH' H' DH' HE' Q3F$ & H&' $EO' @$ED D$ 3 ' $E' <$ F ' H4 ' &' F3' Q3' $
\ -$+34' H4' P H4$ $E ' $' CH 3 J E' && 4 J $ HE ' E' F3' 6H4 J ' H&' F3' ?NF3R
D- 3' ^ _' H' F C' N ' $EE3 3D' ' $ED' ' CF$ ' EH ' Q3' NH J 13 3E ' $ ' $EO'
C-NF' I H ' H4' ; 3N HE' H' 1- ' H' $EO' 432 C 343D' H 34' $EO' H F34' <$ F' H4'
&& 4 J $ HE' F$ CH3 34 ' 3 N31 ' HE O' $E' <$ F' H4' && 4 J $ HE' 2 EC '
B4 Q34O ' F NF ' &' 43X- 43D' HE' F3' I $4 ' H&' $EO' @$ED D$ 3 ' CF$ ' F3E' Q3'
1- ' QO' F3' ?F34 && E' F3' 6H4 J' H&' ?NF3D- 3' ^% _' H' F C' N '
W' $EE3 3D.

V_ @9?6':6 ' '&' #) !

$EE3 3D.' I4H D3D' $ $OC' F$'$EO' I34CHE' FH' F$C' N$ J3D' H' Q3' 432 C 343D' Q-' FHC3' @$ J' F$C' Q33E'43(3N 3D' QO' F3' ?F34 &&' H4' @H-4'H&' '3 3 ' J$O' EH FC $ED E2' 3ED34' F C' H 3' $' $EO' ; 3NR HE' F343' C-NF' '32 C 34' C' E' &H4N3' $ED' F3' ?F34 &&' , ' F C' ?-QC -3' CF$ '3E 34' $EO' H 3' CH' 3ED343D' F' F3' , $J3' H&' F3' I34CHE' &H4' FHJ' ' C' 2 3E' D C E2- CF E2' F3' C$J3' &4HJ' F3' H 3C' 2 3E' QO' I34CHEC' HE' F3' '32 C 3 (CH' F$' ' J$O' Q3' E' F3' I H 34' H&' $EO' ; 3N HE' @HJJ 33' H' 2 3' 3&&3N' H' C-NF' H 3' E' D3N D E2' -1HE' F3' $ D O' H&' $EO' D C1- 3D' ; 3N HE' Q-' EH' ?N4- EO' CF$ ' Q3' $ H 3D' QO' H4' Q3&H43' $EO' '3 -4E E2' <&& N34' F' 432$4D' H' $EO' H 3C' 2 3E' H4' 3ED343D' $' $EO' C-NF' ; 3N HE

?F34 &&C CF$ ' D D3' F3 4' @H-E 3C' E H' G C 4 N C' &H4' 1H E2'' $ED' $11H E' I H E2' I $N3C

WW ' ED' Q3' '3E$N 3D' *F$' F E' *F433' PHE FC' $& 34' F3' 1$CC E2' H&' F C' N' 3$NF' ?F34 &&' CF$ ' D D3' F C' @H-E O' E H' NHER 3E 3E' G C 4 N C' &H4' 1H E2' &H H E2' $C' E3$4 O' $C' 1HCC Q 3' F3' BH-ED$4 3C' H&' I $4 CF3C' B$4HE 3C' H4' H F34' +EH E' ?-QD C HEC' $ED' CF$ '$11H E' $' 1$4 N- $4' I H E2' I $N3' &H4' 3$NF' C-NF' G C 4 N ' F NF' I $N3' CF$ 'Q3' C3 3N 3D' CH' $C' H' Q3' JHC' $NN3CC Q 3' H' F3' H 34C' E' F3' G C 4 N ' $ED' C-NF' I H E2' I $N3C' CF$ ' E' EH' @$C3' Q3' J H43' E' , - J Q34' F$E' 6 & 33E' &H4' $EO' <E3' @H-E O' $ED' CF$ ' Q3' CH' 44E23D' $C' F$' EH' J H43' F$E' ? 'F-ED43D' I34CHEC' H4' F343$QH- C' CF$ ' 1H '

*H E' @ 34+C' CF$ '$11H E' I H E2 I $N3C' 4' @ 3C' $ED' B-42FC

$' $EO' ; 3N HE' $' $EO' <E3' I $N3' $ED' 3$NF' *H E' @ 34+' CF$ ' E' +3' P$EE34' $11H E' <E3' I H E2' I $N3' E' 3 340' @ O' B-42F' H4' *H E' H&' F NF' F3' C' @ 34+' E' F NF' F3' , - J Q34' H&' H 34C' DH3C' EH' 3 N33D' ? 'F-ED43D' H4' F343$QH- C' $ED' CF$ ' F343 34' F3' , - J Q34' H&' 432 C 343D' H 34C' E' $EO' C-NF' @ O' B-42F' H4' *H E' CF$ ' 3 N33D' ? 'F-ED43D' H4' F343QO' D D3' F3' C$ D' @ O' B-42F' H4' *H E' E H' NHE 3E 3E' G C 4 N C' $ED' $11H E' $' NHE 3E 3E' I H E2' I $N3' E' 3$NF' C-NF' G C 4 N ' CH' $C' F$' EH' J H43' F$E' $QH-' ? 'F-ED43D' I34CHEC' CF$ ' 1H ' $' $EO' ; 3N HE' $' $EO' C-NF' I $N3' ' $ED' 3$NF' ?F34 &&' @ 34+' CF$ ' F E' 6H-4 33E' G$OC' $& 34' F3' ?F34 &&' F$C' CH' D D3' F C' @H-E O' E H' G C 4 N C' &H4' 1H E2' J$+3' -1' $' D C EN' > C' H&' F3' C$ D' G C 4 N C' $ED' F3' I H E2' I $N3' $11H E 3D' E' 3$NF' $ED' CF$ ' N$-C3' @H1 3C' H&' F3' C$ D' > C C' H' Q3' $&& 3D' H' F3' GHH4C' H&' $' F3' @H-E 4O' I $4 CF' @F-4NF3C' E' F C' @H-E O' ' $ED' 3$NF' *H E' @ 34+' CF$ ' F E' F3' C$J3' I34 HD' $&& ' > C C' H&' F3' I H E2' I $N3' H4' I H E2' I $N3C' F E'

H 34C' H' 1H ' E F3 G C 4 N' F343' F3' I4H134 O' F NF' 2 3C' F3' \-$ & N$R HE' 3C

F C' B-42F' H' $' F3' @F-4NF' GHH4C' F E' F3' C$J3' $ED' 3 340' H 34' CF$ '1H '$' F3' I H E2' I $N3' H&' F3' G C 4 N' F E' F NF' F3' I43 J C3C' H4' $EO' I $4' H&' F3 J' E' 43C13N' H&' F NF' F3' N $ J C' H' H 3' J $O' Q3' C -$ 3' 3 N31 ' HE O' F343' C-NF' I H E2' I $N3' CF$ ' Q3' E' $E' C $ED' D C $E' J H43' F$E' *3E' P 3C' &4HJ' F3' P $ E $ED' H&' $EO' @H-E O' E' F NF' @$C3' F3' H 34C' EH' 43C D3E' E' C-NF' C $ED' J $O' 1H ' $' F3' I H E2' I $N3' &H4' F3' G C 4 N' E' F NF' F3' @H-E O' *H E' C' ER

I4H CH $C' H'N34 $ E' B-42FC

N -D3D.' I4H D3D' $ $OC' F$' F' 43C13N' H' F3' NHE 2-H-C' B-42FC' H&' / #1 3) ! ' 8 1' / #1 3) ! ' !1 ' $ED' % !## ' F3' *H E' @ 34+' H&' / #1 3) ! ' 8 1' CF$ ' $11H E' <E3' I H E2' I $N3' F E' F3' C$ D' -42F' H&' / #1 3) ! ' 8 1' &H4' F3' FH 3' H&' F3' C$ D' *F433' B-42FC' F NF' I $N3' CF$ ' Q3' EH & 3D' E' J $EE34' F343 E' 14H D3D' $ED' $ ' H 34C' E' F3' C$ D' *F433' B-42FC' CF$ ' 1H ' $' F3' I H E2' I $N3' CH'

'32- $ HEC 43C13N E2 NHE 3C 3D ; 3N HEC

$11H E 3D' $ED' $' $EO' NHE 3C 3D' ; 3N HE' F3' ?F34 &&' CF$ ' &' 43R X- 43D' QO' $EO' H&' F3' @$ED D$ 3C' D 43N' * H' H4' J H43' BHH FC' H4' 8$ C' 'HHJ C(H4' H F34' I $N3C' &H4' 1H E2' H' Q3' 14H D3D' $' 3$NF I H E2

'. .UL' K SLM # > ; > P ' ' @$1 Y! ' ' YS!

I H E2' I $N3 ' $ED' $ ' I H C' CF$ ' Q3' $+3E ' QH F' $ ' ; 3N HEC' &H4' ?F 43C' $ED' &H4' @ 3C ' B-42FC ' $ED' * H EC ' -ED34' F3' ?-134 E 3ED3EN3' H&' F3' ?F34 && ' H4' H&' $' ?-QC - 3' H4' ?-QC - 3C' E$ J 3D' QO' F J ' F NF' ?-QC R - 3C' F3' ?F34 && C' F343QO' 3 J 1H 343D' H' E$ J 3' $ ' F C' H E' G CN43 HE ' D FH- ' HQC34 E2' F3' 6H4 J C' E3N3CC$4O' E' F3' 11H E J 3E ' H&' H4D E$4O' ?-QC - 3C' 43N3 E2' ?$ $4 3C' ($ED' 3$NF' ?-QC - 3' CH' C-134 E 3ED E2' $ I H E2' I $N3' CF$ ' F$ 3' F3' CC C $EN3' H&' $' @ 34+' H4' H&' @ 34+C ' H' Q3' $11H E 3D' QO' F3' ?F34 && ' F' F3' @HEN-443EN3' H&' F3' @$ED D$ 3C ' &' F3O' N$E' $2433 ' $ED' QO' F3' ?F34 && @ 34+' H&' F3' @H-E O' E' N$C3' H&' F3 4' EH ' $2433 E2 ' $ED' 3$NF' I H ' @ 34+' F$ ' F$ 3' F' F J' $ ' F3' I H E2' I $N3' $E' $- F3E N$ 3D' @H1O' H&' F3' ' 32 C 34' &H4' F$ ' G C 4 N ' H&' F3' ?F 43 ' H4' H&' F3' @ O ' B-42F ' H4' * H E ' H4' @ 3C ' B-42FC ' H4' * H EC ' $ $NF3D' H' 3$NF' C-NF' I H E2' I $N3' 3E 3D' H' CF$43' E' F3' ; 3N HE' F E' F3' C$ D' ?F 43 ' $C' F3' @$C3' J $O' Q3 ' $ 1F$Q3 N$ O' 44E23D' $C' F343 E' D 43N 3D ' $NNH4D E2' H' F NF' @H1O' F3' H 3C' CF$ ' Q3' $+3E

WW ' ED' Q3' ' 3E$N 3D ' * F$ ' 9 4 C' &H4' F3' ; 3N HE' H&' P 3 J Q34C' E ' ' Q3' H' C34 3' &H4' ?F 43C' H4' &H4' $EO' @ O ' B-42F ' H4' * H E' 3E 3D' H' C3ED' $DD43CC3D' H' $' P 3 J Q34' H4' P 3 J Q34C' &H4' C3 & ' CF$ ' Q3' D 43N 3D' $C' F343 H&H43' H' F3 ?F34 && H&' F3' ?F 43 ' $ED' F343' F3' ; 3N HE' C' &H4' $' G C 4 N ' H&' EH &O' G$O' H&' @ 3C ' B-42FC ' H4' * H EC ' $' 9 4 ' CF$ ' Q3' D 43N 3D' H' F3' ?F34 && C13 ' ; 3N HE' N & 3D' E' ?NF3D- 3' ^> _' F343-E H' $EE3 3D ' $ED' CF$ ' Q3' 14HN $ J 3D ' $C' F343 E $& 34' D 43N 3D ' $ ' F3' * H E' C13N & 3D' E' F3' C$ D' ?NF3D- 3' ^> _' &H4' 3$NF' H&' F3' C$ D' G C 4 N C' 43C13N 3 O ' $ED' 3$NF' ?F34 && CF$ ' 3EDH4C3' HE' F3' B$N+' H&' F3' 9 4 ' F3' G$O' HE' F NF' F3' 43N3 3D' ' $ED' CF$ ' F E' * F433' G$OC' F343$& 34' $EEH-EN3' $' G$O' H4' G$OC ' F NF' G$O' H4' G$OC' CF$ ' ^3 N31 ' HE O' E' F3' @$C3' , 6 #! ' $C' F343 ER $& 34' 14H D3D_' EH ' Q3' 3CC' F$E' * 3E' EH4' J H43' F$E' ? 33E' G$OC' $& 34' F$ ' HE' F NF' F3' 9 4 ' $C' 43N3 3D ' &H4' F3' ; 3N HE' H4' ; 3N HEC' F E' F C' ?F 43 ' $ED' CF$ ' 2 3' D-3' E J $ HE' F343H&' QO' 14 E 3D' H4' 4 3E' , H N3C' $&& 3D' HE' F3' GHH4C' H&' $ ' F3' I $4 CF' @F-4NF3C' ^3 N31 ' $C' F343 E $& 34' 3 N31 3D_' F E' F3' @H-E O ' F3E' F3' ; 3N HE' C' &H4' $' @H-E O ' $ED' H&' $ ' F3' I $4 CF' @F-4NF3C' E' F3' @ O ' B-42F ' H4' * H E ' H4' @ 3C ' B-42FC ' H4' * H EC ' F3E' F3' ; 3N HE' C' &H4' $' * H E' H4' G C 4 N ' H&' * H EC ' $ED' $ CH ' F343' F3' F E+C' F C' 3 13D 3E ' QO' D 34 C3 J 3E ' E' F3' , 3 C1$134' H4' , 3 C1$134C' H&' 243$ 3C ' @ 4R N- $ HE' E' F3' @H-E O' H4' G C 4 N

WW W ' ED' Q3' ' 3E$N 3D ' * F$ ' HE' F3' G$O' E$ J 3D' QO' F3' ?F34 && &H4' <4D34' H& F3' ; 3N HE' &H4' F3' ?F 43 ' F3' ?F34 && CF$ ' 431$ 4' H' F3' P $4+3 ' @4HCC' I 4HN33D E2C' H4' CH J 3' H F34' NHE 3E 3E ' $ED' H13E' I $N3' E' H4' J J 3D $ 3 O' $D(H E ' E2' F3' @H-E O' * H E ' $ED' CF$ ' F343' 1-Q N O' 14HN $ J ' F3' 9 4 ' QO 43$D E2' ' 14H D3D' $ $OC ' F$ ' F3' 9 4 ' &H4' F3' -E 3D' @H-E 3C' H&' I % ' ## #' $ED' # , 11' CF$ ' Q3' 14HN $ J 3D' $ ' F3' * H E' H&' 2 , %% '-' $ED' F$ ' F3' 9 4 ' &H4' F3' -E 3D' @H-E 3C' H&' 8 %(#' $ED' E ' CF$ ' Q3' 14HN $ J 3D' $ ' F3' * H E' H&' R, !1' -' $ED' F$ ' F3' 9 4 ' &H4' F3' -E 3D' @H-E 3C' H&' L , 11' $ED' I , ' CF$ ' Q3' 14HN $ J 3D' $ ' F3' * H E' H&' 2 #(F %%-' $ED' &' EH' J H43' F$E' <E3' @$ED D$ 3' CF$ ' $ ' F3' * J 3' H&' C-NF' I 4HN $ J $ HE' Q3' 14H1HC3D' &H4' F3' @FH N3' H&' F3' ; 3N H4C ' F3' CF$ ' -1HE' $' ?FH ' H&' 8 $EDC ' &H4 F F' D3N $43' F3' I 34CHE' CH' 1- ' E' , H J E$ HE' H' Q3' D- O' 3 3N 3D ' Q- ' &' J H43' @$ED D$ 3C' CF$ ' F3' 14H1HC3D ' $ED' $' I H ' C' D3 J $ED3D ' F3' I 4HN33D E2C' CF$ ' Q3' $DR (H-4E3D

(H- E3D' &H4' $ I34 HD' H' Q3' E$J3D' QO' F3' ?F34 &&' Q- 'EH '3 N33D E2' * H' &433' G$OC' 3 N -C 3' H&'+ 3 & 1' $ED' +3#& 1' $ED' F3' IH E2' CF$ ' NH J J3EN3' $' 3' I $N3C' 143 H-C O' E J$ 3D' $' , E3' H&' F3' @ HN+' H&' F3' G$O' F$ ' CF$ ' Q3' E$J3D

<4D 4' H&' I4HN33D E2b' $' ; 3N HEb' &H4' @ 3C' B-42FC' $(D' *H EC'

WWW ' ED' Q3' '3E$N 3D' *F$' F343' F3' ; 3N HE' CF$ ' Q3' &H4' $EO' @ O' B-42F' H4' *H E' H4' G C 4 N' H&' @ 3C' B-42FC' H4' *H EC' F3' ?F34 &&' H FH b' $C' F343 E Q3&H43' D 43N 3D' F3' 9 4 'CF$ ' F$ 3' Q33E' $DD43CC3D' CF$ 'HE' F3' G$O' $ED' 8H-4' 143 H-C O' E$J3D' QO' F J' &H4' C-NF' ; 3N HE' 431$ 4' H' F3' P $4+3' @4HCC' H4' CH J 3' H F34' NHE 3E 3E' $ED' H13E' 1 $N3' E' H4' J J3D $ 3 O' $D(H E E2' $EO' *H E' H4' B-42F' C3ED E2' $' P 3 J Q34' QO' C3 &' H4' F$' *H E' H&' $EO' G C 4 N' $' F NF' $C' F343 E Q3&H43' D 43N 3D' F3' 9 4 ' &H4' F3' FH 3' G C 4 N' C' H' Q3' 14HN $ J 3D' $ED' CF$ ' F343' 1-Q N O' 14HN $ J' F3' 9 4 ' QO' 43$D E2' '($ED' &' EH' J H43' @$ED D$ 3C' CF$ ' Q3' 14H1HC3D' &H4' F3' @FH N3' H&' F3' ; 3N H4C' F$E' F343' $43' NEN 3C' H' Q3' && 3D' -1' F3' CF$ ' D3N $43' F3' I34CHE' H4' I34CHEC' 1- ' E' , H J E$ HE' H' Q3' D- O' 3 3N 3D' HE' $' ?FH ' H&' 8 $EDC' ' Q3 E2' $ $OC' NH J 13 3E' &H4' $EO' 432 C 343D' H 34' 43C D E2' H4' F$ E2' F C' \ -$ & N$ HE' E' $EO' H F34' @ O' B-42F' <4 *H E' H&' F3' G C 4 N' H' 431$ 4' H' F3' I $N3' F343' F3' 9 4 ' C' F-C' 14HN $ J 3D' $ED' H' 1- ' $EO' I34CHE' E' , H J E$ HE' 14H D3D' F$' H 34' CF$ ' & 4C' C$ C&O' F3' ?F34 &&' F$' F3' C' 4- O' 432 C 343D' QO' 14HD-N E2' $E' ; 4$N 'H&' F C' ; 32 C 4$ HE' $ED' QO' $+ E2' &' 43X- 43D' F3' <$ F' E' ?NF3D- 3' ^ _' $EE3 3Dd Q- ' &' J H43' @$ED D$ 3C' CF$ ' Q3' 14H1HC3D' F$E' F343' $43' NEN 3C' H' Q3' & 3D' -1' $ED' $' I H ' CF$ ' Q3' D3 J $ED3D' F3' I4HN33D E2C' CF$ ' Q3' $D(H-4E3D' &H4' EH ' J H43' F$E' *F433' &433' G$OC' 3 N -C 3' H&'+ 3 & 1' $ED' +3#& 1' I4H D3D' $ $OC' F$' E' F3' G C 4 N' EN -D E2' F3' *H E' H&' F %%' E' 6) F ' F3' D(H-4E J3E ' J $O' Q3' J $D3' &H4' $EO' I34 HD' EH '3 N33D E2' ?3 3E' &433' G$OC' $ED' F3' ?F34 &&' FH' 14HN $ J 3D' F3' 9 4 'F$ E2' F-C' & 3D' HE3' 1$4 N- $4' G$O' HE' F NF' F3' IH C' $43' H' $+3' 1 $N3' E' $' F3' B-42FC' H&' F3' G C 4 N ' CF$ ' &H4 F F' C3ED' $' 4 3E' , H N3' H' 3$NF' ?F34 &&' F E' FHC3' ?F 43' $EO' @ O' B-42F' H4' *H E' H&' F3' G C 4 N' C' C -$ 3' F$' $' IH ' F$C' Q33E' D3 J $ED3D' $ED' $ CH' H&' F3' G$O' HE' F NF' ' C' H' Q32 E' ($ED' 3$NF' C-NF' ?F34 &&' CF$ ' $NNH4D E2 O' $11H E' C-NF' $' , - J Q34' H&' ?-QC - 3C' $ED' '@ 34+C' $C' J $O' Q3' E3N3CC$4O' H' $CC C' H4' H&& N $ 3' $C' Q3&H43' 14H D3D' $' 3$NF' H&' F3' IH E2' I $N3C' 14H D3D' E' $EO' H&' F3' @ 3C' B-42FC' H4' *H EC' H&' C-NF' G C 4 N C' F E' F C' @H-E O' ($ED' F3' 1H E2' CF$ ' Q32 E' $' 3$NF' C-NF' IH E2' I $N3' $' , E3' H&' F3' @ HN+' H&' F3' G$O' CH' $11H E 3D' $ED' CF$ ' 14HN33D' F343$& 34' $C' F343 E $& 34' 14H D3D

; 3EC HE' H&' * J 3' &H4' '3R -4E' H&' 9 4 ' &H4' F3' ; 3NR HE' H&' $ P 3 J Q34' &H4 <4+E3O

WWW ' ED' E' 43C13N 'H&' F3' 43 J H 3' ? -$ HE' H&' N34 $ E' I$4 C' H&' F3' @H-E O' H&' 6 #! ' $ED' +% ! % O&' $ED' F3' HNN$C HE$' G && N- O' H&' @H J J -E N$ HE' F343 F' Q3' '3E$N 3D' *F$' F3' ?F34 &&' H&' 6 #! ' H' FH J' F3' 9 4 ' &H4' F3' ; 3N HE' H&' $' P 3 J Q34' &H4' F3' C$ D' @H-E O' ?F$ ' Q3' $DD43CC3D' $' F %%' CF$ ' F E' * 3E O *H-4' 8H-4C' $& H' 43N3 E2' F3' C$ J 3' CC-3' $' I43N31 ' H' F3' ?F34 &&' ?-QC - 3' E' +) ! % #&' & E2' $' G$O' &H4' F3' ; 3N HE' &H4' F3' C$ D' @H-E O' F NF' G$O' CF$ 'EH 'Q3' 3CC' F$E' * 3 3' EH4' J H43' F$E' ? 33E' G$OC' $& 34' F$ 'HE' F NF' F3' 9F ' $C' 43N3 3D' $ED' CF$ ' &H4 $4D' H4' 4$EC J ' F3' C$ D' I43N31 ' F' F3' 3$C' 1HCC Q 3' _3 $O' D 43N O' H' F3' C$ D ?F34 &&

?F3 &&' ?-QC - 3' E' +) ! % #&' FH' J J3D $ 3 O' HE' ' 3N3 1 ' F343H&'
CF$ ' $EEH-EN3' F3' G$O' H&' ; 3N HE' QO' , H N3C' HE' F3' @F-4NF' GHH4C' (
$ED' &' HE' F3' G$O' H &' ; 3N HE' J H43' @$ED D$ 3C' F$E' < E3' CF$ ' Q3' 1- '
E' , H J E$ HE' $ED' $' I H ' CF$ ' Q3' D3 J $ED3D' F3' ?F34 &&' CF$ ' F3E'
$D(H-4E' F3' I 4HN33D E2C' &H4' $' I 34 HD' H&' EH ' 3CC' F$E' * 3E' H4' J H43' F$E'
6H-4 33E' G$OC' $ED' CF$ ' F E' * 3E O &H-4' 8 H-4C' D C1$ NF' , H N3'
H&' F C' D(H-4E J 3E ' H' F3' ?F34 &&' ?-QC - 3' H&' +) ! % #&' $C' E' F3'
@$C3' $QH 3' 14H D3D' &H4 ' $ED' F3' 1H E2' CF$ ' NH J J 3EN3' $NNH4D E2 O'
$ ' F3' D &&343E' I H E2' I $N3C' E' QH F' I $4 C' H&' F3' @H-E O' HE' F3'
G$O' H' F NF' F3' I 4HN33D E2C' $43' $D(H-4E3D' $ED' CF$ ' 14HN33D' $C'
F343 E $& 34' D 43N 3D' $C' E' H F34' @$C3C' H&' 1H E2

WWW ' ED' Q3' ' 3E$N 3D' * F$ ' EH' I H ' $ ' $EO' ; 3N HE' 3 F34' &H4' I H C' HE O' H'
$' @H-E O' H4' $' @ O' B-42F' H4' * H E' H4' G C 4 N' H&' @ 3C' B-42FC' H4' Q3' +31 ' H13E'
* H EC' CF$ ' Q3' D 43N 3D' H' Q32 E' HE' $' + 3 & ' H4' CF$ ' Q3' +31
H13E' &H4' J H43' F$E' * H' NHEC3N- 3' G$OC' $ED' F$ ' HE O' Q3 33E' F3' < 4D34' $ED'
8 H-4C' H&' , E3' E' F3' P H4E E2' $ED' 6H-4' E' F3' & 34EHHE' &H4' F3' 1H E2'
6 4C' G$O ' $ED' Q3 33E' F3' 8 H-4C' H&' ; 2F ' E' F3' P H4E E2' $ED' 6H-4' '
H&' F3' & 34EHHE' &H4' F3' ?3NHED' G$O' : I 4H D3D' $ $OC' F$ ' F3' I H '
$ ' $EO' HE3' I $N3' J $O' Q3' N HC3D' Q3&H43' F3' * 34 J E$ HE' H&' F3' C$ D'
* H' G$OC' &' $ ' F3' @$ED D$ 3C' H4' F3 4' 23E C' $ED' F3' ?F34 &&' CF$ '
$2433' E' CH' N HC E2' : I 4H D3D' $ CH' F$ ' F343' F3' I 4HN33D E2C' $ '
$EO' ; 3N HE' CF$ ' Q3' HQC 4-N 3D' QO' $EO' ' H ' H4' H13E' H 3EN3 ' F3'
?F34 &&' H4' F C' ?-QC - 3' $ ' F3' I $N3' F343' F3' ' H ' F$C' HNN-443D'
J $O' $D(H-4E' F3' I H ' $ ' F$ ' I $N3' H' F3' &H H E2' G$O' H4' CH J 3' H F34'
NHE 3E 3E ' * J 3 ' $ED' &' E3N3CC$4O' J $O' 4313$ ' C-NF' D(H-4E J 3E ' '
C-NF' < QC 4-N HE' CF$ ' F$ 3' N3$C3D' F3' $ $OC' 2 E2' , H N3' H' F3'
?F34 &&' FH' C' H' J $+3' F3' ' 3 -4E' H&' C-NF' D(H-4E J 3E ' F$ E2' Q33E'
J $D3' ' $ED' $EO' G$O' F343' F3' I H ' CF$ ' F$ 3' Q33E' CH' $D(H-4E3D' $ '
$EO' I H E2' I $N3C' CF$ ' EH ' Q3' 43N+HE3D' < E3' H&' F3' * H' G$OC' H&'
1H E2' F E' F3' P 3$E E2' H&' F C' N ' EH4' CF$ ' F3' ? $ 3' H&' F3' I H '
Q3' & E$ O' D3N $43D' EH4' F3' ' 3C- ' H&' F3' ; 3N HE' 14HN $ J 3D' -E '
F3' I H ' CH' E 344-1 3D' CF$ ' Q3' N HC3D' $ED' 4$EC J 3D' $C' F343 E Q3&H43'
14H D3D' H' F3' ?F34 &&' FH' C' H' J $+3' F3' ' 3 -4E' ' $ED' 3$NF' ?F34 &&'
E' NF$423' H&' 3$NF' I H E2' I $N3' CF$ ' $+3' N$43' F$ ' F3' $ 3EDR
E2' @ 34+' $ ' F3' I $N3' F$C' F F J' $' N34 & 3D' @H1O' H&' F3' $&H43 '
C$ D' 1F$Q3 N$ ' ' 32 C 34' $ED' CF$ ' 43N3 3' F3' H 3C' H&' $ ' I 34R
CHEC' F3E' X-$ & 3D' H' H 3' $NNH4D E2' H' F3' I 4H C HEC' H&' F C' N '
$ED' CF$ ' 43NH4D' $ED' 14H243CC 3 O ' E- J Q34' 3$NF' H 3' &H4' 3$NF'
@$ED D$ 3' E' $' I H ' BHH+' $ED' F3' $ED' F3' @ 34+' CF$ ' C-QCN4 Q3'
F3 4' , $ J 3C' H' 3$NF' I $23' H&' F3' C$ D' BHH+' Q3&H43' J $+ E2' H4' $ H E2'
H' Q3' J $D3' $EO' ; E 4O' E' F3' C-NN33D E2' I $23 ' $ED' F3' I H ' BHH+' H4'
BHH+C' CF$ ' $ ' F3' @ HC3' H&' F3' 6 4C ' G$O C' 1H E2' Q3' 1-Q N O' C3$ 3D'
-1' QO' F3' C$ D' $N E2' ?F34 &&' $ED' I H ' @ 34+ ' $ED' Q3' $+3E' NF$423' H&'
QO' F3' C$ D' ?F34 &&' $ED' HE' F3' @H J J 3EN3 J 3E ' H&' F3' I H ' H&' F3'
?3NHED' G$O' F3' CF$ ' 1-Q N O' Q43$+' F3' ?3$ C ' $ED' F3E' 14HN33D' $C'
&H4 J 34 O' ($ED' J J 3D $ 3 O' $& 34' F3' I H ' $ ' F C' I H E2' I $N3' C'
& E$ O' N HC3D ' F3' H&& N $ E2' ?F34 &&' CF$ ' &H4 F F' C3$ ' -1' $ED' 4$EC4E '
H4' D3 34' F3' C$ D' I H ' BHH+C' H' F3' ?F34 &&' $N E2' $C' F3' ' 3 -4E E2'
< && N34' &H4' F3' ?F 43

WWW ' ED' Q3' ' 3E$N 3D' * F$ ' F3' ?F34 &&' H' FH J' F3' C$ D' I H ' ?F34 H'
BHH+C' F$ 3' Q33E' 4$EC J 3D' H4' D3 343D' CF$ ' HE' F3' G$O' E3 ' Q- ' 5c4E KN &H4

Q&$3 $& 34' F3' @ QC3' H&' F3' 6H ^-E 3CC' C NF' G$O' CF$ ' Q3' +3#& ' $ED' F3E' HE' F3' ,#& '&H H E2 _' H13E O' Q43$+' F3' ?3$ C' H&' F3' C$ D' I H ' BHH+ ' $ED' N$C ' D1' F3' %- J Q3&' H&' H 3C' $C' F3O' $113$4' HE' F3' C$ D' C3 34$ ' BHQ+C ' $ED' CF$ ' H1&3E O' D3N $43' F3' ? $ 3' $ED' ' 3C- ' H&' F3' I H ' $ED' J $+3' I 4HN $ J $ HE' H&' F3' P 3 J Q34' H4' P 3 J Q34C' NFHC3E ' EH ' $ 34' F$E' * H' H&' F3' @S1N+' H&' F3' & 34EHHE' H&' F3' C$ D' G$O ' $ED' CF$ ' &H4 F F' J $+3' $' ' 3 -4E' E' F3' 6H4 J ' 143C3E O' -C3D' ^$C' E3$4 O' $C' J $O' Q3_ ' E' * 34 J C' H&' F3' 9 4 ' -ED34' F C' 8 $ED' $ED' ?3$ ' H' F3' @ 34+' H&' F3' @4H E' E' 8 #(% #&=' $ED' &' F3' H 3C' CF$ ' Q3' 3X-$ ' F3' CF$ ' J $+3' $' GH-Q 3' ' 3 -4E

' 3 -4EC' &H4' B-42FC' KN

WWW ' ED' Q3' ' 3E$N 3D' * F$ ' F343' F3' ; 3N HE' C' &H4' < E3' @ O' B-42F ' H4' * H E' C3ED E2' $' P 3 J Q34' H4' * H' P 3 J Q34C' QO' C3 & ' H4' &H4' $' G C 4 N ' H&' * H EC' O E2' FH O' F E' < E3' ?F 43' F3' C$ D' I H ' BHH+C' CF$ ' Q3' 4$EC J 3D' H' $ED' F3' ' 3 -4E' J $D3' QO' F3' ?F34 &&' H&' F3' ?F 43' F E' F NF' C-NF' @ O' B-42F ' H4' * H 9 ' H4' G C 4 N ' CF$ ' Q3' C -$ 3' ' $ED' F343' F3' ; 3N HE' CF$ ' Q3' &H4' $' G C 4 N ' H4' ?3 ' H&' B-42FC' H4' * H EC' O E2' E' D &&343E ' ?F 43C ' F3' C$ D' I H ' BHH+C' CF$ ' Q3' C3 34$ O' 4$EC J 3D' E' F3' & 4C ' EC $EN3' H' F3' ?F34 &&C' H&' F3' C3 34$ ' ?F 43C' F E' F NF' $EO' H&' F3' C$ D' B-42FC' H4' * H EC' CF$ ' Q3' C -$ 3 ' $ED' F343$& 34' F3' H F34' ?F34 &&C' CF$ ' 4$EC J ' F3' C$ D' I H ' BHH+C' H' F3' ?F34 &&' H' FH J ' $C' F343 E' 14H D3Dm ' F3' 9 4 ' CF$ ' F$ 3' Q33E' D 43N 3D' QO' FH J ' F3' H 3C' CF$ ' Q3' C- J J 3D' -1 ' $ED' F3' ' 3C- ' D3N $43D ' $ED' F3' ' 3 -4E' H&' F3' I 34CHE' H4' I 34CHEC' D- O' 3 3N 3D' CF$ ' Q3' J $D3 ' $C' $QH 3' H' F3' @ 34+' H&' F3' @4H E' E' 8 #(% #&

H 34C' E' B-42FC' EH ' H' H 3' E' F3' @H-E O' F343' F3' B-42F' C' C -$ 3 ' EH4' N3' 34C&

WWW ' ED' Q3' ' 3E$N 3D' * F$ ' EH' I 34C< E' EH ' EH ' HE' F3' ' H ' H&' 6433FH D34C' CF$ ' Q3' $D J 3D' H' N $ J ' H4' H' H 3' $ ' F3' ; 3N HE' &H4' $EO' ?F 43' E' 43C13N ' H&' $EO' ? -Q(3N ' C -$ 3' F E' F3' > J C' H&' $EO' @ O' BE42F ' H4' * H E' 3E 3D' < C3ED' H4' H' NHE 4 Q- 3' H $4DC' C3ED E2' $' P 3 J Q34' H' I $4 $ J 3E ' EH4' CF$ ' $EO' I 34CHE' Q3' $D J 3D' H' N $ J ' H4' H' H 3' E' F3' ; 3N HE' &H4' $EO' @ O' * H E' H4' B-42F' E' 43C13N ' H&' $EO' ? -Q(3N ' EH ' C -$ 3' F E' F3' > J C' H&' F3' C$ D' @ O' * H 9 E ' H4' B-42F

I 34CHEC' EH ' 3E 3D' H' H 3' H4' H' Q3' 3 3N 3D

WWW ' ED' Q3' ' 3E$N 3D' * F$ ' EH' ?F34 &&' CF$ ' Q3' 3E 3D' &4H J ' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' H' H 3' $ ' $EO' ; 3N HE' &H4' $EO' P 3 J Q34' H&' I $4 $ J 3E ' H' Q3' FH D3E' F E' F3' @H-E O' H4' NH J Q E3D' @H-E 3C' H&' F NF' F3' CF$ ' Q3' ?F34 &&' ($ED' F$ ' EH' ?F34 &&' ? -QC - 3' $ED' EH' ?F34 &&' @ 34+' D4' G31- O' ?F3(&&' @ 34+' CF$ ' Q3' 3E 3D' &4H J ' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' H' H 3' H4' H' Q3' 3 3N 3D' $ ' $EO' ; 3N HE' &H4' $' P 3 J Q34' H' C34 3' E' I $4 $ J 3E ' &H4' F3' ?F 43' H&' F NF' F3 F3' ?F34 &&' ? -QC - 3' H4' ?F34 &&' @ 34+ ' $ED' EH' * H E' @ 34+' H4' G31- 3' * H E' @ 34+' CF$ ' Q3' 3E 3D' H' H 3' H4' H' Q3' 3 3N 3D' &H4' F3' @ O' B-42F ' * H E' H4' G C 4 N ' E' F NF' F3' C' C-NF' @ 34+' ($ED' EH' ?F34 &&' ? -QC - 3' ?F34 &&' @ 34+ ' H4' * H E' @ 34+' CF$ ' $& 34' F3' 1$CC E2' H&' F C' N ' D 43N O' H4' ED 43N O' $N ' $C' $E' 23E ' &H4' $EO' @$ED D$ 3' E' $EO' P $ 34' NHEE3N 3D' F' H4' 1431$4$ H4O' H' $EO' 5B 3N HE' &H4' F3' @H-E O' H4' B-42F' 43C13N 3 O' E' F NF' C-NF' I 34CHEC' CF$ ' Q3' 43C13NR 3 O' ?F34 &&' ? -QC - 3' ?F34 &&' @ 34+ ' H4' * H E' @ 34+

WWW ' ED

WWW ʻ ED' Q3' ʻ3E$N 3D ʻ *F$ ʻ &4H J' $ED' $& 34' F3' ; ED' H&' F C' 5; D3C' ?HEC' 143C3E ʻ I$4 $ J 3E ʻ F3' 3 D3C ʻ ?HEC' H&' + ', ') ' I334C' CF$ ʻ Q3' 3E 3D' H' Q3 Q3' 432 C 343D' $ED' H' H 3' $ ʻ $ ʻ ; 3N HEC' &H4' P 3 J Q34C' H&' I$4 $ J 3E ʻ 33N 3D' ʻ , ʻ + ', % #& ʻ $ED' CF$ ʻ $ CH' Q3' 3E 3D ʻ FH-2F' EH ʻ CH' 432 C 343D ʻ H' Q3' 3 3N 3D' H' C34 3' $C' C-NF' P 3 J Q34C' , ʻ $EO' @H-E O ʻ @ O ʻ B-42F' H4' *H E ʻ H4' G C 4 N ʻ H&' B-42FC ʻ E' + ', % #&=' $ED' F$ ʻ $& 34' F3' ; ED' H&' F C' 143C3E ʻ I$4 $ J 3E ʻ EH' P 3 J Q34' &H4' $EO' @H-E O' E' + ', % #&' CF$ ʻ Q3' 43X- 43D' H' Q3' X-$ & 3D' $C' $E' ; 3N H4' H4' H' FH D' $EO' ?-134 H4 O' F E' C-NF' @H-E O

WWW ʻ ED' Q3' ʻ3E$N 3D *F$ ʻ &' $EO ?F34 &&' ?F34 &&' ?-QC - 3' I3E$ O' HE ?F34 &&' @ 34+ ʻ *H E' @ 34+ ʻ H4' $& O' I34CHE' F$ CH3 34' CF$ ʻ &- O' 7 NHE 4$ 3E3' H4' D CHQ3O' F3' I4H C HEC' H&' F C' N ʻ H4' $EO' H&' F3 J ʻ L' F' 43C13N ʻ H' $EO' P$ 34' H4' *F E2' F NF' C-NF' ?F34 &&' ?F34 &&' ?-QC - 3' ?F34 &&' @ 34+ ʻ *H E' @ 34+ ʻ H4' H F34' I34CHE' C' F343QO' 43X- 43D' H' DH ʻ F3' CF$ ʻ &H4' C-NF' F C' <&&3EN3' Q3' $Q 3' H' Q3' C-3D' E F3' @H-4 ʻ H&' ?3CC HE' QO' $EO' 432 C 343D' H 34 ʻ @$ED D$ 3' P 3 J Q34' $N -$ O' 43 -4E3D ʻ H4' H F34' I$4 O' $224 3 3D ʻ &H4' F3' 13E$ ʻ ?- J' H&' 6 3' F-ED43D' I H-EDC' ($ED' F3' 5-4O' Q3&H43' FH J' C-NF' N HE' CF$ ʻ Q3' 4 3D' J $O' & ED' F3 4' 34D N ʻ &H4' F3' &- ʻ ?- J' H&' 6 3' F-ED43D' I H-EDC' H4' &H4' $EO' 3CC' ?- J' F NF' F3' C$ D' 5-4O' CF$ ʻ F E+' ʻ (-C ʻ F$ ʻ C-NF' I$4 O' G3&3ED34' CFH- D' 1$O' H' C-NF' I$4 O' I -4C-34' ʻ $ED' F3' G3&3ED34' E' C-NF' N HE' Q3 E2' NHE N 3D' CF$ ʻ 1$O' C-NF' 13E$ ʻ ?- J' CH' $ $4D3D' F' &- ʻ @HC C' H&' ?- ʻ H' F3' I$4 O' FH' J $O' C-3' &H4' F3' C$ J 3' FH- ʻ I43(-D N3' FH 3 34' H' F3' ' 2F ʻ H&' $EO' I$4 O' $224 3 3D' QO' F3' P CR NHED-N ʻ H&' $EO' ?F34 &&' $C' ' 3 -4E E2' <&& N34' H' 43NH 34' C-NF' G$ J $23C' &H4' $' &$ C3' ' 3 -4E' $C' F3' J $O' Q3' 3E 3D' H' $ ʻ @H J J HE' >$ ʻ H4' QO' 4 -3' H&' $EO' ? $ - 3' EH ʻ E' &H4N3.' I4H D3D' $ $OC ʻ F$ ʻ 3 34O' C-NF' N HE' CF$ ʻ Q3' 4$ C3D' F E' 6H-4' @$ 3ED$4' P HE FC' E3 ʻ $& 34' F3' @$-C3' H&' N HE' F$C' $4 C3E ʻ $ED' F$ ʻ , H N3' E' 9 4 E2' CF$ ʻ Q3' 2 3E' H' F3' G3&3ED34' $ ʻ 3$C ʻ <E3' P HE F' Q3&H43' F3' 4$ C E2' H&' $EO' C-NF' N HE ʻ C 2E3D' QO' F3' I$4 O' 4$ C E2' C-NF' N HE ʻ H4' F C' 23E ʻ $ED' C3 E2' &H4 F' F3' I $N3' H&' QHD3' H&' F3' I$4 O' C 2E E2' F3' C$ J 3 ʻ I4HR D3D' $ CH ʻ F$ ʻ $EO' C-NF' G3&3ED34' 2 EC ʻ FH J' $EO' 5-D2 J 3E ʻ CF$ ʻ F$ 3' Q33E' 43NH 343D' E' $EO' C-NF' N HE' CF$ ʻ Q3' $ H 3D' H' 1 3$D' C-NF' 5-D2 J 3E ʻ $C' $' B$4' H' $EO' H F34' N HE' F NF' J $O' Q3' Q4H-2F ʻ 2 EC ʻ F J' &H4' F3' C$ J 3' P $ 34' H4' *F E2 ʻ $ED' C-NF' H F34' N HE' Q3 E2' F343R -1HE' D C J CC3D ʻ C-NF' G3&3ED34' CF$ ʻ 43NH 34' F C' &- ʻ @HC C' F343H&

WWW W ʻ ED' Q3' ʻ3E$N 3D ʻ *F$ ʻ 3 34O' I34CHE' N $ J E2' H' Q3' 43 ʻ I34CHEC' 43R 2 C 343D' CF$ ʻ $ ʻ F3' * J 3' H&' J $+ E2' C-NF' @ $ J' 1$O' $' 633' H&' * H' 2 C 343D H' ?F E2C' &H4' F3' #C3' H&' F3' ?F34 &&' @ 34+' H4' H' F3' *H E' @ 34+' 43 ʻ N3 E2' C-NF' @ $ J' ʻ H- ʻ H&' F NF' P HE 3C' F3' C$ D' @ 34+C' 43C13N 3 O' ʻ CFF ʻ Q3' HQ 23D' H' 14H D3' $ ʻ Q3' BHH+C ʻ $ED' H' 134&H4 J' $ ʻ F3' @ 34+ C B-C E3CC' E3N3CC$4O' &H4' J $+ E2' -1' F3' ' 32 C 34C ʻ $ED' J $+ E2' @H1 3C' F343H&' &H4' F3' D &&343E ʻ I H E2' I $N3C' E' F3' ?F 43' H4' B-42F

W> ʻ ED' Q3' ʻ3E$N 3D ʻ *F$ ʻ F3' P HE 3C' F NF' $43' EH ʻ E' -C3' @34 $ -' H' Q3' $ H 3D' H' F3' ?F34 &&C' E' F3 4' NNH-E C' F' F3' ; NF3X-34' H $EN3C' &H4' 3 3N- E2' 9 4 C' &H4' ; 3N HEC' CF$ ʻ NHE E-3' H' Q3' $ H 3D' H' H' ?F34 & K(F3 J' HE' C-NF' NNH-E C ʻ $ED' F$ ʻ $ ʻ 8$ C' ' HH J C ʻ BHH FC ʻ H4' H F34' $ED ; 13EN3C' I $N3C' F 43D ʻ NHEC 4-N 3D ʻ H4' 1431$43D' &H4' $+ E2' F3' I H C' CF$ ʻ Q3' H&' BHH FC' CH' F 43D ʻ NHEC 4-N 3D ʻ H4' 1431$43D' QO' @HE 4$N ʻ F' F3' @$ED D$ 3C H4 @ 34+C' KN' H' Q3' 1$ D' QO' @$ED D$ 3C

H4' &' F3O' N$EEH '$2433 ' QO' F3' ?F34 &&' @ 34+ ' $ ' F3 4' (H E '$ED' 3X-$ ' ; 13EN3.' I4H D3D' $ $OC' $ ' F3' ; 13EN3' H&' C-NF' 8 4 E2' H4' @HEC 4-N HE' $ '$EO' <E3' IH E2' I $N3' &H4' $' @H-E O' CF$ ' EH ' 3 N33D' F3' ?-J' H&' *F 4 O' IH-EDC' EH4' F3' ?-J' H&' * 3E O' IH-EDC' $ ' $EO' <E3' IH E2' I $N3' E' $EO' @ O' B-42F ' H4' *H E' ' $ED' F3' @$ED D$ 3C' CF$ ' &-4 F34' Q3' QH-ED' H' 1$O' $ED' NHE 4 Q- 3' $ J HE2' F3 J' H' 3$NF' IH ' @ 34+' <E3' M- E3$' G$O ' $ED' E' +3' P $EE34' H' NHE 4 Q- 3' $ED' 1$O' $' N34 $ E' 633' H' 3$NF' ?F34 &6' H4' ?F34 &&' ?-QC - 3' &H4' C-134 E 3ED E2' F3' IH C' F3' J H-E ' H&' F NF' 633' CF$ ' E' EH' @$C3' 3 N33D' F3' ?-4$ H&' *F433' M- E3$C' 5! ' G$O' &H4' 3$NF' C-NF' ?F34 &&' H4' ?-QC - 3' ($ED' F3' @$ED D$ 3C' E' $ ' @$C3C' F343' $' IH ' F$C' Q33E' D3 J $ED3D' CF$ ' E' +3' P $EE34' Q3' QH-ED' H' D3&4$O' F3' E3N3CC$4O' ; 13EN3C' EN-443D' QO' F3' ?F34 &&' H4' ?F34 &&' @ 34+C' H4' *H E' @ 34+C' E' F3' *4$EC J CC HE' H&' I43N31 C' E J $ HEC' IH ' BHH+C' H4' H F34' @H J J -E N$ HEC' 43X- 43D' H4' 3E(H E3D' QO' F C' N ' $ED' &' $EO' I34CHE' CF$ ' Q3' 14H1HC3D' $C' $' @$ED D$ 3' FH- ' F C' @HEC3E ' F3' I34CHE' CH' 14H1HC E2' F J' CF$ ' Q3' $Q 3' H' D3&4$O' F C' ?F$43' H&' $ ' F3C3' ; 13EN3C' E' +3' P $EE34' $C' &' F3' F$D' Q33E' $' @$ED D$ 3' F J C3 &'

' 3 J -E34$R HE' H&' ?F34 &&C' &H4' ' 32 C 4$ HE')!

W> ' ED' Q3' ' 3E$N 3D' *F$ ' 3$NF' ?F34 &&' CF$ ' Q3' 3E 3D' H' J $+3' $' @F$423' &H4' F3' * J 3' $ED' >$QH-4' 3 J 1 HO3D' E' E 3C 2$ E2' $ED' D C1HC E2' H&' F3' @ $ J C' $ED' <Q(3N HEC' $QH 3' C13N & 3D' 3 F34' H4 2 E$ O' E' F C' H E' @H-E O(' H4' F343' H4' 3 C3 F343' $C' $' 5-D23' H&' 113$ ' F NF' @F$423' CF$ ' EH ' Q3' J H43' F$E' 6 3' M- E3$C' &H4' 3 34O' I34 HD' H&' ; 2F ' 8H-4C' 3 J 1 HO3D' QO' F J' H4' QO' $EO' $CC C $E ' ?F34 &&' H4' D HN$ 3' H' Q3' $11H E 3D' E' F3' P $EE34' QO' F C' N ' $- FH4 T3D' $ED' D 43N 3D' 3 N -C 3 O' E' $EO' C-NF' E 3C 2$ HEC' H 34' $ED' $QH 3' F C' H4' F3 4' 43$CHE$Q 3' 4$ 3 E2' ; 13EN3C' ' $ED' F NF' @F$423' CF$ ' Q3' $-D 3D' $ED' 3 $ J E3D' E' F3' ; NF3X-34' $ED' $ H 3D' E' FH 3' H4' E' 1$4 ' $C' J $O' C33 J' (-C ' E' F3' C$ J 3' P $EE34' $C' H F34' @F$423C' F34 H' EN -D3D' E' F3' $EE-$ ' NNH-E C' H&' C-NF' ?F34 &&C' F3' C$ D' @F$423' H' Q3' $ $OC' C $ 3D' E' ; NF3X-34' $C' CHHE' $C' NHE 3E 3E O' J $O' Q3' $& 34' F3' G- O' C' 134R &H4 J 3D' $ED' H' Q3' F343' $-D 3D' $ED' $ H 3D' $ ' F3' & 4C ' ?3 3 J 3E ' H&' 3$NF' ?F34 && C' NNH-E C' F NF' CF$ ' F343$& 34' $+3' 1 $N3.' I4HR D3D' $ $OC' F$ ' EH' @F$423' CF$ ' E' $EO' @$C3' Q3' $ H 3D' &H4' $' 243$ 34' , - J Q34' H&' 8H-4C' CH' 3 J 1 HO3D' QO' C-NF' ?F34 &&' $ED' QO' C-NF' CC C R $E C' E' H4 2 E$ O' D3N D E2' HE' F3' @ $ J C' E' $EO' <E3' @H-E O' F$E' *F 4 O' I34 HDC' H&' ; 2F ' 8H-4C' &H4' 3$NF' C-NF' ?F34 &&' $ED' CC C $E ' 43C13N 3 O

?-QC - 3' J $O' $N ' F343' ?F34 && -ED34' G CR $Q O'

W> ' ED' Q3' ' 3E$N 3D' *F$ ' F3E' $EO' ?F34 &&' FH' C' F343 ER Q3&H43' 43X- 43D' H' 3 $ J E3' $ED' D3N D3' HE' F3' @ $ J C' &H4' ' 32 C 4$ HE' F E' F C' @H J O' H4' H' FH J' $EO' 9 4 ' &H4' ; 3N HE' C' D 43N 3D' CF$ ' Q3' EN1N $ 3D' &4H J' $N E2' QO' ? N+E3CC' H4' -E$ H D$Q 3' QC3EN3' HE3' H&' F C' H4D E$4O' ?-QC - 3C' J $O' $N ' E' F C' ? 3$D' 14H D3D' F3' FH D' $' ?-QC - HE' C13N $ O' $- FH4 T E2' F J' H' DH' CH.'

CC C $E ' ?F34 &&C' KN' E' N34 $ E' @H-E 3C

I4H D3D' $ CH' F$' &' F3' ?F34 &&' H&' F3' @H-E 3C' H&' 8& #43 ( )' < # ' R ! ' R, ' / 4! &! ! #' * !) ' / ' $#0! #!11' L!# !0, ' H4' 6 #! ' $ED' +) ! % #&' H4' $EO' H&' F3 J ' CF$ ' $& 34' F3' 1$CC E2' H&' F C' N ' 43143C3E ' H' F3' >H4D' I43C D3E ' H&' F3' @H-4 ' H&' ?3CC HE ' F$ ' QO' 43$CHE' H&' F3' 243$ ' , - J Q34' H&' @ $ J C' H&' ' 32 C 4$ HE' 143C3E 3D' H4' +3 O' H' Q3' 143C3E 3D' E' C-NF' @H-E 3C' ' ' Q3' J 14$N N$Q 3' &H4

UĉK'S' M#> ;>P ' ' @$1Y!' Y

F3J ' FH- ' CC C $EN3 ' H D C1HC3 H&'C-NF @ $ JC F E F3 I 34 HD
J 3D QO F C N ' F3E $ED E F$ '@$C3 ' CF$ ' Q3 NH J 13 3E ' H
F3 C$ D >H4D I 43C D3E ' Q3 E2 C$ C& 3D H& F3 @H443N E3CC H&'C-NF
' 3143C3E $ HE ' $ED F3 C F343QO 43X- 43D ' H EH J E$ 3 $ED $11H E '
<(3 H4 J H43 H F34 ?F34 &C H4 D HN$ 3C H& $ ' 3$C ' 6H-4 =3$4C
C $ED E2 H $CC C ' E D C1HC E2 H& F3 C$ D @ $ JC F E F3 C$ D
@H-E 3C H4 $EO H& F3 J ' $ED $ ' 5-D2 J 3E C 14HEH-EN3D QO F3 C$ D
$CC C $E ' ?F34 &&C H4 D HN$ 3C CF$ ' Q3 $Q 3 H Q3 113 3D &4H J ' $C
&' F3O F$D Q33E 14HEH-EN3D QO F3 ?F34 && H& F3 @H-E O

W> >' ED Q3 ' 3E$N 3D ' *F$ ' F3 , H N3C 43X- 43D QO F C N ' ,H N3C $'
H Q3 2 3E $ '@F-4NF GHH4C CF$ ' EH ' Q3 E3N3CC$4O $ ' $EO H& F3 @F-4NF
@F-4NF3C E F3 C $EDC , 'E ,)' O 1 '+,3)' O 1 ' " ' 1' H4
8 (' E F3 @H-E O H&'$#0! #!11' EH4 $ '$EO H& F3 @F-4NF3C E F3 N34 $ E
C $ED H& < ! 1' E F3 @H-E O H&'L ,11' EH4 $ ' $EO H& F3 @F-4NF3C C $EDC'
E F3 C $EDC H&'7 ! ! ' I ,%%' H4 ( ) ' E F3 @H-E O H&' / (%! ' EH4
$ '$EO I & F3 @F-4NF3C E F3 @H-E O H&'6 #! '$ED +) ! % #&' 3 N31 '
C-NF $C $43 E F$ ' C N$ 3D F3 P $ E $ED H& 6 #! ' $ED +) ! % #&
43C13N 3 O

W> ' ED Q3 ' 3E$N 3D ' *F$ ' F3 CC3CC J 3E '@H 3N HE ' $ED ' H2-3
P E23 J 3E ' H& F3 P HE3O 34 J 3D F3 ' H2-3 P HE3O c F NF C
EH ' 3C 3D E N34 $ E P 33 E2C H& F3 6433FH D34C 'CF$ 'Q3 4$EC&3443D P E23 J 3E '
H F3 @H J J CC HE34C H&'?-11 O $ ' F3 4 H4D E$4O C $ 3D P 33 E2C '$ED H& @H J J C'
F3O CF$ ' Q3 QH-ED H NH 3N '$ED $11 O ' &H4 F3 C$ J 3 I -41HC3C $C C HE34C H&
F343 H&H43' ?-11 O

W> ' ED Q3 ' 3E$N 3D ' *F$ '$ ' I H 34C 'G- 3C '$ED 6-EN HEC 6-EN HEC H&
EH ' 3C 3D E H4 3 2 Q 3 &4H J ' $EO P 33 E2 H& 6433FH D34C ' QO $EO P 33 E2 H&
>$ ' H4 ? $ - 3 E &H4N3 $ ' F3 G CCH - HE H& F C 143C3E ' I $4 $ J 3E ' 6433FH D34C
CF$ ' F343$& 34 Q3 4$EC&3443D H $ED 3C 3D E F3 C$ D @H J J CC HE34C 4$EC&3443D
H&' ?-11 O ' FH CF$ ' 3 34N C3 $ED D CNF$423 F3 C$ J 3 $ ' F3 4 432- $4 H @H J J CR
P 33 E2C $C &- O $ED 3&&3N -$ O $C F3 C$ D P 33 E2C H& 6433R C HE34C H&
FH D34C J 2F ' 143 H-C O F$ 3 3 34N C3D H4 D CNF$423D F3 J ?-11 O

W> ' ED Q3 ' QE$N 3D ' *F$ ' F3 9 H4D `' ?F34 &&c CF$ ' Q3 F3 D P 3$E E2 H&
H EN -D3 F3 9 H4D ` ? 3 $4 c $ED F3 9 H4DC ` ?F34 && ?-QC ' 134 $ E 9 H4DC
- 3 c CF$ ' Q3 F3 D H EN -D3 F3 9 H4DC 7 ? 3 $4 ' ? -QC - 3 $ E D '
F$ ' F3 9 H4DC / ?F 43 c H4 `' @H-E O c CF$ ' Q3 F3 D H EN -D3 F3
9 H4D `' ? 3 $4 4 O $ E D ' F3 9 H4DC ?F34 && @ 34+ c CF$ ' Q3 F3 D
H EN -D3 F3 9 H4DC ? 3 $4 ' @ 34+ c $ED `' ?F34 && @ 34+ G31- 3 '
$ED ? 3 $4 ' @ 34+ G 3 1 - 3 $ E D ' F3 9 H4DC 7 * H E @ 34+c CF$ '
Q3 F3 D H EN -D3 F3 9 H4DC ` * H E @ 34+ G31- 3 I 4H D3D $ CH ' P CEH J 34C '
F$ ' EH P CEH J 34 H4 E$NN-4$ 3 G3CN4 1 HE H& $EO I 34CHE H4 I $N3
E $EO 9 4 E2 J $D3 E F3 6H4 J ' H& $EO ?NF3D- 3 H F C N '
$EE3 3D ' H4 E $EO > C ' H4 ' 32 C 34 H4 , H N3 J $D3 -ED34 - FH4 O
H& F C N ' CF$ ' E $EO $O 143 3E ' H4 $Q4 D23 F3 < 134$ HE H&
F C N ' 14H D3D F$ ' C-NF I 34CHE H4 I $N3 CF$ ' Q3 CH D3C 2E$ 3D
E C-NF 9 4 E2 ' > C ' ' 32 C 34 ' H4 , H N3 $C H Q3 NH J J HE O '
-ED34C HHD.' I 4H D3D $ CH ' F$ ' EH 113$ ' CF$ ' Q3 NH J 13 3E ' H
$EO ?F34 && H4 ? 3 $4 ' &4H J ' $EO F E2 F NF J $O Q3 DHE3 QO F3 4
?-QC - 3C E F3 ; 3N- HE H& F C N

YU ULK$ M# ;>P ' ' @$1 Y!

'&H4E(34 W> ' ED'Q3' '3E$N 3D' *F$'$ '>$ C'? $ - 3C'$ED' #C$23C' EH '
43C13N E2' F3' ' 2F 'H&'3 3N E2' F3' \ -$ & N$ HEC'H&' ; 3N H4C'

>E*4$40 H' $N -$' ; 3N HE' H&' P 3 J Q34C' H' C34 3' E' I $4 $ J 3E '&H4' F$

FC' N' I $4 ' , G' ! '" #' N $ 3 D C F $ ' Q3' $ED' F3' C$ J 3' $43' F343QO
4313$ 3D' E' CH' &$4' $C' F30' $43' ENHEC C 3E ' H4' $' $4 $EN3' F' F3'
I 4H C HEC' H&' F C' N .' I 4H D3D' $ $OC' F$' F3' C$ J 3' CF$ ' Q3' E'

/ &H4N3' E' $ ' H F3 ' 43C13N C' F$ CH3 34

I4H DE2&H4' W> ' ED' Q3' ' 3E$N 3D' * F$ ' &' $' D CCH - HE' H&' F3' 143C3E '

C3 1$4F$/' I S 4 $ J 3E ' CF$ ' $+3' 1 $N3' $& 34' F3' 1$CC E2' H&' F C' N ' Q - ' Q3&H43' F3'

J3E 'B3' 6 4C ' G$0' H&' 2!V 4 ' E' F3' 143C3E ' =3$4' E' C-NF' @$C3' C-NF' I 34CHEC

DCCH 3D' HE 0' CF$ ' Q3' 3E 3D' H' H 3' E' F3' ; 3N HE' H&' P 3 J Q34C' H' C34 3' E
$' E3 ' I $4 $ J 3E '&H4' $E0' @H-E 0' @ 0' B-42F' H4' *H E' H4' G C 4 N '
H&' @ 3C' B-42FC' $ED' *H EC' $C' H- D' F$ 3' Q33E' 3E 3D' H' Q3' E'

7 ' CH4 3D' E' F3' 43C13N 3' > C C' H&' H 34C' &H4' F3' C$ J 3' D 43N 3D' H' Q3'
J $D3' -ED34' F C' N ' &' F3' G$0' H&' ; 3N HE' F$D' Q33E' F3' G$0' &H4'
E$+ E2' H - ' C-NF' 43C13N 3' > C C' $ED' $ ' I 34CHEC' CF$ ' Q3' 3E 3D' H'
H 3' E' C-NF' ; 3N HE' $ FH-2F' F30' J $0' EH ' Q3' 432 C 343D' $NNH4D E2'
H' F3' I 4H C HEC' H&' F C' N ' $E0' F E2' F343 E' NHE $ E3D' EH FR
C $ED E2' ' $ED' F3' 1H E2' $' C-NF' ; 3N HE' &H4' $E0' @H-E 0' J $0' Q3'
NHE E-3D' &H4' 6 & 33E' G$OC' $ED' F3' 1H E2' $' C-NF' ; 3N HE' &H4' $E0'
@ 0' B-42F' H4' *H E' H4' G C 4 N ' H&' @ 3C' B-42FC' H4' *H EC' J $0'
Q3' NHE E-3D' &H4' ; 2F ' G$OC' $E0' F E2' F343 E' NHE $ E3D' EH FR
C $ED E2

Kʹ $Lʹ M # > ; > P ʹ ʹ @$1 Y! Y S

ʹ ?@ 8 ; G # > ; ?ʹ Hʹ F NFʹ F3ʹ 143N3D E2ʹ N ʹ 43&34C

?@ 8 ; G # > ; ʹ ^ _

. >) 23+%ʹ Hʹ 43 -4Eʹ ;) +ʹ + 4 @++ʹ 3$NF

Q34D33E
420 3
O4
B$E&6
B - 3
B34 N+
@$ FE3CC
G - J Q$4 HE
G - J &4 3C
; D EQ - 42F ʹ
6 &3
6H4&$4
8 $DD E2 HE
E 34E3CC
% EN$4D E3
% 4+N - DQ4 2F

>E4+
> E F2H
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I 33Q 3C
I 34 F ʹ 3 N - C 3ʹ H&ʹ F3ʹ I $4 CF3Cʹ H&ʹ * - ʹ
$ $E ʹ @ - 4HCC ʹ P - N+F$4 ʹ > H2 3 ʹ
$EDʹ 6HCC$ $O ʹ $EE3 3Dʹ Hʹ % E4HCCʹ
$EDʹ @ $N+ J EEEʹ QOʹ ?NF3D - 3ʹ ^B _
ʹ 3E&43
ʹ H Q - 42F
?3 + 4+
? 4 E2 ʹ 3 N - C 3ʹ H&ʹ F3ʹ I $4 CFʹ H&ʹ
$ ʹ $EE3 3Dʹ Hʹ % E4HCC ʹ KN ʹ QOʹ
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9 2 HE

?@ 8 ; G # > ; ʹ ^B _

. 4 @3) + * ʹ . >) 23+% ʹ 3$NFʹ * Hʹ Hʹ 43 -4Eʹ ;) +ʹ + 4 @+ (

; 2 Eʹ $EDʹ , $ 4E

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@ $N+ J EEEʹ $EDʹ % E4HCC ʹ H23 F34ʹ Fʹ F$ ʹ I $4 ʹ H&ʹ I 34 FCF 43ʹ F NFʹ NHEC - 3Cʹ F3ʹ I $4 CF3Cʹ H&ʹ * - $ $E ʹ @ - 4HCC ʹ $EDʹ P - N+F$4 ʹ $EDʹ F3ʹ I 34 FCF 43ʹ I H4 HECʹ H&ʹ F3ʹ I $4 CF3Cʹ H&ʹ > H2 3ʹ $EDʹ 6HCC$ $O ʹ $EDʹ F$ ʹ I $4 ʹ H&ʹ F3ʹ ?F 43ʹ H&ʹ ? 4 E2ʹ F NFʹ NHEC R - 3Cʹ F3ʹ I $4 CFʹ H&ʹ $

?@ 8 ; G # > ; ʹ ^@ _

. ,) %ʹ Hʹ 43 -4Eʹ * Hʹ + 4 @+ (%ʹ 3$NF

; D EQ - 42F ʹ ʹ
M $C2H

?@ 8 ; G # > ; ʹ ^G _

. ,) %ʹ Hʹ 43 -4Eʹ ;) +ʹ + 4 @+ (ʹ 3$NF

Q34D33E
I $ C 3O
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Y U/KS`M#> ;>P ' ' @$1Y!

?@8 ;G#>;' ^; _

. 4@3)+*' >(/ %' $ED' .,)%' 3$N&N' O+2' H4' 3%2(3 2' (H E O' H' 43 -4E
;)+' +4@+(

%4+ $ 9 N+ GH4EHN+ G E2 $ *$ @4HJ$4 O	' 5H EDO	'3E&43 ' ' - Q342 3E' G-J Q$4 HE' ' % J $4EHN+' I H4 'M $C2H '	5H E O
6H4 4HC3' ' E 34E3CC' , $ 4E' ' 6H443C	5H E O	8 $DD E2 HE' ' G-EQ$4' , H4 F' B34 N+' ' ' ; $-D34' 53DQ-42F	5H E O
6&3 &' @- 3E' ' B$E&&' E 34-4O' % E H43' ' 'I3 34F3$D	5H E O	>3 F I H4 HQ3 H P -CC3 Q 42F	(' 5H E O
+ E 34Q34 3' P HE 4HC3 Q34Q4H F N+ B43NF E 6H4&$4	5H E O	> E F2H >E4+ 6$ + 4+ 4D4 3 8$J HB	5H E O
O @-1$4 ? ' ED43 C EC 4- F34' ; $C 34 EC 4- F34' 9 3C 34 @4$ % 43EEO I 3E 33J	5H E O	U O4 4 & 3 <$J 1Q3 H E' E 34$4O <Q$E	5H E O
Y GOC$4 % 4+$ DO % E2FH4E B-4E C $ED	5H E O	G-J &4 3C' ?$EX-F$4 EE$E >HNF J $Q3E % 4+N-DQ4 2F	5H E O
E 34+3 F E2' G-E&34 J E3' ' \ -33EC&344O' ' @- 4HCC' ? 4 E2'	5H E O	9 2 HE' , 3 ' M$ H $O' ? 4$E4$34' 9F FH4E	5H- O

U/KS/M#> ;>P ' ' @$1 Y! Y !

?@8 ;G#>;' ^'_' ^I$4 '6 4C _

?F 43' , ' *H E' H&
' / ' " ' b2 !1 (# ,#a' F343QO' N $ J' H' Q3' 3E4H 3D' $C' $' H 34' E' F3' @H-E O' IH4' *H Em' H&' $C' I4H14 3 H4' I*3E$E ' , ' <NN-1$E m' H&' F3' >$EDC' IH4' 8H-C3C ' 63-'G- 3C ' ! ' '! ! a' H&' E' F3' I$4 CF' IH4' *H Em' H&' $ED' @H-E O' H&' $ED' ' I 1!1' F) #' "3 ()' E' C-11H4 ' H&' JO' @ $ J' ' 14HD-N3' F343 F' $' IG C1HC HE ' ?3 C E ' >3$C3 ' ! ' '! ! ' H&' G$ 3 ' ! ' '! ! ' 1') !' I 1!' ' 4!a

G2 ! A ^? 2E3D_ / "

?@8 ;G#>;' ^6 _' ^I$4 '?3NHED _

+ HD23D' F' J3' I>' 2 ' ?NFHH J$C 34' H& , ' *H E' @ 34+ H&' E' ?F 43 ' F C' G$O' H& ^ H23 F34' F' F3' G C1HC HE ' ?3 C E ' >3$C3 ' ! ' '! ! ' $QH 3' 4 3E ' E' @$C3C' H&' @ $ JC' F E B-42FC_

^? 2E3D_' I 2

?@8 ;G#>;' ^M _' ^ , H _

6H4' . >) 2 3 + %

? . (4' H&' + / 3%2 + (' . . '' H' Q3' +31 ' QO' O + (3DD' A + ('

+	$&#(' +? !(*)A#(!) *	&@(	&) *	"!+'!)(#+! +! (& #	$(AH!)'#)+ '+? "!+'(!#B1' E& <1' +GA(1' (G' $G#B1' 4H	&@(+? " &H(1') &*(1' &!@1' 4H	+G #B

Z'

U KS M#> ;>P ʿ ʿ @$1 Y!

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+	&#(	&@(	&=) *	"!+'!)(#+! +! (& #1	+GA(1 >&!(J+GA(1 J+'1 KN	#!((#1ʿ E& (1ʿ +!ʿ +#J(!ʿ "3&+(+?ʿ (A)<(H(	"&!)AJ

?@8 ;G#>;ʿ^8 _ʿ^I$4ʿ6 4C _

?F 43ʿ , ʿ *H Eʿ H&

ʿ ;ʿ; ʿHQ(3N ʿ Hʿ F3ʿ @ $ Jʿ H&ʿ Hʿ Q3ʿ $D J 3Dʿ &H4ʿ Hʿ NHE E-3ʿ HEʿ F3ʿ ' H mʿ $Cʿ $ʿ H 34ʿ &H4ʿ F3ʿ ?F 43ʿ , ʿ *H Eʿ H&ʿ HEʿ F3ʿ &H H E2ʿ M4H-ED ʿ ? ! !ʿ ʿ)!ʿ 1 !& 1) , % ʿ)!ʿ ,3#&ʿ 1ʿ) ʿ * ,5! ʿ , ʿ 6''35 #' ʿ#, ʿ , ʿ13 ' !# ʿ C %3!=ʿ) ʿ)!ʿ * ʿ 1ʿ #, ʿ , ʿ) 1ʿ '! 1!&ʿ ,ʿ)!ʿ * ,5 ! , ʿ 7!# # ʿ , ʿ 6''35 # ʿ) ʿ)!ʿ) 1ʿ #, ʿ 5 &ʿ 7 J!1ʿ ʿ) ʿ)!ʿ 1ʿ5! 1,# %% ʿ & 1V3 % !&ʿ 1ʿ 4! #(ʿ ʿ #, ʿ ʿ 3,31ʿ *! 1,#ʿ #ʿ 6 '! ʿ ` ʿ)!ʿ *!,!#3! ʿ ! ʿ '! ! aʿ $EDʿ ʿN4$ 3ʿ Hʿ Q3ʿ F3$4Dʿ HEʿ F3ʿ C$ Dʿ <Q(3N HEʿ Q3&H43ʿ F3ʿ ?F34 &&

G* ! A ^? 2E3D_ʿ 8 ʿR

?@8 ;G#>;ʿ^8 _ʿ ^I$4ʿ?3NHED _

<Q(3N HECʿ Hʿ , H ʿ *H Eʿ @ 34+ʿ F C

G$Oʿ H&

HD23Dʿ Fʿ J 3ʿ ʿ ʿ ?NFHH J $C 34ʿ , ʿ

^? 2E3D_ʿ

U`KS/'M#> >P ' ' @$1 Y!' Y

?@8 ;G#> ;' ^ _

' / " ' DH' CH 3 J E O' C 3$4' I H4' $&& 4 J m' * F$ ' ' $ J' F3' ED D-$ ' D3CN4 Q3D' E' F3' ' 32 C 34' &H4' $C' / " ' , ' ' G)! !' #1! ' 2!1' 5 ,#' #')!' 1 !' , &1 1' ',# #!&' #')!' L!(1 ! a' ' F$ ' ' $ J' C ' F3' I 4H14 3 H4' b, ' <NN-1$E m' H&' F3' I 4H134 O' &H4' F NF' ' $ J' CH' 432 C 343D' $ED' FH D' F3' C$ J 3' &H4' J O' H E' B3E3& ' $ED' EH ' E' * 4 - C ' &H4' H4' $ ' F3' I 3$C-43' H&' $EO' H F34' I 34CHE ' $ED' F$ ' ' F$ 3' EH ' $ 43$DO' H 3D' $ ' F C' ; 3N HE

?@8 ;G#> ;' ^% _

' / ' " ' DH' CH 3 J E O' C 3$4' b, ' $&& 4 J m' * F$ ' ' F$ 3' EH ' 43N3 3D' H4' F$D ' QO' J OC3 &' H4' $EO' I 34CHE' &H4' J O' #C3' H4' B3E3& ' $EO' ?- J' H4' ?- J C' H&' P HE30 ' <&& N3' I $N3 ' H4' ; J 1 HO J 3E ' M & ' H4' ' 3 $4D ' H4' $EO' I 4H J C3' H4' ?3N-4 O' &H4' $EO' P HE30 ' <&& N3 ' H4' M & ' E' H4D34' H' 2 3' J O' H 3' $ ' F C' ; 3N HE

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>3 F ' &H4' F3' G C 4 N ' H' F NF' ' Q3 HE2C	?F34 &&' H&' ; D EQ-42F
9 N+ ' &H4' F3' G C 4 N ' H' F NF' ' Q3 HE2C'	?F34 &&' H&' @$ FE3CC
E 34E3CC ' &H4' F3' G C 4 N ' H' F NF' ' Q3 HE2C	?F34 &&' H&' E 34E3CC
; 2 E ' &H4' F3' G C 4 N ' H' F NF' ' Q3 HE2C	?F34 &&' H&' ; 2 E' $ED' P H4$O
P HE 4HC3 ' &H4' F3' G C 4 N ' H' F NF' ' Q3 HE2C	?F34 &&' H&' 6H4&$4
?$ E ' ED43 C ' &H4' F3' G C 4 N ' H' F NF' ' Q3 HE2C	?F34 &&' H&' 6 &3
% 4+$ DO ' &H4' F3' G C 4 N ' H' F NF' ' Q3 HE2C	?F34 &&' H&' 6 &3
? 4 E2 ' &H4' F3' G C 4 N ' H' F NF' ' Q3 HE2C	?F34 &&' H&' ? 4 E2
% J $4EHN+ ' &H4' F3' G C 4 N ' H' F NF' ' Q3 HE2C	?F34 &&' H&' O4
8 $DD E2 HE ' &H4' F3' G C 4 N ' H' F NF' ' Q3 HE2C	?F34 &&' H&' 8 $DD E2 HE
G- J &4 3C ' &H4' F3' G C 4 N ' H' F NF' ' Q3 HE2C	?F34 &&' H&' G- J &4 3C
9 2 HE ' &H4' F3' G C 4 N ' H' F NF' ' Q3 HE2C	?F34 &&' H&' 9 2 HE
O4 ' &H4' F3' G C 4 N ' H' F NF' ' Q3 HE2C	?F34 &&' H&' O4
6$ + 4+ ' &H4' F3' G C 4 N ' H' F NF' ' Q3 HE2C	?F34 &&' H&' ? 4 E2

Y Z U @ _ S P 9 ? 6 ' : 6 ' ' &Y #) ' !

?@8 ;G#> ;' ^P _

* < 9 , ?' H' 43 -4E' * H' + 4 @+ (%' 3$NF

64H J ' V' I H E 'HE' F3' 8 H$D' &4H J ' >3 F' H' \ -33EC&3440' F NF' C' D C $E ' 6H-4' F-4 D43D' =$4DC' ^J 3$C-43D' $ HE2' C-NF' ' H$D_' H' F3' 9 3C 'H&' F3' I H E '$ ' 4F NF' F3' C$E 3' J 33 C' F3' E 34 3 F' ' H$D' $ ' F3' 8 H-C3' N$ 3D' MH D3E' N43 ' E' $' C 4$ 2F ' > E3' H' F3' , H4 F 3C 34E' @H4E34' H&' F3' ; EN HC-43' H&' 5HFE' 9 $ CHEC' EC - HE ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' ?3NHED' ? HE3' B4 D23 ' J $ +3D' , H 'U ' HE' F3' #E HE' @E ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E '$ ' F NF' F3' 9 3C 34E' 9 $ 'H&' F3' ; EN HC-43' H&' F3' > -E$ N' CO - J ' $ ' P H4E E2C D3' J 33 C' F3' 5H4D$E' H4' I H ' B -4E' ' F3EN3' DH E' F3' 5H4D$E' H4' I H ' B -4E' H' $' I H E ' F NF' C' D C $E ' < E3' Q - ED 3D' $ED' & & O' =$4DC' ^J 3$C-43D' $ HE2' C-NF' B -4E_' Q3 H ' F3' 4NF' H 34' F3' C$ J 3' HE' F3' @$4 C 3' ' H$D' ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' ? - J J ' H&' 4 F-4 C' ?3$ ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' 633D34' 3E 34C' F3' 9 3C 34E' ? D3' H&' >HNF3ED' >HNF ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E '$ ' F NF' 1 4 2' ? 433 '(H EC' >3 F' 9 $ + ' F3EN3' $ HE2' I 4 2' ? 433 ' $ED' F3' B3EE E2 HE' ' H$D' H' F3' I H E ' $ ' F NF' F3' $ 34' J 33 C' F3' ' H$D' &4H J ' >3 F' H' \ -33EC&3440 ' F3EN3' $ HE2' F3' ' H$D' &4H J ' >3 F' H' \ -33EC&3440' H' F3' I H E '& 4C ' D3CN4 Q3D

E N"

64H J ' F3' I H E 'HE' F3' 9 3C H&' F3' * H E ' $ ' F NF' F3' ' 34' %3 E' (H EC' F3' ' 34' @ OD3' -1' F3' ' 34' %3 E' H' $' I H E ' F NF' C' D C $E ' < D3' F-ED43D' $ED' & & O' =$4DC' ^J 3$C-43D' $ HE2' F3' ' 34' %3 E_' $QH 3' F3' I H E '$ ' F NF' &$3' C$ J 3' C' J 3 ' QO' F3' I $4+' 9 $ ' F NF' NH J 3C' DH E' F343 H' &4H J ' 9 QHDC D3' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E 'HE' F3' M43$ ' @E ' F NF' C' D C $E ' < E3' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' M43$ ' @E_' Q3 H 'G3440' B4 D23 ' F3EN3' $ HE2' F3' M43$ ' @E ' $ED' F3' @- 'H&' 5-EN HE' H' F3' B4 D23' H 34' F3' @- 'H&' 5-EN HE' HE' F3' ? 4 E2' ' H$D ' F3EN3 ' ; $C $4D ' $ HE2' F3' >H 'M$ E2$D' ' H$D' H' $' I H E ' F NF' C' D C $E ' < E3' F-ED43D' $ED' & & O' =$4DC' ^J 3$C-43D' $ HE2' F3' >H 'M$4E2$D' ' H$D_' H' F3' ; $C ' H&' F3' B4 D23' H 34' F3' M4 J C HE' B -4E' ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E 'HE' F3' ' H$D' H' ; D EQ-42F' QO' 4D4 3' F NF' C' D C $E ' < E3' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' C$ D' ' H$D' H' ; D EQ- 2F_' H' F3' ; $C ' H&' F3' I H E '$ ' F NF' F3' C$ J 3' C' (H E3D' QO' F3' ' H$D' H' ; D EQ-42F' F4H-2F' F3' $23' H&' 9 3C J - 4 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E '$ ' F NF' F3' ' 34' @ OD3' C' (H E3D' QO' 8 $40 3C' GO+3 ' F3EN3' DH E' F3' ' 34' @ OD3' H' F3' I H E '$ ' F NF' F3' C$ J 3' C' (H E3D' QO' F3' I H J $D 3' B -4E ' F3EN3' -1' F3' I H J $D 3' B -4E' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' (H E3D' QO' F3' > 3' MH $E' B -4E ' F3EN3' -1' F3' > 3' MH $E' B -4E' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' D D3D' E H' * H' B4$ENF3C' E' NH J E2' DH E' &4H J ' MH $E' 8 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' ; $C 34E' ; 43 J O' H&' F3' B - 34Q 22 EC' ' H$D ' F3EN3' $ HE2' F3' B - 34Q 22 C' ' H$D '$ED' E' $' > E3' E' NHE E -$ HE' H&' F3' G 43N HE' F343H&' H' F3' % EE E2FH-C3' B -4E ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' ?F3 C' B4 D23' H 34' F3' I $ C 30' $ED' ED4HCC$E' @E ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' ' 34' @ OD3' C' (H E3D' QO' F3' I $E $ HE' B -4E ' F3EN3' DH E' F3' ' 34' @ OD3' H' F3' I H E ' & 4C ' D3CN4 Q3D

:) : >

U K S M#> ;>P @$1Y! Y V

* < 9 , ? H 43 -4E ;)+ +4@+(3$NF

64HJ F3 IHE HE F3 ,H4 F 3C H& F3 *H E $ FNF F3 ?N$ 34 B-4E (H EC F3 ' 34 GHE DH E F3 ' 34 GHE H F3 IHE $ FNF F3 C$J3 (H EC F3 ?3$ F3EN3 $ HE2 F3 ?3$?FH43 H F3 IHE $ FNF F3 ' 34 G33 (H EC F3 ?3$ F3EN3 -1 F3 ' 34 G33 H $ IHE FNF C D C $E <E3 F-ED43D =$4DC ^J3$C-43D $ HE2

@++.++) F3 ' 34 G33_ $QH 3 F3 B4 D23 H& G33 F3EN3 E $ C 4$ 2F > E3 H F3 IHE $ FNF F3 P$4NF Q3 33E F3 I$4 CF3C H& < D PNF4 $ED B$ENFH4O G$ 3E N+ N4HCC3C F3 < D G33 C D3 ' H$D F3EN3 ,H4 F $4D $ HE2 F3 P$4NF Q3 33E F3 I$4 CF3C H& < D PNF4 $ED B$ENFH4O G$ 3E N+ $ED H D P$NF$4 $ED ,3 F C H F3 IHE & 4C D3CN4 Q3D

64HJ F3 ?-J J H& BO43C 8 HE F3 ,H4 F 3$C H& F3 *H E E $ C 4$ 2F > E3 H F3 IHE E3$4 %EHN+ 8 $ FNF F3 ' 3E&43 ' H$D C (H E3D QO $ ' H$D &4HJ < $C2H F3EN3 E $ C 4$ 2F > E3 H F3 ?-J J H& %EHN+ 8 A F3EN3 E $ C 4$ 2F > E3 H F3 ,H4 F34E M$Q 3 H& F3 PHCC *H 8H-C3 HE F3 M433EHN+ ' H$D F3EN3 E $ C 4$ 2F > E3 E F3 G 43N HE H& F3 @F JE3O H& > E HHD @H HE P H F3 IHE $ FNF C-NF C 4$ 2F > E3 N- C F3 @$ED43E B-4E F3EN3 -1 F3 @$ED43E B-4E H F3 IHE $ FNF F3 C$J3

3%A+& C (H E3D QO F3 B4$ D $ED B-4E $ F3 B4 D23 H 34 F3 C$J3 HE F3 5HFEC HE3 ' H$D F3EN3 -1 F3 B4$ D $ED B-4E H $ IHE FNF C D C $E 6 3 F-ED43D =$4DC ^J3$C-43D $ HE2 F3 B4$ D $ED B-4E_ $QH 3 F3 C$ D B4 D23 F3EN3 E C 4$ 2F > E3 H P3 + 34 D23 B4 D23 H 34 F3 @$ED43E B-4E F3EN3 E $ C 4$ 2F > E3 H F3 IHE $ FNF F3 H D ,3 C HE ' H$D 3$ 3C F3 E3 ,3 C HE ' H$D F3EN3 E $ C 4$ 2F > E3 H F3 ?-J J H& GO+3Q$4 8 F3EN3 E $ C 4$ 2F > E3 H $ IHE FNF C <E3 F-ED43D =$4DC D-3 ,H4 FR 3$C H& F3 ?-J J H& B$ F2H 8 F3EN3 E $ C 4$ 2F > E3 H F3 IHE & 4C D3CN4 Q3D

64HJ F3 IHE HE F3 ;$C H& F3 *H E $ FNF F3 ?FH43 H& F3 6 4 F H& *$O H- D Q3 N- QO $ C 4$ 2F > E3 H Q3 D4$ E &4HJ F3 *H 34 ^E 6 &3_ H& P 4 G$ 2 3 CF H& ?NH CN4$ 2 H F3 IHE $ FNF F3 ? HQC J - 4 ' H$D C (H E3D QO F3 H D ' H$D QO ? HQC J - 4 $ED @ 31 E2 HE $ED F3 H D @4$ 2 3 ' H$D E $ C 4$ 2F > E3 H F3 C$ D IHE $ FNF F3 ? HQC J - 4 ' H$D C (H E3D QO F3 H D ' H$D QO ? HQCR J - 4 $ED @ 31 E2 HE $ED F3 H D @4$ 2 3 ' H$D F3EN3 9 3C $4D

>)*++ $ HE2 F3 H D ' H$D QO ? HQC J - 4 $ED @ 31 E2 HE H7 F3 IHE N$ 3D % E2C @4HCC $ FNF F3 C3 34$ BH-ED$4 3C H& F3 I$4 CF3C H& G-ED33 ? 4$ F J$4 E $ED > && J 33 F3EN3 E $ C 4$ 2F > E3 H $ IHE HE F3 > && ' H$D FNF C D C $E * 3 3 F-ED43D =$4DC ^J3$C-43D $ HE2 F3 > && ' H$D_ H F3 9 3C H& F3 IHE $ FNF F3 ,3 O 3 ' H$D 3$ 3C F3 C$J3 F3EN3 E $ C 4$ 2F > E3 D4$ E D-3 ?H- F H F3 ?FH43 H& F3 6 4 F H& *$O F3EN3 $ HE2 F3 ?FH43 H& F3 6 4 F H& *$O H F3 IHE & 4C D3CN4 Q3D

64HJ F3 IHE HE F3 9 3C H& F3 *H E $ FNF F3 ?FH43 H& F3 6 4 F H& @ OD3 C J3 QO F3 P$4NF Q3 33E F3 I$4 CF3C H& M433EHN+ $ED EE34+ 1 -1 F3 C$ D P$4NF H F$ IHE F343H& FNF C E3$43C H F3 ?H- F34E IHE H& F3 ' D23 H& BH 8 F3EN3 E $ C 4$ 2F > E3 H F3 C$ D IHE HE BH 8 F3EN3 E $ C 4$ 2F > E3 H F3 ?H- F34E ;ED H& F3 #1134 ;$C ' 3C34 H 4 &H4 C-11 O E2 M433EHN+ F 9 $ 34 F3EN3 E $ C 4$ 2F > E3 E F3

(++). ' G 43N HE H& F3 F 2F3C 14H(3N E2 IHE H& %EHN+E$ 4 8 H F3

?B

Y![Q4' K' :=E E ' ' &' .

I H E ' E3$4' 9 H DQ3$D' \ -$44O ' $ ' F NF' C-NF' C 4$ 2F ' > E3' N- C' F3' ; $C 34E J HC ' H&' F3' * H' ' - 3 C' F NF' &H4 J' F3' > $DO' B - 4E ' F3EN3' DH E' C-NF' ' - 3 ' $ED' F3' > $DO' B - 4E' H' F3' I H E ' $ ' F NF' F3' C$ J 3' (H EC' F3' 6 4 F' H&' @ OD3' 7 F3EN3' $ HE2' F3' ?FH43' H&' F3' 6 4 F' H&' @ OD3' H' F3' I H E ' & 4C ' D3CN4 Q3D

64H J' F3' , H4 F 3C 34E' @H4E34' H&' F3' , H4 F' ENF ' HE' F3' ' 2F ' B$E+' H&' F3' ' 34' * $O ' E' $' C 4$ 2F ' > E3' H' F3' B4 D23' HE' F3' P ' > 3$D' $ ' F3' BHH ' H&' B$ FH-C 3 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' B4 D23' HE' F3' M $C2H ' ' H$D' H 34' F3' ?NH-4 E2' B - 4E ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' ?H- F34E' @H4E34' H&' F3' 9 $ 34' ' 3C34 H 4' H&' F3' G31H ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' ?H- F34E' @H4E34' H&' F3' I 4 $4 HE' I 34' HE' F3' ' 34' * $O' ' F3EN3' $N4HCC' F3' ' 34' * $O' ^1$CC E2' H' F3' ?H- F' H&' F3' 64 $4 HE' P $ED_' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' J 3 QO' F3' BH-ED$4O' H& F343C13N 3 I $4 CF3CH&' % E&3-EC' $ED% EEH- '
+(2 F3#N3' , H4 F $4D ' $ HE2' F3' BH-ED$4O' H&' F3' I $4 CF' H&' % E&$-EC' H' F3' I H E ' $ ' F NF' F3' C3 34$ ' BH-ED$4 3C' H&' F3' I 4H134 3C' H&' % ER &$-EC ' % EEH$ ' $ED' B$4EF ' J 33 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' , H4 F 3$C 34E' @H4E34' H&' > H4D' % EEH- C' > HD23 ' $ ' F3' M$ 3' H&' 1R 14H$NF' H' % EEH- ' 8 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' , H4 FR 3$C 34E' @H4E34' H&' F3' ; EN HC-43' H&' F3' > - E$ N' CO - J ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' EE$ O' B - 4E' N4HCC3C' F3' B $ 42H 4 3' ' H$D ' F3EN3' DH E' F3' EE$ O' B - 4E' H' F3' I H E ' $ ' F NF' F3' C$ J 3' (H EC' F3' ' 34' * $O ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' & 4C ' D3CN4 Q3D

G ?* ' @* ?' H' 43 -4E' ;) +' + 4 @+ (' 3$NF

h 9 @%' G ?* ' @*

64H J' ?$ J -3 C' 9 3 ' HE' F3' ?H- F 3C ' H&' F3' * H E' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' ?H- F34E' E2 3' H&' F3' M 3Q3' J 33 C' F3' E 34E3CC' ' H$D' ' F3EN3' $ HE2' F3' E 34E3CC' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' J 3 QO' F3' G3E' ' H$D ' F3EN3' E' (. 4 (2& $' C 4$ 2F ' > E3' H' F3' @H$ ' 8 3-2F' 9 3 ' F3EN3' E' $' C 4$ 2F ' > E3' E' F3' G 43N HE' H&' @ $NF J $ HNF' ' HN+' H' F3' I H E ' $ ' F NF' C-NF' C 4$ 2F ' > E3' N- C' F3' ?FH43' H&' F3' @4H J $4 O' 6 4 F' ' 3EN3' $ HE2' F3' ?FH43' H&' F3' @4H J $ O' 6 4 F' H' F$ ' I H E ' F343H&' F NF' C' E3$43C ' H' ?$ J -3 C' 9 3 ' F3EN3' E' $' C 4$ 2F ' > E3' H' ?$ J -3 C' 9 3

64H J' $' I H E ' HE' F3' ?FH43' H&' F3' @4H J $4 O' 6 4 F' F NF' C' D C $E ' < E3' F-ED43D' = $4DC' ^ J 3$C-43D' $ HE2' F3' ?FH43_' H' F3' ?H- F' H&' F3' P H- F' H&' F3' @E ' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' E 34E3CC' ' H$D' F NF' C' D C $E ' 6 3' F-ED43D' = $4DC' ^ J 3$C-43D' $ HE2' F3' E 34E3CC' ' H$D_' &4H J' F3' I H E ' ^E3$4' F3' ?NFHH ' FH-C3_' $ ' F NF' F3' ?$ J 3' C' (H E3D' QO' $EH F34' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' %EHN+Q$ E' B - 4E' F NF' C' D C $E ' 6H-4' F-ED43D' $ED' & & O' = $4DC'
3) / , AA' 5 ^ J 3$C-43D' $ HE2' F3' %EHN+Q$ E' B - 4E_' H' F3' 9 3C ' H&' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' J $ E' ? 433 ' H&' G E2 $ ' F3EN3' ' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' G4OE 3' ' H$D' F NF' C' D C $E ' < E3' F-ED43D' = $4DC' ^ J 3$C-43D' $ HE2' F3' G4OE 3' ' H$D_' &4H J' F3' I H E ' $

U' K' S C M # > ; > P ' ' @ $ 1 Y ! ' Y !

F NF' F3' C$ J 3' 3$ 3C' F3' E3 ' ? 4$ F13& I34' ' H$D '
F3EN3' E' $' C 4$ 2F ' > E3 ' D4$ E' D-3' ; $C ' H' F3' ?FH43'
H&' F3' @4H J $4 O' 6 4 F ' F3EN3' $ HE2' F3' ?FH43' H&' F3'
@4H J $4 O' 6 4 F' H' F3' I H E ' & 4C ' D3CN4 Q3D

64H J ' F3' ' HN+' N$ 3D' @4$ 2' @$4E$ 2 ' E' $' C 4$ 2F '
> E3' H' ? ' P NF$3 C' 9 3 ' N HC3' QO' F3' ' H$D' H' F3'
> 3' 63440 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E '
$ ' F NF' F3' ' H$D' H' F3' P H-ED' H&' 6 33 ' 3$ 3C' F3'
.) . ' H$D' H' BHE$4' B4 D23 ' F3EN3' E' $' C 4$ 2F ' > E3' H'
F3' I H E ' $ ' F NF' F3' B $N+' B-4E' (H EC' F3' GH4EHNF'
6 4 F ' F3EN3' $ HE2' F3' ?FH43' H&' F3' GH4EHNF' 6 4 F'
H' @4$ 2' @$4E$ 2

64H J ' $' I H E ' HE' F3' ?3$' ?FH43' F NF' C' D C $E '
6 3' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' ?FH43_' H'
F3' , H4 F 3$C ' H&' F3' , H4 F 3$C 34E' E2 3' H&' @4H J ' ǵ < 3 ' '
3 C' 6H4 ' E' $' C 4$ 2F ' > E3' H' $ I H E ' HE' F3' @$4E3CC' 3%2 (3 2
' H$D' F NF' C' D C $E ' ?3 3E' F-ED43D' =$4DC' ^J 3$C-43D'
$ HE2' F3' @$4E3CC' ' H$D_' H' F3' ; $C ' H&' F3' I H E ' $ '
F NF' F3' C$ J 3' 3$ 3C' F3' B 4C HE' ' H$D ' F3EN3' E' $'
C 4$ 2F ' > E3' H' $' I H E ' HE' F3' 8 H J ' ' H$D' F NF' C'
D C $E ' * F433' F-ED43D' =$4DC' ^J 3$C-43D ' $ HE2' F3'
8 H J ' ' H$D_' H' F3' ?H- F' H&' F3' I H E ' $ ' F NF' F3'
C$ J 3' 3$ 3C' F3' G334E3CC' ' H$D ' F3EN3' E' $' C 4$ 2F '
> E3' H' $' I H E ' HE' F3' ?N$1$' ' H$D' F NF' C' D C $E '
6H-4' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' ?N1' ' H$D_'
H' F3' ?H- F' H&' F3' I H E ' $ ' F NF' F3' C$ J 3' 3$ 3C' F3'
? 4H J E3CC' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3'
9 3C 34E' ; ED' H&' F3' 4' ; J Q$E+ J 3E ' F3EN3' $ HE2'
F3' 4' ; J Q$E+ J 3E ' $ED' $ HE2' F3' ?3$' ?FH43 ' H' F3'
I H E ' & 4C ' D3CN4 Q3D

64H J ' ? ' P $4O C' 9 3 ' HE' F3' , H4 F 3C ' H&' F3'
* H E ' E' $' C 4$ 2F ' > E3' F4H-2F' F3' ' $ 3E C' 9 3 ' H'
$' I H E ' 6 3' F-ED43D' =$4DC' Q3OHED' F3' C$ J 3 ' F3EN3'
E' $' C 4$ 2F ' > E3 ' D4$ J' D-3' ?H- F 3$C ' H' F3' ?NH C '
Q-4E' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3 ' D4$ E' D-3' ; $C '
3) H' F3' E 34E3CC' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3 '
D4$ E' D-3' , H4 F 3$C ' H' F3' ' 34' H&' * $ E ' F3EN3'
DH E' F3' ' 34' H&' * $ E' H' F3' I H E ' $ ' F NF' F3' C$ J 3'
(H EC' F3' ?3$ ' F3EN3' $ HE2' F3' ?3$' ?FH43' H' ? ' P $4O C'
9 3

64H J ' F3' I H E ' HE' F3' , H4 F 3$C ' H&' F3' * H E ' $ '
F NF' F3' I $1 2H3' B-4E' (H EC' F3' ?3$ ' E' $' C 4$ 2F '
> E3' H' $' I H E ' HE' F3' 8 -E$' ' H$D' F NF' C' D C $E '
* H' F-ED43D' $ED' & & O' =$4DC' ^J 3$C-43D' $ HE2' F3'
8 -E$' ' H$D_' H' F3' , H4 F' H&' F3' I H E ' $ ' F NF' F3'
C$ J 3' 3$ 3C' F3' %3 3Q-4E' ' H$D ' F3EN3' E' $' C 4$ 2F '
> E3' H' F3' , H4 F 3C 34E' @H4E34' H&' F3' M 3Q3 ' F3EN3'
E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' >3- C+3440'
< 3 ' B-4E' (H EC' F3' ' 34' 9 N+' ' F3EN3' -1' F3' >3- C+3440'
B-4E' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' * F-4CH'
' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF'
F3' E 34E3CC' ' H$D' H- D' Q3' N- ' QO' $' C 4$ 2F ' > E3' H'
Q3' D4$ E' F343 H' D-3' 9 3C ' &4H J ' F3' ' HN+' N$ 3D'
`' * F3' < D' P $E' H&' 9 N+ F 3 E N 3' E' $' C 4$ 2F ' > E3'
H' F3' < D' P $E' H&' 9 N+ ' F3EN3' $ HE2' F3' ?3$' ?FH43'
H' F3' I H E ' & 4C ' D3CN4 Q3D

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64HJʼ ?-3EHCʼ? HE3ʼHEʼ F3ʼ ,H4 F 3$Cʼ H&ʼ F3ʼ *H Eʼ Eʼ $ʼ C 4$ 2Fʼ > E3ʼ Hʼ F3ʼ IHEʼ $ʼ F NFʼ * Hʼ ' H$DCʼ J33ʼ $ʼ F3ʼ ,H4 F 3$C 34Eʼ @H4E34ʼ H&ʼ F$ʼ I$4ʼ H&ʼ F3ʼ I4H134 Oʼ H&ʼ F3ʼ B-42Fʼ H&ʼ 6H443Cʼ F NFʼ CʼN$ 3Dʼ ``ʼ *F3ʼ @-EOʼ 8 Cʼ F3EN3ʼ ?H- F $4Dʼ $ HE2ʼ F3ʼ BH-ED$4Oʼ H&ʼ F3ʼ I4H134 Oʼ H&ʼ F3ʼ B-42Fʼ Hʼ F3ʼ IHEʼ $ʼ F NFʼ F3ʼ C$J3ʼ J33 Cʼ F3ʼ ' $&&H4Dʼ ' H$Dʼ F N3ʼ Eʼ $ʼ C 4$ 2Fʼ > E3ʼ Hʼ $ʼ IHEʼ HEʼ F3ʼ O43ʼ ' H$Dʼ F NFʼ Cʼ DC $Eʼ 6&Oʼ =$4DCʼ J3$C-43Dʼ $ HE2ʼ F3ʼ O43ʼ ' H$D_ Hʼ F3ʼ ?H- Fʼ H&ʼ F3ʼ IHEʼ $ʼ F NFʼ F3ʼ C$J3ʼ 3$ 3Cʼ $ʼ ' H$Dʼ Hʼ F3ʼ P Cʼ H&ʼ B-4DCO$4DCʼ F3EN3ʼ Eʼ $ʼ C 4$ 2Fʼ > E3ʼ Hʼ $ʼ IHEʼ HEʼ F3ʼ ,$ 4Eʼ ' H$Dʼ F NFʼ Cʼ DC $Eʼ 6 3ʼ F-ED43Dʼ =$4DCʼ ^J3$C-43Dʼ $ HE2ʼ F3ʼ ,$ 4Eʼ ' H$D_ Hʼ F3ʼ 9 3Cʼ H&ʼ F3ʼ B4 D23ʼ H&ʼ 6H443Cʼ F3EN3ʼ Eʼ $ʼ C 4$ 2Fʼ > E3ʼ Hʼ $ʼ IHEʼ HEʼ F3ʼ B-4Eʼ H&ʼ 6H443Cʼ F NFʼ Cʼ DC $Eʼ 6H-4ʼ F-ED43Dʼ =$4DCʼ ^J3$C-43Dʼ $ HE2ʼ F3ʼ B-4Eʼ H&ʼ 6H443C_ʼ Q3H ʼ F3ʼ >33ʼ B4 D23ʼ F3EN3ʼ Eʼ $ʼ C 4$ 2Fʼ > E3ʼ Hʼ ?-3EHCʼ? HE3

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64HEʼ $ʼ IHEʼ HEʼ F3ʼ ?FH43ʼ H&ʼ F3ʼ PH4$Oʼ 6 4 Fʼ F NFʼ Cʼ DC $Eʼ * Hʼ F-ED43Dʼ =$4DCʼ ^J3$C-43Dʼ $ HE2ʼ F3ʼ ?FH43_ʼ Hʼ F3ʼ 9 3Cʼ H&ʼ F3ʼ I 34ʼ H&ʼ 6H4 4HC3ʼ Eʼ $ʼ C 4$ 2Fʼ > E3ʼ Hʼ ? ʼ BHE &3N3Cʼ 9 3 ʼ F3EN3ʼ Eʼ $ʼ C 4$ 2Fʼ > E3ʼ Hʼ F3ʼ IHEʼ $ʼ F NFʼ F3ʼ ' HC3J$4+ 3ʼ B 4Eʼ H-Dʼ Q3ʼ N-ʼ QOEʼ C 4$ 2Fʼ > E3ʼ Hʼ Q3ʼ D4$ Eʼ F343 Hʼ D-3ʼ ,H4 F 3$Cʼ &4HJʼ? ʼ BHE &$N3Cʼ 9 3 ʼ F3EN3ʼ Eʼ $ʼ C 4$ 2Fʼ > E3ʼ Hʼ F3ʼ ' HN+ʼ N$ 3Dʼ F3ʼ >$DOCʼ B$ F E2ʼ 8H-C3ʼ F3EN3ʼ $ HE2ʼ F3ʼ ?FH43ʼ H&ʼ F3ʼ PH4$Oʼ 6 4 Fʼ 5Hʼ F3ʼ IHEʼ & 4Cʼ D3CN4 Q3D

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64HJʼ F3ʼ @ NFEF$44Oʼ I 34ʼ Eʼ $ʼ C 4$ 2Fʼ > E3ʼ Hʼ F3ʼ IHEʼ $ʼ F NFʼ F3ʼ @$ 3DHE $Eʼ @$ $ʼ H-Dʼ Q3ʼ N-ʼ QOʼ $ʼ C 4$ 2Fʼ > E3ʼ Hʼ Q3ʼ D4$ Eʼ &4HJʼ F3ʼ @ NFEF$44Oʼ I 34ʼ Hʼ F3ʼ ?H- F34Eʼ ; 33J Oʼ H&ʼ F3ʼ #1134ʼ ,3CCʼ C $EDʼ F3EN3ʼ Eʼ $ʼ C 4$ 2Fʼ > E3ʼ Hʼ $ʼ IHEʼ F NFʼ Cʼ * Hʼ F-ED43Dʼ $EDʼ &&Oʼ =$4DCʼ D-3ʼ 9 3Cʼ H&ʼ F3ʼ IHEʼ $ʼ F NFʼ F3ʼ E$ʼ ?+ $Fʼ B-4Eʼ (HFCʼ F3ʼ ' 34ʼ ,3CCʼ F3EN3ʼ Eʼ $ʼ C 4$ 2Fʼ > E3ʼ Hʼ F3ʼ IHEʼ $ʼ F NFʼ F3ʼ E$ʼ ?+ $Fʼ B-4Eʼ (HECʼ F3ʼ ' 34ʼ ,3CCʼ F3EN3ʼ -1ʼ F3ʼ E$ʼ ?+ $Fʼ B-4Eʼ Hʼ $ʼ IHEʼ F NFʼ Cʼ DC $Eʼ *F433ʼ F-ED43Dʼ $EDʼ &&Oʼ =$4DCʼ ^J3$C-43Dʼ $ HE2ʼ F3ʼ E$ʼ ?+ $Fʼ B-4E_ʼ $QH 3ʼ F3ʼ B4 D23ʼ H 34ʼ F3ʼ C$J3ʼ HEʼ F3ʼ ' H$Dʼ Hʼ 6H4ʼ -2-C -Cʼ F3E@3ʼ Eʼ $ʼ C 4$ 2Fʼ > E3ʼ Hʼ F3ʼ IHEʼ $ʼ F NFʼ F3ʼ ' H$Dʼ &4HJʼ P- 4& 3Dʼ Hʼ % E2Cʼ P Cʼ 3$ 3Cʼ F3ʼ HDʼ ;DEQ-42Fʼ ' H$Dʼ F3EN3ʼ Eʼ $ʼ C 4$ 2Fʼ > E3ʼ D4$ Jʼ D-3ʼ ,H4 Fʼ Hʼ F3ʼ ,$ 4Eʼ ' H$Dʼ F3EN3ʼ Eʼ $ʼ C 4$ 2Fʼ > E3ʼ Hʼ F$ʼ IHEʼ HEʼ F3ʼ ?FH43ʼ H&ʼ F3ʼ PH4$Oʼ 6 4 Fʼ F NFʼ Cʼ D-3ʼ ,H4 Fʼ H&ʼ F3ʼ ,H4 F34Eʼ E2 3ʼ H&ʼ @4HJ 3 Cʼ 6H4 ʼ F3EN3ʼ $ HE2ʼ F3ʼ ?FH43ʼ H&ʼ F3ʼ PH4$Oʼ 6 4 Fʼ Hʼ F3ʼ @ NFEF$44Oʼ I 34

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64HJʼ F3ʼ IHE ʼ HEʼ F3ʼ ,H4 F 3Cʼ H&ʼ F3ʼ *H Eʼ $ʼ F NFʼ F3ʼ 9 3C 34Eʼ P$4NFʼ H&ʼ F3ʼ *H ECʼ > E+Cʼ J33 Cʼ F3ʼ ?FH43ʼ H&ʼ F3ʼ PH4$Oʼ 6 4 Fʼ Eʼ $ʼ C 4$ 2Fʼ > E3ʼ Hʼ $ʼ IHEʼ HEʼ F3ʼ E 34E3CCʼ ' H$Dʼ F NFʼ Cʼ DC $Eʼ <E3ʼ F-ED43Dʼ =$4DCʼ ^J3$C-43Dʼ $ HE2ʼ F3ʼ E 34E3CCʼ ' H$D_

U K SL M#> ;>P @$1 Y! Y!S

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H F3 ?H- F H& F3 IHE $ FNF F3 'H$D H F3 M4H 3 3$ 3C F3 C$J3 F3EN3 E $ C 4$ 2F > E3 H F3 ? - N3 H& F3 P D$J H& F3 , $ 4E P C F3EN3 E $ C 4$ 2F > E3 H $ IHE HE F3 6H443C 'H$D FNF C DC $E ? F-ED43D =$4DC ^J3$C-43D $ HE2 F3 6H443C 'H$D_ &4HJ F3 B4 D23 H& , $ 4E F3EN3 E $ C 4$ 2F > E3 D4$ E D-3 , H4 F H F3 ?FH43 H& F3 PH4$O 6 4 F F3EN3 $ HE2 F3 ?FH43 H& F3 PH4 $O 6 4 F H F3 IHE & 4C D3CN4 Q3D

S h ;>M , G ?*' @*

64HJ F3 'HN+C HE F3 9 3C H& F3 *H E N$ 3D *F3 > 3 *-JQ 34C E $ C 4$ 2F > E3 D4$ E D-3 ?H- F H $ IHE HE F3 M$ H 8 ; 2F F-ED43D $ED &&O =$4DC DC $E F3EN3 E $ C 4$ 2F > E3 H F3 IHE $ FNF F3 @H 3HE$4D 'H$D 3$ 3C F3 ?$EDOF C 'H$D F3EN3 E $ C 4$ 2F > E3 H F3 B4 D23 H 34 F3 ' 34 GH 34E 3$D E2 &4HJ F3 *H E H& B$E&& H P$ND-&& F3EN3 -1 F3 ' 34 GH 34E H $ IHE FNF C DC $E * H F-ED43D =$4DC ^J3$R C-43D $ HE2 F3 ' 34 GH 34E_ $QH 3 F3 C$D B4 D23 F3EN3 E $ C 4$ 2F > E3 H $ IHE HE F3 'H$D &4HJ P$ND-&& H Q34D33E FNF C DC $E * H F-ED43D =$4DC ^J3$C-43D $ HE2 C-NF 'H$D_ H F3 ?H- F H& F3 IHE $ FNF F3 C$J3 C N4HCC3D QO F3 G3OF 'H$D F3EN3 E $ C 4$ 2F > E3 H F3 P E34$ 9 3 H& *$4 $ 4 F3EN3 $ HE2 F3 ?FH43 H& F3 PH4$O 6 4 F H F3 > 3 *-JQ 34C & 4C D3CN4 Q3D

64HJ F3 B4 D23 H 34 F3 B-4E H& @- 3E HE F3 6HNF$Q34C 'H$D E $ C 4$ 2F > E3 H F3 IHE $ FNF ? $N+ C 'H$D J33 C F3 ?3$& 3 D 'H$D F3EN3 E $ C 4$ 2F > E3 H F3 IHE $ FNF F3 G3C+&H4D 'H$D 3$ 3C F3 B$E&& 'H$D F3EN3 E $ C 4$ 2F > E3 H F3 IHE $ FNF F3 >H22 3 'H$D H- D Q3 N- QO $ C 4$ 2F > E3 H Q3 D4$ E F343 H D-3 ?H- F &4HJ F3 'HN+ N$ 3D F3 P$ D3E I$1C F3EN3 E $ C 4$ 2F > E3 H F3 P$ D3E I$1C F3EN3 $ HE2 F3 ?3$?FH43 H F3 IHE $ FNF F3 C$J3 J33 C F3 B-4E H& @- 3E F3EN3 -1 F3 B-4E H& @- 3E H F3 B4 D23 H 34 F3 C$J3 HE F3 6HNF$Q34C 'H$D

>AA+)

64HJ F3 B4 D23 HE F3 6HNF$Q34C 'H$D H 34 F3 *ON+ B-4E -1 F3 *ON+ B-4E H F3 IHE $ FNF F3 C$J3 H- D Q3 N- QO $ C 4$ 2F > E3 H Q3 D4$ E F343 H D-3 ;$C &4HJ I$ J34 @4HCC B4 D23 F3EN3 E $ C 4$ 2F > E3 H I$ J34 @4HCC B4 D23 F3EN3 E $ C 4$ 2F > E3 H F3 IHE $ FNF F3 ' 34 >HCC 3 H- D Q3 N- QO $ C 4$ 2F > E3 H Q3 D4$ E &4HJ I$ J34 @4HCC B4 D23 H ?F34 && P B4 D23 F3EN3 DH E F3 ' 34 >HCC 3 H F3 B4 D23 H 34 F3 C$J3 HE F3 'H$D &4HJ < D P C H \-$44O 9 HHD F3EN3 $ HE2 F3 'H$D &4HJ < D P C H \-$44O 9 HHD H F3 IHE $ FNF F3 C$J3(H EC F3

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Y! U' K' SC'M#> ;>P ' ' @$1 Y!

'H$D' QO' PH44 C H E' H' >HCC 3 J H- F ' F3EN3' DH E' F3' ' D' QO' PH44 C H E' H' >HCC 3 J H- F' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' ^$ ' F3' @4HCC' H&' B CFH1' P _' $EH F34' 'H$D' H' >1CC H J H- F.' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' B4 D23' & 4C ' D3CN4 Q3D

64H J ' F3' B4 D23' < 34' F3' ' 34' # 40' $ ' F3' P 'H&' %3 F*F$:' E' $' C 4$ 2F ' > E3' F4H-2F' F3' 6 & 33E F' P 3' ? HE3HF' F3' Q34D33E' 'H$D ' H$' I H E ' 6H-4' F-ER D43D' =$ DC' Q3OHED' F3' C$ J 3 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' 'H$D' H' 8 H &H4D' 3$ 3C' F3' 8 -E O' 'H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' # 1134' 6H4D' H&' 8 H &H4D' HE' F3' ' 34' # 4 0 ' F3EN3' DH E' F3' ' 34' # 40' H' F3' B4 D23' & 4C ' D3CN Q3D

#3 $

64H J ' F3' I H E ' HE' F3' ?H- F 3$C 'H&' F3' * H E ' $ ' F NF' F3' B -4E' H&' * -$N%'(H EC' F3' ' 34' GHE ' -1' F3' B -4E' H&' * -$NF' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C'(H E3D' QO' F3' * H44O' B $4E ' F3EN3' -1' F3' * J 40' B -4E' H' F3' B4 D23' H 34' F3' C$ J 3' HE' F3' Q34D33E' 'H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' 8 $ &H43C ' 'H$D' 3$ 3C' F3' 'H$D' H' F3' ?F331NH 3C' ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' B4 D23' H 34' F3' Q34D33ECF 43' @E ' E3$4' F3' 6$4 J ' H&' * O ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' H&' F3' C $ED' E' F3' >$EDC' H&' B$ ' Q F$E ' E3$4' F3' M 3Q3 ' F3EN3' $ H ' F3' ' 34' GHE ' $+ E2' F3' , H4 F34E HC ' B4$ENF' F343H&' $ ' F3' I H E C' $ ' F NF' F3' C$ J 3' C' D D3D' E H' * H' B4$ENF3C ' H' F3' I H E ' & 4C ' D3CN4 Q3D

"3)2.(+

64H J ' F3' , H4 F #&3C 34E' E2 3' F3' ?$ J HE' 8 H-C3' $ ' F3' P H- F' H&' F3' ' 34' # 2 3 ' $ED' HE' F3' , H4 F 9 3C ' H&' F3' * H E ' E' $' C 4$ 2F ' > E3' H' F3' I H E ' E3$4' @ $4+3' 8 ' $ ' F NF' F3' H D' % E J #EDO' 'H$D' C'(H E3D' QO' $' 'H$D' 3$D E2' F343&4H J ' E H' F3' -NF O2$ ' 'H$D ' F3EN3' $ HE2' F3' 'H$D' CH' 3$D E2' E H' F3' -NF O2$ ' 'H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3'(H EC' F3' -NF O ' 2$ ' 'H$D ' F3EN3' ; $C $4D' $ HE2' F3' -NF O2$ ' 'H$D ' $ED' E' $' > E3' E' NHE E -$ HE' H&' F3' G 43N HE' F343H&' H' F3' ?3$' ?FH43 ' F3EN3' $ HE2' F3' ?3$' ?FH43' H' F$ ' I H E ' F343H&' F NF' C' E3$43C ' H' F3' I H E ' & 4C ' D3R CN4 Q3D' ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' & 4C ' D3CN4 Q3D

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I4H J ' F3' I H E ' $ ' F NF' F3' ?3$' ?FH43' H- D' Q3' N- ' QO' $' C 4$ 2F ' > E3' H' Q3' D4$ E' &4H J ' F3' B3 ' 'HN+' > 2F ' 8 H-C3' H' F3' I H E ' E3$4' * J J 34' M433E ' $ ' F NF' F3' 'H$D' H' GHC1 $ ' 6 3 D' 3$ 3C' F3' 4Q 4 H ' 'H$D ' $ HE2' F3' C$ D' C 4$ 2F ' > E3' H' F3' C$ D' I H E ' $ ' F NF' F3' 'H$D' H' 8 HC1 $ ' 6 3 D' 3$ 3C' F3' 4Q 4 H ' 'H$D ' F3EN3 ' , H4 F $4D ' $ HE2' F3' 4Q 4 H ' 'H$D' H' F3' I H E ' $ ' F(3F' F3' C$ J 3' C' J 3 ' QO' $' 'H$D' 3$D E2 F343 H'&4H J ' F36H4&$4' 'H$D ' &$3EN3' E' $'C 4$ 2F ' > E3' H' $' I H E ' HE' F3' 6H4&$4' 'H$D' F NF' C' D C $E ' ' <E3' F-ED43D' $ED' & & O' =$4DC' $ HE2' F3' 6H4&F4' 'H$D' ' H' F3' , H4 F' H&' F3' 6 4C ' P 3' ? HE3' &4H J ' Q34Q4H F

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ULKS/M#> ;>P ' ' @$1Y! Y!!

N+'$' F3' H D' *H ' 8H-C3 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' B4 D23' H 34' F3' 633D34' H&' F3' *$440' B-4E' HE' F3' P HE 4HC3' ' H$D ' F3EN3' $ HE2' F3' C$ D' 633D34' H' F3' I H E ' $ ' F NF' F3' C$ J 3' 43$NF3C' F3' ?14 E2' $ ' < D' *$440 ' F3EN3' DH E' F3' *$440' B-4E' H' F3' I H E ' $ ' F NF' F3' C$ J 3' (H EC' F3' ?3$ ' F3EN3' $ HE2' F3' ?3$' ?FH43' H' F3' I H E ' & 4C ' D3CN4 Q3D

64H J' F3' I H E 'HE' F3' ?H- F' H&' F3' *H E '$ ' F NF' F3' ?+ EE34C' B-4E' (H EC' F3' ?H- F' ;C+' ' 34' DH E' F3' ?H- F' ;C+' ' 34' H' F3' 9 3C 'G3E' H&' >3-NF $ED' ' F3EN3' -1' F3' 8H H 'H&' F3' 9 3C 'G3E' H&' >3-NF $ED ' $ED' -1' B$44 3 C' B-4E ' H' F3' I H E ' E3$4' F3' ?H-4N3' H&' B$44 3 C' B-4E '$ ' F NF' F3' C3 34$ ' BH-ED$4 3C' H&' F3' I 4H134 3C' H&' @$ DQ$ J 3 ' I &H4 F 3 ' $ED' #E F$E+' J 33 ' F3EN3' E' $' C 4$ 2F ' > E3 ' E' $' 3C 34 O' G 43N HE ' H' F3' I H E '$ ' F NF' F3' C3 34$ ' BH-ED$4 3C' H&' F3' I 4HR 134 3C' H&' P $ CHED 3-' $ED' @NH+C HE' $ED' P 4 ' P NF3 C' >$ED' J 33 ' F3EN3 ' E' $' ?H- F 3C 'G 43N HE ' $ HE2' F3' BH-ED$40' H&' F3' P $ CHED 3-' I 4H134 O' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' P 3E J - 4' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' 9 3C 34E J HC ' I H E ' $ ' F NF' F3' ?+ EE34C' B-4E' N4HCC3C' F3' 6H4&$4' ' H$D ' F3EN3' DH E' F3' ?+ EE34C' B-4E' H' F3' I H E ' & 4C ' D3CN4 Q3D

64H J' F3' ENF J $ NHQ 3' ? HE3 ' HE' F3' ?H- F34E' B$E+' H&' F3' >HNF' H&' 6H4&$4' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' <4NF$4D' >H$E' (H EC' F3' I 34 F' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' F4H-2F' F3' I H E ' $ ' F NF' F3' 9 3C & 3 D' >H$E' (H EC' F3' G-ED33' ' H$D' H' F3' B$ J ECF$EE34' P $4NF ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' B ED' 9 3 ' $ ' F3' 5-EN HE' H&' F3' ' H$D' &4H J' 6H4&$4' H' >H 34' F' F3' H D' % 4+' ' H$D' &4H J' >H 34 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' ?14 E2' HE' F3' 4Q4H$ F' ' H$D' $ ' F3' 5-EN HE' H&' F3' BH-ED$4 3C' H&' I 4-NF 3' $ED' F3' I HH4C' M4H-ED ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' H D' ' H$D' H' B43NF E' 3$ 3C' F3' ;$C ' ' H$D' H' @$4C3Q-4E ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' 9 3C ' ' H$D' H' @$4C3Q-4E' 3$ 3C' F3' 8 $CCHN+ 3 ' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' E3 ' % 44 3 J - 4' ' H$D' 3$ 3C' F3' E3 ' B43NF E' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' ENF J $ NHQ 3' ? HE3

64H J' F3' I H E ' HE' F3' ;$C ' H&' F3' *H E '$ ' F NF' F3' B34 3' B-4E' (H EC' F3' ?3$ ' -1' F3' B34 3' B-4E' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' J 3 ' QO' F3' BH-ED$40' H&' F3' I $4 CF' H&' 4Q- FEH ' F3EN3 ' ?H- F $4D ' $ HE2' F3' BH-ED$40' H&' F3' I $4 CF' H&' 4Q- FEH ' H' F3' I H E ' ^E3$4' G3EDHD4-J_'$ ' F NF' F3' C$ J 3' J 33 C' F3' BH-EDR $40' F NF' C31$4$ 3C' F3' *H E' >$EDC' &4H J' F3' I 4H134 O' H&' P 4 ' 6$4X-F$4 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' C3 34$ ' BH-ED$4 3C' H&' F3' M 3Q3' >$ED ' F3' >$ED' H&' F3' *H EC' P - 4 ' $ED' F3' I 4H134 O' H&' P 4 ' 6$4X-F$4 ' J 33 ' F3EN3' E' $' C 4$ 2F ' > E3' F4H-2F' F3' ?H- F 3C 34E' @H4E34' H&' F3' H D' @$C 3' H&' 8 $ ' M433E' H' F3' ?3$' ?FH43 ' F3EN3' $ HE2' F3' ?3$' ?FH43' H' F3' I H E ' & 4C ' D3CN4 Q3D

Y!Y U`K S`M#> ;>P @$1 Y!

64HJ F3 IHE HE F3 ,H4 F 3$C H& F3 *H E $ F NF F3 *H &C >H$E E2 J33 C F3 ?3$?FH43 9 3C $4D $ HE2 F3 *H EC >H$E E2 $ED E $ > E3 E NHE E-$ HE H& F3 G 43N HE F343H& H F3 IHE $ F NF C-NF > E3 N- C F3 >$-43EN3+ 4+ H$D F3EN3 E $ C 4$ 2F > E3 H F3 B4 D23 H 34 F3 B-4E H& *$OHN+ HE F3 B43NF E H$D F3EN3 DH E F3 @F$ER E3 H& F3 B-4E H& *$OHN+ $ >H 9 $ 34 H F3 IHE $ F NF F3 C$J3 (H EC F3 ?H- F ;C+ 34 F3EN3 DH E F3 ?H- F ;C+ 34 EN -D E2 F3 HCC 3 C $ED H F3 IHE $ F NF F3 C$J3 34 (H EC F3 ?3$ F3EN3 $ HE2 F3 ?3$?FH43 H F3 IHE &4C D3CN4 Q3D

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! h?* ,G ; 9 ? G ?* @*

64HJ F3 IHE $ F NF F3 G4@3 B-4E (H EC F3 6 4 F H& 6H4 F -1 F3 G433 B-4E H F3 IHE $ F NF F3 P D$J H& F3 P H& EC 4- F34 Q4$ENF3C H&& F3EN3 E $ C 4$ 2F > E3 E F3 G 43N HE H& F3 ?1 43 H& % 43EEO @F-4NF H F3 IHE $ F NF C-NF C 4$ 2F > E3 N- C F3 @-ET 3 B-4H F3EN3 E $ C 4$ 2F > E3 H F3 IHE $ F NF F3 H$D 3$D E2 H ? ED43 C ^Q3 E2 F3 P $4NF Q3 33E F3 >$EDC H& 3EEO 8 $ED F3 B$4HEO H& EC 4- F34_ 3$ 3C F3 *-4E1 +3 H$D H #1134 % 43EEO F3EN3 E $? 4$ 2F > E3 H F3 IHE $ F NF F3 @3 $4DO+3 B-4E 3E 34C F3 6 4 F H& 6H4 F F3E@3 $ HE2 F3 ?FH43 H& F3 6 4 F H& 6H4 F H F3 IHE &4C D3CN4 Q3D

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64HJ F3 HN+ N$ 3D F3 @-E 234 ? HE3 E $ C 4$ 2F > E3 H F3 IHE $ F NF F3 G433 B-4E N4HCC3C F3 H$D &4HJ I 3- 33J H M4$E23 J - 4 6$4J F3EN@ DH E F3 G433 B-4E H F3 IHE $ F NF F3 C$J3 (H EC F3 6 4 F H& 6H4 F F3EN3 $ HE2 F3 ?FH43 H& F3 6 4 F H& 6H4 F H F3 @-E 234 ? HF3

5

E "

64HJ $ IHE HE F3 ?FH43 H& F3 6 4 F H& 6H4 F F NF C D C $E 6 3 F-ED43D =$4DC ^J3$C-43D $ HE2 F3 ?FH43_ H F3 ?H- F 3C H& F3 JHED HN+C E $ C 4$ 2F > E3 D4$ E D-3 ,H4 F 3C H F3 IHE $ F NF C-NF C 4$ F > E3 N- C F3 H$D H EC 4- F34 $ED % 43EEO F3EN3 E $ C 4$ 2F > F3 H F3 IHE $ F NF F3 ? ED43 C H$D H- D Q3 N- QO $ C 4$ 2F > E3 H Q3 D4$ E F343 H &4HJ ,H4 F B34 N+ >$ F4H-2F F3 1HE $C D3CN4 Q3D F3EN3 E $ C 4$ 2F > E3 H $ IHE HE F3 @4$ 2F3$D H$D F NF C D C $E 6 3 F-ED43D =$4DC ^J3$C-43D $ HE2 F3 @4$ 2F3$D H$D_ H F3 ,H4 F 3$C ; F3 B4 D23 HE F3 C$J3 H 34 F3 >$J J $C M433E B-4E F3EN3 E $ C 4$ 2F > E3 E F3 G 43N HE H& F3 ,H4 F 3$C 34E J HC IHE H& F3 HJ3 HN+C #E J33 C F3 ?FH43 H& F3 6 4 F H& 6H4 F F3EN3 $ HE2 F3 ?FH43 H& F3 6 4 F H& 6H4 F H F3 IHE &4C D3CN4 Q3D

4

64HJ $ IHE HE F3 ?H- F34E B4$ENF H& F3 34 ; D3E F NF C D C $E 6H-4 F-ED43D =$4DC ^J3$C-43D $ HE2 C-NF 34_ Q3H F3 E3 B4 D23 E $ C 4$ 2F > E3 F4H-2F $ IHE HE F3 G-ED33 H$D F NF C

D C $E ʻ * H ʻ F-ED43D ʻ $ED ʻ & & O ʻ =$4DC ʻ ^ J 3$C-43D ʻ $ HE2 ʻ F3 ʻ G-ED33 ʻ ' H$D_ ʻ H ʻ F3 ʻ ; $C ʻ H& ʻ F3 ʻ P 3C HE3 ʻ J $4+3D [ʻ P 3C ʻ &4H J ʻ @-1$4 ʻ $ED ʻ UU ʻ P 3C ʻ &4H J ʻ I 3 ON-4 ʻ H ʻ $ I H E ʻ * H ʻ F-ED43D ʻ $ED ʻ & & O ʻ =$4DC ʻ D C $E ʻ &4H J ʻ F3 ʻ C$ D ʻ I H E ʻ HE ʻ F3 ʻ G-ED33 ʻ ' H$D ʻ F3EN3 ʻ E ʻ $ ʻ C 4$ 2F ʻ > E3 ʻ H ʻ F3 ʻ , H4 F 3C 34E ʻ @H4E34 ʻ H& ʻ F3 ʻ M$4D3E ʻ 9 $ ʻ H& G$ T 3 ʻ >HD23 ʻ HE ʻ F3 ʻ H D ʻ G-ED33 ʻ ' H$D ʻ F3EN3 ʻ E ʻ $ C 4$ 2F ʻ > E3 ʻ H ʻ F3 ʻ B4 D23 ʻ H 34 ʻ F3 ʻ ? ʻ P $40 C ʻ B-4E ʻ HE ʻ F3 ʻ , 3 Q-42F ʻ ' H$D ʻ F3EN3 ʻ E ʻ $ ʻ C 4$ 2F ʻ > E3 ʻ H ʻ F3 ʻ I H E ʻ $ ʻ F NF ʻ F3 ʻ 63440Q$E+ ʻ ' H$D ʻ H- D ʻ Q3 ʻ N- ʻ QO ʻ $ ʻ C 4$ 2F ʻ > E3 ʻ H ʻ Q3 ʻ D4$ E ʻ &4H J ʻ F3 ʻ 8 H13 H-E ʻ P HE- J 3E ʻ H ʻ F3 ʻ 9 E 34 ʻ H4 ʻ ; O3 $ 34 ʻ ? - N3 ʻ $ ʻ F3 ʻ 9 3C 34E ʻ ; ED ʻ H& ʻ ED34CHEC ʻ ?1 EE E2 ʻ P C ʻ F3EN3 ʻ E ʻ $ ʻ C 4$ 2F ʻ > E3 ʻ H ʻ F3 ʻ C$ D ʻ ? - N3 ʻ F3EN3 ʻ E ʻ $ ʻ C 4$ 2F ʻ > E3 ʻ H ʻ F3 ʻ P 3C HE3 ʻ HE ʻ F3 ʻ ; D EQ-42F ʻ ' H$D ʻ J $4+3D ʻ P 3 ʻ &4H J ʻ @-1$4 ʻ $ED ʻ U ʻ P 3C ʻ &4H J ʻ I 3 ON-4 ʻ F3EN3 ʻ E ʻ $ ʻ C 4$ 2F ʻ > E3 ʻ H ʻ F3 ʻ I H E ʻ & 4C ʻ D3CN4 Q3D

64H J ʻ F3 ʻ I H E ʻ $ ʻ F NF ʻ F3 ʻ @3 $4DO+3C ʻ B-4E ʻ (H EC ʻ F3 ʻ 6 4 F ʻ H& ʻ 6H4 F ʻ E ʻ $ ʻ C 4$ 2F ʻ > E3 ʻ H ʻ F3 ʻ I H E ʻ $ ʻ F NF ʻ F3 ʻ ' H$D ʻ 3$D E2 ʻ H ʻ ? ʻ ED43 C ʻ ^Q3 E2 ʻ F3 ʻ P $4NF ʻ Q3 33E ʻ F3 ʻ >$EDC ʻ H& ʻ ' 3EEOF ʻ $ED ʻ F3 ʻ B$4HEO ʻ H& ʻ EC 4- F34_ ʻ 3$ 3C ʻ F3 ʻ * -4E1 +3 ʻ ' H$D ʻ &4H J ʻ E ʻ C 4- F34 ʻ H ʻ # 1134 ʻ % 43EEO ʻ F3EN3 ʻ E ʻ $ ʻ C 4$ 2F ʻ > E3 ʻ H ʻ F3 ʻ ?+3 F ʻ ? HE3 ʻ F3EN3 ʻ E ʻ $ ʻ C 4$ 2F ʻ > E3 ʻ H ʻ F3 ʻ I H E ʻ $ ʻ F NF ʻ F3 ʻ M3 O ʻ B-4E ʻ J 33 C ʻ F3 ʻ 9 3 ʻ H& ʻ ?1$ ʻ B-4E ʻ F3EN3 ʻ E ʻ $ ʻ C 4$ 2F ʻ > E3 ʻ H ʻ $ ʻ I H E ʻ HE ʻ F3 ʻ @4$ ʻ ' H$D ʻ F NF ʻ C ʻ D C $E ʻ 6H-4 ʻ F-ED43D ʻ =$4DC ʻ ^ J 3$C-43D ʻ $ HE2 ʻ F3 ʻ @4$ ʻ ' H$D_ ʻ H ʻ F3 ʻ , H4 F 3$C ʻ H& ʻ F3 ʻ B4 D23 ʻ HE ʻ F3 ʻ C$ J 3 ʻ H 34 ʻ F3 ʻ M3 O ʻ B-4E ʻ F3EN3 ʻ E ʻ $ ʻ C 4$ 2F ʻ > E3 ʻ H ʻ $ ʻ I H E ʻ HE ʻ F3 ʻ M3 O ʻ B-4E ʻ F NF ʻ C ʻ D C $E ʻ * F433 ʻ F-ED43D ʻ =$4DC ʻ ^ J 3$C-43D ʻ $ HE2 ʻ F3 ʻ M3 O ʻ B-4E_ ʻ Q3 H ʻ F3 ʻ C$ D ʻ B4 D23 ʻ HE ʻ F3 ʻ @4$ ʻ ' H$D ʻ F3EN3 ʻ DH E ʻ F3 ʻ M3 O ʻ B-4E ʻ H ʻ F3 ʻ I H E ʻ $ ʻ F NF ʻ F3 ʻ C$ J 3 ʻ (H EC ʻ F3 ʻ 6 4 F ʻ H& ʻ 6H4 F ʻ F3EN3 ʻ $ HE2 ʻ F3 ʻ ?FH43 ʻ H& ʻ F3 ʻ 6 4 F ʻ H& ʻ 6H4 F ʻ H ʻ F3 ʻ I H E ʻ & 4C ʻ D3CN4 Q3D

64H J ʻ $ ʻ I H E ʻ HE ʻ F3 ʻ ?H- F 3C ʻ H& ʻ F3 ʻ * H E ʻ HE ʻ F3 ʻ ?3$ ʻ ?FH43 ʻ D C $E ʻ &4H J ʻ F3 ʻ ?$EDO ʻ @4$ 2 ʻ ? ʻ F-ER D43D ʻ =$4DC ʻ ^ J 3$C-43D ʻ 9 3C $4DC ʻ $ HE2 ʻ F3 ʻ ?3$ ʻ ?FH43_ ʻ E ʻ $ ʻ C 4$ 2F ʻ > E3 ʻ D4$ E ʻ H ʻ $ ʻ I H E ʻ HE ʻ F3 ʻ P 43C ʻ H4 ʻ G433 ʻ B-4E ʻ ? ʻ F-ED43D ʻ =$4DC ʻ ^ J 3$C-43D ʻ -1 ʻ F3@H-4C3 ʻ F343H&_ ʻ $QH 3 ʻ F3 ʻ I H E ʻ F343 ʻ C ʻ N4HCC3D ʻ QO ʻ F3 ʻ ' H$D ʻ H ʻ @$4EQ33 ʻ $ED ʻ ? ʻ ED43 C ʻ F3EN3 ʻ DH E ʻ F3 ʻ P 43C ʻ H4 ʻ G433 ʻ B-4E ʻ H ʻ F3 ʻ I H E ʻ $ ʻ F NF ʻ F3 ʻ C$ J 3 ʻ N4HCC3C ʻ F3 ʻ ' H$D ʻ H ʻ M4$E23 J - 4 ʻ 6$4 J ʻ F3EN3 ʻ E ʻ $ ʻ C 4$ 2F ʻ > E3 ʻ H ʻ F3 ʻ ' HN+ ʻ N$ 3D ʻ F3 ʻ @-E 234 ʻ ? HE3 ʻ F3EN3 ʻ $ HE2 ʻ F3 ʻ ?FH43 ʻ H& ʻ F3 ʻ 6 4 F ʻ H& ʻ 6H4 F ʻ H ʻ F3 ʻ I H E ʻ & 4C ʻ D3CN4 Q3D

64H J ʻ F3 ʻ I H E ʻ $ ʻ F NF ʻ F3 ʻ ? + E ʻ B-4E ʻ (H EC ʻ F3 ʻ ?3$ ʻ -1 ʻ F3 ʻ ? + E ʻ B-4E ʻ H ʻ $ ʻ I H E ʻ F NF ʻ C ʻ D C $E ʻ * F433 ʻ F-ED43D ʻ =$4DC ʻ ^ J 3$C-43D ʻ $ HE2 ʻ F3 ʻ ? + E ʻ B-4E_ ʻ $QH 3 ʻ F3 ʻ B4 D23 ʻ H 34 ʻ F3 ʻ C$ J 3 ʻ HE ʻ F3 ʻ @-1$4 ʻ ' H$D ʻ F3EN3 ʻ E ʻ $ ʻ C 4$ 2F ʻ > E3 ʻ F4H-2F ʻ $ ʻ I H E ʻ HE ʻ F3 ʻ % E2FH4E ʻ ' H$D ʻ F NF ʻ C ʻ D C $E ʻ 6H-4 ʻ F-ED43D ʻ =$4DC ʻ ^ J 3$C-43D ʻ $ HE2 ʻ F3 ʻ % E2FH4E ʻ ' H$D_ ʻ &4H J ʻ F3 ʻ I H E ʻ $ ʻ F NF ʻ F3 ʻ C$ J 3 ʻ 3$ 3C 420 3 ʻ ? 433 ʻ H ʻ F3 ʻ I H E ʻ $ ʻ F NF ʻ C-NF ʻ C 4$ 2F ʻ > E3 ʻ N- C ʻ F3 ʻ % EE3CC ʻ B-4E ʻ F3EN3 ʻ E ʻ $ ʻ C 4$ 2F ʻ > E3 ʻ H ʻ F3 ʻ B4 D23 ʻ H 34 ʻ F3 ʻ ? ʻ , NFH $C ʻ B-4E ʻ HE ʻ F3 ʻ @4$ ʻ ' H$D ʻ F3EN3 ʻ E ʻ $ ʻ C 4$ 2F ʻ > E3 ʻ D4$ E ʻ D-3 ʻ ; $C ʻ H ʻ F3 ʻ ?3$ ʻ ?FH43 ʻ F3EN3 ʻ $ HE2 ʻ F3 ʻ ?3$ ʻ ?FH43 ʻ H ʻ F3 ʻ I H E ʻ & 4C ʻ D3CN4 Q3D ʻ g

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Y!Z U`KS/M#> ;>P @$1 Y!

Y h % ;% G=G ?*' @*

64HJ' F3 ,H4 F34E ; 43J O H& F3 G$J'GO+3' H& F3 ?3$ P C' E $ C 4$ 2F'> E3' D4$ E D-3 ,H4 F' H F&3 'H$D &4HJ' Q34DH-4 H % 4+$ DO' F3EN3 E $ C 4$ 2F'> E3 H $ IHE' HE F3 'H$D &4HJ' Q34DH-4 H ; 4+$ DO F NF C DC $E' *F433 F-ED43D =$4DC ^E 3$C143D $ HE2 C-NF 'H$D_ H F3 ;$C'H& F3 IHE' $' F NF F3 C$J3 C J3'QO F3 'H$D &4HJ'B-4E C $ED H % E4HCC' F3EN3 E $ C 4$ 2F'> E3' E F3 G 43N HE H& F3 ;$C 34E ; 43J O H& ENF+3 F' H F3 IHE' $' F NF C-NF C 4$ 2F'> E3 N- C F3 ?FH43 H& F3 6 4 F 'H& 6H4 F' F3EN3 $ HE2 F3 ?FH43 H& F3 6 4 F H& 6H4 F H F3 IHE'& 4C'D3CN4 Q3D

64HJ' F3 IHE 'HE F3 ?H- F H& I$ FF3D'' F NF F3;$C B-4E (HEC F3 6 4 F H& 6H4 F'-1 F3 ;$C'B-4E' H F$'IHE' F343H& F NF C E3$43C' H F3 ;$C 34E E2 3 H& F3 ;E2 E3 8H-C3 H& F3 G-EE + 34 @H 340' F3EN3 E $ C 4$ 2F' > E3 H F3 IHE' $' F NF F3 'H$D &4HJ' I$4+F3$D H P NF3 C HEC 6$4J' J33 C F3 'H$D &4HJ' M$ $H E H G-EE +34' F3EN3 E $ C 4$ 2F'> E3 H $ IHE' HE F3 @-1$4 'H$D F NF C DC $E' *F433 F-ED43D $ED &&O =$4DC ^J3$C-43D $ HE2 F3 @-1$4 'H$D_ H F3 ,H4 F 3C'H& F3 IHE' ^E F3 ? 33'H& M$ $H E_ $' F NF F3 'H$D &4HJ' M$ $H E H 9 3C' 93JOCC' 3$ 3C F3 C$J3 (F3EN3 E $ C 4$ 2F'> E3 H F3 @ && $QH 3 F3 I CC E2 P $43 9 3 ' F3E@3 $ HE2 F3 ?FH43 H& F3 6 4 F H& 6H4 F H F3 IHE'& 4C'D3CN4 Q3D

&' 64HJ' F3 'HN+' N$ 3D 8HNF J$ HNF E $ C 4$ 2F '> E3 H F3 IHE' $' F NF F3 'H$D H % 4+$ DO &4HJ' B-4E C $ED (HEC F3 'H$D H % 4+$ DO &4HJ' I3 ON-4' F3EN3 E $ C 4$ 2F'> E3 H F3 <- 3'&4HJ' F3 >HNF H& % E2QH4E N$ 3D F3 M- 3'? - N3' F3EN3 E $ C 4$ 2F'> E3 H F3 'HN+' HE F3 ?FH43 H& F3 6 4 F H& 6H4 F $QH 3 F3 9 3 'H& ?1$' F3EN3 E $ C 4$ 2F'> E3 H F3 3 'H& ?1$' F3EN3 $ HE2 F3 CFH43 H& F3 6 4 F H& 6H4 F H F3 'HN+' 8HNF J$' HNF

64HJ' F3 IHE 'HE F3 ,H4 F 3$C'H& F3 *H E'$' F NF F3 ;$C'B-4E (HEC F3 6 4 F H& 6H4 F' -1 F3 ;$C'B-4E H F$'IHE' F343H& F NF C E3$43C' H F3 ;$C 34E E2 3 H& F3 ;E2 E3 8H-C3 H& F3 G-ER E + 34 @H 340' F3EN3 E $ C 4$ 2F' > E3' E F3 G 43N HE H& F3 ?1 43 H& QQH CF$ '@F-4NF' H F3 IHE' $' F NF C-NF C 4$ 2F'> E3 NH C $ 'H$D &4HJ' % 4+$ DO H '$ F $ED -3F 34 HH ' F3EN3 $ HE2 F3 C$ D 'H$D H '$ F $ED -NF34 HH' H F3 IHE'^H11HC 3 '$ F M$ 3_$' F NF F3 C$J3 C (H E3D QO F3 'H$D &4HJ' 9 3C'B4 D23 H -3F 34 HH ' F3EN3 E $ C 4$ 2F' > E3 H F3 9 3C 34E @H4E34 H& F3 H D \ -$44O $QH 3 F3 9 3C' P C H& > E+ @ E $ED HE F3 >3&' B$E+ H& F3 9 3C' B-J' F3EN3 E ' C 4$ 2F'> E3 H $ IHE' HE F3 % E2FH4E 'H$D F NF C DC $E' 6 3 F-ED43D =$4DC ^J3$C-43D $ HE2 F3 % E2FH4E 'H$D_

U ' K' S ' M # > ; > P ' ' @$1 Y! Y!V

H' F3' ?H- F' H&' F3' I H E ' ^ E' 9 3C ' B4 D23' * H E_' $' F NF' F3' \ -33EC&344O' ' H$D' 3$ 3C' F3' C$ J 3 ' F3EN3' E' $' C 4$ 2F ' > E3 ' E' F3' G 43N HE' H&' , H4 F' B34 N+' >$ ' H' F3' I H E ' $' F NF' C-NF' C 4$ 2F ' > E3' N- C' F3' ?FH43' H&' F3' 6 4 F' H&' 6H4 F ' F3EN3' $ HE2' F3' ?FH43' H&' F3' 6 4 F' H&' 6H4 F' H' F3' I H E ' & 4C ' D3CN4 Q3D

h ? * ' > , M' G ? * ' @ *

64H J ' F3' I H E ' N HC3' H' F3' ?FH43 ' $' F NF' F3 ' G3$E' B - 4E' N4HCC3C' F3' 8 2F' ' H$D' H' % EN$4D E3 ' -1' F3' G3$E' B - 4E' H' F$ ' I H E ' F343H&' F NF' C' E3$43C ' F3' ' - EC' H&' F3' H D' @F - 4NF ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $' F NF' F3' ' H$D' H' G - E&34 J E3' QO' F3' QQ3O' >HD23' 3$ 3C' F3' ' H$D' &4H J ' @ - 4HCC' @F - 4NF' H' % EN$4D E3 ' F3EN3' $ HE2' F3' C$ D' ' H$D' H' G - ER &34 J E3' H' $' I H E ' F NF' C' D C $E ' ?3 3E' F - ED43D' = $4DC' ^ J 3$C - 43D' $ HE2' C - NF' ' H$D_' &4H J ' F3' I H E ' $C ' D3CN4 Q3D' ' F3EN3' E' $' C 4$ 2F ' > E3 ' F4H - 2F' F3' ? HE3' F NF' J $4+C' F3' ; $C 34E' ; 43 J O' H&' F3' ' HO$ O' H&' F3' B - 42F ' H' F3' ?FH43' H&' F3' 6 4 ' H&' 6H4 F' ' F3EN3' $ HE2' F3' ?FH43' H&' F3' 6 4 F' H&' 6H4 F ' H' F3' I H E ' & 4C ' D3CN4 Q3D

G'

64H J ' F3' I H E ' HE' F3' ?H - F' H&' F3' * H E ' E3$4' F3' ?H - F34E' ; ED' H&' ? ' >3HE$4DC ' $' F NF' F3' \ -33EC&344O' ' H$D' 3$ 3C' F3' B - 4E C $ED' ' H$D ' E' $' C 4$ 2F ' > E3' H' F3' 6 3$D' H&' F3' P D$ J ' H&' F3' B4 - N3& 3 D' ?1 EE E2' P C ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $' F NF' F3' * H EF ' ' H$D' C' (H E3D' QO' $' ' H$D' &4H J ' 8 3$D 3 ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' @4 3&&' ' H$D' F NF' C' D C $E ' <E3' F - ER D43D' $ED' & & O' = $4DC' ^ J 3$C - 43D' $ HE2' F3' @4 3&&' ' H$D_' H' F3' , H4 F' H&' F3' B4 D23' HE' F3' C$ J 3' H 34' F3' B $ 4' @$C 3' H4' B4HH J F ' B - 4E F3EN3' E' $' C 4$ 2F ' > E3' H' F3' B4 D23' H 34' F3' B$ D4 D23' B - 4E' $ ' B $N+Q - 4E ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $' F NF' F3' ; 2 E' ' $ $O' N4HCC3C' F3' @$4E$N+' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' # 4X - F$4 ' B4 D23' HE' F3' ? 4 E2' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' B4 D23' H 34' F3' ?1 $ ' B - 4E' HE' F3' > J 3+ EC' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' & 4C ' D3CN4 Q3D

E :

64H J ' F3' I H E ' HE' F3' 9 3C ' H&' F3' * H E ' $ ' F NF' F3' ?322C' B - 4E' (H EC' F3' ?3$ ' - 1' F3' ?322C' B - 4E' H' $' I H E ' F NF' C' D C $E ' <E3' F - ED43D' = $4DC' ^ J 3$C - 43D' $ HE2' F3' ?322C' B - 4E_' $QH 3' F3' B4 D23' H 34' F3' C$ J 3' HE' F3' \ -33EC&344O' ' H$D' ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' G - E&34 J E3' ' H$D' F NF' C' D C $E '

< 8 " ' $ * F433' F - ED43D' = $4DC' ^4$3$C E 3D' $ HE2' F3' G - E&34 J E3' ' H$D_' &4H J ' F3' I H E ' $' F NF' F3' C$ J 3' 3$ 3C' F3' 8 2F' ? 433 ' H&' E 34+3 F E2 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' B4 D23' H 34' F3' E 34+3 F E2' B - 4E' HE' F3' I 34 F' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' F4H - 2F' F3' 6 $2R C $&&' E3$4' F3' ; $C ' , 3CC' H' F3' ?3$' ?FH43 ' F3EN3' &' $ HE2' F3' ?3$' ?FH43' H' F3' I H E ' & 4C ' D3CN4 Q3D' (

64 J' $' I H ' 'HE' F3' ?FH43' H&' F3' 6 4 F' H&' 6H4 F' F NF' C' D C $E ' * F433' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' ?FH43_' H' F3' ; $C ' H&' F3' , 3 F$ C' I 34 ' E' $' C 4$ 2F ' > E3 ' E' $' CH- F34 O' G 43N HE ' D4$ E' &4H J' F3' 3$C 34 O' ; 43 J O' H&' ENF' M$4 3 ' F4H-2F' F3' I H E ' $C ' D3CN4 Q3D ' H' $' I H E ' F NF' C' < E3' F-ED43D' =$4DC' Q3OHED' F3' P DD 3' H&' F3' ; D EQ-42F' ' H$D' '

V= a# F3EN3' E' $' C 4$ 2F ' > E3' H' F3' ?H- F 3$C 34E' @H4E34' H&' F3' ' 3C34 H 4' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' GH 3NH 3' I $4+' 9 3 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' ; NF $ED' B-4E' N4HCC3C' F3' ' H$D' H' ; NF $ED' $ED' > E F2H d' F3EN3' DH E' F3' ; NF $ED' B-4E' H' F3' I 3 E ' $ ' F NF' F3' C$ J 3' (H EC' F3' 6 4 F' H&' 6H4 F' F3EN3' $ HE2' F3' ?FH43' H&' F3' 6 4 F' H&' 6H4 F' H' F3' I H E ' & 4C ' D3CN4 Q3D

64H J' F3' I H E ' HE' F3' ; $C ' H&' F3' * H E ' $ ' F NF' F3' * H E' B-4E' (H EC' F3' ' 34' 6H4 F ' -1' F3' ' 34' 6H4 F' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' (H E3D' QO' F3' % D3$E' B-4E ' F3EN3' -1' F3' % D3$E' B-4E' H' F3' 1H E ' $ ' F NF' F3' C$ J 3' 43$NF3C' F3' G$ J' H&' F3' % R D3$E' P ' F31N3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' H11HC 3' F3' > HD23' H&' @F4 C $E' B$E+ ' $ ' F NF' F3' ' H$D' H' * H-NF' $ED' M$4 F-4' 3$ 3C' F3' ' H$D' H' P -4R 4$O C' 8 $ ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' ' H$D' &4H J' @$ J Q-CQ$44HE' H' ? ' , F $EC' C' (H E3D' QO' $' ' H$D' &4H J' , 3 FH-C3' $ED' * H4Q43N+C ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' H D' M $C2H ' ' H$D ' F NF' C' D C $E ' 6 3' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' M $C2H ' ' H$D_' $' F3' ?H- F' H&' F3' I H E '

9 $ ' F NF' F3' M $C2H ' ' H$D' 3$ 3C' F3' ; D EQ-42F' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' ; D EQ-42F' ' H$D' F NF' C' D C $E ' 6 3' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' ; D EQ-42F' ' H$D_' H' F3' ?H- FR 3$C ' H&' F3' I H E ' $ ' F NF' F3' C$ J 3' 3$ 3C' F3' M $C2H ' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3 ' E' F3' G 43N HE' H&' @$ J Q-C+3EE3 F' QQ3O ' H' F3' I H E ' $ ' F NF' C-NF' C 4$ 2F ' > E3' N- C' F3' I 3 C 3$ J ' F3EN3' $ H-2' F3' I 3 C 43$ J ' $ED' $ HE2' F3' @HE E-$ HE' F343H&' N$ 3D' F3' * H E' B-4E ' H' $' I H E ' F NF' C' D C $E ' 6 3' F-ER D43D' =$4DC' ^J 3$C-43D' $ HE2' F3' * D E' B-4E_' H' F3' ?H- F' H&' F3' B4 D23' H 34' F3' C$ J 3' $ ' 8 $ $O C' @$413 ' 6$N H4O ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' & 4C ' D3CN4 Q3D

z % > P ' , < @ %' G ? * ' @ *

64H J' Q3' I H E ' HE' F3' ?H- F 3$C ' H&' F3' * H E ' $ ' ' F NF' F3' M4-22 3C' B-4E' (H EC' F3' 6 4 F' H&' @ OD3 ' -1' F3' M4-22 3C' B-4E' H' F3' B4 D23' HE' F3' ' H$D' &4H J' ' G- J Q$4 HE' H' M $C2H ' F3EN3' E' $' C 4$ 2F ' > E3 ' D4$ E' D-3' , H4 F 3$C ' H' F3' ' H$D' &4H J' B$4' * H ' H' M $C2H ' F3EN3 ' , H4 F $4D ' $ HE2' F3' ' H$D' &4H J' B$4' * H ' H' M $C2H ' H' F3' I H E ' $ ' F NF' F3' C$ J 3' ' J 33 C' F3' BHEF ' ' H$D' ʃ F3EN3 ' , H4 F $4D ' $ HE2' ' F3' BHEF ' ' H$D' H' $' ' I H E ' > J)HJ' C' D C $E ' * H

F-ED43Dʻ =$4DCʻ ^J 3$C-43Dʻ $ HE2ʻ F3ʻ BHEF ʻ ' H$D_ʻ &4H J' F3ʻ I H E ʻ $C ʻ D3CN4 Q3Dʻ(F3EN3 ʻ 9 3C $4D ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ $ʻ I H E ʻ HEʻ F3ʻ 8 3 3ECQ-42Fʻ ' H$Dʻ F NFʻ Cʻ D C $E ʻ * Hʻ F-ED43Dʻ $EDʻ & & Oʻ =$4DCʻ ^J 3$R C-43Dʻ $ HE2ʻ F3ʻ 8 3 3ECQ-42Fʻ ' H$D_ʻ &4H J' F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$ J 3ʻ 3$ 3Cʻ F3ʻ > -CCʻ ' H$D ʻ F3EN3ʻ Eʻ $ C 4$ 2F ʻ > E3 ʻ D4$ Eʻ D-3ʻ ?H- F 3C ʻ Hʻ F3 ʻ ?FH43ʻ H&ʻ F3ʻ 6 4 Fʻ H&ʻ @ OD3 ʻ F3EN3ʻ $ HE2ʻ F3ʻ ?FH43ʻ H&ʻ F3ʻ 6 4 Fʻ H&ʻ @ OD3ʻ Hʻ F3ʻ I H E ʻ & 4C ʻ D3CN4 Q3D

64H J' F3ʻ I H E ʻ HEʻ F3ʻ ?H- Fʻ H&ʻ F3ʻ * H Eʻ $ʻ F NFʻ % J $4EHN+ʻ 9 $ 34ʻ(H ECʻ F3ʻ ' 34ʻ 4 E3 ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ $ʻ I H E ʻ HEʻ F3ʻ 4 E&3ʻ ' H$Dʻ F NFʻ Cʻ D C $E ʻ * F433ʻ F-ED43Dʻ $EDʻ & & Oʻ =$4DCʻ ^J 3$C-43Dʻ $ HE2ʻ F3ʻ 4 E3ʻ ' H$D_ʻ Hʻ F3ʻ 9 3C ʻ H&ʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$ J 3ʻ 3$ 3Cʻ M4$E23ʻ ? 433 ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ ' H$Dʻ Hʻ 8 ʻ 8 3$Dʻ 3$ 3Cʻ F3ʻ % J $-4Cʻ ' H$D ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3 ʻ F4H-2Fʻ F3ʻ ?- J J ʻ H&ʻ F3ʻ BHE& 43ʻ %EH 3 ʻ Hʻ F3ʻ % J $4EHN+ʻ 9 $ 34 ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ F3ʻ B4 D23ʻ H 34ʻ F3ʻ P ʻ B-4Eʻ HEʻ F3ʻ P $-NF E3ʻ ' H$D ʻ F3EN3ʻ DH Eʻ F3ʻ P ʻ B-4Eʻ Hʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$ J 3ʻ(H ECʻ F3ʻ ' 34ʻ 4 E3 ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ F3ʻ B3 Cʻ >$EDʻ B4 D23ʻ HEʻ F3ʻ ' H$Dʻ &4H J' ' NN$4 HEʻ Hʻ M$ C HE ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ F3ʻ I H E ʻ N$ 3Dʻ 9 NFʻ %EH 3 ʻ $ ʻ F NFʻ * Hʻ ' H$DCʻ J 33 ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ F3ʻ B4 D23ʻ H 34ʻ F3ʻ P $ FH J' B-4Eʻ HEʻ F3ʻ O4ʻ ' H$D ʻ F3EN3ʻ DH Eʻ F3ʻ P $ FH J' B-4Eʻ Hʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$ J 3ʻ(H ECʻ F3ʻ ' 34ʻ 4 E3 ʻ F3EN3ʻ DH Eʻ F3ʻ ' 34ʻ 4 E3ʻ Hʻ F3ʻ I H E ʻ & 4C ʻ D3CN4 Q3D

64H J' F3ʻ P Q-4Eʻ B4 D23ʻ H 34ʻ F3ʻ I -DT3HNFʻ B-4E ʻ HEʻ F3ʻ M $C2H ʻ ' H$D ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ $ʻ I H E ʻ -1ʻ F3ʻ I -DT3HNFʻ B-4Eʻ F NFʻ Cʻ D C $E ʻ * F433ʻ F-ER D43Dʻ =$4DCʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ &4H J' F3ʻ C$ Dʻ B4 D23 ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ $ʻ I H E ʻ HEʻ F3ʻ M433EHN+ʻ ' H$Dʻ F NFʻ Cʻ D C $E ʻ * Hʻ F-ED43Dʻ $EDʻ & & Oʻ =$4DCʻ ^J 3$C-43Dʻ $ HE2ʻ F3ʻ M433EHN+ʻ ' H$D_ʻ &4H J' F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$ J 3ʻ 3$ 3Cʻ F3ʻ I $ C 3Oʻ ' H$D ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ $ʻ I H E ʻ HEʻ F3ʻ ' 34ʻ @ OD3ʻ F NFʻ Cʻ D C $E ʻ * F433ʻ F-ED43Dʻ =$4DCʻ ^J 3$C-43Dʻ $ HE2ʻ F3ʻ ' 34ʻ @ OD3_ʻ Q3 H ʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$ J 3ʻ Cʻ (H E3Dʻ QOʻ F3ʻ @E ʻ F3EN3ʻ $ HE2ʻ F3ʻ ' 34ʻ @ OD3ʻ Hʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$ J 3ʻ Cʻ (H E3Dʻ QOʻ F3ʻ @E ʻ F3EN3ʻ $ HE2ʻ F3ʻ @E ʻ Hʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$ J 3ʻ Cʻ (H E3Dʻ QOʻ F3ʻ I -DT3HNFʻ B-4Eʻ: F3EN3ʻ $ HE2ʻ F3ʻ I -DT3HNFʻ B-4Eʻ Hʻ F3ʻ B4 D23ʻ $&H43C$ D

64H J' F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ ' 34ʻ @ OD3ʻ Cʻ (H E3Dʻ QOʻ F3ʻ I H J $D 3ʻ B-4E ʻ -1ʻ F3ʻ ' 34ʻ @ OD3 ʻ H ʻ G$ ʻ J $4EHN+ʻ B4 D23 ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3 ʻ F4H-2Fʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ ' H$Dʻ &4H J' G$ J $4EHN+ʻ B4 D23ʻ Hʻ P - 4+ 4+ʻ 3$ 3Cʻ F3ʻ ' H$Dʻ &4H J' G$ J $4EHN+ʻ B4 D23ʻ Hʻ 8 $ J HE ʻ Hʻ F3ʻ I H E ʻ $ ʻ F NFʻ C-NFʻ C 4$ 2F ʻ > E3ʻ 43$NF3Cʻ F3ʻ ?H- F34Eʻ ' H$Dʻ &4H J' ' - F342 3Eʻ Hʻ 8 $ J HE ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ $ʻ I H E ʻ Eʻ F3ʻ @$C 3 J +ʻ ' H$Dʻ F NFʻ Cʻ D C $E ʻ ?3 3Eʻ F-ED43Dʻ =$4DCʻ ^J 3$C-43Dʻ $ HE2ʻ F3ʻ @$C 3 J +ʻ ' H$D_ʻ &4H J' F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$ J 3ʻ(H ECʻ F3ʻ P $ Eʻ ? 433 ʻ H&ʻ ' - F3 2 3E ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ $ʻ I H E ʻ HEʻ F3ʻ , 3 FH-C3ʻ Zʻ ;ʻ

' H$D' F NF' C' D C $E ' * F433' F - ED43D' = $4DC' ^ J 3$C - 43D' $ HE2' F3' , 3 F1 - ?3' ' H$D_' &4H J' F3' I H E ' $ ' F NF' F3' C$ J 3' 3$ 3C' F3' 8 $E2 E2CF$ C' ' H$D ' F3EN3' E' $' ? 4$ 2F ' > E3' H' F3' B4 D23' H 34' F3' I H J $D 3' B - 4E' P' F3' M $C2H ' ' H$D ' F3EN3' DH E' F3' I H J $D 3' B - J ' H' F3' I H E ' & 4C ' D3CN4 Q3D

64H J' F3' I H E ' HE' F3' ?FH43 ' 9 3C ' H&' F3' * H E ' F343' G3 H C' B - 4E' 3E 3 C' F3' 6 4 F' H&' @ OD3 ' - 1' F3' C$ D' B - 4E' H' F3' 9 $ 34&$ ' E' G3 H C' M 3E' ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' E' F3' P D$ J ' B - 4E' &3 NF C' < E3' FH - C$ED' = $4DC ' J 3$C - 43D' $ HE2' F3' C$ J 3 ' $QH 3' F3' I H E ' F343' ' 3E 34C' F3' @ OD3 ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' BH - ED$40' Q3 33E' F3' I $4 CF3C' H&' I H4 ' M $C2H ' $ED' % J $ NH J ' F NF' C' D C $E ' ; 2F ' F - ED43D' = $4DC ' J 3$C - 43D' $ HE2' F3' C$ D' BH - ED$40 ' &4 - J ' F3' I H E ' F343' ' J 33 C' F3' @ OD3' (F3EN3' DH E' F3' C$ D' BH - ED$40' H' C' * 34 J E$ HE' HE' F3' ?FH43' !' F3EN3' 9 3C ' $ HE2' F3' ?FH43' H' F3' I H E ' & 4C ' D3CN4 Q3D

IH1 *' # , %/ . ,

8 GG , M * < , ' G ? * ' @ *

64H J' F3' = 3 H ' @4$ 2' E' $' C 4$ 2F ' > E3' H' F3 ' I H E ' $ ' F NF' F3' G - EQ$4' ' H$D' H - D' Q3' N - ' QO' $' C 4$ 2F ' > E3' H' Q3' D4$ E' F343 H' &4H J' F3' C 3' H&' P $O' > 2F FH - C3' F4H - 2F' F3' = 3 H ' @4$ 2 ' F3EN3' - ' $' ? 4$ 2F ' > E3' H' $' I H E ' * H' F - ED43D' = $4DC' H' F3' ?H - F' H&' F3' P DD 3' H&' F3' ; D EQ - 42F' ' H$D' E' F3' G 43N HE' H&' $' > E3' D4$ E' &4H J' F3' 9 3C 34E J HC ' I H E ' H&' @4$ 2' > 3 F' F4H - 2F' F3' ; $C 34E J HC ' I H E ' H&' F3' ' HN+' N$ 3D' @4$ 2 E * H - NF' H4' I H $4 ' ' HN+ (' F3EN3' E' $' C 4$ 2F ' > E3 ' E' F3' G 43N HE' H&' F3' C$ D' ; $C 34E J HC ' I H E ' H&' F3' ' HN+' N$ 3D' @4$ 2 E * H - NF' H4' I H $4 ' ' HN+ ' H' F3' I H E ' $ ' F NF' C - NF' C 4$ 2F ' > E3' N - C' F3' ?FH43' H&' F3' 6 4 F' H&' 6H4 F ' F3EN3' $ HE2' F3' ?FH43' H&' F3' 6 4 F' H&' 6H4 F' H' F3' = 3 H ' @&$ 2

G "' -

' 64H J' F3' I H E ' HE' F3' ?H - F 3$C ' H&' F3' * H E ' $ ' F NF' F3' ; $C 34E' BH - ED$40' H&' F3' * H E' > $ED' J 33 C' F3' ?3$' @H$C ' $ HE2' F3' ; $C 34E' BH - ED$40' H&' F3' * H E' > $ED ' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' B34 N+' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3 ' E' F3' G R 43N HE' H&' F3' 8 H13 HEE' P HE - J 3E ' E3$4' 8 $DD E2 HE ' H' F3 ' I H E ' $ ' F NF' C - NF' C 4$ 2F ' > E3' N - C' F3' ' H$D' &4H J' BH 34QH - C3' H' B3 Q$ 3E ' F3EN3' $ HE2' F3' ' H$D' &4H J' BH 34FH - C3' H' B3 F$ 3E' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' B3 F$ 3E' B - 4E ' F3EN3' DH E' F3' B3 F$ 3E' > - 4E' H' F3' I H E ' $ ' F NF' F3' C$ J 3' 43$NF3C' F3' ?3$ ' F3EN3' $ HE2' F3' ?3$' @H$C ' H' F3' I H E ' & 4C ' D3CN4 Q3D

E

?' 64H J' $' I H E ' H1' F3' G - EQ$4' ' H$D' F NF' C' D4C $E ' * H' F - # D43D' = $4DC' ^ J 3$C - 43D' $ HE2' F3' G - EQ$4' ' H$D_' H' F3' ; $C ' H&' F3' I H E ' $ ' F NF' F3' F3 C HE

&H4D' 'H$D' 3$ 3C' F3' C$J3' E' $' C 4$ 2F ' > E3' H' F3'
, H4 F 3$C 34E' @H4E34' H&' F3' B-4 $' M4H-ED' H&' ? P $4 '
EC' @F$13 ' F3EN3' $ HE2' F3' >$E3' F NF' 3$DC'
H' ? ' P $4 EC' @F$13 ' &4H J' F3' P H43F$J' 'H$D' H'
F3' I H E ' $' F NF' C-NF' >$E3' (H EC' F3' P H43F$J'
'H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3'
M &&H4D' 'H$D' F NF' C' D C $E ' * H' F-ED43D' =$4DC'
^J 3$C-43D' $ HE2' F3' M &&H4D' 'H$D_' H' F3' ?H- F' H&' F3'
I H E ' $' F NF' F3' C$J3' 3$ 3C' F3' P H43F$J' 'H$D' '
F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $' F NF' F3'
' 34' * OE3' H- D' Q3' N- 'QO' $' C 4$ 2F ' > E3' H' Q3' D4$ E'
&4H J' F3' I H E ' $C ' D3CN4 Q3D' H' F3' , H4 F34E' ; ED' H&'
9 $ 34 HH' B4 D23 ' F3EN3' -1' F3' ' 34' * OE3' H' F3'
B-42F' P D$J' ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E '
HE' F3' I3EN$ $ED' 'H$D' F NF' C' D C $E ' 6 3' F-ED43D'
=$4DC' ^J 3$C-43D' $ HE2' F3' I3EN$ $ED' 'H$D_' H' F3'
9 3C ' H&' F3' I H E ' $' F NF' F3' C$J3' 3$ 3C' F3' 8 2F'
? 433 ' H&' 8 $DD E2 HE ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3'
, H4 F 3C 34E' @H4E34' H&' F3' I43J C3C' H&' B3 3 -3 ' F3'
9 3C 34E J HC ' H&' F3' M$ H ' M433E' 6 3-C ' F3EN3' E' $'
C 4$ 2F ' > E3' H' F3' I H E ' $' F NF' F3' 'H$D' &4H J'
9 F C+O' 'H 'QO' F3' ; $C 34E' ? D3' H&' F3' M 3Q3 ' C' J 3 '
QO' $' @4HCC' 'H$D' 3$D E2' F343&4H J' QO' MH$ & 3 D' H' F3'
F3 C HE&H4D' 'H$D ' F3EN3' $ HE2' F3' C$ D' @4HCC' 'H$D'
H' F3' I H E ' $' F NF' F3' C$J3' (H EC' F3' F3 C HE&H4D'
'H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' & 4C '
D3CN4 Q3D

64H J' F3' 6 H-4' P 'B4 D23' H 34' F3' ' 34' 53D ' HE'
F3' , H4 F 3$C ' H&' F3' * H E ' E' $' C 4$ 2F ' > E3' H' F3'
I H E ' $' F NF' F3' 6HH 1$ F' &4H J' * J 13E' G3$E' (H EC'
F3' * H NF3C' B$- +' 'H$D ' F3EN3 ' 9 3C $4D ' $ HE2' F3'
* H NF3C' B$- +' 'H$D' H' F3' I H E ' $' F NF' F3' C$J3'
J 33 C' F3' * -DFH13' >H$E E2' ' F3EN3' E' $' C 4$ 2F ' > E3'
H' $' I H E ' HE' F3' 8 $ N+' 'H$D' F NF' C' D C $E ' * F433'
F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' 8 $ N+' 'H$D_' H'
F3' ?H- F 3C ' H&' F3' , H4 F 3C 34E' E2 3' H&' F3' ; ER
N HC-43' H&' F3' @$C 3 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3'
ENFQHEE 3' H4' ?3NHED' B4 D23' H 34' F3' ' 34' 53D '
F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $' F NF' F3'
E3 ' 'H$D' H' < E$J' (H EC' F3' H D' 'H$D' H' < E$J' '
F3EN3' E' $' C 4$ 2F ' > E3' H' F3' C$ D' 6 H-4' P 'B4 D23

2 E "

64H J' $' I H E ' HE' F3' %3 CH' 'H$D' F NF' C' D C $E '
? ' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' %3 CH' 'H$D_'
&4H J' F3' @F-4NF' H&' >$-D34 ' E' $' C 4$ 2F ' > E3' H' $'
I H E ' H ' F3' >$-D34' B-4E' F NF' C' D C $E ' * F433'
F-ED43D' $ED' & & O' =$4DC' ^J 3$C-43D' $ HE2' F3' >$-D34'
B-4E_' Q3 H ' F3' B4 D23' H 34' F3' C$J3' HE' F3' 'H$D'
H' 9 HHDF3$D' $ED' M$ HEC D3 ' F3EN3' -1' F3' >$-D34'
B-4E' H' F3' C$ D' B4 D23 ' F3EN3' E' $' C 4$ 2F ' > E3' H'
9 E $' I H E ' HE' F3' 9 $CF E2' B-4E' F NF' C' D C $E ' * H'
F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' 9 $CF E2' B-4E_'
$QH 3' F3' B4 D23' H 34' F3' C$J3' HE' F3' ; D EQ-42F'
'H$D ' F3EN3' DH E' F3' 9 $CF E2' B-4E' H' F3' I H E '
$' F NF' F3' C$J3' J 33 C' F3' I$4+' 9 $ ' H&' * F 4 3C $E3 '
F3EN3 ' ; $C $4D ' $ HE2' F3' I$4+' 9 $ ' H&' * F 4 3C $E3'
H' F3' I H E ' $' F NF' F3' C$J3' 43$NF3C' F3' %3 CH'
'H$D' ' F3EN3' $ HE2' F3' %3 CH' 'H$D' H' F3' I H E ' & 4C '
D3CN4 Q3D

YY ' U/' K' SčM # > ; > P ' ' @$1 Y!

9 h ; * 8' G ?* ' @*

64H J' F3' I H E ' $ ' F NF' F3' ?FH43' H&' F3' 6 4 F' H&' 6H4 F' H - D' Q3' N - ' QO' $' C 4$ 2F ' > E3' H' Q3' D4$ E' F343 H'&4H J' F3' ?1 43' H&' F3' * 4HE' @F - 4NF' E' ; D EQ - 42F' F4H - 2F' F3' I H E ' $ ' F NF' F3' 633D34' (H EC' F3' 9 3C 34E' ? D3' H&' >HNF3 - D' >HNF ' E' $' C 4$ 2F ' > E3' H' F3' C$ D' I H E ' $ ' F NF' F3' 633D34' (H EC' F3' 9 3C 34E' ? D3' H&' >HNF3 - D' >HNF' ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' I 4 2' ? 433 ' (H EC' >3 F' 9 $ + '

6+32 F3EN3' $ HE2' I 4 2' ? 433 ' $ED' F3' BHEE E2 HE' ' H$D' H' F3' I H E ' $ ' F NF' F3' $ 34' (H EC' F3' \ - 33EC&344O' ' H$D ' F3EN3 ' 9 3C $4D ' $ HE2' F3' \ - 33EC&344O' ' H$D' H' $' I H E ' F NF' C' D C $E ' 6H - 4' F - ED43D' = $4DC' ^&& 3$C - 4HD' $ HE2' F3' \ - 33EC&344O' ' 3$D_' H' F3' 9 3C ' H&' F3' I H E ' $ ' Q 3F' F3' C$ J 3' J 33 C' F3' E 34 3 F' ' H$D' $ ' F3' 8 H - C3' N$ 3D' MH D3E' N43 ' F3E@3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' 9 $4D 3' B - 4E' (H EC' F3' 6 4 F' 1&' 6H4 F ' F3EN3' $ HE2' F3' ?FH43' H&' F3' 6 4 F' H&' 6H4 F' H' F3' I H E ' & 4C ' D3CN4 Q3D

64H J' F3' I H E ' $ ' F NF' F3' P $2D$ 3E3' B - 4E' (H EC' F3' 6 4 F' H&' 6H4 F ' - 1' F3' P $2D$ 3E3' B - 4E ' H' $' I H E ' F NF' C' D C $E ' 6 & O' = $4DC' ^J 3$C - 43D' $ HE2' F3' P $2D$ 3E3' B - 4E_' $QH 3' P $2D$ 3E3' B4 D23 ' F3EN3' E' $' C 4$ 2F ' > E3 ' E' F3' G 43N HE' H&' F3' ?1 43' H&' E 343C+' @ J 4N ' H' F3' I H E ' $ ' F NF' C - NF' C 4$ 2F ' > E3' N - C' F3' ' 34' ; C+ ' Q31N3' E' $' C 4$ 2F ' > E3' H' 9 "

$' 1H E ' E' F3' ' H$D' &4H J' , 3 Q 22 J 2' H' E 343C+' F NF' -

0 E E " C' D C $E ' * H' F - ED43D' = $4DC' ^J 3$C - 43D' $ HE2' C - NF' ' H$D_' H' F3' ?H - F' H&' F3' I H E ' ^E' F3' ? 433 ' H&' , 3 F 22 E2_' $ ' F NF' 3' C$ J 3' 3$ 3C' F3' ' H$D' &4H J' , 3 Q 22 E2' H' 8 $DD E2 HE' $ED' I 43C HE1$EC' ' F3EN3' E' $' C 4$ 2F ' > E3' F4H - 2F' F3' ?3 3E F' P 3' ? HE3' HE' F3' ' H$D' &4H J' ; D EQ - 42F' H' 8 $DD E2 HE' H' F3' ' $ 3 - CF$ - 2F' B - J ' F3EN3' DH E' F3' ' $ 3ECF$ - 2F' B - 41' H' F3' I H E ' $ ' F NF' F3' C$ J 3' 5H EC' F3' 6 4 F' H&' 6H4 F ' F3EN3' $ HE2' F3' ?FH43' H&' F3' 6 4 F' H&' 6H4 F' H' F3' I H E ' & 4C ' D3CN4 Q3D

64H J' F3' 6H - E $ E' H&' ?$ 1$EC' HE' F3' P - CC3 Q - 42F' ' H$D ' ?H - F $4D ' E' $' C 4$ 2F ' > E3' ^E' F3' G 43N HE' H&' $' C 4$ 2F ' > E3' D4$ E' &4H J' F3' ; $C ' ; ED' H&' ENF+3 F_' H' $' I H E ' < E3' F - ED43D' $ED' & & O' = $4DC' D C $E ' F3EN3' E' $' C 4$ 2F ' > E3 ' E' F3' G 43N HE' H&' , 3 CHE C' P HE - J 3E ' YE' F3' @$ HE' 8 ' H' F3' I H E ' $ ' F NF' C - NF' C 4$ 2F ' > E3' N - C' F3' G - DD E2C HE'

. (2 . @ !AA . ' H$D ' F3EN3 ' , H4 F $4D ' $ HE2' F3' G - DD E2C HE' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' ; D ER Q - 42F' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' ?FH43' H&' F3' 6 4 F' H&' 614 F' H - D' Q3' N - ' QO' $' C 4$ 2F ' > E3' H' Q3' D4$ E' F343 H'&4H J' F3' ? - J J ' H&' 4 F - 4C' ?3$ ' F4H - 2F' F3' I H E ' $C ' D3R CN4 Q3D ' F3EN3' $ HE2' F3' ?FH43' H&' F3' 6 4 F' H&' 6H4 F' H' F3' I H E ' & 4C ' D3CN4 Q3D '

UL' K' SL' M # > ; > P ' ' @$1 'Y ! ' YY !

h 6 >% %%' G ? * ' @ *

6 HJ' 3' B4 D23' H 34' F3' ?H- F' B-4E' HE' F3' M $C ' 2H ' ' H$D ' $ HE2' F3' ?H- F' B-4E ' H' $' I H E ' F NF' C' D C $E ' 6 3' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' ?H- F' B-4E_' H' F3' ; $C ' H&' F3' C$ D' B4 D23' ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' M$4 33' ' H$D' F NF' C' D C $E ' 6 3' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' M$4 33' ' H$D_' H' F3' ?H- F' H&' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' M4F J' ? 433 ' F3EN3' E' $' C 4$ 2F ' > E3 ' H' $' I H E ' HE' F3' 8 2F' ' H$D' &4H J' @$4 C 3' H' ? 4 E2' F NF' C' D C $E ' <E3' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' C-NF' ' H$D_' H' F3' ?H- F' H&' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' ; D EQ-42F' ' H$D ' F3EN3' $ HE2' F3' C$ D' ' H$D' H' ? 4 E2' H' F3' B4 D23' HE' F3' C$ J 3' H 34' F3' , H4 F' B-4E ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' ' H$D' &4H J' , H4 F' B4 D23' ? 433 ' H' , 3 ' P HE+ $ED' @F-4NF' F NF' C' D C $E ' 6 3' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' C-NF' ' H$D_' H' F3' , H4 F' H&' F3' B4 D23' HE' F3' C$ J 3' H 34' F3' , H4 F' B-4E' ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' B4 D23' H 34' F3' ' $ $O' HE' F3' % 4+ E - HNF' ' H$D' E3$4' 9 EDF$ ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' B4 D23' & 4C ' D3CN4 Q3D

64H J' $' I H E ' HE' F3' ; D EQ-42F' ' H$D' F NF' C' D C $E ' 6H-4' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2 F3' ; D ER Q-42F' ' H$D_' H' F3' ; $C ' H&' F3' B4 D23' HE' F3' C$ J 3' H 34' F3' ; $C ' H4' P 3$DH ' H4' >$DOC' P ' B-4E ' E' $' C 4$ 2F ' > E3' H' F3' B4 D23' HE' F3' M4$E23 J H- F' ' H$D' H 34' F3' C$ J 3' B-4E ' F3EN3' $ HE2' F3' C$ D' B-4E' H' F3' I H E ' $ ' F NF' F3' C$ J 3' 1$CC3C' -ED34' F3' 6H4 F' $ED' @ OD3' @$E$ ' F3EN3 ' ; $C $4D ' $ HE2' F3' 6H4 F' $ED' @ OD3' @$E$ ' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' ' H$D' H' G$ D34C3' 8 H - C3 ' F3EN3 ' , H4 F $4D ' $ HE2' F3' ' H$D' H' G$ D34C3' 8 H - C3' H' $' I H E ' F NF' C' D C $E ' * F433' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' ' H$D' H' G$ D34C3' 8 H - C3_' &4H J' F3' I H E ' $C ' D3CN4 Q3D' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' H$' $ED' @$44HE' ' H$D' F NF' C' D C $E ' * H' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' H$' $ED' @$44HE' ' H$D_' &4H J' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' ? ' G$ DC' >$E3 ' F3EN3' $ HE2' F3' H$' $ED' @$44HE' ' H$D' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' ? ' G$ DC' >$E3 ' F3EN3' $ HE2' F3' ' H$D' H' B-4EFH-C3' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' 9 3C ' B-4E ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' * 3E O &H-4 F' P 3' ? HE3' HE' F3' ? 4 E2' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' ' H$D' QO' B-4EF3$D' $ED' M$4 NH C' H' ?H- F' B$E $C+ E3' F NF' C' D C $E ' <E3' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' C-NF' ' H$D_' H' F3' ?H- F 3C ' H&' F3' I H E ' $ ' F NF' F3' C$ J 3' C' J 3 ' QO' F3' 9 3C ' B-4E ' F3EN3' E' $ C 4$ 2F ' > E3' H' F3' ?H- F 3$C 34E' @H4E34' H&' F3' I $4+ ' &HH ' 9 $CF E2' M433E' ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' & 4C ' D3CN4 Q3D

64H J' @H $E' B-4E' B4 D23' ' HE' F3' ' H$D' H' >$E$4+ ' E' $' C 4$ 2F ' > E3' H' F3' I H E ' E' F3' H 34' I $4+' 9 $ ' H&' 8 $ J HE' I $ $N3' F343' ' J 33 C' F3' 243$ ' ?H- F Z' 6 '

YYY U K S/ M # > ; > P @$1 Y!

31-3 H& F3 C$ D I $ $N3 F3EN3 9 3C $4D $ HE2 F3 C$ D 9 $ H $ I H E E F3 C$ J 3 ? F-ED43D =$4DC Q3OHED F3 E 34C3N HE H& F3 @$ J Q-C $E2 $ED < $C2< ' H$D F F3 C$ D 9 $ F3EN3 E $ C 4$ 2F > E3 H F3 B4 D23 HE F3 C$ D ' H$D H 34 9 3 F$ B-4E F3EN3 -1 F3 C$ D B-4E H F3 I H E F343 C E(3 QO F3 P $4NF 63EN3 Q3 33E F3 B-42F $ED F3 >$EDC H& < 34 -NF E24$0 J HE F3EN3 ?H- F 9$4D($ HE2 F3 C$ D 63EN3 H F3 I H E F343 J 33 C F3 ' H$D H ; $4EHN+ F3EN3 E $ C 4$ 2F > E3 F4HE2F $ I H E HE F3 ' H$D H ? 4$ F$ 3E F NF C 6 3 F-ED43D $ED 3E O =$4DC ^J 3$C-43D $ HE2 F3 C$ D ' H$D_ ?H- F H& F3 B- 34Q-4E B4 D23 NHE E-3D -E J 33 C F3 -1134 I $4+ 9 $ H& 8$J HE I $ $N3 F3EN3 ; $C $4D $ HE2 F3 C$ D I $4+ 9 $ H F3 I H E F343 J 33 C F3 @H $E B-4E F3EN3 DH E F3 C$ J 3 H F3 I H E & 4C D3CN4 Q3D

! 43A2 .) / 3%2 (3 2

64H J $ I H E HE F3 ' 34 @ OD3 F NF C D C $E < E3 F-ED43D $ED & & O =$4DC ^J 3$C-43D $ HE2 F3 ' 34 @ OD3_ Q3 H F3 B4 D23 H 34 F3 C$ J 3 HE F3 ?H- F34E B4$ENF H& F3 M $C2H ' H$D E $ C 4$ 2F > E3 H $ I H E HE F3 H D ' H$D H @$4 -+3 F NF C D C $E < E3 F-ED43D $ED & & O =$4DC ^J 3$C-43D $ HE2 C-NF H D ' H$D &4H J F3 I H E $ F NF F3 C$ J 3 3$ 3C F3 M $C2H ' H$D F3E@3 E $ C 4$ 2F > E3 H F3 I H E O E3$4 P $EC& 3 D $ F NF F3 534 C HHD ' H$D 3$ 3C F3 , H4 F34E ; D EQ-42F ' H$D F3EN3 E $ C 4$ 2F > E3 H $ I H E HE F3 ?H- F34E ; D EQ-42F ' H$D F NF C D C $E < E3 F-ED43D =$4DC ^J 3$C-43D $ HE2 C-NF ' H$D_ H F3 ; $C H& F3 ; $C 34E @H4E34 H& B4H EC ?X-$43 F3EN3 E $ C 4$ 2F > E3 H F3 @3E 43 H& F3 ' - EC D& F3 I $4 CF @F-4NF F3EN3 E $ C 4$ 2F > E3 H $ I H E HE F3 ' 34 @ OD3 F NF C D C $E ?3 3E F-ED43D $ED & & O =$4DC ^J 3$C-43D $ HE2 F3 ' 34 @ OD3_ $QH 3 F3 B4 D23 H 34 F3 C$ J 3 HE F3 ?H- F34E B4$ENF H& F3 M $C2H ' H$D F3EN3 DH E F3 ' 34 @ OD3 H F3 I H E & 4C D3CN4 Q3D

9 N-

64H E $ I H E HE &N3 #& HE @$<$ F NF C D C $E < E3 F-ED43D $ED & & O =$4DC J 3$C-43D $ HE2 F3 #E HE @E_ H F3 , H4 F 3$C H& F3 X-3D-N H 34 F3 ; D EQ-42F ' H$D E $ C 4$ 2F > E3 H F3 I H E $ F NF F3 B-4< $D(DEC F3 ; $C 34E ; ED H& > E FR 2H >HNF (F3EN3 $ HE2 F3 ?H- F34E ?FH43 H& > ER F2H >HNF H F3 I H E $ F NF F3 C$ J 3 C (H E3D QO F3 B-4E F NF 4-EC F343&4H J $N4HCC F3 BH44H C H E3CC ' H$D F3EN3 $ HE2 F3 $C J 3E HE3D B-4E H F3 B4 D23 H 34 F3 C$ J 3 HE F3 BH44HC H E3CC ' H$D F3EN3 E $ C 4$ 2F > E3 H $ I H E HE F3 6$ + 4+ ' H$D F NF C D C $E < E3 F-ED43D $ED & & O =$4DC ^J 3$C-43D $ HE2 F3 6$ + 4+ ' H$D_ &4H J F3 I H E $ F NF F3 *H41F NF3E ' H$D 3$ 3C F3 C$ J 3 F3EN3 E $ C 4$ 2F > E3 H F3 B4 D23 J $4+3D , TN9 H 34 F3 #E HE @E HE F3 B$ F2$ 3 ' H$D F3EN3 E $ C 4$ 2F > E3 H F3 X-3D-N H 34 F3 ; D EQ-42F ' H$D F3EN3 $ HE2 F3 #E HE @E H F3 I H E & 4C D3CN4 Q3D

63) A32 / V,

ULKSLM # > ; > P ' ' @$1 Y! YY

Uh = ' ' G ? * ' @ *

64HJ' F3' ; ED' H&' F3' P D$J' G0+3' HE' F3' ' 2F' B$E+' H&' F3' ' 34' O4' $ED' HE' F3' ; $C' H&' F3' * H E' E' $' C 4$ 2F' > E3' H' F3' 8$ +F ' B4 D23' F3EN3' $ HE2' F3' ' H$D' F NF' 1$CC3C' F3' ?H- F 3$C 34E' ? D3' H&' F3' , 3 HE' P - 4' $ED' E' $' > E3' E' NHE E-$ HE' H&' F3' G 43N HE' H&' C-NF' ' H$D' H' F3' 8$ & J 3' B-4E' F3EN3' DH E' F3' 8$ & J 3' B-4E' H' F3' I H E' $' F NF' F3' C$J 3' (H EC' F3' 6 4 F' H&' @ OD3' F3EN3' $ HE2' F3'
(?FH43' H&' F3' 6 4 F' H&' @ OD3' H' F3' I H E' $' F NF' F3' C$J 3' C' J 3' QO' F3' ' H$D' F NF' 4-EC' F343 H' &4HJ' F3' 8H J C HE3' * H ' B$4' 1$C' F3' ' $N3' @H-4C3' $ED' Q3 33E' F3' >$EDC' H&' B $N+Q-4E' $ED' ?3$& 3 D' ' F3EN3' $ HE2' F3' ' H$D' $C' D3CN4 Q3D' H' $' I H E' F NF' C' D C $E' * H' F-ED43D' $ED' C O' =$4DC' ^J 3$C-43D' $ HE2' F3' C$J 3_' H' F3' ; $C' H&' F3' I H E' $' F NF' F3' C$J 3' N4HCC3C' F3' H D' P $OQH 3' ' H$D' F3EN3' E' $' C 4$ 2F' > E3' H' F3' I H E' & 4C' D3CN4 Q3D

64HJ' F3' I H E' HE' F3' ?H- F 3$C' H&' F3' * H E' $' F NF' F3' % +344$E' B-4E' (H EC' F3' ?3$' -1' F3' % ' +344$E' B-4E' H' F3' I H E' $' F NF' F3' C$J 3' NH J E2' DH E' &4HJ' B3E2H $E' E3$4 O' &H4 J C' $' ' 2F' E2 3' E' -4E E2' H $4DC' F3' ?3$' F3EN3' E' $' C 4$ 2F' > E3' H' F3' ?- J J ' H&' F3' 8 ' N$ 3D' B$4 3O' B$EEHN+C' F3EN3' E' $' C 4$ 2F' > E3' D' F3' B4 D23' H 34' F3' 9 NF' B-4E' HE' F3' ?H- F3ED' ' H$D' F3EN3' E' $' C 4$ 2F' > E3' H'
4 F3' I H E' $' F NF' F3' ' H$D' H' %EHN+CN$ Q34' 3$ 3C' F3' E 34$4O' 9 3C' ' H$D' F3EN3' E' $' C 4$ 2F' > E3' H' F3' & 4C' I H E' H&' F3' ' HN+' HE' B$ 24322$E' 8 ' F3EN3' E' $' C 4$ 2F' > E3' E' F3' G 43N HE' H&' F3' ?- J J ' H&' F3' C $ED' H&' $44' H' F3' I H E' $' F NF' C-NF' C 4$ 2F' > E3' N- C' F3' B4C+H J ' B-4E' F3EN3' DH E' F3' -
B4C+H J ' B-4E' H' F3' I H E' $' F NF' F3' C$J 3' (H EC' F3' ?3$' F3EN3' $ HE2' F3' ?3$' ?FH43' H' F3' I H E' & 4C' D3CN4 Q3D

64HJ' F3' 9 3C 34E' E2 3' H&' I H E' 8H-C3' HE' F3' 9 3C' H&' F3' * H E' E' $' C 4$ 2F' > E3' H' $' I H E' F NF' C' D C $E' * F433' F-ED43D' =$4DC' D-3' , H4 F' H&' F3' C$J 3' F3EN3' E' $' C 4$ 2F' > E3' H' F3' I H E' $' F NF' F3' G$ J $ O' ' H$D' J 33 C' F3' -1134' H4' 243$' 3E-3' H' E 34$4O' @$C 3' F3EN3' E' $' C 4$ 2F' > E3' H' $' I H E'
< 8 HE' F3' ?FH43' H&' >HNF' 6 E3' F NF' C' D C $E' < E3' F-ER D43D' $ED' & & O' =$4DC' ^J 3$C-43D' $ HE2' F3' ?FH43_' H' F3' ; $C' H&' F3' , H4 F' ; ED' H&' F3' I 34' F3EN3' $ HE2' F3' ?FH43' H&' >HNF' 6 E3' H' F$' I H E' F343H&' F NF' C' E3$43C' H' F3' I H E' & 4C' D3CN4 Q3D' F3EN3' E' $' C 4$ 2F' > E3' H' F3' I H E' & 4C' D3CN4 Q3D

64HJ' F3' 6 $2C $&&' E3$4' F3' 5-EN HE' H&' F3' ' 34' 4 E3' F' F3' ?3$' ^$QH-' < E3' F-ED43D' =$4DC' ?H- F' H&' F3' I H E' F343' F3' I 34' 8 3$D' 3$ 3C' F3' ?FH43_' E' $' C 4$ 2F' > E3' F4H-2F' F3' ? HE3' $' F3' 9 3C 34E' @H4E34' H&' F3' P $4NF' 63EN3' H&' F3' P E C 34 C' M 3Q3' H' F3' ' 34' E N+' F3EN3' -1' F3' ' 34' E N+' H' $' I H E' F NF' C' D C $E' * H' F-ED43D' $ED' E E3 O' & 3' =$4DC' ^J 3$C-43D' $ HE2' F3' ' 34' E N+_' $QH 3' F3' B4 D23' H 34' F3' C$J 3' HE' F3' % J $4EHN+' ' H$D'
(3) + F3EN3' E' $' C 4$ 2F' > E3' E' $' , H4 F 3C 34 O' G 432

[YZ' U`KS/M#> ;>P ' ' @$1 Y!

HE' H' F3' IHE'$' FNF' F3' B-4E' N$ 3D' *F3' P E C 34C' @$C' J$+3C' $E' E2 3' E' -4E E2' 3' F3' 9 3C ' F3EN3' DH E' `' *F3' P E C 34C' @$C' H' F3' IHE'$' FNF' F3' C$J3'(H EC' F3' ' 34' 4 E3' F3E@3' DH E' F3' ' 34' 4 E3' H' F$' IHE' F343H&' FNF' C' E3$43C' H' F3' 6 $2C $&&' $&NE3C$ D' F3EN3' E' $' C 4$ 2F' > E3' H' F3' 6 $2C $&&'$&H43C$ D

*F3' ?1$N3' HE' F3' P$E' >$ED' EN -D3D' F E' &' @ 4N 3' D3CN4 Q3D' F' &' '$D -C' H&' <E3' 8 $ &' P 3' &4HJ'

' n F3' IHE' $C' &' @3E 43' F343' F3' ? 433' 3$D E2' H F3' H D' E 34$4O' 'H$D' J33 C' F3' ? 433' $ HE2' F3' ?FH43'

S h G # P 6 ' ; ?' G ? * ' @ *

64HJ' F3' IHE 'HE' F3' ,H4 F' H&' F3' *H E'$' FNF/' F3' M$ $' B$E+' B-4E' (H EC' F3' ' 34' EE$E' E' $' C 4$ 2F' > E3' H' $' IHE' HE' F3' I43C HE& 3 D' 'H$D' FNF' C' D C $E' <E3' F-ED43D' =$4DC' ^J3$C-43D' $ HE2' F3' I43C HE& 3 D' 'H$D_' &4HJ' F3' IHE'$' FNF' F3'

))) C$J3' 3$ 3C' F3' I43C HEF$ ' 'H$D'' F3EN3' E' $' C 4$ 2F' > E3' H' F3' IHE' E3$4' ,3 'GO+3' $' FNF' F3' >$E2R FH J' 'H$D' 3$ 3C' F3' @$4 C 3' 'H$D' F3EN3' E' $' C 4$ 2F' > E3' F4H-2F' F3' B ED13$' 9 3 ' H' F3' ' 34' EE$E' F3EN3' -1' F3' ' 34' EE$E' H' F3' IHE'&4C' D3CN4 Q3D

64HJ' F3' IHE 'HE' F3' ,H4 F' H&' F3' *H E'$' BHF' F3' *H EF3$D' B4$ENF' H&' F3' ;D EQ-42F' 'H$D' (H EC' F3' ;E2 CF' ? 433' B4$ENF' H&' F3' C$J3' 'H$D' E' $' C 4$ 2F' > E3' H' F3' B4 D23' H 34' F3' P$4OFH J' B-4E' HE' F3' > EN -D3E' 'H$D' F3EN3' E' $' C 4$ 2F' > E3' H' $' IHE' HE' F3' *34432 3C' 'H$D' FNF' C' D C $E' 6 3' F-ED43D' =$4DC' ^J3$C-43D' $ HE2' *34432 3C' ? 433' $ED' F3' *34R 432 3C' 'H$D_' &4HJ' F3' IHE'$' FNF' *34432 3C' ? 433' J33 C' M$ H $O' ? 433 ' F3EN3' E' $' C 4$ 2F' > E3' H'

E : F3' IHE'$' FNF' F3' @$C 3' GH-2 $C' 'H$D' 3$ 3C' F3' G$ Q3$ O' 'H$D' F3EN3' E' $' C 4$ 2F' > E3' H' F3' IHE'$' FNF' F3' >3&'B$E+' H&' F3' ' 34' , F' C' N-'QO' $' C 4$ 2F' > E3' D4$ E' F343 H' D-3' 9 3C' &4HJ' F3' P$ D3EC' BH 34' @4$ 2' F3EN3' $ HE2' F3' $C J3E HE3D' C 4$ 2F' > E3' H' F3' IHE'$' FNF' F3' C$J3' N- C' F3' @$34 $ 4HN+' 'H$D' F3EN3' E' $' C 4$ 2F' > E3' H' F3' IHE'$' FNQ' F3' 'H$D' H' M Q4$3' 3$ 3C' F3' 'H$D' H' @$ C D3' F3EN3' E' $' C 4$ 2F' > E3' H' $' IHE' FNF' C' D C $E' <E3' F& ' D43D' =$4DC' D-3' ;$C' &4HJ' F3' IHE' &4C' D3CN4 Q3D' F3EN3' E' $' C 4$ 2F' > E3' H' F3' IHE' &4C' D3CN4 Q3D

64HJ' F3' IHE 'HE' F3' 9 3C' H&' F3' *H E'$' FNF' F3' ' 34' G33' H- D' Q3' @-' QO' $' > E3' H' Q3' D4$ E' F343 H' 1$4$ 3' H' F3' 8 2F' ? 433' 3$D E2' &4HJ' F3' P$4+3' @4HCC' H' B$4' 8 ' &4HJ' F3' IHE'$' FNF' F3' E3 ' 'H$D' H' ? 'P$4O C' C 3' 3$ 3C' F3' 'H$D' H' G-E' D43EE$E' E' $' C 4$ 2F' > E3' F4H-2F' F3' IHE .'$' FNF' F3' 'H$D' H' ? 'P$4O C' C 3' 3$ 3C' F3' 'H$D' H' G-E' D43EE$E' H' $' IHE' FNF' C' 6H-4' F-ED43D' =$4DC' Q3OHED' F3' C$J3' F3EN3' E' $' C 4$ 2F' > E3' H' $' IHE

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F NF' C' ?3 3E' F - ED43D' = $4DC' D - 3' ; $C ' H &' F3' , H4 F34E' ; 43 J O' H &' F3' ? 4 E2' N43C' ; J Q$E + J 3E ' (F3EN3' E' B' C 4$ 2F ' > E3' H' F3' , H4 F34E' ; 43 J O' H &' F3' ? 4 E2' N43C' ; J Q$E + J 3E ' F3EN3' DH 9 E' F3' ; 34' G 33' H' F3' ; 1 E ' & 4C ' D3CN4 Q3D

64H J ' F3' I H E ' 1E' F3' , H4 F 3$C ' H &' F3' * H E ' E3$4' BH2 3 FH 3 ' $ ' F NF' $' B - 4E' N4HCC3C' F3' ' H$D' H' F3' B4 D23' HE' %3EE3 ' 9 $ 34 ' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' B$E+' H &' F3' @$C 3' > HNF' F NF' C' D C $E ' 6 3' F - ED43D' = $4DC' E' $' C 4$ 2F ' > E3' H' F3' ?H - F3$C ' H &' F3' ? - J J ' H &' F3' %EH ' H &' F3' < D' @$C 3(' F3EN3' E' $'
9 - " C 4$ 2F ' > E3' H' F3' ? - J J ' H &' F3' %EH ' H &' F3' < D' @$C 3 ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' G - J &4 3C' ' H$D' F NF' C' D C $E ' 6 3' F - ED43D' = $4DC' ^J 3$C - 43D' $ HE2' F3' G - J &4 3C' ' H$D_' H' F3' 9 3C ' H &' F3' * H E' 8 H - C3' ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' F NF' C' 6H - 4' F - ED43D' = $ C' D - 3' 9 3C ' H &' F3' I H E ' & 4C ' D3CN4 Q3D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' & 4C ' D3CN4 Q3D

64H J ' F3' I H E ' HE' F3' ?H - F' H &' F3' * H E ' $ ' F NF' F3' * H E & ' B - 4E' (H EC' F3' ' 34' , F ' - 1' F3' * H E ' & ' B - J ' H' $' I H E ' F NF' C' D C $E ' * H' F - ED43D' $ED' & & O' = $4DC' ^J 3$C - 43D' $ HE2' C - NF' B - 4E_' H' F3' , H4 F' H &' F3' I H E ' $ ' F NF' F3' C$ J 3' N4HCC3C' F3' G - J &4 3C'
C E " ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' B4 D23' H 34' F3' @4$ 9 N+' B - 4E' HE' F3' 9 F 3F ' ' H$D ' F3EN3' DH 9 E' F3' @4$ N+' B - 4E' H' F3' I H E ' $ ' F NF' F3' C$ J 3' (H EC' F3' ' 34' , F' ' F3EN3' $ HE2' F3' ' 34' , F' H' F3' I H E ' & 4C ' D3CN4 Q3D

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64H J ' $' I H E ' HE' F3' ' H$D' H' %3 C' @F - 4NF' F NF' ' C' D C $E ' 6 3' F - ED43D' = $4DC' ^J 3$C - 43D' $ HE2' C - NF' ' H$D_' H' F3' , H4 F' H &' F3' , H4 F 3C 34E' @H4E34' H &' F3' * H E' 8 H - C3_' E' $' C 4$ 2F ' > E3' D4$ E' D - 3' ; $C ' H' $' I H E ' * F433' F - ED43D' = $4DC' D C $E ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' F NF' C' D C $E ' * F433' F - ER D43D' = $4DC' D - 3' 9 3C ' &4H J ' $' I H E ' HE' F3' % 4+N - DR
G Q4 2F ' ' H$D' F NF' C' D C $E ' 6H - 4' F - ED43D' = $4DC'
F$ 8 ^J 3$C - 43D' $ HE2' F3' % 4N - DQ4 2F ' ' H$D_' H' F3' ?H - F' H &' F3' * H E' 8 H - C3 ' F3EN3' E' $' C 4$ 2F ' > E3 ' F4H - 2F' F3' C$ D' I H E ' HE' F3' % 4N - DQ4 2F ' ' H$D ' H' $' I H E ' F NF' C' D C $E ' * F433' F - ED43D') J4DC' D - 3' 9 3C ' F343R &4H J ' ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' F NF' C' D C $E ' * F433' F - ED43D' = $4DC' D - 3' 9 3C ' &4H J ' F3' I H E ' & 4C ' D3CN4 Q3D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' & 4C ' D3CN4 Q3D

64H J ' F$ ' I H E ' HE' F3' ?FH43' H &' > HNF' ' O$E' F NF' C' D - 3' , H4 F 3$C ' H &') !' I H E ' $ ' F NF' F3' * H' ' H$DC' &4H J ' ? 4$E4$34' H' > 3C $ &' J 33 ' E' ' C 4$ 2F ' > E3 ' F4H - 2F' F3' I H E ' $ ' F NF' C - NF' * H ' ' H$DC' J 33 ' H' $' I H E ' ?3 3E' F - ED43D' = $4DC' Q3OHED' F3' C$ J 3 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' ' H$D'

UL KS M # > > P 4' ' @$1 Y!

+8 D& $:

&4H J' F3' @F-4NF' H' I H4 1$ 4 N+' J 33 C' F3' ' H$D' &4H J /' F3' P 33 E/' 8 H-C3' H' I H4 1$ 4 N+' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' G - J &4 3C ' H$D' F NF' C' D C $E ' ?3 3E' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' G - J &4 3C' ' H$D_' &4H J' F3' I H E ' $ ' F NF' F3' C$ J 3' C J 3 ' 9 ' ^F3' ' H$D' &4H J' F3' P 33 E2' 8 H-C3' H' I H4 1$ 4 N+' F3EN3' E' $' C 4$ 2F ' > E3 ' D4$ E' D-3' , H4 F 3$C ' H' F3' ?FH43' H&' >HNF' ' O$E ' F3EN3' $ HE2' F3' ?FH43' H&' >HNF' ' O$E' H' F3' I H E ' & 4C ' D3CN4 Q3D

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64D J' $' I H E ' HE' F3' I H4 $ J' ' H$ d' F NF' C' D C $E * H' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' I H4 ' $ J' ' H$D_' H' F3' 9 3C ' H&' F3' I H E ' $ ' F NF' F3' C$ J 3' 3$ 3C' F3' 9 2 HE' ' H$D' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' M $CC34 HE' ' H$D' F NF' C' D C $E ' 6 3' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' M $CC34 HE' ' 3$D_' &4H J' F3' I H E ' $ ' F NF' F3' C 3' H&' 9 F FH4E' ' H$D' 3$ 3C' F3' C$ J 3 ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' C 3' H&' 9 F FH4E' ' H$D' F NF' C' D C $E ' 6 3' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' C 3' H&' 9 F FH4E' ' H$D_' &4H J' F3' I H E ' $ ' F NF' F3' C$ J 3' 3$ 3C' F3' M $CC34 HE' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' ' H$D' H4' ? 433 ' N$ 3D' F3' ' $ ' 3$D E2' E' $' CH- F 3$C 34 O' G 43N HE' &4H J' F3' * H E' 8 H#C3' 6 3' F-ED43D' =$4DC' D C $E ' F3 ' 3&4H J' ^J 3$C-43D' $ HE2' F3' C$ D' ' H$D_' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' M$4 3C HE' ' H$D' F NF' C' D C $E ' * H' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' M$4 3C HE' ' H$D_' &4H J' F3' I H E ' $ ' F NF' F3' C$ J 3' 3$ 3C' F3' 9 2 HE' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' & 4C ' D3CN4 Q3D

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64H J' $' I H E ' HE' F3' ?3$' ?FH43 ' HE' F3' , H4 F 3$C ' H&' F3' * H E' F NF' C' D C $E ' 6H-4' F-ED43D' =$4DC' ^J 3$C-43D' $ HE2' F3' ?FH43_' H' F3' , H4 F' H&' F3' I H E ' $ ' F NF' F3' @4H& 3E ' 3 NF' B-4E' (H EC' F3' ?3$ ' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' * 4$ E J HED' 6H4D ' $ ' F NF' F3' M 3E -N3' ' H$D' J 33 C' $' ' H$D' H' B $D3EHNF ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' B $D3EHNF' 9 $ 34' F NF' C' D C $E ' < E3' F-ED43D' =$4DC' ^J 3$R C-43D' $ HE2' F3' B $D3EHNF' 9 $ 34_' $QH 3' B $D3EHNF' B 4 D23 ' F3EN3' DH E' F3' B $D3EHNF' 9 $ 34' H' F3' I H E ' $ ' F NF' F3' C$ J 3' (H EC' F3' ? 3$ ' F3EN3' $ HE2' F3' ?3$' ?FH43' H' F3' I H E ' & 4C ' D3CN4 Q3D

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Eʻ Eʻ Hʻ 1 D3ʻ &H4ʻ F3ʻ @HE 3O$EN3ʻ H&ʻ I 43 J C3Cʻ
F3ʻ I 4H134 Oʻ H&ʻ F3ʻ @4H Eʻ C -$ 3ʻ Q3 33Eʻ F3ʻ
*H 34ʻ H&ʻ + ʻ $EDʻ + ʻ

I Fʻ ZSU ㎜

9 8 ; ' ; ?ʻ -ED34ʻ $EDʻ QOʻ 4 -3ʻ H&ʻ C3 34$ʻ N Cʻ 1$CC3Dʻ Eʻ F3ʻ *F 4 O E E Fʻ $EDʻ 6H4 3 Fʻ 6H4 O F 4Dʻ 6H4 O C Fʻ 6H4 O C3 3E Fʻ 6 & 3 Fʻ 6 & O C3NHEDʻ $EDʻ 6 & O &H-4 Fʻ =3$4Cʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ P $(3C Oʻ % E2ʻ F3ʻ *F 4Dʻ F3ʻ F3E >H4Dʻ 8 2Fʻ *43$C-434ʻ H4ʻ >H4DCʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ *43$C-4Oʻ 343ʻ 3 J 1H 343Dʻ Hʻ 1-4NF$C3ʻ F3ʻ >32$ʻ \ -$OCʻ 9 $43FH-C3Cʻ B- D E2Cʻ $EDʻ H F34ʻ 8 343D $ J 3E Cʻ F343 Eʻ J 3E HE3Dʻ C -$ 3ʻ Q3R 33Eʻ] ,#&,# " &(!ʻ $EDʻ F3ʻ *H 34ʻ, ʻ<,#&,#ʻ ʻ EDʻ F343$Cʻ -ED34ʻ $EDʻ QOʻ 4 -3ʻ H&ʻ F3ʻ C$ Dʻ N Cʻ H4ʻ CH J 3ʻ H4ʻ HE3ʻ H&ʻ F3 Eʻ F3ʻ >32$ʻ \ -$OCʻ $EDʻ N34 $ Eʻ 9 $43FH-C3Cʻ B- D E2Cʻ $EDʻ H F34ʻ 8 343D $ J 3E Cʻ C -$ 3ʻ $Cʻ $&H43C$ Dʻ 343ʻ 1-4NF$C3Dʻ QOʻ F3ʻ F3Eʻ >H4DCʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ *43$C-4Oʻ $EDʻ F3ʻ $ -3Cʻ H&ʻ F3ʻ C$ Dʻ >32$ ʻ \ -$OCʻ 9 $43FH-C3Cʻ B- D E2Cʻ $EDʻ H F34ʻ 8 343D $ J 3E Cʻ $Cʻ $&H43C$ Dʻ 1$ Dʻ Hʻ F3ʻ I 34CHECʻ 3E 3Dʻ F343 Hʻ 43C13N 3 Oʻ Eʻ F3ʻ P $EE34ʻ D 43N 3Dʻ QOʻ F3ʻ C$ Dʻ N Cʻ H4ʻ CH J 3ʻ H4ʻ HE3ʻ H&ʻ F3 Jʻ ʻ $EDʻ F3ʻ C$ Dʻ >32$ʻ \ -$OCʻ 9 $43FH-C3Cʻ B- D E2Cʻ $EDʻ H F34ʻ 8 343D $ J 3E Cʻ CHʻ 1-4NF$C3Dʻ $Cʻ $&H43C$ Dʻ 343ʻ D- Oʻ NHE 3O3Dʻ Hʻ F3ʻ C$ Dʻ >H4DCʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ *43$C-4Oʻ C-Q(3Nʻ Hʻ F3ʻ C3 34$ʻ ' 3E NF$423Cʻ >3$C3Cʻ $EDʻ 2433 3E Cʻ &H4ʻ >3$C3Cʻ F3Eʻ C-QC C E2ʻ ʻ EDʻ F343$Cʻ Eʻ NHEC3X-3EN3ʻ H&ʻ F3ʻ G3C 4-N HEʻ H&ʻ F3ʻ @-C H Jʻ 8 H-C3ʻ Eʻ F3ʻ @ Oʻ H&ʻ ?U,#&,#ʻ QOʻ 6 43ʻ Eʻ F3ʻ P HE Fʻ, ʻ R!4 3 ʻ <E3ʻ FH-C$EDʻ 3 2Fʻ

Z 8ʻ ʻ F-ED43D

F-ED43D' $ED' &H-4 33E ' C3 34$' H&' F3' * 3' G33DC' $ED' @H1 3C' H&'
G33DC' H&' $ED' 43 $ E2' H' F3' C$ D' \ -$OC ' 9 $43FH-C3C ' B- D E2C ' $ED'
H F34' 8 343D $ J 3E C ' D31HC 3D' $ ' F3' C$ D' @-C H J ' 8 H-C3 ' 343'
Q-4E ' H4' H F34 C3' D3C 4HO3D ' $ED' E' NHEC3X-3EN3' F343H&' G && N- 3C'
J $O' $4 C3' E' J $+ E2' $' 2HHD' * 3' H' F3' C$ D' >32$' \ -$OC ' 9 $43R
FH-C3C ' B- D E2C ' $ED' H F34' 8 343D $ J 3E C ' H4' CH J 3' H4' HE 3' H&' F3 J :
6H4' ' 3 J 3DO' F343H&' Q3' ' 3E$N 3D' QO' F3' % E2 C' J H 8' ; N3 3E '
P $(3C O ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 - '
$ED' *3 J 1H4$ ' $ED' @H J J HEC' E' F C' 143C3E ' I $4 $ J 3E ' $CC3 EQ 3D '

J(' +@@)AD A)+ (!A' +?' #J(' !(&AG!B' (@D '+L(!(<' #+' H+ 2(B' #J(' E(*&' VG&BAI' >&!(J+GA(A1 ZI

$ED' QO' F3' - FH4 O' H&' F3' C$ J 3' * F$ ' &4H J ' $ED' $& 34' F3' 1$CC E2' H&'
F C' N ' &' $EO' I 34CHE' H&' I 34CHEA' CF$ I NHE 4 J 5' $1D' F24H3' H4' &' $EO'
I 34CHE' <4 I 34CHEC' CF$ ' F$ 3' NHE 4$N 3D' ED' $2433D ' &H4' F3' I -4NF$C3 '
?$ 3' <4 G C1HC$ ' H&' $EO' H&' F3' C$ D' \ -$OC ' 9 $43FH-C3C ' B- D E2C '
$ED' H F34' 8 343D $ J 3E C ' H4' $EO' I $4 ' F343H&' ' CF$ ' $ED' J FO' Q3'
$ &- ' H' $ED' &H4' F3' >H4D' 8 2F' *43$C-434 ' H4' >H4DC' @H J J CC HE34C' H&'
8 C' P 3C O C' *43$C-40' &H4' F3' * J 3' Q3 E2' FH' &H4' F3' I -41HC3C' H&'
F C' N ' CF$ ' F3' D33 J 3D' H' Q3' $' @H41H4$ 3' BHDO ' H4' $EO' *F433' H4'
J H43' H&' F3 J ' QO' ED3E -43' H4' ED3E - 3C' -ED34' F3 4' 8 $EDC' $ED'
?3$ C' H' NHE 3O' $ED' $CC-43' $EO' H4' $ ' H&' F3' C$ D' \ -$OC ' 9 $43FH-C3C '
B- D E2C ' $ED' H F34' 8 343D $ J 3E C ' H4' $EO' I $4 ' F343H&' C -$ 3' $C'
$&H43C$ D ' H' $EO' I 34CHE' H4' I 34CHEC' FH' E$O' $2433' H4' FH' CF$ '
F$ 3' $2433D' H' $ED' &H4' F3' I -4NF$C3 ' ?$ 3' $ED' G C1HC$ ' F343H&'($ED'
F$ ' C-NF' @HE 3O$EN3' $ED' CC-4$EN3' CF$ ' Q3' $' C-&& N 3E ' * 3' H' F3'
C$ J 3' I 43 J C3C ' $ED' QO' 6H4N3' H&' F C' N ' CF$ ' 3&&3N -$ O' 3C ' E' F3'
I -4NF$C34' H4' I -4NF$C34C' F343H& ' F C ' F3$ ' @4' F3 4' 8 3 4C' $ED'
CC 2EC ' H4' F3' I 3 CHE' H4' I 34CHEC' H' FH J ' F3 ' CF3 ' ' F3O' CF$ '
D 43N ' F3' C$ J 3' H' Q3' NHE 3O3D' $ED' $CC-43D ' F3' 633' ? J 1 3' $ED' ER
F34 $EN3' H&' $ED' E' C-NF' \ -$OC ' 9 $43FH-C3C ' B- D E2C ' ED' H F34'
8 343D $ J 3E C ' H4' $EO' I $4 ' F343H& ' $C' E' C-@F' ED3E -43' H4' ED3ER
-43C' CF$ ' H4' J $O' Q3' J 3 HE3D' $ED' 3 143CC3D ' &433' $ED' N 3$4' H&'
$ED' &4H J ' $ ' ; C $ 3C ' ' 2F C ' @F$423C ' $ED' EN- J Q4$EN3C' F$ CHR
3 34 ' C$ 3' $ED' 3 N31 ' C-NF' ' 2F C ' @F$423C ' ; C $ 3C ' $ED' EN- J R
Q4$EN3C' $C' F3' C$ D' >H4D' 8 2F' *43$C-434 ' H4' >H4DC' @H J J CC HE34C' H&'
8 C' P $(3C O C' *43$C-40 ' H4' C-NF' $C' F3' I -4NF$C34' H4' I -4NF$C34C ' F C '
F34 ' H4' F3 4' 8 3 4C' $ED' CC 2EC ' CF$ ' F$ 3' , H N3' H&' Q3&H43' C-NF'
@HE 3O$EN3' $ED CC-4$EN3' CF$ ' F3 NH J 1 3 3D

& 34' ?$ 3' H&' F3' \ -$OC' F3' &- -43' I 4HR 14 3 H4C' H' Q3NH J 3' NF423Q 3' F' F3' I $R 4HNF $' ' $ 3C

' ED' F343$C' ' C' 43N 3D' QO' F3' C$ D' N ' 1$CC3D' E' F3' 6 & O '
C3NHED' =3$4' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' ! , (!') !' *F- D' F$ '
F3' ?- J ' , ' 7 F , ' F-ED43D' $ED' 3E O' I H-EDC' * 3 3' ?F E2C' $ED'
*3E 13EN3' 8 $ &13EEO' C' $EE-$ O' 1$ D' QO' F3' G 43N HE' H&' F3' >H4DC'
@H J J CC HE34C' H&' 8 C' P $(3C O C' *43$C-40 ' E' 43C13N ' H&' F3' F3E'
143C3E ' @-C H J ' 8 H-C3 ' $ED' H F34' I 43 J C3C' NHE 2-H-C' H' H4' NHEE3N 3D'
F343 F' ' F NF' QO' >$ ' 343' EH ' 4$ 3$Q 3' $ED' F$ ' $EH F34' ?- J '
$ J H-E E2' H' * H' F-ED43D' $ED' 3E O' I H-EDC' * 3 3' ?F E2C' $ED'
*3E 13EN3' 8 $ &13EEO ' $C' 32$ O' 1OQ 3' $ED' 1$ D' $C' ' $ 3C' E' 43C13N '
H&' F3' >32$' \ -$OC' E' &4HE ' H&' F3' C$ D' @-C H J ' 8 H-C3' $ED' I 43 J C3C '
H' F3' 43C13N 3' @H 3N H4C' H&' F3' I $4HNF $ ' $ED' 9 $4D' ' $ 3C' $ED'
CC3CC J 3E C' E' F3' 9 $4D' H&' 7 , F ! ' $ED' E' F3' I $4 CF' H&' / %O %%, F1'
" #(' F E' F3' C$ D' 9 $4D ' $ED' F$ ' ' $C' 3 13D 3E ' F$ ' F3' C$ D'
43C13N 3' $EE-$ ' ?- J C' CFH- D' Q3' NHE E-3D' ' $ED' ' $C' QO' F3' C$ D'
N ' 3E$N 3D ' F$ ' F3' 4&313N 3' $EE-$ ' ?- J C' F3E' 1$ D' $C' $&H43C$ D'
CFH- D' O3$4 O' $ED' 3 34O' =3$4' &H4' 3 34' F343$& 34' Q3' 1$ D' H- ' H&' @HE

'

CH#D$ 3D

U 'S'M#> ; (P ' J ' ^@$1YY' Y !

')

CH D$ 3D' M-CH ?' H' F3' 43C13N O3' MH83N H4C' &H4' F3' * E3 (3J2' H&'
F3 & $ 3C' $ED' CC3CC J3E C ' H' FHJ' F3' C$F3' 3 3' F3E' 43C13N 3 O' '
1$ D' F1E '$EO' G3D-N HE' H4' Q$ 3J3E ' F$ 3 34' E' F3' C$J3'
I$4 C' ?F$43C' $ED' I4H1H4 1FC' $ED' $' F3' C$J3' G$OC.' H4' J3C' $ED' E'
F3' C$J3' P$EE34' $C' F3' H F34' '$ 3C' H4' CC3CC J3E C' H&' F3' C$ D' 9 $4D'
$ED' I$4 CF' 43C13N 3 O' CFH- D' &_4' F3' * 13' Q3 E2' F3' 1$ D(' $ED' CFH- D'
Q3' NHEC D343D' $C' I$4 ' H&' F3' I4HD-N3' F343H& .' DD' F343$C' $& 34' F3
?$ 3' $ED' G C1HC$' H&' F3' C$ D' \ -$OC' 9 $43FH-C3C' ' J D E2C' $ED' H F34'
8343D $J3E C' 4 ' F3' C$ D' >H4D' 8 2F' *43$C-434' H4' F3' >H4DC' @HJR
J CC HE34C' H&' F3' *. 3$C-4O' H4' $EO' *F433' H4' JH43' H&' F3J '&H4' F3'
* J3' Q3 E2' F3' C$ D' $C DE3EDHE3D' I43F C3?' H- D' N3$C3' H' Q3'
I-Q N' I4H134 O '$ED' ' H- D' E' F$ ' ; 3E Q3' EH' HE234' (-C ' $ED'
43CHEQ 3' F$ ' F3' @HECH D$ 3D' @-C HJC' CFH- D' Q3' NF$423D' F' F3'
1$OJ3E ' H&' F3' C$ D' $EE-$' ?-JC' Q- ' F$ ' F3' &- -43' I4H14 3 H4' H4'
14H14 3 H4C' F343H&' CFH- D' Q3' NF$423D' $ED' $CC3CC3D' ' F3' I$OJ3E '
H&' F3' C$J3 ' Q3' '&-4 F34' 3E$N 3D(' *F$ ' &4HJ' $ED' $& 34' F3' @HER
3O$EN3' $ED' CC-4$EN3' H&' $ ' FHC3' \ -$OC' NHJ JHE O' N$ 3D' H4' +EH E'
QO' F3' ,$J3' H&' @-C HJ' 8H-C3' $ED' 9 HH ' \ -$OC' $ED' F3' 9 $43R
FH-C3C' $ED' H F34' B- D E2C' $ED' ; 43N HEC' C $ED E2' $ED' Q3 E2' F343HE '
F' F3' 11-4 3E$EN3C' F343 H' Q3 HE2 E2 ' $ED' E' 43C13N ' H&' F NF'
H4' CHJ3' I$4 ' H4' I$4 C' F343H&' F3' C$ D' * H' $C J3E HE3D' ?-JC' $43
OQ 3' CH' J -NF' H&' F3' C$ D' N '$C' D 43N C' I$OJ3E ' H&' F3' C$ D' * H'
* JC' H&' * H' F-ED43D' $ED' 3E O' I H-EDC' * 3 3' ?F E2C' $ED' *3E '
13EN3' 8$ 3E#O '$ED' * H' F-ED43D' $ED' 3E O' I H-EDC' * 3 3' ?F R
E2C' $ED' *3E 13EN3' 8$ &13EEO ' H- ' H&' F3' @HECH D$ 3D' @-C HJC'
CF$ ' Q3' $ED' F3' C$J3' C' F343QO' 4313$ 3D ' $EO' F E2' E' F3' C$ D' 43N 3D'
N ' H' F3' NHE 4$4O' EH FC $ED E2

' ED' Q3' '&$4 F34' 3E$N 3D ' *F$ ' 'CF$ ' $ED' J$O' Q3' $ P ' H' '$ 3C' J$O' Q3'
$ED' &H4' F3' @H 3N H4C' H&' F3' C$ D' $C J3E HE3D' ?-JC' &H4' F3' * J3' 43NH 343D'
Q3 E2' H' NH 3N '$C+' &H4 ' D3J$ED ' $ED' 43N3 3' F3' C$J3 ' $ED' EH' JH43 '
&4HJ' F3' <NN-1 34' H4' <NN-1 34C' H&' F3' C$ D' I43J C3C' &H4' F3' * J3' H&' \ -$OC'
Q3 E2 ' $ED' &' F3' C$J3' $43' EH ' 1$ D' C-NF' @H 3N H4C' CF$ ' F$ 3' F3'
C$J3' IH 34C' H' 3 O' $ED' 43NH 34' F3' C$J3' $C' F3O' F$ 3' E' H F34' @$C3C'
F343' C-NF' '$ 3C' $43' EH ' 1$ D

' ED' Q3' '&-4 F34' 3E$N 3D ' *F$ ' 'CF$ ' $ED' J$O' Q3' $ &- '&H4' <NN-1 34C'
C-NF' <NN-1 34' H4' <NN-1 34C' H' D3D-N ' F3' ?-JC' 1$ D' QO' F J' H4' F3J'
H' C-NF' @H 3N H4' $C' PH43C$ D' H4' D C 4$ E3D' &H4' $C' $&H43C$ D' &4HJ' $EO' J3E C' &4HJ'
'3E ' F$ ' J$O' Q3' F3E' H4' $ ' $EO' * J3' $& 34 $4DC' D-3' &4HJ' F J' H4' F3 4' '3E C'
F3J' E' 43C13N ' H&' C-NF' I43J C3C' $ED' F$ C-NF' I$OJ3E ' CF$ ' Q3'
CH' &$4' $' G CNF$423' H' C-NF' <NN-1 34' H4' <NN-1 34C' Q3 33E' F J' H4'
F3J' $ED' F3' I34CHE' H4' I34CHEC' 3E 3D' H' 43N3 3' F3' '3E ' H&' C-NF'
I43J C3C'

' ED' Q3' '&-4 F34' 3E$N 3D ' *F$ ' F3' PHE 3C' $4 C E2' &4HJ' $EO' 11 N$ HE'
C-NF' ?$ 3' H4' G C1HC$' H&' F3' C$ D' \ -$OC' 9 $43FH-C3C' B- D E2C' $ED' $4C E c&4HJ'
H F34' 8343D $J3E C' H4' $EO' I$4 ' F343H&' -ED34' F C' N ' CF$ ' Q3' F3' ?$ 3' c'
1$ D' E H' $ED' N$44 3D' H' F3' NNH-E ' H&' @HECH D$ 3D' @-C HJC' $ED' F3' \ -$OC'
F3' '3N3 1 ' H&' F3' 5 333 34' M3E34$' H&' F$ ' '3 3E-3' &H4' F3' * J3'
Q3 E2' CF$ ' Q3' EDH4C3D' -1HE' 3 34O' G33D' H4' G33DC' H&' @HE 3O$EN3' H4'
CC-4$EN3' H&' $EO' C-NF' \ -$OC' 9 $43FH-C3C' B- D E2C' $ED' H F34'
8343D $J3E C' H4' $EO' I$4 ' F343H&' $ED' CF$ ' Q3' $' C-&& N 3E ' G CR
NF$423

Y Y ULKS/M#> ;>P @$1 YY

NF$423 H4 G CNF$423C H 3 34O I-4NF$C34 H4 I-4NF$C34C F343H& F C F34 $ED F3 4 8 3 4C $ED CC 2EC &H4 CH J-NF P HE3O $C E C-NF '3N3 1 H4 '3N3 1 C CF$ Q3 3 143CC3D H F$ 3 Q33E 43N3 3D QO $EO C-NF '3N3 34 M3E34$

>< , G< , : I4 E 3D QO #+.+/@ 6 &(+ $ED)*(+, O1.223%, ..*+ I4 E 34C H F3 % E2 C J HC ; N3 3E P $(3C O X.-B

, , <ʻ ? ; @# , G<ʻ Kʻ * ; ' * <

< * ** *6* P * ʻ ' ; M K

@ʻ ʻ I ʻ >W E

Eʻ N ʻ Hʻ $ J 3EDʻ $Eʻ N ʻ H&ʻ F3ʻ ?3 3E Fʻ $EDʻ ; 2F Fʻ
=3$4Cʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C Oʻ % E2ʻ
! ʻ F3ʻ 6H-4 F ʻ 43 $ E2ʻ Hʻ F3ʻ #E HEʻ H&ʻ
I $4 CF3Cʻ Eʻ ʻ I Fʻ 2 ʻ ZSU ㎜

8 ; ' ; ?ʻ QOʻ $Eʻ N ʻ 1$CC3Dʻ Eʻ F3ʻ ?3 3E Fʻ $EDʻ ; 2F Fʻ =3$4Cʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ 6H-4 F ʻ E - 3Dʻ / #ʻ / ' ʻ ,ʻ ' ,#1 ,% & !ʻ #&ʻ !#&ʻ) !ʻ KZM @ Sʻ < F1ʻ #ʻ , ' !ʻ #ʻ 43 $ED OH0 ʻ O# ,#1ʻ #&ʻ 2 0 1 ,#1ʻ , ʻ * 1) !1 ʻ #&ʻ , ʻ 3# #(ʻ , ʻ & 1 55 ,5 #(ʻ / 55 ,5 !ʻ * 1) !1ʻ , ʻ * 1ʻ , ʻ * 1) !1ʻ #&ʻ ,ʻ !ʻ 3) ! ʻ * ,0 1 ,#ʻ F)ʻ !15! ' ʻ ,ʻ) !ʻ ! ! ' #(ʻ I) 5!%1ʻ , ʻ8 1!ʻ #&ʻ #(ʻ * ! 5! 3 %ʻ I 3 !1ʻ ʻ $ʻ $ J HE2ʻ H F34ʻ F E2Cʻ 3E$N 3D ʻ F$ ʻ &4H J ʻ $EDʻ $& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ F3ʻ C$ Dʻ N ʻ ʻ CF$ ʻ $EDʻ J $Oʻ Q3ʻ $ &- ʻ &H4ʻ F3ʻ >H4Dʻ > 3- 3E$E ʻ H4ʻ H F34ʻ @F 3&ʻ MH 34EH4ʻ H4ʻ MH 34EH4Cʻ H&ʻ $!% #&ʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2 ʻ Fʻ F3ʻ CC3E ʻ H&ʻ F3ʻ J $(H4ʻ I $4 ʻ H&ʻ 8 Cʻ P $(3C O Cʻ I 4 Oʻ @H-EN ʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ 114HQ$ HEʻ H&ʻ F3ʻ 4NFQ CFH1ʻ H&ʻ F3ʻ I 4H EN3ʻ $EDʻ F3ʻ B CFH1ʻ H&ʻ F3ʻ G HN3C3 ʻ $EDʻ Fʻ F3ʻ @HEC3E ʻ H&ʻ F3ʻ 43C13N 3ʻ I $ 4H1C ʻ N34 R & 3Dʻ -ED34ʻ F3 4ʻ 8 $EDCʻ $EDʻ ?3$ C ʻ $ 3C 3Dʻ QOʻ * Hʻ H4ʻ J H43ʻ N43D Q 3ʻ 9 E3CC3Cʻ C-QCN4 Q E2ʻ F343 H ʻ Hʻ D D3ʻ H Dʻ I $4 CF3C ʻ H4ʻ Hʻ C31$4$ 3ʻ $EOʻ I $4 CFʻ H4ʻ I $4 ʻ H&ʻ $ʻ I $4 CFʻ F343 H&H43ʻ -E 3D ʻ Eʻ F$ 3 34ʻ P $EE34ʻ C-NFʻ #E HEʻ J $Oʻ F$ 3ʻ Q33Eʻ 3&&3N 3Dʻ : EDʻ F343$Cʻ EHʻ I 4H C HEʻ F$Cʻ Q33Eʻ J $D3ʻ Eʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ &H4ʻ F3ʻ @HEC3E ʻ H&ʻ I $ 4HECʻ Eʻ FHC3ʻ @$C3Cʻ Eʻ F NFʻ F3ʻ I $ 4HECʻ J $Oʻ Q3ʻ 3 F34ʻ E&$E ʻ H4ʻ > -E$ N ʻ H4ʻ J $44 3Dʻ 9 H J $Eʻ : EDʻ F343$C ʻ Eʻ D3&$- ʻ H&ʻ C-NFʻ I 4H C HE ʻ G && R N- 3Cʻ F$ 3ʻ $4 C3Eʻ Hʻ F3ʻ ?31$4$ HEʻ H&ʻ I $4 CF3C ʻ F NFʻ F3ʻ >H4Dʻ > 3- 3E$E ʻ $EDʻ I 4 Oʻ @H-EN ʻ H&ʻ $!% #& ʻ Fʻ F3ʻ 114HQ$ HEʻ H&ʻ
Zʻ ʻ F3

M-$4D $EC $ED @H J R J 33C H& ?HE * 4$$O NHEC3E H ?31$4$ HE H& I$4 CF3C

F3 4NFQ CFH1C $ED B CFH1C H& F3 43C13N 3 G HN3C3C J $O D33 J $D C$Q 3 H C31$4$ 3: B3 F343&H43 3E$N 3D QO F3 ; E2 C J HC ; N3 3E P $(3C O QO $ED F F3 D N3 $ED @HEC3E H& F3 >H4DC ?1 4 -$ $ED * 3 J 1H4$ $ED @H J J HEC E F C 143C3E I $4 $R J 3E $CC3 J Q 3D $ED QO F3 - FH4 O H& FY ?$ J 3 * F$ & $EO I $ 4HE H4 (H E I $ 4HE H& $ B3E3& N3 CF$ $ $EO * J 3 $& 34 F3 1$CC E2 H& F C N 1 HO3 H Q3 $ P EH4 > - E$ N H4 D H CF$ $ &- &H4 F3 M-$4D $E H4 M-$4D $EC H& C-NF I $ 4HE Q3 E2 $ P EH4 H4 &H4 F3 @H J J 33 H& C-NF I $ 4HE Q3 E2 $ > - E$ N H4 D H F F3 114HQ$ HE E 3 F34 @$C3 43C13N 3 O H& F3 >H4D @F$E N3 H4 , $! % #& &H4 F3 * J 3 Q3 E2 H Q3 HQ $ E3D HE I 3 HE J $D3 H F J &H4 F$ I -41HC3 H 2 3 @HEC3E HE Q3F$ & H& C-NF I $ 4HE H F3 G C HE H& $EO I $4 CF H4 F3 ?31$4$ HE H& $EO I $4 CF H4 I $4 H& $ I $4 CF F343 H&H43 -E 3D E $C &- $ED $ J 1 3 $ P $EE34 $C C-NF I $ 4HE Q3 E2 H& &- 23 $ED CH-ED P ED NH- D F$ 3 DHE3 -ED34 F3 C$ D 43N 3D N H& F3 ?3 3E F $ED ; 2F F =3$4C H& 8 C $ 3 P $(3C O : I 4H D3D $ $OC F$ F3E F3 I $ 4 J H4 I $ 4HEC H4 (H E I $ 4HE H4 (H E I $ 4HEC H& $EO C-NF I $4 CF H4 I $4 CF3C CF$ Q3 $ J $44 3D 9 H J $E H4 J $44 3D 9 H J 3E CF$ Q3 $ &- &H4 C-NF J $44 3D 9 H J $E H4 J $44 3D 9 H J 3E $C F3 @$C3 J $O Q3 H C 2E &O $ED D3N $43 F34 H4 F3 4 @HEC3E E H13E @H-4 H& @F$EN34O E 43 $ D H Q3 F343 43NH4D3D $ED E4H 3D $ED C-NF @HEC3E CH 2 3E $ED E4H 3D CF$ Q3 $ D $ED Q ED E2 $C & C-NF J $44 3D 9 H J $E H4 J $44 3D 9 H J 3E 343 C E2 3 H4 D CNH 34

> < , G < , : I 4 E 3D QO # + . (/ + & (+ $ED) * (+ , O 1 . 2 2 % , . . * + I 4 E 34C H F3 % E2 C J HC ; N3 3E P $(3C O ZSU

, , <' ? ; @ # , G<' K' * ; ' * <

M # > B ; > P ' ' ' ; M ?

@ I ' @W

E' N ' &H4' F3' J H43' 3&&3N -$ ' I 43 3E HE' H&' * 43CR
1$CC3C' -1HE' I 4H134 O' QO' I 34CHEC' E') , ", ' H&'
M$ J 3' E' ' % ' H&' ! ' ' N$ 3D
+ ' , % #& 8 J A 2 ' ZSU m

9 8 ; ' ; ?' * 43C1$CC3C' -1HE' I 4H134 O' QO' I 34CHEC' -E $ &- O'
3E2K23D' E' F3' I -4C- ' H&' M$ J 3' F$ 3' 43N3E O' Q3NH J 3'
& 3X-3E ' E' $4 H-C' I $4 C' H&' + ' 6 #&' $ED' F$ 3 ' $' J $EO'
@$C3?(' Q33E' $ 3ED3D' QO' N C' H&' H 3EN3' $ED' E J D$ HE ' &H4' F3'
' 3143CC HE' H&' F NF' F3' >$ C' EH ' E' &H4N3' E' F$ ' I $4 ' H&' F3' # E 3D'
% E2DH J ' 14H D3' EH' C-&& N 3E ' ' 3 J 3DO ' $ED' F$ ' ' C' F343&H43'
3 13D 3E ' F$ ' J H43' 3&&3N -$ ' $ED' C- J J $4O' ' 3 J 3D 3C' CFH- D' Q3' 14HR
D3D' ' Q3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O '
QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$ ' $ED'
* 3 J 1H4$ ' $ED' @H4E HEC ' E' F C' 143C3E ' I $4 $ J 3E ' $CC3 J Q 3D ' $ED'
QO' F3' - FH4 O' H&' F3' C$ J 3 ' * F$ ' &' $EO' I 34CHE' F$ CH3 34' CF$ ' "(& #B' HE'
NH J J ' $EO' * 43C1$CC' QO' 3E 34 E2' H4' Q3 E2 ' E' F3' G$O J 3 ' -1HE' $EO' "(!A+ A' #!(A%'
>$ED ' FH- ' >3$ 3' H&' F3' I 4H14 3 H4' E' C3$4NF' H4' 1-4C- ' H&' M$ J 3 '
H4' H&' G334 ' ' H3 ' 9 HHDNHN+C ' ?E 13C ' \ -$ C ' >$ED4$ C ' 9 D' G-3+C ' >$EDC'
H4' @HE 3C ' C-NF' I 34CHE' CF$ ' HE' Q3 E2' C- J J $4 O' NHE N 3D' F343H&' E' A(&!HJ' H&'
Q3&H43' $' 5-C N<' H&' F3' I 3$N3 ' HE' I 4HH&' HE' <$ F' QO' <E3' <4' J H43'
N43D Q 3' 9 E3CC' H4' 9 E3CC3C ' H4' @HE&3CC HE' H&' F3' <&&3EN3 ' H4' -1HE'
H F34' 32$ ' ; D3EN3 ' &H4&3 ' $ED' 1$O' C-NF' ?- J ' H&' P HE3O ' EH '
3 N33D E2' * H' I H-EDC ' $C' H' F3' 5-C N3' CF$ ' C33 J ' J 33 ' H23 F34'
F' F3' @HC C' Q&' F3' @HE N HE ' $ED' F$ ' &' $EO' I 34CHE' F$ E2'
F C' 6$N3' Q $N+3E3D ' NH H-43D ' H4' H F34 C3' D C& 2-43D' &H4' F3' I -41HC3'
Z' %' P

H& G C2- C3 H4 & $EO I34CHEC H F3 , - J Q34 H& 6 3 H4 J H43
H23 F34 CF$ NH J J $"O *43C1$CC QO 3E 34 E2 H4 Q3 E2 E F3 1$O
J3 -1HE $EO >$ED E C3$4NF H4 1-4C- H& M$ J 3 H4 H& G334 ; H3
9 HHDNHN+C ?E 13C \ -$ C >$ED4$ C 9 D G-3+C H4 @HE 3C 3$NF
H& C-NF I34CHEC CF$ HE Q3 E2 C- J J $4 O NHE N 3D F343H& Q3&H43 $
5-C N3 H& F3 I3$N3 HE I4HH& HE <$ F QO <E3 H4 J H43 N43D Q 3 9
E3CC3C H4 9 E3CC3C H4 @HE&3CC HE H& F3 <&&3EN3 H4 -1HE H F34 32$
; D3EN3 &H4&3 $ED 1$O C-NF ?- J H& P HE3O EH 3 N33D E2 6 3
I H-EDC $C H F3 C$ D 5-C N3 CF$ C33 J J 33 H23 F34 F F3
"!+2)A+ ; 13EN3C H& I 4HN3CC: I4H D3D $ $OC F$ $EO I34CHE NF$423D
F $EO C-NF *43C1$CC ?F$ Q3 $ Q34 O H 14H 3 QO $O H& G3&3EN3
$EO P$ 34 F NF H- D F$ 3 Q33E $ G3&3EN3 H $E N HE $ >$
&H4 C-NF *43C1$CC

?-NF *43CR 1$CC34C J$O Q3 43X- 43D H X- F3 >$ED $ED H 2 3 F3 4 , $ J3C $ED QHD3C $ED E N$C3 H& 3&-C$ J$O Q3 $443C 3D

ED Q3 3E$N 3D *F$ F343 $EO 134CHE CF$ Q3 43C1$CC E2
HE $EO >$ED E F3 G$O J 3 E C3$4NF H4 1-4C- H& M$E 3 H4 9 HHDR
NHN+C ?E 13C \ -$ C >$ED4$ C 9 D G-N+C H4 @HE 3? CF$ Q3
$ &- &H4 $EO I34CHE F$ E2 F3 2F H& + E2 F3 M$ J 3 -1HE C-NF
>$ED H4 &H4 F3 <NN-1 34 H& F3 >$ED H4 &H4 $EO M$ J 3+33134 H4
?34 $E H& 3 F34 H& F3 J H4 &H4 $EO I34CHE $- FH4 T3D QO 3 F34 H&
F3 J H 43X- 43 F3 I34CHE CH 43C1$CC E2 &H4 F F H X- F3 >$ED
F343HE F3 CF$ Q3 CH 43C1$CC E2 $ED $ CH H 3 F C @F4 C $E , $ J 3
?-4E$ J 3 $ED I $N3 H& QHD3 $ED E N$C3 C-NF I34CHE CF$ $& 34
Q3 E2 CH 43X- 43D H&&3ED QO 43&-C E2 H 3 Q C 43$, $ J 3 H4 I $N3
H& QHD3 H4 QO 2 E2 C-NF $ 23E34$ G3CN4 1 HE H& F C I $N3 H&
QHD3 $C CF$ Q3 -CH4O &H4 F3 I -41HC3 H& G CNH 34O H4 QO &- O
NHE E- E2 H4 43 -4E E2 -1HE F3 >$ED CF$ Q3 $ &- &H4 F3
I $4 O CH 43X- 4 E2 $C $&H43C$ D $ED $ CH &H4 $EO I34CHE $N E2 QO F C
<4D34 $ED E F C D H $1143F3ED ?-NF <&&3ED34 $ED H NHE 3O F J
H4 N$-C3 F J H Q3 NHE 3O3D $C CHHE $C NHE 3E 3E O J $O Q3 Q3&H43
$ 5-C N3 H& F3 I3$N3 $ED C-NF <&&3ED34 ^ F3 F34 CH $1143F3ED3D
"(& #B H4 EH _ -1HE Q3 E2 C- J J $4 O NHE N 3D H& $EO C-NF <&&3EN3 Q3&H43
$ 5-C N3 H& F3 I3$N3 $ F3 EC $EN3 H& F3 < E34 H4 <NN-1 34 H&
C-NF >$ED H4 H& F3 I4HN-4$ H4 6 CN$ &H4 F3 @H-E O HE I4HH&
HE <$ F QO <E3 H4 J H43 N43D Q 3 9 E3CC H4 9 E3CC3C H4 @HER
&3CC HE H& F3 <&&3EN3 H4 -1HE H F34 32$; D3EN3 CF$ &H4&3
$ED 1$O C-NF ?- J H& P HE3O EH 3 N33D E2 6 3 I H-EDC $C H F3
NHE N E2 5-C N3 CF$ C33 J J 33 H23 F34 F ; 13EN3C H& I 4HN3CC:
I$4 O $443C R 3D J -C Q3 D CNF$423D -E 3CC Q4H-2F Q3R &H43 $5-C N3 F E U 8H-4C
I4H D3D $ $OC F$ EH I34CHE CH $1143F3ED3D CF$ HE $EO I43R
3EN3 F$ CH3 34 Q3 D3 $ E3D &H4 $ HE234 I34 HD F$E * 3 3 8H-4C
&4H J F3 * J 3 H& F C 1143F3EC HE #E F3 CF$ Q3 Q4H-2F Q3&H43
CH J 3 5-C N3 H& F3 I 3$N3 $ED F$ & F3 @$EEH HE $NNH-E H& F3
QC3EN3 H4 G C $EN3 H& F3 3C D3EN3 H& $EO C-NF 5-C N3 H& F3
I3$N3 H4 H E2 H $EO H F34 43$CHE$Q 3 @$-C3 Q3 Q4H-2F Q3&H43 $
5-C N3 H& F3 I3$N3 F E C-NF * 3 3 8H-4C $C $&H43C$ D F3E F3
I34CHE CH $1143F3ED3D CF$ Q3 D CNF$423D $ F3 ; ED H& F$ * J 3
Q- J $O E3 34 F3 3CC Q3 14HN33D3D 2 EC &H4 Q C <&&3EN3 QO ?- JR
J HEC H4 9 44E $NNH4D E2 H F3 I4H C HEC F343 E$& 34 J 3E HE3D
$C & EH C-NF 1143F3EC HE F$D $+3E 1 $N3

9 F$ H Q3 D33 J 3D G$O J3
ED Q3 3E$N 3D *F$ &H4 F3 I -41HC3C H& F C N F3 G$O
J 3 CF$ Q3 D33 J 3D H NH J J 3EN3 $ F3 B32 EE E2 H& F3 $C 8H-4
Q3&H43 ?-E4 C3 $ED H NHEN -D3 $ F3 ; 1 4$ HE H& F3 & 4C 8H-4
$& 34 ?-EC3

I4H D3D $ $OC $ED Q3 3E$N 3D *F$ F3 $&H43C$ D I4H *F3I4H C HEC 2 EC *43C1$CC34C CF$ EH 3 3ED H $EO I34CHE F-E E2 H4 $b NH-4C E2 -1HE $EO >$EDC F 8H-EDC H4 M43OFH-EDC $ED Q3 E2 E $1W &43CF I -4C- H& $EO G334 8$43 H4 6H $ 43$DO C $4 3D -1HE $EO H I34CHEC H F34 >$ED HE F NF C-NF I34CHE $C 3E 3D H F-E H4 NH-4C3 F-E E2 KN

ED Q3 3E$N 3D *F$ F343 $EO I34CHE CF$ Q3 &H-ED M$J3 J$O Q3 43C1$CC E2 QO G$O -1HE $EO *$ED E C3$4NF H4 1-4C- H& M$J3 $ED $+3E &4H J CF$ F3E $ED F343 F$ 3 - F C IHCC3CC HE $EO M$J3 CF$ Q3 *43C1$CC34C EH D3 34 E2 $ &- &H4 $EO I34CHE F$ E2 F3 2F H& + E2 F3 M$J3 -1HE -1 F3 C$J3 C-NF >$ED H4 &H4 F3 <NN-1 34 H& C-NF >$ED H4 &H4 $EO M$J3+33134 F3E D3 H4 ?34 $E H& 3 F34 H& F3J H4 &H4 $EO H F34 I34CHE $- FH4 T3D QO J$ED3D 3 F34 H& F3J H4 &H4 $EO I34CHE $N E2 QO F3 <4D34 $ED E D H& $EO H& F3 C$ D C3 34$ I34CHEC H D3J$ED &4H J C-NF *43C1$CC34 C-NF M$J3 E F C IHCC3CC HE $ED E N$C3 C-NF *43C1$CC34 CF$ EH J J3R D $ 3 O D3 34 -1 C-NF M$J3 H C3 T3 $EN> $+3 F3 C$J3 &4H J F J &H4 F3 #C3 H& F3 I34CHE 3E 3D H F3 M$J3 -1HE C-NF >$ED

ED Q3 3E$N 3D *F$ & $EO I34CHE Q3 E2 E F3 @HJ I3E$ OHE J CC HE H& $ *43C1$CC CF$ CC- H4 HQC 4-N $EO I34CHE $N E2 E 2243CC-4C F3 ; 3N- HE H4 E 4 -3 H& F3 IH 34C $ED I4H C HEC H& F C N C-NF I34CHE HE Q3 E2 NHE N 3D F343H& Q3&H43 * H 5-C N3C H& I3$N3 N-4 E2 F C HE I4HH& HE <$ F QO <E3 H4 JH43 N43D Q 3 9 E3CC H4 9 E3CC3C H4 N @HE&3CC HE H& F3 <&&3EN3 H4 -1HE H F34 32$; D3EN3 CF$, ! $ED 1$O $EO ?- J EH 3 N33D E2 6 3 IH-EDC H 34 $ED $QH 3 $EO I3E$ O F NF F3 J$O F$ 3 EN-443D QO NHE 4$ 3E E2 F C N $ED E D3&$- H& I$OJ3E F343H& $ C-NF * J3 $C H F3 C$ D 5EC N3C J$O C33J & CF$ Q3 J14 CHE3D E F3 @HJ JHE M$H H4 8H-C3 1& @H443N HE ^ F H4 1 FHE F$4D >$QH-4_ &H4 $ I34 HD EH 3 N33D 2 *F433 PHE FC

ED Q3 3E$N 3D *F$ 3 34O I3E$ O $ED 6H4&3 -43 &H4 11 N$ HE $EO <&&3EN3 2 EC F C N CF$ Q3 1$ D H F3 PHD34$ H4 H4 H F34 H& I3E$ 3C <&& N34 H& F3 % 4+ ?3CC HE H& F3 I$4 CF F343 F3 <&&3EN3 $C NHJR J 3D &H4 F3 #C3 $ED B3E3& H& F3 IHH4 H& C-NF I$4 CF

> ED Q3 3E$N 3D *F$ F3 5-C N3 H4 5-C N3C H& F3 5-C N3C I3$N3 FO FHJ $EO I34CHE CF$ Q3 C-JJ$4 O NHE N 3D $ED $DR H& F3 (-D23D H 1$O $EO ?- J H& PHE3O &H4 $EO <&&3EN3 2 EC F C N)@(?+! H23 F34 F ; 13XN3C J$O $D(-D23 F$ C-NF I34CHE CF$ 1$O F3 I$OJ3E H& C$J3 3 F34 JJ3D $ 3 O H4 F E C-NF I34 HD $C F3 C$ D 5-C N3 H4 I3E$ 3C 5-C N3C CF$ F E+ & $ED F$ E D3&$- H& I$OJ3E $ F3 * J3 $11H E 3D C-NF I34CHE CF$ Q3 J14 CHE3D E F3 @HJ JHE M$H H4 J14 CHER 8H-C3 H& @H443N HE ^ F H4 FH- F$4D >$QH-4_ $C H F3 5-C N3 J3E &H4 H& 5-C N3C CF$ C33J J33 &H4 $EO *34J EH 3 N33D E2 * H @$ 3ED$4 , HE1$OR PHE FC F3 J14 CHEJ3E H N3$C3 -1HE I$OJ3E H& F3 JHE1 J3E $ED @HC C

W ED Q3 3E$N 3D *F$ F3 5-C N3 H4 5-C N3C H& F3 6H4 J H& @HER I3$N3 Q3&H43 FHJ $EO I34CHE CF$ Q3 C-JJ$4 O NHE N 3D H& $EO N HE <&&3EN3 2 EC F C N J$O N$-C3 F3 @HE N HE H Q3 D4$ E -1 $NNH4D E2 H F3 &H H E2 6H4J H& 9H4DC H4 E $EO H F34 6H4J H& 9H4DC H F3 C$J3 H4 F3 +3 ; &&3N ^ F$ C H C$O _

'B ;

;' '43 J 3 J Q343D' * F$ ' H ' F3' G$O' H&
H ' ' ' E' F3' =3$4' H&' H-4' >H4D $
E' F3' @H-E O' H&' H4' G C HE ' ! ' ' ! ! ' 1') !' I 1!' ' 4 ! U '
/ 6 ' C' NHE N 3D' Q3&H43' J 3' ? R ' <E3' IH4' -C' ? * ' $ED'
* H' 1') !' I 1!' ' !V3 ! ' H&' 8 C' P $(3C O C' 5-C N3C' H&' F3'
I 3$N3' &H4' F3' C$ D' @H-E O' b! ' ' ! ! a ' &H4' F$ ' Q3' F3' C$ D' / ' 6 '
D D' -E $ &- O' HE' $ ' 43C1$CC' H4' $C' &H-ED' 43CR
1$CC E2' E' C3$4NF' H4' 1-4C- ' H&' M$ J 3' b! ' ' ! ! ' 1') !' I !!' ' 4! '
$ED' ' IH4' 3(' DH' $D(-D23' F$ ' F3' C$ D' / N \ ' CF$ ' &H4' F3' C$ D'
< 63EN3' &H4&3 ' F3' ? - J' H&' IH4' 3' DH' $D(-D23' F$ ' F3
C$ D' / 6 ' CF$ ' &H4' F3' C$ D' <&&3EN3' &H4&3 ' F3' ? - J' H&' m
$ED' CF$ ' &H4 F F' 1$O' 3' C$ D' ? - J ' H23 F34' F' F3' ? - J' H&'
H&' ; 13EN3C' H&' I 4HN3CC' $ED' F$ ' E' D3&$- ' H&' J J 3R
D $ 3' I $0 J 3E ' H&' F3' C$ D' ? - J $' F3' F3' C$ D' / 6 ' CF$ ' Q3' J 14 CHE3D'
IH4' J 14 CHE3D' $ED' +31 ' H' F$4D' >$QH-4(' E' F3' H&
&H4' F3' ?1$N3' H&' -E 3CC' F3' C$ D' ? - J C
CF$ ' Q3' CHHE34' 1$ D' (IH4 ' $ED' ' IH4' 9 3(' <4D34' F$ ' F3' 0$ D' ? -4$C'
CF$ ' Q3' 1$ D' QO' F3' C$ D' / ' 6 ' <E' H4' Q3&H43' F3' G$O' 3&
$ED' E' D3&$- ' H&' I $0 J 3E ' HE' H4' Q3&H43' F$ ' G$O' '
IH4' 3d' $D(-D23' Q3' C$ D [' H' Q3' J 14 CHE3D' b , ' J 14 CHE3D' $ED'
+31 ' H' F$4D' >$QH-4d ' E' F3' H&' &H4' (3' ?1$N3
H&' -E 3CC' F3' C$ D' ? - J C' CF$ ' Q3' CHHE34' 1$ D d ' $ED'
IH4' 3d' D 43N ' F$ ' F3' C$ D' ? - J' H&' @ ' ! ' F3' I 3E$ O_
CF$ ' Q3' 1$ D' H' Q3 E2' F3' P E C 34' H& ' ! ' ' ! ! ' H' Q3' QO' FFE'
$11 3D' $NNH4D E2' H' F3' G 43N HEC' H&' F3' ? $ - 3' E' C-NF' @$C3'
J $D3' $ED' 14H D3D ' $ED' ' IH4' 3d' H4D34' F$ ' F3' C$ D' ? - J' H&'
H&' ; 13EN3C' CF$ ' Q3' 1$ D' H' ^ F3' @HE$
7' 1 $ E34_ ' M 3E' -ED34' 4$O' 8 $ED' IH4' H-4' 8 $EDCm' Q3' G$O' $ED' =3$4'
> & 4C ' $QH 3' J 3E HE3D

7' IH4' 5 I ' $ED' 5 > I m

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F3' I 3$N3' H' CC-3' F C' ? - J J HEC' 43X- 4 E2' $EO' I 34CHE' H' $113$4'
Q3&H43' F J C3 & ' H4' $EO' <E3' H4' * H' 5-C N3C' H&' F3' I 3$N3 ' $C' F3' @$C3'
J $O' 43X- 43 ' &H4' F3' I -41HC3' H&' 2 E2' ; D3EN3' H-NF E2' $EO' <&&3EN3'

I3E$ O' &H4

2 EC ' F C' N ' $ED' &' $EO' I 34CHE' CH' C- J J HE3D' CF$ ' E32 3N ' H4
43&-C3' H' $113$4' $ ' F3' * J 3' $ED' I $N3' $11H E 3D' QO' C-NF' ? - J J HEC '

KN'

$ED' EH' 43$CHE$Q 3' ; N-C3' &H4' F C' QC3EN3' CF$ ' Q3' 14H 3D' Q3&H43' F3
5-C N3' H4' 5-C N3C' F3E' $ED' F343' 143C3E ' H4' &' $EO' I 34CHE' $113$4 E2'
E' HQ3D 3EN3' H' C-NF' ? - J J HEC' CF$ ' 43&-C3' H' Q3' 3 $ J E3D' HE' <$ F '
H-NF E2' $EO' C-NF' <&&3EN3' QO' F3' 5-C N3' H4' 5-C N3C' F3E' $ED' F343'
143C3E ' 3 34O' I 34CHE' CH' H&&3ED E2' CF$ ' HE' @HE N HE' F343H&' Q3&H43'
F3' C$ D' 5-C N3' H4' 5-C N3C ' H4' $EO' H F34' 5-C N3' H4' 5-C N3C' H&' F3'
I 3$N3 ' &H4&3 ' $ED' 1$O' C-NF' ? - J' H&' P HE3O ' EH ' 3 N33D E2' 6 3' I F-EDC '
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A' #+' "!+A(D HG#)+ A' ?+!' ??(H(A

W ' ED' Q3' ' 3E$N 3D ' * F$ ' F3' I 4HC3N- HE' &H4' 3 34O' <&&3EN3'
1-E CF$Q 3' QO' 4 -3' H&' F C' N ' CF$ ' Q3' NH J J 3EN3D' F E' * F433'
@$ 3ED$4' P HE FC' $& 34' F3' @H J J CC HE' H&' F3' <&&3EN3' ($ED' F$ '
F343' $EO' I 34CHE' CF$ ' Q3' NF$423D ' HE' F3' <$ F' H&' $' N43D Q 3' 9 E3CC '
F' $EO' C-NF' <&&3EN3' Q3&H43' $' 5-C N3' H&' F3' I 3$N3 ' F3' 5-C N3' J $O'
C- J J HE' F3' I $4 O' NF$423D' H' $113$4' Q3&H43' F J C3 & ' H4' $EO' <E3' H4

* H 5-C N3C H& F3 I3$N3 $C F3 @$C3 J$O 43X- 43 $ $EO * J3 $ED
I $N3 H Q3 E$J3D E C-NF ?-J JHEC $ED & C-NF I$4 O CF$ EH
$113$4 $NNH4D E2 O F3E ^-1HE I4HH& H& F3 D-3 ?34 N3 H& F3 ?-JR
JHEC QO D3 34 E2 $ @H1O F343H& H F3 I$4 O H4 QO D3 34 E2 C-NF
@H1O $ F3 I$4 O C -C-$ I $N3 H& QHD3 H CH J3 E J$ 3 F343$ $ED
3 1 $ E E2 F3 I-41H4 F343H& H C-NF E J $ 3_ F3 5-C N3 H4 5-C N3C
J$O 3 F34 14HN33D H F3$4 $ED D3 34 J E3 F3 @$C3 E F3 QC3EN3
H& F3 I$4 O H4 J$O CC-3 F C H4 F3 4 9 44E &H4 $1143F3ED E2 $ED
Q4 E2 E2 C-NF I$4 O Q3&H43 F J H4 F3 J $C F3 @$C3 J$O Q3 H4 F3
5-C N3 Q3&H43 FH J F3 @F$423 CF$ Q3 J$D3 J$O & F3 CF$ F$ 3
'3$CHE H C-C13N &4H J E&H4 J$ HE -1HE <$ F F$ F3 I$4 O C
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E $EO I 4HN33D E2 2 EC $EO I34CHE -ED34 F C N H E32$ 3 QO > #
; D3EN3 $EO > N3EN3 @HEC3E - FH4 O H4 H F34 P$ 34 H& & 331
HE H4 G3&3EN3 Q- F$ F3 I$4 O C33+ E2 H $ $ F J C3 & H& $EO L
C-NF > N3EN3 @HEC3E - FH4 O H4 H F34 P$ 34 H& ; N31 HE H4
G3&3EN3 CF$ Q3 QH-ED H 14H 3 F3 C$J3

W ED Q3 3E$N 3D * F$ F3 5-C N3 H4 5-C N3C H& F3 I3$N3 (!
Q3&H43 FH J $EO I34CHE CF$ Q3 NHE N 3D H& $EO <&&3EN3 1-E CF$Q 3 H Q3 4HR
-ED34 F C N CF$ 4$EC J 3 34O C-NF @HE N HE H F3 (3 ?3CC HE
@H-4 H& M3E34$ H4 \ -$4 34 ?3CC HEC H& F3 I3$N3 &H4 F3 @H-E O H4 ' # . !
G C HE F343 E F3 <&&3EN3 CF$ F$ 3 Q33E NH J J 3D F343 HQ3 ; D3E
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W ED Q3 3E$N 3D * F$ $EO I34CHE FH CF$ F F+ F J C3 & 113$
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H F3 @H-4 CF$ C33 J J33 $ED E N$C3 H& F3 G C J CC$ H& F3
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N HE $ED H 1$O C-NF @HC C $C CF$ Q3 $ $4D3D $ED CF$ &
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W I4H D3D $ $OC $ED Q3 &3E$N 3D 7* F$ EH F E2 E F C N NHE $ E3D CF$ 143 3E $EO I 34CHE &4H 14HN33D P QO $O H& @ N HE H 43NH 34 G$ J $23C E 43C13N H& $EO *43C1$CC -1HE Q C >$ED F3 F34 NH J J 3D E 1-4C- H& M$ J 3 H4 H F34 C3 C$ 3 $ED 3 N31 F$ F343 $EO 14HN33D E2C CF$ F$ 3 Q33E EC - 3D -ED34 F3 I 4H C HEC H& F C N 2 EC $EO I 34CHE &H(& H4 E 43C13N H& $EO *43C1$CC EH N HE $ >$ CF$ Q3 J $ E $ E$Q 3 &H4 F3 C$ J 3 *43C1$CC QO $EO I 34CHE $ FHC3 EC $EN3 H4 F FHC3 @HEN-4R 43EN3 H4 CC3E C-NF I 4HN33 E2C CF$ F$ 3 Q33E EC - 3D Q- F$ C-NF I 4HN33D E2C CF$ E C-NF @$C3 Q3 $ B$4 H $EO C-NF N HE $ED J $O Q3 2 3E E ; D3EN3 H F C I -41HC3 $ED ; 3N

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W ED &H4 F3 I 4H 3N HE H& I 34CHEC $N E2 E F3 ; 3N- HE H& F C N Q3 F 3E$N 3D *F$ $ N HEC $ED I 4HC3N- HEC H Q3 NH J J 3EN3D 2 EC $EO I 34CHE &H4 $ F E2 DHE3 E 1-4C-$EN3 H& F C N CF$ Q3 NH J J 3EN3D F E ? @$ 3ED$4 P HE FC $& 34 F3 6$N NH J J 3D $ED EH H F34 C3 $ED , H N3 E 9 4 E2 H& C-NF N HE $ED H& @$-C3 F343H& CF$ Q3 2 3E H F3 G3&3ED34 <E3 @$ 3ED$4 P HE F $ 3$C Q3&H43 F3 @H E J 3EN3 J 3E H& F3 N HE ($ED EH I 4HC3N- H4 CF$ 43NH 34 E $EO C-NF N HE & *3ED34 H& C-&& R N 3E J 3EDC CF$ F$ 3 Q33E J $D3 Q3&H43 C-NF N HE Q4H-2F H4 & $ C-&& N 3E ?-4$ H& P HE3O CF$ F$ 3 Q33E 1$ D E H @H-4 $& 34 C-NF N HE Q4H-2F QO H4 HE Q3F$ & H& F3 G3&3ED34

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9 8 ; ' ; ?ʻ F3ʻ I 4H134 Oʻ Q3 HE2 E2ʻ Hʻ @ 3C ʻ * H EC ʻ @ EX-3ʻ I H4 C ʻ $EDʻ BH4H-2FCʻ @H41H4$ 3ʻ Eʻ F3ʻ # E 3Dʻ % E2DH J ʻ H&ʻ ! ʻ " #ʻ $EDʻ $! % #&ʻ J $Oʻ Q3ʻ $C 3Dʻ $EDʻ D CC 1$ 3Dʻ QOʻ F3ʻ 11 3$ HEʻ F343H&ʻ Eʻ H4ʻ H $4DCʻ F3ʻ ; 13EN3Cʻ $ 3ED$E ʻ -1HEʻ I $4 $ J 3E $4Oʻ ; 3N HEC ʻ Hʻ F3ʻ 243$ ʻ G3 4 J 3E ʻ H&ʻ C-NFʻ P -E R N 1$ ʻ @H41H4$ HECʻ ʻ $EDʻ ʻ Cʻ 3 13D 3E ʻ Hʻ J $+3ʻ I 4H C HEʻ Hʻ 143 3E ʻ C-NFʻ G3 4 J 3E ʻ $EDʻ $ CHʻ Hʻ 3EC-43ʻ F3ʻ 6433DH J ʻ H&ʻ ; 3N HEʻ QOʻ 43C 4$ E E2ʻ F3ʻ 11 N$ HEʻ H&ʻ @H41H4$ 3ʻ I 4H134 Oʻ $Cʻ Q3&H43ʻ J 3ER HE3Dʻ . B3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ J HC ʻ ; N3 3E ʻ P $(3C O ʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3E ʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ ʻ $EDʻ * 3 J 1H4$ ʻ $EDʻ @H J J HEC ʻ Eʻ F Cʻ 143C3E ʻ I $4 $ J 3E ʻ $CC3 J Q 3D ʻ $EDʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$ J 3 ʻ * F$ ʻ &4H J ʻ $EDʻ $& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ ʻ CF$ ʻ EH ʻ Q3ʻ $ &- ʻ &H4ʻ $EOʻ P -E N 1$ ʻ @H41H4$ HEʻ $Cʻ $&H43C$ D ʻ H4ʻ $EOʻ @H-4 ʻ M- D ʻ @H-EN ʻ H4ʻ CC3 J Q Oʻ NHEC - E2ʻ H4ʻ NH J 1HC3Dʻ H&ʻ F3ʻ 4- E2ʻ H4ʻ 2H 34E E2ʻ I $4 ʻ H4ʻ @ $CCʻ F343H& ʻ H4ʻ $EOʻ @H41H4$ 3ʻ <&& N34 ʻ * 4-C 33 ʻ H4ʻ H F34ʻ I 34CHEʻ $N E2ʻ HEʻ Q3F$ &ʻ H&ʻ C-NFʻ @H41H4$ HEʻ H4ʻ $EOʻ 1$4 ʻ F343H& ʻ Hʻ 1$O ʻ 4$EC&34 ʻ 2 3 ʻ Q3C H ʻ H4ʻ $11 Oʻ $EOʻ ?- J ʻ H4ʻ ?- J Cʻ H&ʻ P HE3O ʻ H4ʻ $EOʻ I $4 $ J 3E $4Oʻ H4ʻ H F34ʻ ? HN+C ʻ 6-EDC ʻ H4ʻ ?3N-4 3Cʻ &H4ʻ P HE3O ʻ H4ʻ $EOʻ I 34CHE$ ʻ @F$ 3 ʻ Q3 HE2 E2ʻ ʻ Hʻ H4ʻ 3C 3Dʻ Eʻ F3ʻ C$ J 3ʻ @H41H4$ HEʻ H4ʻ $EOʻ I $4 ʻ F343H& ʻ H4ʻ Eʻ $EOʻ ED D-$ ʻ Eʻ * 4-C ʻ &H4ʻ H4ʻ &H4ʻ F3ʻ B3E3& ʻ H&ʻ C-NFʻ @H41H4$R HE ʻ Eʻ C$ C&$N HE ʻ NH J 13EC$ HE ʻ H4ʻ D CNF$423ʻ H&ʻ $EOʻ ; 13EN3Cʻ Zʻ P ʻ ʻ EN D3E

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EN D3E ' H H4 EN-443D <& HNN$C HE3D QO F3 ; 3N HE H&'$ P3JQ34 H C34 3 E F3 @HJ4$HE7? 8H-C3 H& I$4 $J3E (H4 QO $EO I34CHE H&&34 E2 F JC3 & $C $ @$ED D$ 3 $ ' H4 143 H-C H $ I$4 $J3E $4O ; 3N HE ' $ED F$ ' $ ' BHEDC ' @H 3E$E C ' '3NH2E T$EN3C ' H4 5-D2R J3E C 2 3E ' 3 3N- 3D ' H4 C-&&343D QO $EO C-NF @H41H4$ HE ' H4 $EO I$4 ' H4 @ $CC F343H& ' H4 QO $ O @H41H4$ 3 <&& N34 ' *4-C 33 ' H4 H F34 I34CHE E F3 ,$J3 H4 HE F3 B3F$ & H& C-NF @H41H4$ HE ' &H4 F3 I-41HC3 H& C3N-4 E2 F3 I$0J3E ' H& C-NF ; 13EN3C ' C $ & Q3 - 34 O H D

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' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' $EO' P3JQ34' H&' $' P-EN1$' $43JQ34C' @H41H4$ HE' FH' CF$ ' $- FH4 T3' D 43N ' H4' NHJ J$ED' $EO' I$OJ3E ' " ' *4$EC&34' H4' 11 N$ HE' F343QO' &H4Q DD3E' H4' FH' CF$ ' $CC3E' H' H4 NHEN-4' H4' 1$4 N 1$ 3' E' $EO' && 4J$ 3' H 3' <4D34' H4' I4HN33D E2' N*2D O' H&' 43 $ E2' F343 H' H4' CF$ ' C 2E' H4' C3$' E' F C' ED D-$' @1N O' H4' " " # 5 'O' $&& ' F3' @H41H4$ 3' ?3$' H' $EO' G33D' H4' EC 4- J3E ' F343QO' D3N $43D' EH4' H D' CF$ ' Q3' 2- O' H&' $' P CD3J3$EH4' $ED' Q3 E2' F343H&' 32$ O' NHE N 3D' E' 8 C' P$(3C O C' @H-4' H&' % E2 C' B3ENF' $' !1 #1 ! ' CF$ ' E' $DD HE' H' C-NF' I-E CFJ3E' $C' F3' @H-4 ' J$O' $ $4D' Q3' &H4' 3 34' D C$Q 3D' H' $+3' FH D' H4' 3 34N C3' $EO' <&& N3' E' F3' C$J3' @H41H4$ HE

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9 8 ; ' ; ?ʻ $Eʻ N ʻ $Cʻ J $D3ʻ Eʻ F3ʻ 6H4 O C3 3E Fʻ = 3$4ʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 $ʻ P $(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ * F 4D ʻ E - 3Dʻ / #ʻ / ' ʻ ,ʻ 5 !0!# ʻ 5 ,5! ʻ * ! 1 ,#1ʻ , ʻ) 0 #(ʻ / 1ʻ #ʻ M ? ?3CC U ʻ 43 $ED ʻ Hʻ NHE E - 3ʻ Eʻ &H4N3ʻ &H4ʻ $ʻ N34 $ Eʻ I 34 HDʻ F343 Eʻ J 3E H - 3Dʻ . EDʻ F343$Cʻ F3ʻ C$ Dʻ N ʻ $Cʻ QOʻ $EH F34ʻ N ʻ J $D3ʻ Eʻ F3ʻ 6 & 3 Fʻ = 3$4ʻ H&ʻ 8 Cʻ C$ Dʻ P $(3C O Cʻ ' 3 2Eʻ NHE E - 3Dʻ $#Dʻ $ J 3ED3D. EDʻ F343$Cʻ QOʻ $EH F34ʻ N ʻ J $D3ʻ Eʻ F3ʻ 6H - 4 Fʻ = 3$4ʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ 6H - 4 Fʻ F3ʻ C$ Dʻ 43N 3Dʻ N Cʻ H&ʻ F3ʻ 6H4 O C3 3E Fʻ $EDʻ 6 & 3 Fʻ = 3$4Cʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ P $(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ * F 4Dʻ 343ʻ & - 4 F34ʻ NHE E - 3D ʻ $EDʻ F3ʻ C$ Dʻ N Cʻ 343ʻ QOʻ $EH F34ʻ N ʻ J $D3ʻ Eʻ F3ʻ * 3E Fʻ = 3$4ʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ C$ Dʻ $ 3ʻ P $(3C Oʻ % E2ʻ M3H423ʻ F3ʻ 6H - 4 Fʻ $ J 3ED3Dʻ $EDʻ & - 4 F34ʻ NHE E - 3Dʻ &H4ʻ < E3ʻ = 3$4 ʻ $EDʻ - E ʻ F3ʻ ; EDʻ H&ʻ F3ʻ F3Eʻ E3 ʻ ?3CC HEʻ H&ʻ I $4 $ J 3E ʻ F3Eʻ F3ʻ C$ J 3ʻ 3 1 43D. EDʻ F343$Cʻ $EH F34ʻ N ʻ $Cʻ J $D3ʻ Eʻ F3ʻ 6 4C ʻ $EDʻ ?3NHEDʻ = 3$4Cʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ 143C3E ʻ P $(3C O ʻ F343QOʻ &4H J ʻ F3ʻ 1$CC E2ʻ F343H&ʻ F3ʻ C$ Dʻ 43N 3Dʻ N Cʻ 343ʻ 43 3Dʻ $EDʻ NHE E - 3Dʻ &H4ʻ < E3ʻ = 3$4 ʻ $EDʻ ʻ Cʻ 3 13D 3E ʻ F$ ʻ F3ʻ C$ Dʻ N Cʻ CFH - Dʻ Q3ʻ & - 4 F34ʻ NHE E - 3D ʻ Q3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ J HC ʻ ; N3 3E ʻ P $(3C O ʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ < H" `

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C3E' H&' F3' >H4DC' ?1 -$' $ED' *3J1H4$ ' $ED' @HJ JHEC' E' F C'
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F3' C$D' 43N 3D' N' H&' F3' 6H4 O C3 3E F' =3$4' H&' F3' ' 3 2E' H&' 8 C'
P$(3C O' % E2' !, (!' F3' *F 4D' $C' F3' C$D' N' C' $J3ED3D' QO'
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P$(3C O' % E2' !, (!' F3' 6H-4 F' $ED' $C' F3' C$D' N C' $43' 43 3D' QO'
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8 C' 143C3E' P$(3C O(' CF$ ' Q3' $ED' F3' C$D' N C' $43' F343QO' NHE E-3D'
$ED' CF$ ' Q3' $ED' 43J$E' E' &H4N3' &4HJ' F3' 1$CC E2' H&' F C' N' &H4' < E3'
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H&' 8 C' 143C3E' P$(3C O' E - 3D' / #' / ' ' ,' !(3% !' , ' 6#!' H! '
)!' $ 5, ,#' V ' / 1' 3#5, F&! ' #&' / 3# ,#' # ,' 43 $ED'
#&')!' #(' ! ,0 #(' 1!%% #(' #&' !!5 #(' V ' / 1' 3#5, F&! '
#&' / 3# ,#' #' 43 $ED' $ED' F3' C$D' N' C' E' &H4N3' -E ' F3' ; ED'
H&' F C' 143C3E' ?3CC HE' H&' I$4 $J3E ' $ED' ' C' 3 13D 3E' F$' F3'
C$D' N' CFH- D' Q3' NHE E-3D' Q3' ' F343&H43' &-4 F34' 3E$N 3D' *F$'
F3' C$D' 43N 3D' N' CF$ ' Q3' $ED' F3' C$D' N' C' F343QO' NHE E-3D'
$ED' CF$ ' 43J$E' E' &H4N3' &4HJ' F3' ; ED' H&' F3' 143C3E' ?3CC HE' H&'
I$4 $J3E' &H4' F3' *34J' H&' < E3' =3$4' $ED' F3EN3&H4 F' -E ' F3' ; ED'
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8 ; ' ; ?ʻ F3ʻ ; 143CC HEʻ 7 * J 3ʻ J J 3 J H4 $ ʻ H4ʻ * J 3ʻ F343H&ʻ F3ʻ P 3 J H40ʻ H&ʻ P $Eʻ 4 - EE3 Fʻ EH ʻ Hʻ F3ʻ NHE 4$40 ʻ Cʻ EH ʻ QOʻ F3ʻ >$ ʻ H&ʻ 8 # ( ) # &ʻ ʻ J Uʻ @$C3Cʻ NH 4C D343Dʻ Hʻ EN - D3ʻ $EDʻ D3EH 3ʻ F3ʻ FH 3ʻ I 34 HDʻ H&ʻ * J 3ʻ &4H J ʻ F3ʻ ' 3 2Eʻ H&ʻ % E2ʻ L ') &ʻ F3ʻ 6 4C ʻ 9 F343QOʻ F3ʻ * 3ʻ Hʻ P $ 34Cʻ F$ ʻ F$ 3ʻ Q33Eʻ EE2ʻ 3E(HO3Dʻ Cʻ CH J 3 J 3Cʻ D3&3$ 3Dʻ QOʻ CFH F2ʻ F3ʻ @H J J 3EN3 ʻ <3E ʻ H&ʻ C - NFʻ ; E(HO J 3E ʻ F NFʻ Cʻ Eʻ J $EOʻ @$C3Cʻ 14HD - N 3ʻ H&ʻ E ʻ NHE 3E 3EN3ʻ $EDʻ E(- C N3 ʻ &H4ʻ ' 3 J 3DOʻ F343H&ʻ Q3ʻ ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ J HC ʻ ; N3 3E ʻ P $(3C O ʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3E ʻ H&ʻ F3ʻ >H4DCʻ ?1 4 - $ ʻ $EDʻ * 3 J 1H4$ ʻ $EDʻ @H J J HEC ʻ Eʻ F Cʻ 143C3E ʻ I $4 $ J 3E ʻ $CC3F$Q 3D ʻ $EDʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$ J 3 ʻ * F$ ʻ EHʻ @ $ J ʻ F NFʻ J $Oʻ Q3ʻ $ &- Oʻ J $D3ʻ $ ʻ F3ʻ @H J J HEʻ >$ ʻ QOʻ @ - C H J ʻ I 43CD4 1 HE ʻ H4ʻ M4$E ʻ Hʻ $EOʻ ' 2F ʻ H&ʻ @H J J HEʻ H4ʻ H F34ʻ I 4H& ʻ H4ʻ B3E3& ʻ Xʻ Q3ʻ $+3Eʻ $ (Dʻ 3E(HO3Dʻ &4H J ʻ H4ʻ - 1HEʻ $EOʻ >$EDʻ H&ʻ H 4ʻ ?H 343 2Eʻ >H4Dʻ F3ʻ % E2 ʻ 8 Cʻ 8 3 4Cʻ H4ʻ ? - NN3CCH4C ʻ H4ʻ $EOʻ >$EDʻ Q3 E2ʻ I $4N3 ʻ H& F3ʻ G - NFOʻ H&ʻ < # ' 1 ! ʻ H4ʻ H&ʻ F3ʻ G - NFOʻ H&ʻ I , #F %% ʻ H4ʻ H&ʻ $EOʻ ; NN 3C $C 3$ ʻ H4ʻ >$Oʻ I 34CHE ʻ H4ʻ BHDOʻ @H41H4$ 3 ʻ 3 N31 ʻ C - NFʻ P $ 34Cʻ $EDʻ * F E2Cʻ $Cʻ $43ʻ F343 Eʻ C13N $ Oʻ 14H D3Dʻ &H4 ʻ $EDʻ 3 N31 ʻ * F3C ʻ ' 3E ʻ $EDʻ ?34 N3C ʻ CF$ ʻ F343ʻ C - NFʻ ' 2F ʻ I 4H& ʻ H4ʻ B3E3& ʻ CF$ ʻ F$ 3ʻ Q33Eʻ $N - $ Oʻ $+3Eʻ $EDʻ 3E(HO3Dʻ QOʻ $EOʻ I 34CHEʻ N $ J E2ʻ ' 2F ʻ F343 Hʻ FH - ʻ E 344 - 1 HEʻ &H4ʻ F3ʻ & - ʻ I 34 HDʻ H&ʻ * F 4 Oʻ =3$4C ʻ Q3ʻ D3&3$ 3Dʻ H4ʻ D3C 4HO3Dʻ QOʻ CF3 E2ʻ HE Oʻ F$ ʻ C - NFʻ ' 2F ʻ I 4H& ʻ H4ʻ B3E3& ʻ $Cʻ &C ʻ $+3Eʻ H4ʻ 3E(HO3Dʻ $ ʻ $EOʻ * J 3ʻ 14 H4ʻ Hʻ C - NFʻ I 34 HDʻ H&

@ $ \ Cʻ Hʻ ' 2F ʻ H&ʻ @HE E <Eʻ $EDʻ H F34ʻ I 4H& Cʻ ʻ +ʻ 143ED43 ʻ EH ʻ Hʻ Q3ʻ D3&3$ 3Dʻ $& 34ʻ * F 4 Oʻ =3$4Cʻ ' E(HOE 3E ʻ QOʻ CF3 E2ʻ F3ʻ @HE$C ʻ J 3EN3 J 3E

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$& 34 ? 0 =3$4C ; E(HOR J3E F3 ' 2F H Q3 $QCH - 3 -E 3CC F$D QO @HEC3E H4 2433 J 3E

H& * F 4 O =3$4C Q- 13 34 F3 3CC C-NF @ $ J J $O Q3 D3&3$ 3D E $EO H F34 9 $O QO NF F3 C$ J 3 C EH $Q 3 H Q3 D3&3$ 3D $ED F3E C-NF ' 2F I 4H& H4 B3E3& CF$ F$ 3 Q33E CH $+3E $ED 3E(HO3D $C $&H43C$ D &H4 F3 &- I 34 HD H& ? O =3$4C F3 ' 2F F343 H CF$ Q3 D33 J 3D $QCH - 3 $ED ED3&3$C Q 3 -E 3CC CF$ $113$4 F$ F3 C$ J 3 $C $+3E $ED 3E(HO3D QO CH J 3 @HEC3E H4 2433 J 3E 3 143CC O J $D3 H4 2 3E &H4 F$ I -41HC3 QO G33D H4 9 4 E2

E @$ JC H& ' 2F H& 9 $O H4 H F34 ; $C3 J 3E F3 I 34 HDC H Q3 * 3E O =3$4C $ED I H4 O =3$4C

ED Q3 &-4 F34 3E$N 3D * F$ EH @ $ J 9 F NF J $O Q3 $ &- O J $D3 $ F3 @H J J HE >$ QO @-C H J I 43CN4 A HE H4 M4$E H $EO 9 $O H4 H F34 ; $C3 J 3E <4 H $EO 9 $ 34NH-4C3 H4 F3 # C3 H& $EO 9 $ 34 H Q3 3E(HO3D H4 D34 3D -1HE H 34 H4 &4H J $EO >$ED H4 9 $ 34 H& H-4 C$ D >H4D F3 % E2 8 C 8 3 4C H4 ?-NN3CCH4C H4 Q3 E2 I $4N3 H& F3 G-NFO H& < #' 1 ! H4 H& F3 G-NFO H& I , F O H4 Q3 E2 F3 I 4H134 O H& $EO ; NN 3C $C N$ H4 >$O I 34CHE H4 BHDO @H41H4$ 3 F3E C-NF 9 $O H4 H F34 P $ 34 $C F343 E $C Q3&H43 J 3E HE3D CFCD F$ 3 Q33E $N -$ O 3E(HO3D QO $EO I 34CHE N $ J E2 ' 2F F343 H FH- E 344-1 HE &H4 F3 - I 34 HD H& * 3E O =3$4C& CF$ Q3 D3&3$ 3D H4 D3C 4HO3D QO CF3 E2 HE O F$ C-NF 9 $O H4 H F34 P $ 34 $C & 4C 3E(HO3D $ $EO * J 3 14 H4 H C-NF I 34 HD H& * 3E O =3$4C Q- E3 34 F3 3CC C-NF @ $ J J $O Q3 D3&3$ 3D E $EO H F34 9 $O QO F NF F3 C$ J 3 C EH $Q 3 H Q3 D3&3$ 3D $ED F343 C-NF 9 $O H& H F34 P $ 34 $C F343 E $C Q3&H43 J 3E HE3D CF$ F$ 3 Q33E CH 3E(HO3D $C $&H43C$ D &H4 F3 &- I 34 HD H& 6H4 O =3$4C F3 ' 2F F343 H CF$ Q3 D33 J 3D $QCH - 3 $ED ED3&3$C Q 3 -E 3CC CF$ $113$4 F$ F3 C$ J 3 $C 3E(HO3D QO CH J 3 @HEC3E H4 2433 J 3E 3 143CC O 2 3E H4 J $D3 &H4 F$ I -41HC3 QO G33D H4 9 4 E2

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ED Q3 &-4 F34 3E$N 3D * F$ F3E F3 NN3CC $ED # C3 H& > 2F H $ED &H4 $EO G 3 E2 8 H-C3 9 H4+CFH1 H4 H 34 B- D E2 CF$ F$ 3 Q33E $N -$ O 3E(HO3D F343 F &H4 F3 &- I 34 HD H& * 3E O =3$4C FH- E 344-1 HE F3 ' 2F F343 H CF$ Q3 D33 J 3D $QCH - 3 $ED ED3&3$C Q 3 $EO HN$ # C$23 H4 @-C H J H F3 NHE 4$4O EH FC $ED E2 -E 3CC CF$ $113$4 F$ F3 C$ J 3 $C 3E(HO3D QO CH J 3 @HEC3E H4 2433 J 3E 3 143CC O J $D3 H4 2 3E &H4 F$ I -41HC3 QO G33D H4 9 4 E2

B3&H43 J 3ER HE3D I 34 HDC H Q3 D33 J 3D FHC3 E3 Q3&H43 ?- C &H4 @$ JC H F NF C-NF I 34 HDC 43 $ 3

ED Q3 &-4 F34 3E$N 3D * F$ 3$NF H& F3 43C13N 3 I 34 HDC H& =3$4C F343 E Q3&H43 J 3E HE3D CF$ Q3 D33 J 3D $ED $+3E H Q3 F3 I 34 HD E3 Q3&H43 CH J 3 ?- H4 N HE F343 E F3 @ $ J H4 P $ 34 H F NF C-NF I 34 HD J $O 43 $ 3 CF$ F$ 3 Q33E H4 CF$ Q3 Q4H-2F E H X-3C HE $ED F$ EH N H4 H F34 P $ 34 CF$ Q3 D33 J 3D H Q3 $E E 344-1 HE F E F3 P 3$E E2 H& F C ? $ - 3 -E 3CC F3 C$ J 3 CF$ F$ 3 Q33E H4 CF$ Q3 C-Q J 3D H H4 $NX- R 3CN3D E &H4 <E3 =3$4 $& 34 &F3 I $4 O 344-1 3D CF$ F$ 3 F$D H4 CF$ F$ 3 , H N3 F343H& $ED H& F3 I 34CHE J $+ E2 H4 $- FH4 T E2 F3 C$ J 3 H Q3 J $D3

E N HECHE F3 @$C3 F3 J$ $- %3 F C ' 2F 23E34$ O $C $ 143C3E

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$ ʻ $EDʻ3 340ʻ F3ʻ P$ 34$ Eʻ F Cʻ N ʻ J 3E HE3Dʻ $EDʻ 14H D3D ʻ FNFʻ CF$ ʻ Q3ʻ ʻ$11 N$Q 3ʻ Hʻ F3 ʻ @$C3 ʻ CF$ ʻ Q3 .$D J CC Q 3ʻ Eʻ ; D3EN3ʻ Hʻ C-C $ Eʻ H4ʻ 43Q- ʻ C-NFʻ 32$ HE ʻ $EDʻ F$ ʻ Eʻ $ ʻ I 3$DR E2Cʻ Hʻ N HECʻ H&ʻ *43C1$CC ʻ $EDʻ Eʻ $ ʻ H F34ʻ I 3$D E2Cʻ F343 Eʻ Q3&H43ʻ F3ʻ H$CC E2ʻ H&ʻ F Cʻ N ʻ ʻ H- Dʻ F$ 3ʻ Q33Eʻ E3N3CC$40ʻ Hʻ $ 323ʻ F3ʻ ; 2F ʻ Hʻ F$ 3ʻ 3 C 3Dʻ ʻ&4H Jʻ * J 3ʻ J J 3 J H4 $ ʻ ʻ CF$ ʻ Q3ʻ C-&& N 3E ʻ Hʻ $ 323ʻ F3ʻ ; E(HO J 3E ʻ F343H&ʻ $Cʻ H&ʻ ; 2F ʻ QOʻ F3ʻ <NN-1 34Cʻ H&ʻ F3ʻ *3E3 J 3E ʻ Eʻ 43C13N ʻ OF343H&ʻ F3ʻ C$J 3ʻ Cʻ N $ J 3D ʻ &H4ʻ $EDʻ D-4 E2ʻ ?-NFʻ H&ʻ F3ʻ I 34 HDCʻ J 3E HE3Dʻ Eʻ F Cʻ N ʻ $Cʻ J $Oʻ Q3ʻ $11 N$Q 3ʻ Hʻ F3ʻ @$C3 ʻ $EDʻ FH- ʻ N $ J E2ʻ Eʻ F3ʻ , $ J 3ʻ H4ʻ ; F ʻ H&ʻ F3ʻ < E34ʻ H&ʻ F3ʻ 633 ʻ $Cʻ Cʻ EH ʻ -C-$ Oʻ DHE3ʻ ($EDʻ &ʻ F3ʻ H F34ʻ I $4 Oʻ CF$ ʻ E 3EDʻ Hʻ 43 Oʻ HEʻ $EOʻ I 4H CH ʻ ; N31 HE ʻ EN1N O ʻ G C$Q O ʻ @HE 4$N ʻ 2433 J 3E ʻ H4ʻ H F34ʻ P$ 34ʻ F343 ER Q3&H43ʻ J 3E HE3D ʻ H4ʻ HEʻ $EOʻ @$-C3ʻ H4ʻ 8 $ 34ʻ H&ʻ 6$N ʻ H4ʻ H&ʻ >$ ʻ EH ʻ ENHEC C 3E ʻ Fʻ F3ʻ C J 1 3ʻ 6$N ʻ H&ʻ ; E(1O J 3F ʻ F3ʻ C$J 3ʻ CF$ ʻ Q3ʻ C13N $ Oʻ $ 323Dʻ $EDʻ C3 ʻ &H4 Fʻ Eʻ $EC 34ʻ Hʻ F3ʻ 32$ HEʻ H&ʻ F3ʻ I $4 OʻN $ J E2 ʻ $EDʻ CF$ ʻ EH ʻ Q3ʻ 43N3 3Dʻ Eʻ ; D3EN3ʻ HEʻ $EOʻ 23E34$ ʻ *4$ 34C3ʻ H4ʻ G3E $ ʻ H&ʻ C-NFʻ 32$ HE

2W6 3$Cʻ H *43C1$CCʻ $EDʻ < 34 1 3$DR E2C ʻ F343ʻ I $4 O C3Dʻ H $ 323ʻ F Cʻ @$ Jʻ &4H Jʻ * J 3ʻ J J 3R J H4 $ ʻ F3ʻ I 34 HDʻ J 3ER HE3Dʻ Eʻ F Cʻ N ʻ J $Oʻ Q3ʻ $ 323D ʻ $EDʻ ; C&N31 ʻ HECʻ H4ʻ H F34ʻ P$ 34Cʻ Hʻ Q3ʻ 431 3Dʻ C13R N $ O

ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3D ʻ *F$ ʻ Eʻ F3ʻ C3 34$ ʻ @$C3Cʻ J 3E HE3Dʻ Eʻ $EDʻ 14H D3Dʻ &H4ʻ QOʻ F Cʻ N ʻ EHʻ I 43C- J 1 HEʻ CF$ ʻ Q3ʻ $ H 3Dʻ H4ʻ J $D3ʻ Eʻ &$ H-4ʻ H4ʻ C-11H4 ʻ H&ʻ $EOʻ @ $ J ʻ -1HEʻ I 4HH&ʻ H&ʻ F3ʻ ; 34N C3ʻ H4ʻ ; E(HO J 3E ʻ H&ʻ F3ʻ ; 2F ʻ H4ʻ P$ 34ʻ N $ J 3Dʻ &H4ʻ EOʻ 3CCʻ I 34 HDʻ H&ʻ * J 3ʻ H4ʻ , - J Q34ʻ H&ʻ =3$4Cʻ F$Eʻ &H4ʻ C-NFʻ I 34 HDʻ H4ʻ , - J Q34ʻ J 3E HE3Dʻ Eʻ F Cʻ N ʻ $Cʻ J $Oʻ Q3ʻ $11 N$Q 3ʻ Hʻ F3ʻ @$C3ʻ $EDʻ Hʻ F3ʻ , $ -43ʻ H&ʻ F3ʻ @ $ J

3C 4 N E2ʻ F3ʻ I 43C- J 1R HEʻ Hʻ Q3ʻ $ H 3Dʻ Eʻ C-11H4 ʻ H&ʻ @ $ JʻC F343 E 14H D3Dʻ &H4

= ʻ I 4H D3Dʻ $ CH ʻ *F$ ʻ F3ʻ * J 3ʻ D-4 E2ʻ F NFʻ $EOʻ I 34CHEʻ H F34 ʻ C3ʻ N1Q 3ʻ H&ʻ 43C C E2ʻ $EOʻ @ $ Jʻ Hʻ $EOʻ H&ʻ F3ʻ P$ 34Cʻ Q3&H43ʻ J 3E HE3Dʻ CF$ ʻ F$ 3ʻ Q33E ʻ H4ʻ CF$ ʻ Q3ʻ $Eʻ E&$E ʻ D H ʻ , HEʻ NH J 1<Cʻ J 3E C ʻ 63 J 3ʻ @H 34 ʻ H4ʻ *3E$E ʻ &H4ʻ > &3 ʻ H4ʻ D-4 E2ʻ F NFʻ $EOʻ N HEʻ H4ʻ ?- ʻ CF$ ʻ F$ 3ʻ Q33E ʻ 13ED E2 ʻ $EDʻ F NFʻ CF$ ʻ F$ 3ʻ Q33Eʻ D 23E Oʻ 14HC3N- 3D ʻ -E ʻ Q 3Dʻ QOʻ F3ʻ G3$ Fʻ H&ʻ $EOʻ I $4 Oʻ H4ʻ I $4 3Cʻ F343 H ʻ CF$ ʻ Q3ʻ 3 N -D3Dʻ Eʻ F3ʻ @H J 1- $ HEʻ H&ʻ F3ʻ I 34 HDCʻ F343 E Q3&H43ʻ J 3E HE3D ʻ 3 N31 ʻ HE Oʻ Eʻ @$?3Cʻ F343ʻ F3ʻ ; 2F ʻ H4ʻ @ $ Jʻ Cʻ F343QOʻ D3N $43Dʻ Hʻ Q3ʻ $QCH - 3ʻ $EDʻ ED3&3$C Q 3

I 4H CH &H4 E&$E C ʻ KNʻ

ʻ I 4H D3Dʻ $ $OC ʻ $EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3D ʻ *F$ ʻ F3Eʻ $EOʻ >$EDʻ H4ʻ 9 $ 34ʻ -1HE ʻ H 34 ʻ H4ʻ &4H Jʻ F NFʻ $EOʻ C-NFʻ 9 $Oʻ H4ʻ H F34ʻ NHE 3E 3E ʻ 9 $ 34NH-4C3ʻ H4ʻ #C3ʻ H&ʻ 9 $ 34ʻ CF$ ʻ F$ 3ʻ Q33Eʻ H4ʻ CF$ ʻ Q3ʻ 3E(HO3Dʻ H4ʻ D34 3Dʻ F$ Fʻ Q33Eʻ H4ʻ CF$ ʻ Q3ʻ F3 Dʻ -ED34ʻ H4ʻ QOʻ 4 -3ʻ H&ʻ $EOʻ *34 Jʻ H&ʻ > &3 ʻ H4ʻ $EOʻ *34 Jʻ H&ʻ =3$4Cʻ 3 N33D E2ʻ *F433ʻ =3$4Cʻ &4H Jʻ F3ʻ 24$E E2ʻ F343H& ʻ F3ʻ * J 3ʻ H&ʻ F3ʻ ; E(HO J 3E ʻ H&ʻ $EOʻ C-NFʻ 9 $Oʻ H4ʻ H F34ʻ P$ 34ʻ $Cʻ F343 Eʻ $C ʻ Q3&H43ʻ J 3E HE3D ʻ D-4 E2ʻ F3ʻ @HE E-$EN3ʻ H&ʻ C-NFʻ *34 J ʻ CF$ ʻ F3ʻ 3 N -D3D ʻ Eʻ F3ʻ @H J 1- $ HEʻ H&ʻ F3ʻ C$ Dʻ I 34 HDʻ H&ʻ 6H4 Oʻ =3$4C ʻ Eʻ N$C3ʻ F3ʻ @ $ Jʻ CF$ ʻ F Eʻ *F433ʻ =3$4Cʻ E3 ʻ $& 34ʻ F3ʻ ; EDʻ D4ʻ CHHE34ʻ G3 34 J E$ HEʻ H&ʻ C-NFʻ *34 Jʻ Q3ʻ 43C C 3Dʻ QOʻ $EOʻ I 34CHEʻ 3E 3Dʻ Hʻ $EOʻ ; 3 34? HEʻ 3 13N $E ʻ HEʻ F3ʻ G3 34 J E$ HEʻ F343H&

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H4ʿ J H 3$Q 3ʿ H4ʿ $EOʿ I $4ʿ F343H&ʿ CF$ʿ Q3ʿ &3 HE H-C Oʿ N- ʿ Q4H+3Eʿ Q3FD2$ ECʿ
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$EOʿ G$ J $23ʿ F NFʿ J $Oʿ $ʿ F3ʿ C$ J 3ʿ * J 3ʿ Qaʿ DHE3ʿ QOʿ $EOʿ C-NFʿ
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9 8 ; ' ; ?ʿ $Eʿ N ʿ $Cʿ 1$CC3Dʿ Eʿ F3ʿ ?3 3E Fʿ *3$4ʿ H&ʿ F3ʿ ' 3 2Eʿ H&ʿ 8 Cʿ P$(3C Oʿ % E2ʿ !, (!ʿ F3ʿ 6H-4 Fʿ E - 3Dʿ /#ʿ / ' ʿ ,ʿ !ʿ * ,0 1 ,#ʿ , ʿ)!ʿ 3# , ʿ C %3 ,#ʿ , ʿ ʿ ʿ < #&1ʿ #&ʿ 7!#! !# 1ʿ #ʿ)!ʿ 1!0! % " ,# !1ʿ * 1)!1ʿ #&ʿ ,)! ʿ > 2 0 1 ,#1ʿ , ʿ I ,3# !1ʿ #ʿ 43 $EDʿ , ʿ)!ʿ *3 5,1!ʿ , ʿ)!ʿ , !ʿ !V3 %% ʿ %!0 #(ʿ , ʿ)!ʿ " !1ʿ #&ʿ I) (!1ʿ 35,#ʿ 13')ʿ " , !1ʿ * 1)!1ʿ #&ʿ 2 0 1 ,#1ʿ !15!' 0!% ʿ EDʿ F343$Cʿ QOʿ $Eʿ N ʿ 1$CC3Dʿ Eʿ F3ʿ $C ʿ ʿ KUʿ 9 ʿ ʿ ?3CC HEʿ H&ʿ I$4 $J3E ʿ &H4ʿ $J3ED E2ʿ F3ʿ C$ Dʿ 43N 3Dʿ N ʿ ʿ $Cʿ N ! C ʿ $JHE2ʿ H F34ʿ F E2Cʿ 3E$N 3D ʿ F$ ʿ EHʿ 8H-C3C ʿ >$EDC ʿ H4ʿ *3E3 J3E Cʿ ʿ F NFʿ QOʿ $EOʿ >$ ʿ H4ʿ #C$23ʿ F$ 3ʿ Q33Eʿ F343 H&H43ʿ 3 3J1 3Dʿ &4HJʿ 11 H J3E ʿ H4ʿ CC3CC J3E ʿ &H4ʿ H4ʿ H $4DCʿ @3CC3Cʿ H4ʿ ' $ 3Cʿ J1HC3Dʿ QOʿ H4ʿ -ED34ʿ M4$EDʿ 5-4Oʿ I43C3E J3E ʿ CFH- Dʿ Q3ʿ EN -D3Dʿ Eʿ F3ʿ $ -$ HEʿ QOʿ F3ʿ C$ Dʿ 43N 3Dʿ N ʿ H&ʿ F3ʿ ?3 3E Fʿ =3$4ʿ H&ʿ F3ʿ ' 3 2Eʿ H&ʿ 8 Cʿ P$(3C Oʿ % E2ʿ !, (!ʿ F3ʿ 6H-4 Fʿ $- FH4 T3Dʿ $EDʿ D 43N 3Dʿ Hʿ Q3ʿ J$D3. ʿ \ʿ ED

ED' F343$C' ' J$O'Q3' -C3&-' F$'$NHJ133' $-$ HE'H&'$ '8H C3C' >$EDC'H4' *3E3J3E C'3 N33D E2' F3' $-E-$' '3E 'H4' $-3'H&'*F433' I H-EDC' H-D'Q3' J$D3'Q-' F$' 8H-C3C' >$EDC', '*3E3J3E C'H&'$' 1-Q N' H4' NF$4 $Q3' ,$ -43' CFH-D' Q3' 3 3J1' &4HJ' CC3CCJ3E' H $4DC' @H-E O' H4' I$4HNF$' '$ 3C' 'Q3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' JHC' ; N3 3E ' P$(3C O'QO' $ED' F' F3' D N3' $ED' @HEC3E' H&' F3' >H4DC' ?14 F$' $ED' *3J1H4$' $ED' @HJJHEC' E' F C' 143C3E' I$4 $J3E'$CC3JQ3D' $ED' QO' F3' - FH4 O' H&' F3' C$J3' *F$' F3' F343 E Q3&H43' 43N 3D' I4H C HE' H&' F3' C$D' N'H&' F3' $C' ?3CC HE' H&' I$4 $J3E'CF$ 'F3' $ED' D 3'C$J3' C' F343QO' 4313$ 3D

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W' ED'Q3' '&-4 F34' 3E$N 3D'*F$' $ ' 8H-C3C' >$EDC' $ED' *3E3' F$ H3 34' C$ E2' HE O' 8H-C3C' H&' $E' $EE-$' '3E 'H4' $ 13 H'3 N33D E2' *F433' I H-EDC' $C' QO' F3' C$D' N'H&' F3' $C' ?3CC HE' H&' I$4 $J3E' E' F$'B3F$ &'3 N31 3D' $ED' 14H D3D' CF$ 'F3' $-3D' $ED' F3' I$4 N-$4C' H&' F3' $-$ HE' F343H&' 3E 343D' E' F3' 6 3 D BHH+C' H' Q3' 1431$43D' H&' 3$NF' I$4 CF' $C' QO' F3' C$D' N'H&' F3 ?3 3E F' =3$4' H&' 8 C' $3' P$(3C O' $11H E 3D' $ED' 43X- 43D

'8H-C3C' F$3H3 3 4 H'Q3' $-3D' $ED' 3E 343D' E' 6 3 D' BHH+C'

' I4H D3D' $ED' Q3' '&-4 F34' 3F$N 3D' *F$' E' J$+ E2' H- '&4HJ' C-NF' 6 3 D' BHH+C' $C' $&H43C$D' F3' > C C' H4' *$Q 3C' H&' F3' C3 34$' I$4 CF3C' F E' 3$NF' B$4HEO' $ED' H&' F3' *H E $EDC' H4' 3 F34' ?-QR D3EHJ E$ HEC' H4' G C HEC' H&' >$ED' F E' 3 34O' C-NF' I$4 CF' $C' QO' F3' C$D' N'H&' F3' ?3 3E F' =3$4' H&' 8 C' $3' P$(3C O' $11H E 3D' $ED' 43X- 43D' F3' @HJJ CC HE34' H&' $-$ HE' H&' 3$NF' @H-E O' CF$ ' D CR E2- CF' $' 8H-C3C' >$EDC' H4' *3E3J3E C' H&' $' 1-Q N' ,$ -43' H4' -C3D' &H4' NF$4 $Q3' I -41HC3C' F E' 3 34O' C-NF' I$4 CF' $ED' F3' $-3' H&' F3' C$J3' CF$ 'Q3' D3D-N 3D' &4HJ' F3' 24HCC' JH-E' H&' F3' $-R $ HE' H&' F3' 8H-C3C' >$EDC' $ED' *3E3J3E C' NHJ14 C3D' $' 3$NF' C-NF' > C'H4' *$Q 3' $ED' $ ' C-NF' 8H-C3C' >$EDC' $ED' *3E3J3E C' CH' D CR E2- CF3D' $ED' D3D-N 3D' CF$ ' Q3' 3 3J1' &4HJ' 11H J3E' H4' CC3CCJ3E' &H4' H4' H $4DC' $' @H-E O' @3CC' @F$423C' $ED' I$4 CF' '$ 3C' F$ CH3 34' $ED' F3' > C C' *$Q 3C' H4' $-$ HEC' CH' 43D-N3D' CF$ 'Q3' $ED' Q3' D33J3D' H' Q3' F3' > C C' *$Q 3C' H4' $-$ HEC' $NNH4D E2' H' F3' I4H1H4 HEC' C13N & 3D' F343 E' $ 'M4$ED' 5- O' $ED' I$4 CF' ' C' CF$ 'Q3' $CC3CC3D' $ED' 3 3D' 1-4C-$E' H' F3' I4H C HEC' H&' F3' F343 ER Q3&H43' 43N 3D' N C' $EO' F E2' F343 E' NHE $ E3D' H' F3' NHE 4$4O F343H&' EH FC $ED E2

@HJJ CR C HE34' H&' $-$ HE' CF$ 'D CR E2- CF' $' 8H-C3C' **' F NF' CF$ ' Q3' 3 3J1 3D' &4HJ' 11H ' 4$3E ' KN

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' EH' 8H-C3C' >$EDC' H4' *3E3 J3E C' CF$ 'Q3' D33J3D' H' Q3' H&' $' 1-Q N' ,$ -43' H4' -C3D' &H4' NF$4 $Q3' I 3C' F E' F3' I4H C HEC' H&' F C' N ' -E 3CC' C-NF' 8H-C3C' >$-DC' H4' *3E3J3E C' CF$ 'Q3' $ H23 F34' H&' $' 1-Q N' ,$ -43' H4' -C3D' 3 N -C 3 O' &H4' NF$4 $Q3' I -41HC3C

9F$' 8H-C3C' KN' &4HJ' 'H' J3E' L'

' ED' Q3' '&-4 F34' 3E$N 3D'*F$' CH' J -NF' H&' F3' C$D' N'H&' F3' $C' ?3CC HE' H&' I$4 $J3E' $C' 43X- 43C' F3' 8 2F' @HEC $Q 3C' $ED' H F34' @H 3N H4C' H&' @H-E O' @3CC' H' J$+3' '3 -4EC' H&' F3' C3 34$' 8H-C3C' >$EDC' H4' *3E3J3E C' F E' F3 4' 43C13N 3' G C 4 N C' J '@H 3N HE' F343' H4' E' 43C13N' F343H&' EH' 11H J3E' H4' CC3CCJ3E' $C' J$D3' H&' H4' H $4DC' 4$ C E2' F3' $C' 143 H-C' @F$423C' H4' @H-E O' @3CC' CF$ ' &4HJ' $ED' $& 34' F3' 1$CC E2' H&' F C' N 'F3' $+3E' $ED' D33J3D' H' 43&34' H' $ED' NHJ14 C3' HE O' C-NF' 8H-C3C' >$EDC' $ED' *3E3J3E C' $C' F$ E2 Q33E

8 2F' @HER C $Q 3C' KN' H' J$+3' '3 -4EC' 43C13N E2' 8H-C3C' $ED' >$EDC' 3 R 3J1 3D

Q33E' CH' 3 3J1 3D' J$O' Q3' $ H23 F34' H&' $' 1-Q N' ,$ -43' H4' -C3D' 3 R N -C 3 O' &H4' NF$4 $Q 3' I-41HC3C' $ED' $C' &' F3' <Q 2$ HE' H4' G- O' H' J$+3' C-NF' '3 -4EC' F$D' Q33E' 3 143CC O' CH' J 3D' QO' F3' C$D' $C ' J3E HE3D' N 'A' $ED' F$' &H4' F3' I-41HC3C' H&' F C' N ' C-NF' F 3D' '3 -4EC' CF$ ' Q3' N$ 3D' &H4' $ED' J$D3' E' +3' P$EE34' $ED' -ED34' +3' I3E$ 3C' &H4' $EO' G3&$- ' F343 E' $C' F3' '3 -4EC' QO' F3' C$D' N ' H&' F3' $C' ?3CC HE' H&' I$4 $J3E' 43X- 43D' H' Q3' J$D3' &H4' F3' I-41HC3C' H&' C-NF' N

' I4H D3D' $ $OC' $ED' Q3' '&-4 F34' 3E$N 3D' *F$' 'CF$ '$ED' J$O' Q3' $ &-' &H4' $EO' ?3 3N ' 3C 40' FH D3E' $ED' NHEC - 3D' $C' Q(' F3' C$D' 43N 3D' N ' H&' F3' ?3 3E F' =3$4' H&' 8 C' $ 3' P$(3C O' 14HR D3D' H' 113' 2 EC' $EO' $ -$ HE' NHE $ E3D' E' $EO' *$Q 3' H4' > C ' H4' 2 EC' F3' 6H4 J$ HE' H&' $EO' *$Q 3' H4' > C ' 1431$43D' -ED34' - FH4 O' H&' F C' N ' $ED' H&' F3' C$D' 43N 3D' N C' H&' 8 C' $ 3' H4' 143C3E' P$(3C O' HE' F3' M4H-ED' H&' $EO' 8H-C3C' >$EDC' H4' *3E3R J3E C' F$ E2' Q33E' J14H13 O' NHEC D343D' $C' H&' $' 1-Q N' H4' NF$4 $Q 3' ,$ -43' $ED' D C E2- CF3D' H4' D3D-N 3D' &4H J' $EO' > C ' H4' $&$$ H ' $NNH4D E2 O' F3 F34' C-NF' 8H-C3C' >$EDC' H4' *3E3 J3E C' Q3' C -$ 3' E' F3' 1$4 CF' H4' *H E $ D' F343 E' C-NF' 3C 40' J$O' Q3' FH D3E' H4' E' $EO' H F34' I$4 CF' H4' *H E $ED' H&' F3' C$J3' B$4HEO' $ED' F$' C-NF' 113$' CF$ ' Q3' D3 34J E3D' -1HE' $ED' $' P3J H4$ED- J' H&' F3' 2433J 3E' CH' H' 113' J$D3' $ED' +3' %H N3' F343H&' 2 3E' #C' E' N$C3' H&' (J3$' HE' $EO' M4H-ED' F343-1HE' ' J$O' Q3' $ &-' H' 113' QO' 4 -3' H4' F3' I4H C HEC' H&' 3 F34' H&' F3' C$D' 43N 3D' N $(' $ED' F$' F3' @HJ J 33' H&' 113$' NHEC - 3D' $NNH4D E2' H' F3' I4H C HEC' H&' F3' C$D' N ' H&' 8 C' $ 3' P$(3C O' CF$ ' F$ 3' +3' IH 34' $ED' - FH4 O' H' D3$' F343 F' $ED' H' C3FD' &H4' $ED' 3 $J E3' 9 E3CC3C' $ED' $D J E C 34' <$ FC' H4' && 4J$ HEC' -ED34' $ED' C-Q(3N' H' F3' +3' I$ EC' $ED' I3E$ 3C' &H4' I3 (-40' NHJ J 3D' F343 E' $C' E' @$C3C' H&' 113$' HE' $EO' H F34' M4H-ED' F$ 3 34' $ED' C-NF' @HJ J 33' CF$ ' D 43N' F3' J3ED J3E' H&' C-NF' > C ' *$Q 3' H4' $ -$ HE' H4' N1E& 4J' F3' C$J3' $C' F3O' CF$ ' Q3' H&' H1 E HE' F$' F3' 8H-C3C' >$EDC' H4' *3E3R J3E C' E' 43C13N' F343H&' C-NF' 113$' J$O' F$ 3' Q33E' J$D3' $43' H4' $43' EH ' H&' $' 1-Q N' H4' NF$4 $Q 3' ,$ -43' $ED' F$' F3' C$J3' H-2F ' H4' H-2F ' EH ' H' Q3' $Q 3' H' 11 H J3E' $ED' CC3CC J3E' $NNH4D E2&O' ' $ED' F3' @HJ J 33' H&' '3 C HE' E' 3 340' @H-E O' NHEC - 3D' -ED34' - FH4 O' H&' F3' C$D' 43N 3D' N ' H&' 8 C' $ 3' P$(3C 4C' '3 2E' CF$ ' $& 34 $4DC' $ED' E' +3' P$EE34' F$ 3' IH 34' $ED' - FH4 O' H' EX- 43' E H' $ED' D3 34J E3' F3' 5-C N3' $ED' I4H14 3 O' H&' F3' 6H4 J$ HE' H&' C-NF' > C ' H4' > C C' $ED' H' $ H ' H4' D C$ H ' F3' ; 3J1 HE' H&' $EO' 8H-C3C' >$EDC' H4' *3E3 J3E C' -ED34' F3' I4H C HEC' H&' F C' N ' $ED' H' $ J3ED' &' E33D' Q3' F3' $ -$ HE' H&' $EO' B$4HEO' $NNH4D E2 O

113$' E $O' Q3 J$D:' 2 EC' & ' 3 E1 HE' H4' ,HE 3 3J1' 'HE' $C' HE' $EO' H F34' M4H-ED' $$D' @HJ J 33C' H&' 113$' $ED' H&' '3 C HE' J$O' $J3ED' F3' $ -$ HE' $C' E' H F34' 43C13N C

' ED' F343$C' ' C' QO' F3' C$D' 43N 3D' N ' H&' F3' ?3 3E F' =3$4' H&' F3' '3 2E' H&' 8 C' $ 3' P$(3C O' 3E$N 3D' F$' F3' I4H C HEC' $ED' G 43N HEC' E' C-NF' N ' NHE $ E3D' CFH- D' 3 3ED' H' $ '@H-E 3C' @H-E 3C' H&' @ 3C' @H-E 3C' H&' *H EC' $ED' *H EC' @H41H4$ 3' E' $!% #&' 3 N31 ' F3' @H-E O' H&' F3' @ O' H&' 234% #' $ED' I4H C HE' F$C' Q33E' J$D3' &H4' F3' $ -$ HE' H&' 3 340' 8H-C3' C -$ 3' $ED' Q3 E2' E' F3' C$D' @ O' , '234% #' , ' F3' @H-E O' H&' F3' C$D' @ O' H4' F3' @H-E O' H&' 234% #' $ED' F E' H4' -1HE' F3' @ 4N- $4' 'H$D' H&' F3' I ' , '2 FO#' QO' $E' N ' 1$CC3D' E' F3' 6 & F' =3$4' H&' 8 C' $ 3' P$(3C O C' '3 2E' E ' -3D

I$4 C' H&' F3' @H-E O' H&' F3' @ O' H&' G-Q E' Q3OHED' F3' @ 4N- $4 H$D' H' Q3' F E' F3' I4H C HEC' H&' F3' 43N 3D' N C' $ED' F C' N

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- 3D' ?' ' ,'5 F &!' , '0)&# ')!' ,31!1'1 3 !' #' #&'#! ')!' I 'J 20 4% ' #&' , ')!' ' !' !V3 %' * !#' V ')!' %,' %' * 1'!1')! !' ' ED' F343$C' N34 $ E' I$4 C' H&' F3' C$ D' @H-E O' H&' F3' @ O' H&' 234% #' 83' Q3OHED' F3' C$(D' @ 4N- $4' 'H$D' $ED' ' C' 3 13D 3E ' F$' I4H C HE' H- D' Q3' E $D3' &H4' F3' $ -$ HE' H&' F3' 8H-C3C' >$EDC' H4' ' *3E3 J 3E C' CH' C -$ 3' Q3OHED' C-[F' @ 4N- $4' 'H$D' $ED' F E' C-NF' @H-E O' H&' F3' @ O' H&' 234% #=' Q3' ' F343&H43' &-4 F34' 3E$N 3D' *F$' $ ' I4H C HEC' $ED' G 43N HEC' E' F3' C$ D' N ' H&' F3' ?3 3E F' =3$4' H&' F3' '3 2E' H&' 8 C' $ 3' P$(3C O' $ED' E' F3' C$ D' N ' H&' F3' ' 4C' $ED' ?3NHED' =3$4C' H&' 8 C' 143C3E ' P$(3C O C' '3 2E' $ED' E' F C' N ' NHE $ E3D'43 $ E2' H' @H-E 3C' $ED' F3' $ -$ HE' F343H&' CF$ '3 3ED' H' $ED' NH J 14 C3' C-NF' I$4 C' H&' F3' C$ D' @H-E O' H&' F3' @ O' H&' 234O#' $C' 83' Q3OHED' F3' C$ D' @ 4N- $4' 'H$D' $C' &- O' H' $ ' E 3E C' $ED' I -4R 1HC3C' $C' &' F3' F343 E Q3&H43' 43N 3D' ; N31 HE' H&' 3' C$ D' @H-E O' H&' F3' @ O' H&' 234% #' Q$D' EH 'Q33E' J $D3

@H-E O' @3CC' @ $423C' M4$ED' 5-4O' B$ 3C' $ED' I$4 CF' '$ 3C' J$O' Q3' 3 3D' $& 34' ; ED' H&' CC T3C' H4' I43C3E E2' *34 J' E3 ' 3EC- E2' F3' G$O' F$' F3' > C ' $ED' $ -$ HE' CF$ ' Q3' 1-Q CF3D' E' F3' G-Q E' M$T3 3

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' &4H J' $ED' $& 34' F3' ; ED' H&' F3' CC T3C' H4' I43C3E E2' *34 J ' $C' F3' @$C3' J $O' Q3' E3 ' 3EC- E2' F3' G$O' HE' F NF' C-NF' > C ' $ED' $ -$ HE' &H4' $EO' @H-E O' $C' C' E' F3' C$ D' 43N 3D' N ' H&' F3' ?3 3E F' =3$4' H&' F3' '3 2E' H&' 8 C' $ 3' P$(3C O' D3CN4 Q3D' F3' C$ J 3' Q3 E2' C 2E3D' $C' F343 E' 43X- 43D' $ED' D- O' 1431$43D' $NNH4D E2' H' F3' I4H C HEC' H&' F3' C$ D' 43N 3D' N C' H&' 8 C' $ 3' $ED' 143C3E ' P$(3C O' $ED' H&' F C' N ' CF$ ' Q3' 1-Q CF3D' E' F3' 234% #' ! !' %%' I ,3# ' I !11' @F$423C' F$ CH3 34' $ED' $ ' M4$ED' 5-4O' '$ 3C' J 1HC3D' H4' H' Q3' J 1HC3D' HE' $EO' C-NF' @H-E O' QO' I43C3E J 3E C' H&' F3' M4$ED' 5-4O' H4' H' Q3' 4$ C3D' H&&' C-NF' @H-E O' H4' $EO' B$4HEO' I$4 CF' H4' G C HE' F343H&' $ED' $ ' I$4 CF' '$ 3C' J 1HC3D' H4' 3 3D' H4' H' Q3' 3 3D' -ED34' - FH4 O' H&' $EO' N ' H4' N C' H&' I$4 $ J 3E ' CF$ ' Q3' $CC3CC3D' $ED' 3 3D' H&&' C-NF' @H-E O' $ED' H&&' 3 34O' B$4HEO' I$4 CF' *H E $ED' H4' H F34' G C HE' F343 E' $NNH4D E2' H' F3' I4H1H4 HEC' C13N & 3D' E' C-NF' > C ' $ED' $ -$ HE' CH' 1431$43D' $ED' 1-Q CF3D' -ED34' - FH4 O' H&' F3' C$ D' 43N 3D' N C' $ED' H4' F C' N ' $EO' >$ ' ? $ - 3' #C$23' H4' @-C H J ' H4' $EO' &H4 J 34' CC3CC J 3E ' H4' $ -$ HE' H' F3' NHE 4$4O' E' $EO C3' EH FC $ED E2

>< , G< , :' I4 E 3D' QO' # + . (/ +' & (+' $ED') * (+ , ' O1 . 223% , . . * + ' I4 E 34C' H' F3' % E2 C' J HC ' ; N3 3E ' P$(3C O' ZSU

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Eʿ Nʿ Hʿ 134 J ʿ F3ʿ G C $ HEʿ H&ʿ ?1 4 Cʿ &4H J
P $E23ʿ 9 E4T3 ʿ I C ʿ # ʿ ZSU ㎜

9 8 ; ' ; ?ʿ QOʿ $Eʿ N ʿ 1$CC3Dʿ Eʿ F3ʿ ? Fʿ * 3$ H&ʿ F3ʿ ' 3 2Eʿ H&ʿ 8 Cʿ $ 3ʿ P $(3C Oʿ % E2ʿ ! , (!ʿ F3ʿ 6H-4 Fʿ E - 3Dʿ /#ʿ / ' ʿ ,ʿ !5! %ʿ)!ʿ 2 3 !1ʿ 5 4%!ʿ #ʿ !15! ' ʿ V ʿ +5 1ʿ YMʿ ʿNʿ ZHʿ & 1 %%!&ʿ #ʿ ; E2 $EDʿ #&ʿV ʿ < ' !#' !1ʿ , ʿ & 1 %% #(ʿ ! ' (ʿ , ʿ ' , 5 , 3#& #(ʿ 1)ʿ +5 1ʿ #&ʿ , ʿ)!ʿ + %!ʿ , ʿ +5 1ʿ #&ʿ , ʿ [5 , 1!ʿ ,) ! ʿ 2 3 !1ʿ #ʿ % !3ʿ) ! ! , =ʿ #&ʿ , ʿ 5 , 0 & !ʿ ,) ! ʿ L ! (& , #1ʿ , ʿ) !ʿ I , %%! ' , #ʿ , ʿ) !ʿ 1 &ʿ 2 3 !1ʿ #&ʿ , ʿ) !ʿ + %!ʿ V ʿ +5 1ʿ #&ʿ , ʿ) !ʿ 0 , !) , 31 #(ʿ , ʿ 13')ʿ +5 1ʿ F) , 3ʿ * ! #ʿ , ʿ 2 3 ʿ , ʿ 8 J5 , , #ʿ ʿ Cʿ $ J HE2C ʿ H F34ʿ F E2Cʿ 3E$N 3Dʿ F$ ʿ ʿ CF$ ʿ EH ʿ Q3ʿ $ &- ʿ &H4ʿ $EOʿ G C 34ʿ Hʿ J $+3ʿ H4ʿ Q43 ʿ $ ʿ F3ʿ C$ J 3ʿ * J 3ʿ $EOʿ 9 H4 ʿ H4ʿ 9 $CF ʿ H4ʿ Hʿ J $+3ʿ H4ʿ D C ʿ $EOʿ 5?1 4 Cʿ &4H Jʿ P $ ʿ @H4E ʿ H4ʿ M4$ E ʿ H4ʿ $EOʿ P -43ʿ F343H&ʿ $EDʿ &4H Jʿ ? - 2$4ʿ H4ʿ I H $ H3C ʿ H4ʿ $EOʿ P -43ʿ F343H&ʿ 43C13N 3 O ʿ H4ʿ Hʿ J $+3ʿ H4ʿ Q43 ʿ $EOʿ 9 H4 ʿ H4ʿ 9 $CFʿ H4ʿ D C ʿ $EOʿ ?1 4 Cʿ &4H Jʿ $EOʿ H F34ʿ P $ 34 $ Cʿ F$ CH3 34 ʿ $EDʿ &ʿ $EOʿ C-NFʿ G C 34ʿ CF$ ʿ $ ʿ F3ʿ C$ J 3ʿ * J 3ʿ J $+3ʿ H4ʿ Q43 ʿ $EOʿ 9 H4 ʿ H4ʿ 9 $CFʿ H4ʿ CF$ ʿ J $+3ʿ H4ʿ D C ʿ $EOʿ ?1 4 Cʿ &4H Jʿ P $ ʿ @H4E ʿ H4ʿ M4$ E ʿ H4ʿ $EOʿ P -43ʿ F343H&ʿ $EDʿ &4H Jʿ ? - 2$4ʿ H4ʿ I H $ H3C ʿ H4ʿ $EOʿ P -43ʿ F343H&ʿ 43C13N 3 O ʿ H4ʿ CF$ ʿ $ ʿ $EOʿ * J 3ʿ J $+3ʿ H4ʿ Q43 ʿ $EOʿ 9 H4 ʿ H4ʿ 9 $CFʿ H4ʿ D C ʿ $EOʿ ?1 4 Cʿ &4H Jʿ $EOʿ H F34ʿ P $ 34 $ Cʿ F$ R CH3 34 ʿ C-NFʿ G C 34ʿ CF$ ʿ &H4&3 ʿ F3ʿ ? - Jʿ H&ʿ * Hʿ F-ED43Dʿ I H-EDC ʿ $EDʿ $ ʿ C-NFʿ 9 H4 ʿ 9 $CF ʿ $EDʿ ?1 4 Cʿ CF$ ʿ Q3ʿ &H4&3 3D ʿ $EDʿ J $Oʿ Q3ʿ ʿ C3 T3Dʿ QOʿ $EOʿ <&& N34ʿ H&ʿ ; N C3ʿ EDʿ F343$Cʿ QOʿ F3ʿ C$ J 3ʿ 43N 3Dʿ N ʿ $EOʿ N3EC3Dʿ G C 34ʿ Eʿ + ' , % #&ʿ H4ʿ $!% #&ʿ C , 1ʿ $- FH4 T3Dʿ Hʿ J $+3ʿ H4ʿ Q 3 ʿ $EOʿ 9 H4 ʿ H4ʿ 9 $CFʿ $EDʿ Hʿ J $+3ʿ H&ʿ D C ʿ ?14 Cʿ &4H Jʿ Zʿ ' ʿ ? - 2$4

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U/K'SL'M # > ; > P ' ' @$1

?-2$4' H4' &4H J' I H $ H3C'. ED' F343$C' ' C'3 13D 3E ' H' $ H '?1 4 C' H' Q3' D C 3D' &4H J' P $E23 ' 9 -4T3 ' $C' 3 ' $C' &4H J' P $ '@H4E ' D4' M4$ E' ?-2$4' H4' I H $ H3C ' Q3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$ ' $ED' *3 J 1H4$ ' $ED' @H J J HEC ' E' F C' 143C3E ' I $4 $ '

> N3EC3DG C ' J 3 ' $CC3 J Q 3D ' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3 ' * F$ ' ' CF$ ' Q3'

34C' J$O' $ &- ' &H4' $EO' N3EC3D' G C 34' E' 8#(% #& ' +' , % #& ' , ' $!% #&' ,'

&4H J' P$E' 3') ZF' $QO' 9 H4 ' H4' 9 $CF' $ED' H' J $+3' H4' D C '?1 4 C' &4H J

9 -4T3 ' HE&O' P $E23 ' 9 -4T3 ' HE O ' $EO' F E2' E' $EO' N ' H4' N C' H' F3' NHE 4$4O' EH FC $ED E2.' I 4H D3D' $ $OC ' F$ ' F3E3 34' P $E23 9 -4T3 ' C' -C3D' &H4' F$ ' I - HC3 ' 43' C$ J 3' CF$ ' Q3' DHE3' -ED34' F3' +3' ' - 3C ' 7 ' 32- $ HEC ' I 3E$ 3C ' 6H4&3 -43C ' $ED' I 4H C HEC' $C' $43' NHE $ E3D' E' F3' C$ D' 43N 3D' N ' $ED' E' $E' N ' J $D3' E' F3' 6H-4 F' =3$4' H&' 8 C' C$ D' $ 3' P $(3C O C' ' 3 2E ' &H4' 24$E E2' N3 $ E' G- 3C' H&' ; N C3' -1HE' ?1 4 C' D C 3D' &4H J' @HE ' H4' M4$ E' E' +' , % #&' $ED' $!% #& ' $ED' -1HE' > N3EN3C' &H4' ? C' &H4' J $+ E2' C-NF' ?1 4 C ' $ED' H' 14H D3' &H4' F3' Q3 34' NH 3N E2' $ED' C3N-4 E2' C-NF' G- 3C ' $ED' &H4' $43R FH-C E2' H&' C-NF' ?1 4 C' FH- ' I $O J 3E ' H&' G- O ' &H4' J $+ E2' $ED' Q43 E2' 9 H4 ' 14' / $CF' $ED' J $+ E2' $ED' D C # '?1 4 C' &4H J' I H $ ' H3C' HE O ' $ED' $ '?1 4 C' J $D3' H4' D C 3D' &4H J' P $E23 ' 9 -4T3 ' CF$ ' Q3' NF$423D' F' F3' C$ J 3' G- 3C' $C' ?1 4 C' J $D3' H4' D C 3D' ' H J' I H $ H3C' E' 8#(% #& ' +' , % #& ' H4' $!% #&' 43C13N 3 O

> < , G < , .' I 4 E 3D' QO' # + . (/ ' & (+' $ED') * (+ , ' O1 . 223% , . . * + '
4 E 34C' H' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' ZSU
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, , <' ? ; @# , G<' K' * ; ' * <

M# *' *6*' P *' ' ' ; M ?

@' ' I ' >WW

' N ' &H4' 432- $ E2' ?NFHH C' H&' E$ H J O

K 9 # ' # ' L ; /

/ 8 ; ' ; ?' $' %EH 3D23' H&' F3' @$-C3C' $ED' , $ -43' H&' C-ED4O' G C3$C3C' F NF' $&&3N ' F3' BHDO ' $ED' H&' F3' Q3C ' P 3 FHDC' H&' 43$ E2' $ED' N-4 E2' C-NF' G C3$C3C ' $ED' H&' F3$ E2' $ED' 431$ 4 E2' D 34C' 9 H-EDC' $ED' E(-4 3 C' H' F NF' F3' 8 - J $E' 64$J 3' C' $Q 3 ' N$EEH ' Q3' $NX- 43D' FH- ' F3' D' H&' E$ H J N$ ' ; $ J E$ HE.' ED' F343$C' F3' 32$ ' ?-11 O' H&' 8 - J $E' BHD 3C' &H4' C-NF' E$ H J N$ ' ; $ J E$ HE' C' EC-&& N 3E ' &- O' H' 14HR D3' F3' P 3$EC' H&' C-NF' %EH 3D23'.' ED' F343$C ' E' H4D34' &-4 F34' H' C-11 O' 8 - J $E' BHD 3C' &H4' C-NF' I -41HC3C ' D 34C' 243$ ' $ED' 24 3 H-C' @4 J 3C' F$ 3' Q33E' NH J J 3D ' $ED' $ 3 O' P -4D34 ' &H4' F3' C E2 3' <Q(3N ' H&' C3 E2' &H4' C-NF' I -41HC3C' F3' BHD 3C' H&' F3' I 34CHEC' CH' J -4D343D.' ED' F343$C' F343&H43' ' C' F 2F O' 3 13D 3E ' H' 2 3' I 4H 3N HE ' -ED34' N34 $ E' ' 32- $ HEC ' H' F3' ? -DO' $ED' I 4$N N3' H&' E$ H J O ' $ED' H' 143 3E ' $C' &$4' $C' J $O' Q3 ' C-NF' 243$ ' $ED' 24 3 H-C' @4 J 3C' $ED' P -4D34' $C' $&H43C$ D ' Q3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$ ' $ED' *3 J 1H4$ ' $ED' @H J J HEC ' E' F C' 143C3E ' I $4 $ J 3E ' $CC3 J Q 3D ' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3 ' * F$ ' ' CF$ ' C3N43 $4O' H&' Q3' $ &- ' &H4' 8 C' P $(3C O C' I 4 EN 1$ ' ?3N43 $4O' H&' ? $ 3' &H4' F3' * J 3' & N3E 3&' Q3 E2' &H4' F3' 8 H J 3' G31$4 J 3E ' E' F$ ' I $4 ' H&' F3' # E 3D' % E2 ' 14$N-? ' DH J ' N$ 3D' ! ' " # ' $ED' &H4' F3' @F 3&' ?3N43 $4O' &H4' $!% #&' E' E$ H O' F$ ' I $4 ' H&' F3' # E 3D' % E2DH J ' N$ 3D' $!% #&' J J 3D $ 3 O' HE' F3' 1$CC E2' H&' F C' N ' H4' CH' CHHE' F343$& 34' $C' J $O' Q3' 43X- 43D ' H'

Z' ?' 24$E

F ' K'S ' M # ; > P ' ' @$1' !

24$E '$'> N3EN3' H' 14$N C3' E$ H J O' H' $EO' I 3 H 'H4' P 3 J Q34' H&' $EO' @H 323' H&' I FOC N $EC' H4' ?-423HEC 'H4' H' $EO' M4$D-$ 3' H4' > N3E $ 3' E' P 3D N E3 'H4' H' $EO' I 34CHE' $ &- O' X-$ & 3D' H' 14$N C3' P 3D N E3' E' $EO' I $4 ' H&' F3' #E 3D' % E2DH J 'H4' H' $EO' I 4H&3CCH4' H4' * 3$NF34' H&' E$ H J O' P 3D N E3 ' H4' ?-42340' H4' H' $EO' ? -DXE' $ 3ED E2' $EO' ?NFHH 'H&' E$ H J O 'HE' 11 N$ HE' &4H J' C-NF' I $4 O' &H4' C-NF' I -41HC3' NH-E 34C 2E3D' QO' * H' H&' 8 C' P $(3C O C' 5-C N3C' H&' F3' I 3$N3' $N E2' &H4' F3' @H-E O' @ ' BH4H-2F' H4' I $N3' F343 E' C-NF' I $4 O' 43C D3C' N34 &O E2' F$ ' H' F3 4'%EH 3D23' H4' B3 3&' C-NF' I $4 O' CH' $11 O E2' C' $QH-' H' N$44O' HE' F3' I 4$N N3' H&' E$ H J O

?3N43 $4O' H&' ? $ 3' H' $1R 1H E' EC13NR H4C' H&' ?NFHH C' H&' E$ H J O' 7

' ED' Q3' ' 3E$N 3D' * F$ ' ' CF$ ' Q3' $ &- ' &H4' 8 C' P $(3C O C' C$ D' I 4 EN 1$' ?3N43 $4O' H&' ? $ 3' H4' @F 3&' ?3N43 $40' $C' F3' @$C3' J $O' Q3' J J 3D $ 3 O' HE' F3' 1$CC E2' H&' F C' N ' H4' $C' CHHE' F343R $& 34' $C' J $OQ3' E3N3CC$40' H' $11H E' 43C13N 3 O' EH ' &3 34' F$E' * F433' I 34CHEC' H' Q3' EC13N H4C' H&' I $N3C' F343' E$ H J O' C' N$44 3D' HE' $ED' $ ' $EO' * J 3' $& 34' C-NF' & 4C' 11H E J 3E' H' $11H E ' &' F3O' CF$ ' C33' & ' < E3' H4' J H43' H F34' I 34CHE' H4' I 34CHEC' H' Q3' $E' EC13N H4' H4' EC13N H4C' $C' $&H43C$ D' $ED' 3 34O' C-NF' EC13N H4' CF$ ' NHE E-3' E' < && N3' &H4' < E3' =3$4' H4' -E ' F3' Q3' 43 J H 3D' QO' F3' C$ D' ?3N43 $4O' H&' ? $ 3' H4' @F 3&' ?3N43 $40' $C' F3' @$C3' J $O' Q3' H4' -E ' CH J 3' H F34' I 34CHE' CF$ ' Q3' $11H E 3D' E' F C' I $N3' ! $ED' $C' H& 3E' $C' $EO' ER C13N H4' $11H E 3D' $C' $&H43C$ D' CF$ ' D 3' H4' CF$ ' Q3' 43 J H 3D' &4H J' F C' C$ D' < && N3' H4' $ ' 43&-C3' H4' Q3NH J 3' -E$Q 3' H' $N ' ' CF$ ' Q3' $ &- ' &H4' F3' C$ D' ?3N43 $4O' H&' ? $ 3' H4' @F 3&' ?3N43 $40' $C' F3' @$C3' J $O' Q3' H' $11H E' $EH F34' I 34CHE' H' Q3' EC13N H4' E' F C' 'HH J

$ED' H' D 43N' F$ ' G C 4 N' C-134 E 3ED'

8 ' ED' Q3' ' 3E$N 3D' * F$ ' ' CFCD' Q3' $ &- ' &H4' F3' C$ D' ?3N43 ' $4O' H&' ? $ 3' H4' @F 3&' ?3N43 $40' $C' F3' @$C3' J $O' Q3' H' D 43N' F$ ' G C 4 N ' H&' . >' H4' @H-E 40' H4' H&' QH F' $ED' F$ ' I $N3C' F343' E$ H J O' C' N$44 3D' HF' C -$ 3' F E' C-NF' G C 4 N ' 3 34O' C-NF' ER C13N H4' CF$ ' Q3' $11H E 3D' H' C-134 E 3ED' $ED' E' F$ ' P $EE34' 3 34O' C-NF' EC13N H4' CF$ ' 4ECN' F3' G- 3C' H&' F C' < && N3

EC13N H4C' H' J$+3' ' 3 -4EC' H&' ?-Q(3N C' 43 J H 3D' &H4 E$ H J N$; $ J E$ HE

' ED' Q3' ' 3E$N 3D' * F$ ' 3 34O' EC13N H4' H' Q3' $11H E 3D' QO' 4 -3' H&' F C' N ' CF$ ' J$+3' $' \ -$4 3 O' ' 3 -4E' H' F3' C$ D' ?3N43 $4O' H&' ? $ 3' H4' @F 3&' ?3N43 $40' $C' F3' @$C3' J $O' Q3' H&' 3 34O' D3N3$C3D' I 34CHE C' BHDO' F$ ' D-4 E2' F3' 143N3D E2' \ -$4 34' F$C' Q33E' 43 J H 3D' &H4' E$ H J N$' ; $ J E$ HE' H' 3 34O' C31$4$ 3' I $N3' E' F C' G C 4 N' F343' E$ H J O' C' N$44 3D' HE' D C E2- CF E2' F3' ?3 ' $ED' $C' &$4' $C' C' +EH E' $' F3' * J 3' F3' , $ J 3' $ED' 23' H&' 3$NF' I 34CHE' FHC3' BHDO' $C' CH' 43 J H 3D' $C' $&H43C$ D

$ED' H' E' C13N' I $N3C' H J4 C14$N' C3D'

' ED' Q3' ' 3E$N 3D' * F$ ' ' CF$ ' Q3' $ &- ' &H4' 3 34O' C-NF' EC13N H4' H' C ' $ED' EC13N ' $' $EO' * J 3' $ O' I $N3' KE' F C' G C 4 N ' , H N3' H&' F NF' I $N3' F$C' Q33E' 2 3E ' $C' C' F343 4 $& 34' D 43N 3D' F$ ' ' C' E 3ED3D' F343' H' 14$N C3' E$ H J O

?$ $4 3C' H EC13N H4C'

' ED' Q3' ' 3E$N 3D' * F$ ' ' CF$ ' Q3' $ &- ' &H4' 8 C' P $(3C O' H' 24$E ' H' 3 34O' C-NF' EC13N H4' C-NF' $E' $E #E' ?$ $40' EH ' 3 N33D E2 < E3' F-ED43D' I H-EDC' &H4' Q C' * 4H-Q 3' $ED' H' $ H ' ?-NF' $' ?- J' H&' P HE3O' &H4' F3' ; 13EN3C' H&' F C' < && N3' $C' J $O' $113$4' 43CHEQ 3'

'

C-NF

U`KS"M#> ;>P ' ' @$1 ! !

C-NF' ?$ $4 3C' $ED' H $EN3C' H' Q3' NF$423D' HF' F3' @HECH D$ 3D' 6-ED' H&' F3' #E 3D' % E2DH J ' $ED' H' Q3' 1$0$Q 3' X-$4 34 O ' C D' F$ '$E' $EE-$' ' 3 -4E' H&' $ ' C-NF' ?$ $4 3C' $ED' H $EN3C' 4Q$ ' Q3' J $D3' H' I $4 $ J 3E '

' ED' Q3' '3E$N 3D ' F$ ' ' CF$ ' Q3' $ &- ' &H4' $EO' ; 3N- H4' H4' H F34' I $4 O' F$ E2' $ &- ' I HCC3CC HE' H&' F3' BHDO' H&' $EO' D3N3$C3D' I 34CHE ' $ED' EH ' Q3 E2' $E' #ED34 $+34' H4' H F34' I $4 O' E 4-C 3D' F3' BQ o ' &H4' F3' I -41HC3' HE O' H&' E 34 J 3E ' H' 134 J ' F3' BHDO' H&' C-NF' D3N3$C3D' I 34CHE' < #ED342H' E$ H J N ' ; $ J E$ HE ' -E 3CC ' H' F3' %EH 3D23' H&' C-NF' ; 3N- H4' H4' H F34' I $4 O ' C-NF' I 34CHE' CF$ ' F$ 3' 3 143CC3D' PC' G3C 43 ' 3 F34' E' 9 4 E2' $ ' $EO' * J 3' D-4 E2' F C' > &3 ' H4' 34Q$ O' E' F3' I 43C3EN3' H&' * H' H4' J H43' 9 E3CC3C' D-4 E2' F3' E3CC' F343H&' F3' D 3D ' F$ ' F C' BHDO' $& 34' G3$ F' J 2F ' EH ' -ED342H' C-NF' ; $ J E$ HE ' H4' -E 3CC' F3' C-4 E2' 8 -CQ$ED' H4' 9 &3 ' H4' $EO' +EH E' ' 3 $ 3' H&' F3' D3N3$C3D' I 34CHE ' CF$ ' 43X- 43 ' F3' BHDO' H' Q3' E 3443D' FH- ' C-NF' ; $ J E$ HE

H84C' ("C F$ / E2' $ &- ' @-C HDO' H&' BHD 3C' J $O' 134 J ' F3 J ' H' -ED342H' E$ H J N$ ' ; $ J E$ HE' E' N34 $ E' @$C3C

' ED' Q3' '3E$N 3D ' *F$ ' &' $EO' I 34CHE ' 3 F34' E' 9 4 E2' $ ' I 4H C HE' E' $EO' * J 3' D-4 E2' F C' > &3 ' H4' 34F$#O' E' F3' I 43C3EN3' H&' * H' H4' N$C3 H&634 ' J H43' 9 E3CC3C' D-4 E2' F3' E3CC' F343H&' F3' D 3D ' F ' D 43N ' F$ F C' BHDO' $& 34' G3$ F' Q3' 3 $ J E3D' E H J N$ O ' H4' CF$ ' EH J E$ 3' ; $ J E$ HE' $EO' I $4 O' QO' F C' N ' $- FH4 T3D' H' 3 $ J E3' BHD 3C' E H J N$ O' H' $& 34' F3 4' J $+3' C-NF' ; $ J E$ HE ' $ED' &' Q3&H43' F3' B-4 $ ' H&' F3' BHDO' H&' Q3$ F' C-NF' I 34CHE ' C-NF' G 43N HE' H4' , H J E$ HE' CF$ ' Q3' J $D3' +EH E' H' F3' I $4 O' F$ E2' $ &- ' I HCC3CC HE' H&' F3' D3$D' BHDO ' F3E' C-NF' $C J 3E HE3D' I $4 O' CF$ ' D 43N ' C-3Q' ; $ J E$ HE' H' Q3' J $D3 ' $ED ' E' N$C3' H&' $EO' C-NF' , H J E$ HE' $C' $&H43C$ D ' CF$ ' 43X-3C ' $ED' 134 J ' $EO' I $4 O' CH' $- FH4 T3D' $ED' EH J E$ 3D' $C' $&H43C$ D' H' J $+3' C-NF' ; $ J E$ HE ' -E 3CC' F3' D3N3$C3D' I 34CHE C' C-4 E2' 8 -CQ$ED' H4' 9 &3 ' H4' E3$43C ' +EH E' ' 3 $ 3 ' H4' $EO' < E3' H4' J H43' H&' C-NF' I 34CHE C' E3$43C ' +EH E' ' 3 $ 3C ' Q3 E2' H&' % E' E' F3' C$ J 3' G32433 ' CF$ ' 43X- 43' F3' BHDO' H' Q3' E 3443D' & HD ' C-NF' ; $ J E$ HE

W ' I 4H D3D' $ $OC ' $ED' Q3' '3E$N 3D ' *F$ ' E' EH' @$C3' CF$ ' F3' #J (' +<B' +#' BHDO' H&' $EO' I 34CHE' Q3' 43 J H 3D' &H4' E$ H J N$ ' ; $ E E$ HE' &4H J ' H 3 3 H 3D' $EO' I $N3' F343' C-NF' I 34CHE' J $O' F$ 3' D 3D ' -E '$& 34' * H4 O 3 2Q 8 H-4C' &4H J ' F3' * J 3' H&' C-NF' I 34CHE CG3N3$C3 ' EH4' -E '$& 34' * 3E O ' &H-4' 8 H-4C' , H N3 ' H' Q3' 43N+HE3D' &4H J ' F3 * J 3' H&' C-3Q' G3N3$C3 H' F3' EC13N H4' H&' F3' G C 4 N ' H&' F3' E 3ED3D' ' 3 J H $ ' H&' F3' DHDO ' @$H '$' H4 ' &' EH' C-NF' EC13N H4' F$ 3' Q33E' $11H E 3D ' H' CH J 3' I FOC N $E ' ?-4 ' @34 & N$ 3' 23HE ' H4' 1H F3N$40' 43C D E2' $ ' H4' E3$4' F3' I $N3' H&' G3$ F ' EH4' J ' 3CC' $' @34 & N$ 3' C $ E2' E' F$ ' P $EE34' C-NF' I 34CHE' N$ J 3' QO' F C' G3$ F' CF$ ' 143 H-C O' H' F3' ' 3 J H $ ' H&' F3' BHDO' F$ 3' Q33E' C 2E3D' QO' F3' I FOC N $E ' ?-423HE ' H4' 1H F3N$40' FH' $ 3ED3D' C-NF' I 34CHE' D-4 E2' F3' E3CC' F343H&' F3' D 3D ' H4' &' EH' C-NF' P 3D N$ ' P $E' $ ' 3ED3D' C-NF' I 34CHE' D-4 E2' C-NF' E3CC ' F3E' QO' CH J 3' I FOC N $E ' ?-4R 23HE ' H4' 1H F3N$40' FH' CF$ ' Q3' N$ 3D' E' $& 34' F3' G3$ F' H&' C-NF' I 34CHE' H' 3 ' F C' BHDO ' $ED' FH' CF$ ' C $ 3' F3' P $EE34' H4' @$-C3' H&' G3$ F' $NNH4D E2' H' F3' Q3C ' H&' F C' %EH 3D23' $ED' B3 3& ' Q- ' FH' CF$ ' EH ' Q3' NHEN34E3D' E' 3 $ J E E2' F3' BHDO' $& 34' ' 3 J H $ ' $ED' & $ ' E' @$C3' H&' C-NF' ' 3 J H $ ' C-NF' @34 & N$ 3' CF$ ' Q3' D3 343D ' H23 F34

F

U Ć K' S ' M # # ; > P ' ' @$1 !

F' F3' BHDO ' H' F3' I$4 O' 43N3 E2' F3' C$J3' &H4' E$ H J N$ ' ; R $J E$ HE

I4H&3CCH4C' ?-423HEC' J$O'43N3 3' BHD 3C' &H4' E$ H J N$' ; $J E$ HE'

W ' ED' Q3' ' 3E$N 3D' * F$ ' ' CF$#' Q3' $ &- ' &H4' $EO' P 3 J Q34' 63 H ' H&'$EO' @ND 323' H&' I FOC N $EC' H&' ?-423HEC ' H4' $ O' M4$D-$ 3' > N3E $ 3' E' P 3D N E3 ' H4' $EO' I 34CHE' $ &- O' X-$ & 3D' H' 14$N C3' P 3D N E3' E' $EO' I$4 ' H&' F3' #E 3D' % E2DH J ' H4' $EO' I 4H&3CCH4 ' * 3$NF34 ' H4' ? -D3E ' H&' E$ H J O ' P 3D N E3 ' H4' ? -42340 ' F$ E2' $' > N3EN3' &4H J' 8 C' P $(3C O C' I 4 EN 1$' ?3N43 $40' H&' ? $ 3' H4' @F 3&' ?3N43 $40' $C' $&H43C$ D ' H' 43N3 3' H4' 1HCC3CC' &H4' E$ H J N$ ' ; $J R E$ HE ' H4' H' 3 $J E3' E H J N$ O ' F3' BHDO' H&'$EO' I 34CHE' D3N3$C3D ' &' 134 J 3D' H4' D 43N 3D' CH' H' DH' o ' $' I$4 O' FH' F$D' $ ' F3' * J 3' H&' 2 E2' C-NF' I 34 J CC HE' H4' G 43N HE' $ &- ' I HCC3CC HE' H&' F3' BHDO ' $ED' FH' F$D' I H 34 ' E' 1-4C-$EN3' H&' F3' I 4H C HEC' H&' F C' N ' H' 134 ' H4' N$-C3' F3' BHDO' H' Q3' CH' 3 $J E3D ' $ED' 14H D3D' C-NF' @34 & N$ 3' $C' $&H43C$ D' 343' D3 343D' QO' C-NF' B 4 O' H23 F34' F' F3' BHDO ' 7

?-NF' I 34CHEC' H' 43N3 3' F' F3' BHDO' $' @34 & N$ 3' $C' $&H43C$ D' F NF' CF$ ' Q3' 4$ECR J 3D' H' F3' EC13N H4

W> ' ED' Q3' ' 3E$N 3D' * F$ ' 3 340' I$4 O' CH' 43N3 E2' $' BHDO' &H4' E$ H J N$ ' ; $J E$ HE' $& 34 3 J H $ ' CF$ ' D3 J $ED' $ED' 43N3 3' H23 F34' F' F3' BHDO ' $' @34 & N$ 3' $C' $&H43C$ D ' $ED' CF$ ' F E' * 3E O &H-4' 8 H-4C' E3 ' $& 34' C-NF' %3 J H $ ' 4$EC J ' H' F3' EC13N H4' H&' F3' G C 4 N ' C-NF' @34 & N$ 3' $ED' $ CH' $' ' 3 -4E' C $ E2' $ ' F$ ' G$O' $ED' 8 H-4' $ED' &4H J' FH J' F3' BHDO' $C' 43N3 3D' 3' G$ 3' $ED' I $N3' H&' G3$ F ' F3' ?3 ' $ED' ^$C' &$4' $C' C' +EH E' $ ' F3' * J 3_ F3' @F4 C $E' $ED' ?-4E$ J 3' 23 ' $ED' $C ' I $N3' H&' QHD3' H&' C-NF' I 34CHE ' H4 ' &' EH' C-NF' EC13N H4' F$ 3' Q33E' $11H E 3D ' H' CH J 3 ' I FOC N $E ' ?- 23HE ' H4' 1H F3N$40' 43C D E2' $ ' H4' E3$4' F3' I $N3' H' F NF' F3' BHDO' C' 43 J H 3D ' $ED' CF$ ' 3E 34' H4' N$-C3' H' Q3' J 343D' F3' $&H43C$ D' I$4 N- $4C' 43 $ E2' F343 H ' $ED' $' @H1O' H&' F3' @34R & N$ 3' F3' 43N3 3D' F343 F ' E' $' BHH+' H' Q3' +31 ' QO' F J' &H4' F$ ' I -41HC3 ' $ED' CF$ ' 14HD-N3' C-NF' BHH+' F3E3 34' 43X- 43D' CH' H' DH' QO' $EO' EC13N H4' CH' $11H E 3D' $C' $&H43C$ D

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$C CH 43JH 3D Q3 HE23D ʻ $ED F$ ʻ $ @34 &N$ 3 H& F3 E 34J3E ʻ H& C-NF BHDO CF$ ʻ Q3 4$ECJ 3D H F3 EC13N H4 H& F3 G C 4 N ʻ F E ? ʻ 9 33+C $& 34 F3 G$O HE F NF C-NF BHDO $C 43N3 3D $C $&H43C$ D

W ʻ ED Q3 ʻ 3E$N 3D ʻ *F$ ʻ EH P 3 J Q34 H4 63 H ʻ H& $EO @H 323 H& I FOC N $EC H4 ?-423HEC ʻ EH4 $EO M4$D-$ 3 H4 > N3E $ 3 E P 3D N E3 ʻ EH4 $EO I 34CHE $ &- O X-$ & 3D H 14$N C3 P 3D N E3 E $EO I $4 ʻ H& F3 #E 3D % E2DHJ ʻ EH4 $EO I 4H&3CCH4 ʻ *3$NF34 ʻ H4 ? -D3E ʻ H& E$ HJO ʻ P 3D N E3 ʻ H4 ?-42340 ʻ F$ E2 $ > N3EN3 &4HJ ʻ 8 C P $(3C O C I 4 EN 1$ ʻ ?3N43 $4O H& ? $ 3 H4 @F 3& ?3N43 $4O $C $&H43C$ D ʻ CF$ ʻ Q3 $Q 3 H $EO I 4HC3N- HE ʻ I 3E$ O ʻ 6H4&3 -43 ʻ H4 I -E CF J 3E ʻ &H4 43N3 E2 H4 F$ E2 E F C I HCC3CC HE &H4 E$ H J N$ ʻ ; $J E$ HE ʻ H4 &H4 3 $J E E2 E HJ N$ O ʻ $EO D3$D 8 - J $E BHDO ʻ $NNH4D E2 H F3 I 4H C HEC H& F& ʻ N

I 34CHEC D3R CN4 Q3D E F C N ʻ EH ʻ H Q3 $Q 3 H I -E CF J 3E ʻ &H4 F$O E2 E F3 4 I HCC3CR C HE 8 - J $E BHD 3C

W ʻ ED Q3 ʻ 3E$N 3D ʻ *F$ ʻ EH F E2 E F C N ʻ NHE $ E3D CF$F ʻ Q3 NHEC 4-3D H 3 3ED H H4 H 14HF Q ʻ $EO 1HC JH4 3J ʻ ; $J E$ HE H& $EO 8 - J $E BHDO 43X- 43D H4 D 43N 3D H Q3 J $D3 QO ʻ $EO NHJ ʻ 13 3E ʻ 32$ ʻ - FH4 O

N ʻ EH ʻ H 14HF QF1HC ʻ JH4 3J ʻ ; $ ʻ J E$4 HE

W ʻ ED F343$C $E N ʻ $C 1$CC3D E F3 , E F =3$4 H& F3 ʻ 3 2E H& 8 C $ 3 P $(3C O ʻ &H4 NHECH D$ E2 $ED $J 3ED E2 F3 ? $ - 3C E %8#(% #& 43 $ 3 H <&&3EN3C 2 EC ʻ F3 I 34CHE ʻ QO F NF $ 34 N ʻ ʻ C 3E$N 3D ʻ F$ ʻ F3 BHDO H& 3 34O I 34CHE NHER N 3D H& P -4D34 CF$ ʻ $& 34 ; 3N- HE ʻ 3 F34 Q3 D CC3N 3D H4 F-E2 E @F$ EC ʻ $C H F3 @H-4 ʻ F NF 4 3D F3 <&&3ED34 CF$ ʻ C33J ʻ J 33 ʻ $ED F$ ʻ F3 ?3E 3EN3 H Q3 14HEH-EN3D QO F3 @H-4 ʻ CF$ ʻ 3 143CC F$ ʻ F3 BHDO H& F3 <&&3ED34 CF$ ʻ Q3 D CC3N 3D H4 F-E2 E @F$ EC ʻ F NFCH3 34 H& F3 * H F3 @H-4 ʻ CF$ ʻ H4D34 ʻ ʻ Q3 ʻ 3E$N 3D *F$ ʻ CH J -NF H& F3 C$D $C 43N 3D N ʻ $C $- FH4 T3C F3 @H-4 ʻ & ʻ CF$ ʻ C33 & ʻ H D 43N ʻ F$ ʻ F3 BHDO H& $ I 34CHE NHE N 3D H& P -4D34 CF$ ʻ $& 34 ; 3N- HE ʻ Q3 D CC3N 3D ʻ Q3 $ED F3 C$J 3 C F343QO 4313$ 3Dd $ED F$ ʻ E 3 34O @$C3 H& @HE N HE H& $EO I 4 CHE34 &H4 P -4D34 F3 @H-4 ʻ Q3&H43 F NF C-NF I 4 CHE34 CF$ ʻ F$ 3 Q33E 4 3D CF$ ʻ D 43N ʻ C-NF I 4 CHE34 3 F34 H Q3 F-E2 E @F$ EC ʻ H4 H Q3 Q-4 3D F E F3 I 43N EN C H& F3 I 4 CHE E F NF C-NF I 4 CHE34 CF$ ʻ F$ 3 Q33E NHE& E3D $& 34 @HE N HE ʻ $C H C-NF @H-4 ʻ CF$ ʻ C33J ʻ J 33 d $ED F$ ʻ F3 ?3E 3EN3 H Q3 14HEH-EN3D QO F3 @H-4 ʻ CF$ ʻ 3 143CC F$ ʻ F3 BHDO H& C-NF I 4 CHE34 CF$ ʻ Q3 F-E2 E @F$ EC ʻ H4 Q-4 3D F E F3 I 43N EN C H& F3 I 4 CHE ʻ F NF3 34 H& F3 * H F3 @H-4 ʻ CF$ ʻ H4D34

?H J -NF H& V M ʻ ʻ N ʻ S ʻ $C D 43N C F$ ʻ F3 BHD 3C H& P -4D3434C J $O Q3 D CR C3N 3D ʻ 43R 13$ 3D

? NF BHD 3C H Q3 F-E2 E @F$ EC H4 Q-4 3D ʻ $C F3 @H-4 ʻ CF$ ʻ D 43N

W ʻ ED Q3 ʻ 3E$N 3D ʻ *F$ ʻ &$EO N HE H4 ?- ʻ CF$ ʻ Q3 NHJ ʻ J 3EN3D H4 Q4H-2F ʻ 2 EC ʻ $EO I 34CHE &H4 $EO F E2 DHE3 E 1-4C- ʻ $E33 H& F C N ʻ F3 C$J 3 CF$ ʻ Q3 NHJ J 3EN3D F E ? ʻ @$ 3ED$4 PHE FC E3 ʻ $& 34 F3 @$-C3 H& N HE $NN4-3Dd $ED F3 G3&3ED$E ʻ E 3 34O C-NF N HE H4 ?- ʻ J $O ʻ $ ʻ F C ; 3N HE ʻ 1 3$D F3 P $ 34 C13N $ O ʻ H4 F3 M3E34$ ʻ CC-3 , H ʻ 2- O ʻ $ED 2 3 F C N ʻ $ED F3 C13N $ ʻ P $ 34 E ; D3EN3 $ ʻ $EO *4 $ ʻ H Q3 F$D F343-1HE

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D 34143 $' 4 HE' H&' N34R $ E' 9 H4DC' E' F C' N

.W W' ED' E' H4D34' H' 43 J H 3' GH-Q C' $C' H' F3' P 3$E E2' H&' N34 $ E' 9 H4DC' E' F C' N ' Q3' ' 3E$N 3D' *F$' F3' 9 H4DC' ` I 34CHE' $ED' I $4 Oc' CF$ ' Q3' 43C13N 3 O' D33 J 3D' H' EN -D3' $EO' , - J Q34' H&' I 34R CHEC' H4' $EO' ?HN 3 O' F3 F34' QO' @F$4 34' H4' H F34 C3' $ED' F$' F3' P 3$E E2' H&' F3' $&H43C$ D' 9 H4DC' CF$ ' EH ' Q3' 43C 4 N 3D' $ FH-2F' F3' C$ J 3' E $O' Q3' C-QC3X-3E O' 43&3443D' H' E' F3' ? E2- $4' , - J Q34' $ED' P $CN- E3' M3ED34' HE O

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> 8 ; ' ; ?ʻ ʻ Cʻ E3N3CC$4Oʻ F$ ʻ I 4H C HEʻ CFH - Dʻ Q3ʻ J $D3ʻ &H4ʻ D3&4$O E2ʻ F3ʻ @F$423ʻ H&ʻ F3ʻ I $O ʻ @ H F E2 ʻ $EDʻ NHER E23E ʻ $EDʻ H F34ʻ ; 13EN3Cʻ H&ʻ F3ʻ ' 32 - $4ʻ P $ ʻ $EDʻ H&ʻ F3ʻ P E34Cʻ H&ʻ I , FF %% $EDʻ 2 ! 0 , # ʻ F3Eʻ D C3 J QHD 3D ʻ Eʻ ! ʻ " #ʻ $EDʻ $! % #&=ʻ $EDʻ &H4ʻ J $+ E2ʻ Eʻ N34 $ Eʻ @$C3Cʻ H $EN3Cʻ H&ʻ ' 3D - N3Dʻ I $Oʻ Hʻ ? - Q$ 34Eʻ <&& N34Cʻ $EDʻ ? - 423HECʻ P $ 3Cʻ $EDʻ CC C $E ʻ ? - 423HECʻ H&ʻ F3ʻ ' 32 - $4ʻ P $ ʻ $EDʻ H&ʻ F3ʻ P E34Cʻ H&ʻ 2 ! 0 , #ʻ $EDʻ @H4 E ʻ F 3ʻ D C3 J QHD 3Dʻ ʻ $EDʻ H $EN3Cʻ Hʻ D(- R $E C ʻ I $O J $C 34C ʻ ? - 423HEC ʻ \ - $4 34 J $C 34C ʻ $EDʻ ?3 (3$E ʻ P $(H4Cʻ H&ʻ F3ʻ ' 32 - $4ʻ P $ ʻ FHʻ F$ 3ʻ Q33Eʻ H4ʻ J $OQ3ʻ 43D - N3D $EDʻ Hʻ D(- R $E C ʻ ? - 423HEC ʻ $EDʻ \ - $4 34 J $C 34Cʻ D C$Q 3Dʻ $& 34ʻ HE2ʻ ?34 N3 ʻ Q3ʻ Zʻ #ʻ ʻ ʻ

ʹ F343&H43ʹ 3E$N 3Dʹ QOʹ F3ʹ % E2 Cʹ JHC ʹ ; N3 3E ʹ P$(3C O ʹ QOʹ $EDʹ Fʹ F3ʹ D N3ʹ $EDʹ @H8C3E ʹ H&ʹ F3ʹ >H4DCʹ ?1 4 -$ʹ $EDʹ *3 J 1H4$ ʹ $EDʹ @H J JHECʹ Eʹ F Cʹ 143C3E ʹ I$4 $J3E ʹ $CC3 J Q 3D ʹ $EDʹ QOʹ F3ʹ

?3N43 $4O $ʹ 9$4 H CC-3ʹ F3ʹ PHE3Oʹ 43X- 43Dʹ &H4ʹ F3ʹ I$Oʹ H&ʹ F3ʹ '32- $4ʹ P $

- FH4 Oʹ H&ʹ F3ʹ C$J 3ʹ *F$ ʹ F3ʹ ?3N43 $4Oʹ $ʹ 9 $4ʹ &H4ʹ F3ʹ * J 3ʹ Q3 E2ʹ J $Oʹ $EDʹ CF$ ʹ $EDʹ F3ʹ Cʹ F343QOʹ $- FH4 T3D ʹ 3 J 1H 343D ʹ $EDʹ 43X- 43Dʹ Hʹ N$-C3ʹ Hʹ Q3ʹ CC-3Dʹ $EDʹ 1$ Dʹ F3ʹ FH 3ʹ ?- Jʹ 43X- 43Dʹ &H4ʹ F3ʹ '32- $4ʹ P $ʹ H&ʹ ! ʹ " #ʹ $EDʹ $!% #&ʹ ^ F3Eʹ D C3 J QHD 3D_ ʹ Eʹ F3ʹ P$EE34ʹ $EDʹ &H4ʹ F3ʹ C3 34$ʹ #C3Cʹ F343 E$& 34ʹ J 3E HE3D ʹ ^ F$? Hʹ C$O _ʹ &H4ʹ F3ʹ I$Oʹ H&ʹ F3ʹ C$ Dʹ '32- $4ʹ P $ʹ $ʹ F3ʹ '$ 3C &H H E2ʹ ^ F$ ʹ Cʹ Hʹ C$O _

'$ 3Cʹ H&ʹ I$Oʹ

6H4ʹ 3$NFʹ D(- $E ʹ ; 2F ʹ ?F E2Cʹ ! ʹ 2 ! ʹ

6H4ʹ 3$NFʹ ?34(3$E ʹ P$(H4 ʹ F$ E2ʹ Q33Eʹ ?3 (3$E ʹ P$(H4ʹ H&ʹ $ʹ I4H C HE$ʹ B$ $ HEʹ H&ʹ P $ʹ * Hʹ ?F E2Cʹ $EDʹ ? 13EN3ʹ 5! ʹ 2 ! ʹ

6H4ʹ 3$NFʹ ?3 (3$E ʹ P$(H4 ʹ F343ʹ <E3ʹ Cʹ $11H E 3Dʹ Eʹ @H41Cʹ NHER C C E2ʹ H&ʹ * Hʹ H4ʹ JH43ʹ <H J 1$E 3C ʹ <13ʹ ?F E2ʹ $EDʹ *3E 13EN3ʹ 5! ʹ 2 !

6H4ʹ 3$NFʹ ?34(3$E ʹ F$ E2ʹ Q33Eʹ $ʹ @H H-4ʹ ?3 (3$E ʹ Eʹ <E3ʹ H&ʹ F3ʹ I4H C HE$ʹ B$ $ HECʹ H&ʹ P $ʹ * Hʹ ?F E2Cʹ 5! ʹ 2 !

6H4ʹ 3$NFʹ ?3 (3$E ʹ DH E2ʹ F3ʹ G- Oʹ H&ʹ \ -$4 34 J $C 34ʹ ?3 (3$E ʹ <E3ʹ CF E2ʹ $EDʹ *3E 13EN3ʹ 134ʹ 2 !

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R,J 3$NFʹ G4- J J34ʹ <E3ʹ ?F E2ʹ 5! ʹ 2 !

'$ 3Cʹ H&ʹ I$Oʹ F3Eʹ $QC3E ʹ HEʹ 6-4 H-2F

I4H D3Dʹ $ $OC ʹ F$ ʹ F3Eʹ $EOʹ ?34(3$E ʹ P$(H4 ʹ ?3 (3$E ʹ G4- Jʹ P$(H4 ʹ H4ʹ G4- J J34ʹ CF$ ʹ Q3ʹ $QC3E ʹ HEʹ 6-4 H-2Fʹ H4ʹ > N3EN3 ʹ F3ʹ CF$ ʹ D-4 E2ʹ C-NFʹ QC3EN3ʹ 43N3 3ʹ ? 13EN3ʹ 5! ʹ 2 ! ʹ 3CCʹ F$Eʹ F3ʹ $QH 3ʹ J 3E HE3Dʹ '$ 3Cʹ 43C13N 3 O

@H F E2

EDʹ $ CHʹ &H4ʹ F3ʹ @H F E2ʹ H&ʹ F3ʹ '32- $4ʹ P $ʹ ^ F3Eʹ D C3 J R QHD 3D_ ʹ Eʹ @$C3Cʹ Eʹ F NFʹ &- ʹ @H F E2ʹ CF$ ʹ Q3ʹ 14H D3Dʹ QOʹ F3ʹ @H HE3 ʹ H4ʹ @H J JEDE ʹ $ʹ F3ʹ '$ 3ʹ H&ʹ 6 3ʹ I H-EDCʹ * 3 3ʹ ?F R E2Cʹ $EDʹ <E3ʹ I 3EEOʹ &H4ʹ 3$NFʹ ?3 (3$E ʹ P$(H4ʹ $EDʹ ?34(3$E ʹ DH E2ʹ F3ʹ G- Oʹ H&ʹ \ -$4 34 J $C 34ʹ ?3 (3$E ʹ *F433ʹ I H-EDCʹ &H4ʹ 3$NFʹ ?3 (3$E ʹ * Hʹ I H-EDCʹ ; 2F 33Eʹ ?F E2Cʹ $EDʹ ?3 3E 13EN3ʹ &H4ʹ 3$NFʹ G4- Jʹ P$(H4ʹ $EDʹ G4- J J34ʹ ($EDʹ <E3ʹ I H-EDʹ ?3 3E 33Eʹ ?F E2Cʹ &H4ʹ 3$NFʹ I4 $ 3ʹ P $E ʹ $EDʹ CHʹ Eʹ 14H1H4 HE ʹ Eʹ F3ʹ <$C3Cʹ Eʹ F NFʹ HE Oʹ I$4 ʹ H&ʹ F3ʹ @H F E2ʹ CF$ ʹ Q3ʹ 14H D3Dʹ QOʹ F3ʹ @H HE3 ʹ H4ʹ @H J J$EDR $E ʹ H23 F34ʹ Fʹ F3ʹ $N -$ʹ ; (N13EN3ʹ H&ʹ I$N+$23ʹ $EDʹ @$44 $23ʹ $EDʹ C-NFʹ @F$423Cʹ &H4ʹ $ 34 E2ʹ $EDʹ & E2ʹ F3ʹ @H F E2ʹ $Cʹ CF$ ʹ F$ 3ʹ Q33Eʹ EH & 3Dʹ QOʹ F3ʹ ?3N43 $4Oʹ $ʹ 9 $4: I4H D3Dʹ $ $OC ʹ F$ ʹ C-NFʹ ?3 3$E ʹ P$(H4Cʹ ?3 (3$E Cʹ $N E2ʹ $Cʹ \ -$4 34 J $C 34ʹ ?3 (3$E C ʹ G4- Jʹ P$(H4C ʹ ?3 (3$E C ʹ $EDʹ G4- J J34C ʹ $Cʹ 9 343ʹ C34 E2ʹ HEʹ F3ʹ G C3 J QHD 3Dʹ ? $&&ʹ HEʹ F3ʹ 6 4C ʹ G$Oʹ H&ʹ ?3#!ʹ <E3ʹ FH-C$EDʹ 3 2F ʹ F-ED43Dʹ $EDʹ 3E O ʹ E E3 ʹ $EDʹ CF$ ʹ Q3ʹ 43C D3E ʹ $ʹ 8 3$Dʹ \ -$4 34C ʹ CF$ ʹ Q3ʹ 3E 3Dʹ Hʹ Q3ʹ N H F3Dʹ <EN3ʹ Eʹ * Hʹ =3$4C ʹ $EDʹ F$ ʹ C-NFʹ $Cʹ CF$ ʹ F$ 3ʹ Q33Eʹ C-QC3X-3E Oʹ $11H E 3Dʹ Hʹ C34 3ʹ H4ʹ 14H J H 3Dʹ HEʹ F3ʹ G C3 J QHD 3Dʹ ? $&&ʹ CF$ ʹ Q3ʹ 3E 3Dʹ Hʹ Q3ʹ N H F3Dʹ <EN3ʹ Eʹ 6H-4ʹ =3$4C

6-ED

EDʹ $ CHʹ $ʹ F3ʹ '$ 3ʹ H&ʹ <E3ʹ I 3EEOʹ P HE Fʹ &H4ʹ 3$NFʹ I4 $ 3ʹ P $Eʹ $EDʹ G4- J J34ʹ H4ʹ 6 &34ʹ &H4ʹ D3&4$O E2ʹ F3ʹ NHE E23E ʹ ; 13EN3Cʹ H&ʹ 3$NFʹ '32 J 3E ʹ B$ $ HE ʹ H4ʹ @H41C

U`KS7M#> ;>P ' ' @$1 Y US

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' 3 340' D(- $E ' ,HE 1HJ ' J CC HE3D' <&& N34' $ED' G4- J J34' HE' F3' ? $&&' H&' F3' '32- $4' P $' F3E' D C3 J QHD 3D' CF$ ' Q3' NHEC $E O' 43C D3E' F E' F3' @ O' *H E' H4' I $N3' F343' F3' 4JC' H&' F3' @H41C' H' F NF' F3O' Q3 HE2' $43' +31 ' H4' F E' C-NF' 43CHEQ 3' G C $EN3' H&' F3' G31Y ' $C' CF$ ' Q3' C$EN HE3D' QO' F3' ?3N43 $4O' $' 9 $4.' I4H D3D' $ $OC' F$' 3 340' C-NF' D(- $E ' ,HE NHJ J CC HE3D' <&& N34' $ED' G4- J J34' CF$ ' &H4&3 ' F C' I $O' &H4' $EO' I34 HD' D-4 E2' F NF' F3' CF$ ' Q3' $QC3E ' 3 N31 ' F3E' $QC3E ' QO' >3$ 3' &4H J' F3' @H HE3 ' H4' @H J JEDE ' H&' F3' '32 J3E B$ $ HE' H4' @H41C' F NF' >3$ 3' CF$ ' EH ' 3 N31 ' E' N$C3' H&' N34 & 3D' ? N+E3CC' 3 3ED' Q3OHED' *F433' @$ 3ED$4' P HE FC' E' <E3' =3$4' EH4' H' $' 243$ 34' I4H1H4 HE' F$E' <E3' *F 4D' H&' F3' ,HE NHJ J CC HE3D' <&& N34C' $ED' _4- J J34C' $' F3' C$J3' * J3

D(- $E ' KN' H 43C D3 W4 J CH& F3' @H41C' $43' +31 '

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' D(- $E ' H&' 3$NF' '32 R J3E ' H&' P $' CF$ ' F$ 3' F3' @F$423' $ED' @$43' H&' F3' 4JC' NNH- 43 J3E C' M43$ ' @H$ C' @ H F E2' ,3N3CC$4 3C' $ED' < F34' ? H43C' -ED34' F3' ?-134 E 3ED$EN3' H&' F3' @Q HE3 ' H4' @H J JEDE ' $ED' CF$ ' H- ' H&' F3' H $EN3' H&' <E3' I 3EEO' 5! ' P HE F' &H4' 3$NF' I4 $ 3' P $E' $ED' G4- J J34 ' D 43N 3D' QO' F C' N' H' Q3' CC-3D' $ED' 1$ D' &H4' D3R &4$O E2' F3' NHE E23E ' ; 13EN3C' H&' C-NF' '32 J3E ' B$ $ HE' H4' @H41C' &4H J' * J3' H' * J3' CC-3' $ED' 1$O' C-NF' ?- JC' H&' P HE3O' $C J $O' Q3' E3N3CC$4O' &H4' F3' '31$ 4' H&' 4JC' $ED' H F34' -C-$' NHE E23E ' ; 13EN3C' -1HE' $E' <4D34' $' 9 4 E2' C 2E3D' QO' F3' @H HE3 ' H4' H F34' @H J JEDE ' $ED' $& 34' I $O J3E ' H&' C-NF' ?- JC' $C' $&H43C$ D' F3' CF$F' *F433' * J3C' E' F3' =3$4' J$+3' -1' NNH-E C' H&' $ 'C-NF' P 1E3O ' $ED' H&' F3' ; 13ED -43' F343H&' CFH E2' F3' B$ $EN3' 43 J$ E E2' E' F C' 8$EDC' ^ F NF' C$ D' B$ $EN3' CF$ ' &H4 J' $' ? HN+' I -4C3' &H4' F3' #C3' H&' F3' '32 J3E ' B$ $ HE' H4' @H41C _' $ED' CF$ ' 4$EC J ' F3' C$ J3' H' F3' @H HE3 ' H4' H F34' @H J JEDE ' H&' C-NF' '32 J3E ' B$ $ HE' H4' @H41C' H' Q3' QO' F J' 3 $J E3D' $ H 3D' $ED' C 2E3D' ($ED' F3' C$ D' NNH-E C' CH' $ H 3D' $ED' C 2E3D' CF$ ' Q3' $ED' $43' F343QO' D 43N 3D' H' Q3' F3' 14H134' H-NF34C' $ED' N - $' H&' ?-NF' D(- $E ' &H4' F3' 11 N$ HE' $ED' G C1HC$' H&' C-NF' P HE3O

D(- $E ' E' F$43' @F$423' H&' F3' 4JC' $ED@ H F E2' $ED' H' CC-O' F3 P HE3O&H4' @HE E23E ' ; 13EN3C' HE' $E' <4D34' C 2E3D' QO' F3' @H HE3 B$ $EN3' H' &H4 J' $' ? HN+' I -4C3

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' E' F3' HNN$C HE$ ' $ED' -E$ H D' $Q 3' QC3EN3' H&' F3' D(- $E ' &4H J' F3' @ O' *H E' H4' I $N3' F343' F3' 4JC' H&' $EO' @H41C' H&' P $' F3E' D C3 J QHD 3D' $43' +31 ' H4 D-4 E2' $EO' NENO' E' F3' 11H E J3E ' H&' D(- $E ' F3' ?34(3$E C' $ED' G4- J J34C' CF$ ' Q3' -ED34' F3' @H J J$ED' H&' F3' ?34(3$E ' P $(H4' H4' H&' CH J3' ?34(3$E ' FH' CF$ ' Q3' $11H E 3D' QO' F3' C$ D' D(- $E ' F' F3' 114HQ$ HE' H&' F3' @H HE3 ' H4' H F34' @H J J$ED E2' <&& N34' H' $N ' $C' ?34(3$E ' P $(H4' D-4 E2' F3' QC3EN3' H&' C-NF' D(- $E ' $ED' F3' C$ D' ?34(3$E ' P $(H4' H4' $N E2' ?34(3$E ' P $(H4' CF$ ' 43ED34' F3' C$ J3' '3 -4EC' $ED' 134&H4 J' C-NF' H F34' N C' $C' $43' QO' >$ '43X- 43D' &4H J' F3' D(- $E

E' QC3EN3' H&' F3' D(- $E ' -ED34' F3' @H J J$ED' H&' F3' ?34(3$E '

F ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' <&& N34C' $ED' ,HE NH J ' : ' - J CC HE3D' <&& N34C' G4- J J34C' $ED' I4 $ 3' P 3E' H&' F3' '32- $4' , ' +' ' P $' CF$ ' &H4' F3' I34 HD') ' I34 HDC' D-4 E2' F NF' F3O' CF$ ' F3' 3E N$ 3D' H- ' &H4' F3' I -41HC3' H&' ; 34N C3' H4' *4$ E E2' F3' 3E 3D' H' F3' 3D' H I $O' C$ J3' I $O' $ED' H $EN3C($C' F3 <&& N34C' ,HE NH J J CC HE3D' <&& N34C ' G4- J J34C' $ED' I4 $ 3' P 3 ' H&' F3' P $' F3E' 3 J QHD 3D

' ED

U ' UL' K' S/' M#> ; > P ' ' @$1 Y

' ' ' ED' F343$C' ' C' 3 13D 3E ' H' 24$E ' H $EN3C' H' N34 $ E'
!') - '! ' <&& N34C' H&' F3' C$ D' P $' 6H4N3C' , ' ! ' " #' $ED' $!% #&'
P$3C $E*/' F 3' D C3 J QHD 3D' -ED34' N34 $ E' ' 32 - $ HEC' (Q3' '&-4 F34' 3E$N 3D'
!' !' *F$ ' F3' &H H E2' H $EN3C' CF$ ' Q3' J $D3' $ED' 1$ D' H' F3'
) % ' J H- ' -ED34' F3' ' 3C 4 N HEC ' $ED' E' F3' P $EE34' F343 E $& 34'
3 143CC3D' H' 3 340' ?-Q$ 34E' <&& N34' $ED' ?-423HE C' P $ 3' #' ! '
" #' $ED' H' 3 340' ?-Q$ 34E' <&& N34' $ED' CC C $E ' ?-423HE' J'
$!% #&' FH' F3 D' $' @H J J CC HE' E' F3' P $' H&' ! ' " #' H4'
$!% #&' $ED' $C' C34 E2' F343 E' F3E' F3' @H41C' $C' $C ' D C3 J QHD 3D'
$ED' $ CH' H' 3 340' ?-134E- J 34$40' ?-Q$ 34E' <&& N34' $ED' CC C $E '
?-423HE' H&' $EO' ' 32 J 3E ' H&' P $' E' $!% #&' F NF' $C' $-2 J 3E 3D'
D-4 E2' F3' 9 $4 ' $ED' F NF' F$C' Q33E' 43D-N3D' H' C' H4 2 E$ ' ; C $Q CFR
J 3E ' ' ^ F$ ' C' H' C$O _

*H' $' > 3- 3E$E ' * H' ?F E2C' $ED' ? 13EN3' ! ' 2 !
*H' $E' ; EC 2E ' * H' ?F 2C' 134'
ED' H' $' ?-423HE C' P $ 3' H4' CC C $E ' ?-423HE ' * H' ?F E2C' $ED'
? 13EN3' 134'

' $E+' H&
!'
<&& N34C

I 4H D3D' $ $OC' F$ ' &H4' F3' I -41HC3C' H&' F C' N ' $ ' <&& N34C' H&' F3'
P $' C34 E2' F' F3' ' $E+' H&' @$1 $ E > 3- 3E$E C' CF$ ' Q3' D33 J 3D'
H' Q3' > 3- 3E$E C' $ED' $ ' <&& N34C' C34 E2' F' F3' ' $E+' H&' ?3NHED'
> 3- 3E$E ' CF$ ' Q3' D33 J 3D' H' Q3' ; EC 2EC ' $ED' F$ ' F3' ? 134'
E- J 34$40' ?-Q$ 34EC' $ED' CC C $E ' ?-423HEC' H&' ' 32 J 3E C' H&' P $'
E' $!% #&' $C' $&H43C$ D' CF$ ' Q3' D33 J 3D' <' F$ 3' Q3 HE23D' H' C-NF'
' 32 J 3E C' F3E' F30' 343' $C ' D C3 J QHD 3D' $ED' H' F$ 3' NHE E-3D'
H' C34 3' F343 E' &4H J' F$ ' * J 3

!' '< *
' !'
!! #! '

' I 4H D3D' $ CH' $ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' EH' I 34CHE'
FH' C' H4' CF$ ' D-4 E2' F3' @HE E-$EN3' H&' F C' N ' Q3NH J 3' 1HCC3CC3D'
H&' C-NF' $E' ; C $ 3' H4' ENH J 3' $C' H- D' QO' >$ ' X-$ &O' F J' H' FH D'
F3' @H J J CC HE' H&' @$1 $ E' H&' $' @H J 1$EO' E' F3' C$ D' P $' H4'
FH' C' H4' CF$ ' Q3' $11H E 3D' D(- $E ' E' $EO' ' 32 J 3E ' B$ $ HE ' H4'
@H41C' H&' P $' EH4' $EO' <&& N34' HE' ; - ' I $O' H&' F3' , $ O' 4 J O' H4'
P $4 E3C' CF$ ' F$ 3' H4' Q3' E' $EO' $O' 3E 3D' H' F3' C$ D' H $EN3C'
H4' $EO' I $4 ' H4' ?F$43' F343H&' $EO' F E2' F343 E' NHE $ E3D' H' F3'
NHE 4$40' F343H&' E' $EO C3' EH FC $ED E2

, '! '! ' - '
!'. '!' *
!! ' , $$ '
B '!' '

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' F3' ?-Q$ 34E' <&& N34C'
?-423HEC' P $ 3C' $ED' CC C $E ' ?-423HEC' H&' F3' P $' FH' CF$ '
N $ J' -ED34' F3' - FH4 O' H&' F C' N ' H' 43N3 3' $EO' I $4 ' 3 &' F3'
C$ D' H $EN3C ' CF$ ' 143 H-C' H' 43N3 E2' F3' C$ J 3' $ED' E' H4D34'
H' 3E 3' F3 J C3 3C' F343 H ' $+3' $ED' C-QCN4 Q3' $E' <$ F' Q3&H43' CH J 3'
HE3' H&' 8 C' P $(3C O C' 5-C N3C' H&' F3' I 3$N3' H&' F3' #E 3D' % E2DH J '
H4' Q3&H43' CH J 3' HE3' H&' 8 C' P $(3C O C' P E C 34C ' ?3N43 $4 3C' H&' ; J R
Q$CCO ' H&' >32$ HE ' H4' @HEC- C' Q4H$D ' E' F3' 9 H4DC' E4' H' F3' ; &&3N '
&H H E2 ' @O &!% '! A

J 5' $
, '!

7 ' B ' DH' C 3$4 ' * F$ ' ' Q3 HE23D' H' F3
7 H&' P $' F3E' F3' C$ J 3' $C' D C3 J QHD 3D' $ED' F J' ' F$ 3'
7 NHE E-3D' H' C34 3' F343 E' &4H J' F$ ' * J 3' -E ' F3'
7 G$O' H&' EN -C 3' $C' $' I > 3- 3E$E ' ; EC 2E
7 ?-423HE C' P $ 3' , ' CC C $E ' ?-423HE' 1')!' I 1!' ' 4! a' $ED'
7 F$ ' ' $C' EH ' E' J O' H E' ' 2F ' H4' E' F3' ' 2F ' H&' J O' 9 &3 ' D-4 E2'
7 $EO

U K S M55> ; > P @$1 Y

7 $EO I$4 H& F3 I34 HD &H4 F NF EH N $ J H 43N3 3 J O
7 H $EN3 F$ C H C$O &4H J F3 G$O H&
7 H F3 G$O H& QH F
7 EN -C 3 J F3 $N -$ IHCC3CC HE $ED ; E(HO J 3E H4 ' 3N3 1 H& F3
' 3E C $ED I4H& C H& >$EDC *3E3 J 3E C H4 8 343D $ J 3E C H& C-NF
7 $E $EE-$ $ -3 $QH 3 ' 314 T3C $C H- D X-$ &O J 3 H FH D $
7 @H J J CC HE H& @$1 $ E H& $ @H J 1$EO E F3 P $ F$ $C
7 EH E 8 H O <4D34C F$ F$ 3 EH D-4 E2 F3 $QH 3 I34 HD F3 D
7 F3 11H E J 3E H& D(- $E ?E423HE I$O J $C 34 H4 \-$4 34
7 J $C 34 E $EO ' 32 J 3E B$ $ HE H4 @H41C H& P $ F$ D D
7 EH FH D H4 3E(HO EH4 D D $EO I34CHE &H4 J 3 FH D H4 3E(HO D-4 E2
F3 C$ D I34 HD $EO I $N3 <&& N3 H4 ; J 1 HO J 3E H& I4H& @
7 H4 P $4O -ED34 F3 @4H E H4 $EO H F34 MH 34E J 3E Q3C D3C
F3 H $EN3 H& $ G$O EH N $ J 3D 3 N31
7 J O 8 $ & I $O $C $ IH& F3 4 J O H4 , $ O H4
7 P$4 E3?(, H& $ I4H C HE$ B$ $ HE &H4 J 3D &4H J F3 P $
7 1) ! I 1! &3m $ED $EO I $O $ED H $EN3C &4H J F3
7 H F3 QH F G$OC EN -C 3 D-4 E2 F NF
7 I34 HD F3 @H41C $C $CC3 J Q 3D &H4 *4$ E E2 $ED ; 34N C3
7 ?H F3 1 J 3 M< G 0

9 F NF <$ F CH $+3E $ED C-QCN4 Q3D CF$ Q3 14HD-N3D H F3
I $O J $C 34 M3E34$ H& 8 C P $(3C O C 6H4N3C QO F3 ?-Q$ 34E <&& N34
?-423HE C P $ 3 H4 CC C $E ?-423HE N $ J E2 F3 H $EN3

W ED Q3 &-4 F34 3E$N 3D *F$ F3 H $EN3C 24$E 3D H H $EN3C
N34 $ E I $O J $C 34C ?-423HEC $ED \-$4 34 J $C 34C H& F3 P $ H& H <&& N34C
! " # $ED $!% #& HE F3 4 Q3 F2 43D-N3D E 1-4C-$EN3 H&
$E N 1$CC3D E F3 *3E F =3$4 H& F3 ' 3 2E H& 8 C P $(3C O % E2
!, (! F3 6H-4 F CF$ Q3 CC-3D $ED 1$ D -ED34 F3 ' 3C 4 N HEC
$ED E F3 P $EE34 Q343 F $& 34 3 143CC3D D-4 E2 F3 @HE E-$EN3 H&
F C N $ED F$ CF$ F3 $ &- &H4 F3 ?3N43 $4O $ 9 $4 H 1 $N3
$EO C-NF I $O J $C 34 ?-423HE H4 \-$4 34 J $C 34 F3E -E& &<4 &-4
F34 G- O -1HE $ 43 43D H $EN3 3X-$ H $ED E 3- H& F C
43D-N3D H $EN3

W ED Q3 &-4 F34 3E$N 3D *F$ 3 34O I $O J $C 34 ?-423HE < F HQ3
$ED \-$4 34 J $C 34 H& P $ FH CF$ N $ J -ED34 F3 - FH4 O QO
H& F C N H 43N3 3 $EO I $4 H& F3 C$ D H $EN3C CF$ 143 H-C
H 43N3 E2 F3 C$ J 3 $ED E H4D34 H 3E 3 F J C3 & F343 H $+3 ! LM' E$
$ED C-QCN4 Q3 $E <$ F Q3&H43 CH J 3 HE3 H& 8 C P $(3C O C 5-C N3C H&
F3 I3$N3 E F3 #E 3D % E2DH J H4 Q3&H43 CH J 3 HE3 H& 8 C P $(3C O C
P E C 34C ?3N43 $4 3C H& ; J Q$CCO H4 H& >32$ HE H4 @HEC- C Q4H$D
E F3 9 H4DC H4 H F3 ; &&3N &H H E2 GO &!% ' ! A

* ' DH C 3$4 *F$ $C C34 E2 $C I I $O J $C 34 ?-423HE , 6H4 J $
\-$4 34 J $C 34 1) ! I 1! 4! E F3 H&
P $ $ F3 ' 3D-N HE H& F3 ? $&& H& F3 C$ D P $ E <E3
FH-C$ED 3 2F F-ED43D $ED 3E O E E3 $ED F$ $C EH E
8 H O <4D34C D-4 E2 $EO I $4 <& F3 I34 HD &H4 F NF EH N $ J
H 43N3 3 $E H $EN3 F$ C H C$O &4H J F3 G$O
H& <E3 FH-C$ED 3 2F F-ED43D $ED H F3
G$O H& <E3 FH-C$ED 3 2F F-ED43D $"D
$ED F$ D D EH FH D H4 3E(HO EH4 D D $EO I34CHE
&H4 J 3 FH D H4 3E(HO D-4 E2 $EO I $4 H& F3 C$ D I34 HD $EO
W 7 I $N3

I $N3' <&& N3' H4' ; J 1 HO J 3E ' H&' I 4H& ' @ ' H4' P $40' -ED34'
F3' @4H E' H4' $EO' H F34' MH 34E J 3E ' Q3C D3C' F3' H $EN3' H&'
$' G$O' EH ' N $ J 3D' 3 N31 ' J O' 8 $ &' I $O' $C' $'
H&' F3' 4 J O' H4' , $ O' H4' P $4 E3C ' H4' H&' $' I 4H C HE$ ' B$ $ HE'
7 Q4 J 3D' &4H J' F3' P $' 1' % !' I 1!' ')! ' $ED' 3 N31 ' J O' I $O'
7 $ED' H $EN3C' &4H J' F3' H' F3' QH F
7 G$OC' EN -C 3' D-4 E2' F NF' I 34 HD' F3' ' P $
7 $C' $CC3 J Q 3D' &H4' * 4$ E E2' $ED' ; 34N C3' ' ?H' F3 1' J 3' M < G

9 F NF' <$ F' CH' $+3E' $ED' C-QCN4 Q3D' CF$ ' Q3' 14HD-N3D' H' F3' I $OR J $C 34' M3E34$' H&' 8 C' P $(3C O C' 6H4N3C' QO' F3' I $O J $C 34' ?-423HE' H4' \ -$4 34 J $C 34' N $ J E2' F3' H $EN3' : I 4H D3D' $ $OC' F$ ' $EO' I $O J $C 34' ?-423HE' H4' \ -$4 34 J $C 34' 43N3 E2' C-NF' H $EN3' $ED' Q3 E2' HE' , $ $' H4' P $40' 8 $ &' 1$O' H4' 3E 3D' H' $EO' H $EN3' $C' F$ E2' C34 3D' E $EO' H&' 8 C' P $(3C O C' ' 32- $4' 6H4N3C' H4' , $ O' H4' P $4 E3C' CF$ ' EH FC $ED E2' C-NF' P $' H $EN3' Q3' 3E 3D' H' 43N3 3' C-NF' 8 $ &' I $O' H4' H $EN3

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W>' ED' F343$C' N34 $ E' @H41H4$ C' $ED' G4- J J 34C' H&' F3' P $' H&' F3' # E 3D' % E2DH J' H&' ! ' " #' $ED' $!% #&' 343' E' 1-4R C-$EN3' H&' F3' I 4H C HE' H&' $E' N ' 1$CC3D' D-4 E2' F3' $C' ?3CC HE' H&' I $4 $ J 3E ' C 4-N+' H&&' F3' ; C $Q CF J 3E ' H&' F3' G C3E(QHD 3D' ? $&&' $ED' 1 $N3D' HE' F3' <- I 3EC HE' H&' 6 3 13EN3' $' " . ' $ FH-2F' EH' -E& ' &H4' &-4 F34' ?34 N3' Q3' ' &-4 F34' 3E$N 3D' * F$ ' EH' @H41H4$' H4' G4- J J 34' CH' 1 $N3D' HE' F3' I 3EC HE' H&' 6 3 13EN3' 5! ' 2 ! ' CF$ ' Q3' 3E 3D' H' 43N3 3' F3' C$ D' I 3EC HE' &H4' $EO' I 34 HD' D-4 E2' F NF' F3' CF$ ' Q3' 43N3 E2' I $O' E' F3' P $

) - ' ! ' " ' ! ' B ' ! ' ' !! # ! ' :8 ' B

W ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' 3 34O' I $O J $C 34' ?-423HE' \ -$4 34 J $C 34' HE' F3' 43D-N3D' H $EN3' $ED' 3 34O' ?-Q$ 34E' <&& N34' ?-423HE C' P $ 3' $ED' CC C $E ' ?-423HE' H&' F3' P $' FH' CF$ ' Q3' 3E 3D' H4' N $ J' H' Q3' 3E 3D' H' $EO' H $EN3C' $C' $&H43R C$ D' CF$ ' 432- $4 O' $ 3ED' F3' ; 34N C3' $ED' * 4$ E E2' H&' F3' ' 32 R J 3E ' B$ $ HE ' H4' @H412' H' F NF' F3' Q3 HE2C' D-4 E2' F3' FH 3' H&' F3' * J 3' ' CF$#' Q3' $CC3 J Q 3D' &H4' F$ ' I -41HC3' $ED' CF$ ' D-4 E2' F3' C$ D' * J 3' 1-EN -$ O' DH' $ED' 134&H4 J' F C' G- O' $C' $' I $O J $C 34' ?-4R 23HE' \ -$4 34 J $C 34' ?-Q$ 34E' <&& N34' ?-423HE C' P $ 3' <4 CC C $E ' ?-423HE' H&' C-NF' ' 32 J 3E ' B$ $ HE' H&' @H41C' HE' 1$ E' H&' &H4&3 E2' F3' C$ D' H $EN3' $C' 3 ' $C' $ ' 443$4C' H&' F3' C$ D' H $EN3' $ED' H&' I $O ' $ED' $' @34 & N$ 3' H&' F C' F$ E2' CH' $ 3ED3D' $ED' 134&H4 J 3D' F C' G- O' C 2E3D' QO' F3' @H J J $ED E2' <&& N34' H&' F3' ' 32 J 3E ' B$ R $ HE' H4' @H41C' H' F NF' F3' J $O' Q3 HE2' CF$ ' Q3' 4$EC J 3D' H' F3' I $O J $C 34' M3E34$' QO' F3' <&& N34' N $ J E2' F3' H $EN3' : I 4H D3D' $ $OC' F$' E' N$C3' $EO' C-NF' ' I $O J $C 34' ?-423HE' \ -$4 34 J $C 34' ?-Q$ 34E' <&& N34' ?-423HE C' P $ 3' H4' CC C $E ' ?-423HE' N $ J E2' H' Q3' 3E 3D' H' C-NF' H $EN3' CF$ ' QO' F C' @H J J $ED E2' <&& N34' Q3' 134 J 3D' H4' C-&&343D' &H4' $EO' C13N $' @$-C3' H4' -E$ H D$Q 3' , 3N3CC O ' H' Q3' $QC3E ' D-4 E2' F3' 9 FH 3' H4' $EO' I $4 ' H&' C-NF' ; 34N C3' &H4' F NF' I -41HC3' ' CF$ ' Q3' $ &- ' &H4' C-NF' @H J J $ED E2' <&& N34' H' 24$E ' C-NF' >3$ 3' H&' QC3EN3 ' F3E' $ED' E' C-NF' @$C3' ' CF$ ' Q3' $ R &- ' &H4' C-NF' I $O J $C 34' ?-423HE' \ -$4 34 J $C 34' ?-Q$ 34E' <&& N34' ?-423HE C' P $ 3' H4' CC C $E ' ?-423HE' FH' J $O' Q3' CH' 134 J 3D' H' Q3' $QC3E ' $ED' F$ 3' C-NF' >3$ 3' E' 9 4 E2' H' D3 J $ED' $ED' 43N3 3' F3' C$ D' H $EN3' $ED' 3 34O' I $4 ' F343H&' E' +3' P $EE34' $C' &' F3

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FD' 3ED3D' D-4 E2' F3' FH 3' H&' F3' C$ D' ; 34N C3' I4H D3D' $ $OC' F$' F3' '3$CHE' &H4' C-NF' QC3EN3' $C' 3 '$C' F3' G-4$ HE' F343H&' CF$ ' Q3' N$43&- O' $ED' 4- O' C13N & 3D' E' $' @34 & N$ 3' ^E' 3-' H&' F$' Q3&H43' J 3E HE3D_' H' Q3' C 2E3D' QO' F3' @H J J $ED E2' <&& N34' $ED' H' Q3' &-4E CF3D' $C' CDHE' $C' NHE 3E 3E O' J $O' Q3' H' F3' I $O J $C 34' M3E34$

W >' I4H D3D' $ $OC' $ED' Q3' '&-4 F34' 3E$N 3D' *F$' E' N$C3' $EO' '32 J 3E 'B$ $ HE' H4' @H41C' H&' P $' CF$ ' EH ' Q3&H43' F3' * J 3' & 3D' &H4' F3' I $O J 3E' H&' F3' C$ D' H $EN3C' Q3' N$ 3D' H-' &H4' F3' ; 34N C3' $ED' *4$ E E2' F343H&' 3 34O' I $O J $C 34' ?-423HE' \-$4 34 J $C 34' ?-Q$ 34E' <&& N34' ?-423HE C' P$ 3' $ED' CC C $E' ?-423HE' Q3 HE2 E2' H' $EO' C-NF' '32 J 3E 'B$ $ HE' H4' @H41C' $ED' NH J E2' F E' F3' $&H43C$ D' B3E3& C' H&' F C' N ' FH' CF$ ' F$ 3' $+3E' $ED' C-QCN4 Q3D' F3' <$ F' F343 E Q3&H4Y' J 3E HE3D' Q3&H43' $EO' 5-C N3' H&' F3' I 3$N3' $C' $&H43C$ D' CF$ ' Q3' 3 E 3D' H' F3' C$ D' H R $EN3' $C' &' F3' F$D' 432- $4 O' $ 3ED3D' F3' ; 34N C3' $ED' *4$ E E2' H&' C-NF' '32 J 3E 'B$ $ HE' H4' @H41C' D-4 E2' F3' FH 3' H&' F3' * J 3' QO' >$ '$11H E 3D' &H4' F$' I -41HC3' $ED' $C' &' $' @34 & N$ 3' H&' C-NF' 3ED$EN3' 4 2E3D' QO' F3' @H E J $ED E2' <&& N34' H&' F3' '32 J 3E B$ $ HE' H4' @H41C' F$D' Q33E' &-4E CF3D

&' 3' '32 ' EH ' #H-' -* &H43' F3' * J 3' & 3D' H4' F3' O 3E ' F3' H $EN3' CF$ ' Q3' 1$ D' HE' $+ E2' F3' <$# F1-' ^534 FN$ 3' H&' 3ED$EN3

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' -1HE' C-NF' <$ FC' $ED' H $EN3' @34 & N$ 3C' $C' $&H43C$ D' H4' F343' $EO' '32 J 3E' H&' P $' CF$ ' EH ' H Q3' 1$ D' F$ 3' Q33E' N$ 3D' H-' H' F3 4' ; 34N C3' $C' $&H43C$ D ' -1HE' F3' C$ D' 7&$ 34&O' <$ FC' Q3 E2' 14HD-N3D' H' F3' I $O J $C 34' M3E34$ ' ' CF$ ' Q3' $ &-' &H4' F3' I $O J $C 34' M3E34$ ' $ED' F3' C' F343QO' $- FH4 T3D' $ED' 43X- 43D' H' 1$O' H' F3' C$ D' I $O J $C 34C' ?-423HEC' \-$4 34 J $C 34C' ?-Q$ 34E' <&& N34C' ?-423HEC' P$ 3C' $ED' CC C $E' ?-423HEC' F3 4' 43C13N 3' H $EN3C' $QH 3' J 3E HE3D' , ' F3' -C-$' X-$4 34 O' H4' H F34' 1&H134' I 34 HDC' FH-' $EO' G3D-N HE' F$ CH3 34' F3' <$ FC' $ED' @34 & R N$ 3C' Q3&H43' J 3E HE3D' H' Q3' QO' F J' 143C34 3D' $ED' 14HD-N3D' $C' H-NF34C' &H4' F3' I $O J 3E C

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' I $O J $C 34C' ?-423HEC' \-$4 34 J $C 34C' ?-Q$ 34E' <&& N34C' ?-423HEC' P$ 3C' $ED' CC C $E' ?-423HEC' H&' P $' 3E 3D' E4' N$ J E2' H' Q3' 3E 3D' H' F3' $&H43C$ D' 43D-N3D' H4' D C3 J QHD 3D' H $EN3C' CF$ '$'$ ' * J 3C' Q3' $Q 3' H' C34 3' E' F3' 43C13N 3' '32 J 3E C'B$ $ HEC' H4' @H41C' H' F NF' F3O' Q3 HE2' F3E3 34' F3' C$ J 3' CF$ ' Q3' 3 J QHD 3D' $ED' N$ 3D' H-' -1HE' $N 3' ?34 N3' ' $ED' E' N$C3' H&' , 32 3N ' H4' '3&-C$' H' $ 3ED' F3E' N$ 3D' -1HE' HE' C-NF' <NN$C HE' H4' HE' C-NF' H F34' <NN$C HEC' $C' J $O' Q3' 43X- 43D' E' 1-4C-$EN3' H&' F3' >$ C' E' &H4N3' 43C13N E2' F3' P $' F3E' D C3 J QHD 3D' 3$NF' $ED' 3 34O' C-NF' I $O J $C 34' ?-423<E' \-$4 34 J $C 34' ?-Q$ 34E' <&& N34' ?-423HE C' P$ 3' $ED' CC C $E' ?-423HE' CF$ ' HE' C-NF' , 32 3N ' H4' '3&-C$' Q3 E2' N34 & 3D' H' F3' ?3N43 $4O' $' 9$ '$ED' E' 43C13N ' H&' F3' P $' H&' ! ' " # ' H' F3' >H4D' > 3- 3E$E ' H&' F3' @H-E O' QO' F3' @H <E3' H4' H F34' @H J R J EDE ' H&' F3' '32 J 3E 'B$ $ HE' H4' @H41C' H' F NF' C-NF' I $OR J $C 34' ?-423HE' \-$4 34 J $C 34' ?-Q$ 34E' ?-423HE C' P$ 3' H4' CC C $E' ?-423HE' CF$ ' Q3 HE2' &H4&3 ' F C' @ $ J C' H' F3' C$ D' H R $EN3' $ED' 3 34O' I $4' F343H&' $ED' CF$ ' $ CH' Q3' NHEC D343D' $C' F$ E2' 43C 2E3D' $ED' N 3D' F C' @H J J CC HE' H' $' E 3E C' $ED' I -41HC3C' F$ CH3 34

& % ' $!! #* ') -' O 34HC' KN' ' '$ $!' ! ' '5' ! ' ! ' O 3

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' W ED Q3 &-4 F34 3E$N 3D *F$ EH F E2 E F C N NHE
!! - '# $ E3D CF$ 3 3ED H4 Q3 NHEC 4-3D H 3 3ED H 3E 3 $EO I $O
J - C J$C 34 ?-423HE \-$4 34 J$C 34 ?-Q$ 34E <&& N34 ?-423HE C P$ 3
5- # # CC C $E ?-423HE $C $&H43C$ D H F3 C$ D H $EN3 H4 $EO I $4
F343H& D-4 E2 F3 * J3 F3 P $ H F NF F3 Q3 HE2C CF$ Q3
3 J QHD 3D H4 $CC3 J Q 3D &H4 *4$ E E2 $ED ; 34N C3

< W I4H D3D $ $OC $ED Q3 &-4 F34 3E$N 3D *F$ $EO
; ' $<'2 I34CHE Q3 E2 HE , $ $ H4 P $4O 8 $ & I $O H4 Q3 E2 3E 3D H
!! # ! $EO H $EN3 $C F$ E2 C34 3D E $EO H& 8 C P $(3C O C 6H4N3C H4
, $OO H4 P $4 E3C $ED C34 E2 E F3 P $ CF$ $ED J $O $ED F3
'(% (# C F343QO 3 J 1H 343D H 43N3 3 $ED $+3 43 I $O $ED H $EN3C
! 52 QO F C N D 43N 3D H Q3 1$ D H F3 6 3 D <&& N34C @$1 $ EC
'&'(2 5* > 3- 3E$E C ; EC 2EC D(- $E C \-$4 34 J$C 34C ?-423HEC ?-423HEC
! P $ 3C $ED CC C $E ?-423HEC F3E $CC3 J Q 3D &H4 $EE-$ *4$ E E2
('<'2 $ED F3 43N3 E2 $ED $+ E2 $EO C-NF I $O $ED H $EN3C QO $EO
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143 3E C-NF I34CHE <E 8 $ & I $O H4 Q3 E2 3E 3D H $EO C-NF
H $EN3 &4H J 43N3 E2 F C 8 $ & I $O H4 C-@F H $EN3: I4HR
D3D $ $OC F$ C-NF I34CHE CF$ E F3 <$ F H Q3 $+3E &H4 F3
' 3N3 1 H& F3 8 $ & I $O H4 C-NF H $EN3 D3N $43 F$ F3 F$C
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#! !' ! W I4H D3D $ $OC $ED Q3 &-4 F34 3E$N 3D *F$ EH
B & 0 D(- $E \-$4 34 J$C 34 , HE NH J J CC HE3D <&& N34 G4- J J 34 H4
5 5 * I4 $ 3 P $E E F3 '32- $4 P $ 3E 3D H 43N3 3 $EO I) !%1!
, $$ H4 J 9 J 3 I3EC HE H4 H $EN3 HE $NNH-E H& ?34 N3 E F3
< (' ! ! '32- $4 4 J O CF$ &H4&3 H4 HC3 F C ' 2F H F3 C$ J 3 QO 43$CHE
! ! H& F C C34 E2 $ED 43N3 E2 I $O E F3 '32- $4 P $ EH4 CF$
% ! ! $EO \-$4 34 J$C 34 ?-Q$ 34E ?-423HE C P $ 3 H4 CC C $E ?-423HE
"< * &H4&3 H4 HC3 F C ' 2F H 43N3 3 $EO C-NF I) !%1! H4 O #)
B I3EC HE H4 #H $EN3 QO 43$CHE H& F C 43N3 E2 F3 H $EN3 QO
F C N 24$E 3D H F J F3E D C3 J QHD 3D

' ! W W ED Q3 &-4 F34 3E$N 3D *F$ F343 CF$ Q3 24$E 3D &H4
- 5'#$ 3$NF '32 J 3E H& '32- $4 P $ F3E D C3 J QHD 3D $?- J E&
" # P HE3O $& 34 F3 ' $ 3 H& <E3 M- E3$ &H4 3 34O <E3 F-ED43D P 3E
H& 3$NF C-NF '32 J 3E &H4 F3 ; 13EN3 H& E3N3CC$4O P 3D N E3C &H4
F3 C N+ , HE NH J J CC HE3D <&& N34C G4- J J 34C 6 &34C $ED I4 $ 3
P 3E H& C-NF '32 J 3E D-4 E2 F3 I34 HD H4 I34 HDC H& CC3 J Q O
&H4 ; 34N C3 H4 *4$ E E2 $ED $ CH $E &H $ N3 H& * H 13EN3 5!
r33+ &H4 3$NF H& F3 , HE NH J J CC <E&3D <&& N34C $ED G4- J J434C H&
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D(- $E C $1 WW ED Q3 &-4 F34 3E$N 3D *F$ 3 34O D(- $E H& '32- $4
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&H43 U G3N <E3 FH-C$ED 3 2F F-ED43D $ED &H-4 33E FH CF$ F$ 3 C34 3D
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H 43N3 3 H4

U/ K S M # > ; > P M$1. Y

H4 >HN$ P $ &H4 F3 &- *34 J H& * 3E O =3$4C E F3 FH F
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P $ $ED FH CF$ Q3 QO 23 H4 E& 4 J O 43ED343D - (& &H4 &-4R
F34 ?34 N3 CF$ HE 14HD-N E2 H F3 ?3N43 $4O $ 9 $4 $ @34 & R
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E2 <&& N34C H& F3 D &&343E @H41C H F NF F3 CF$ F$ 3 Q3 HE23D
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C-NF @34 & N$ 3 Q3 3E 3D H 43N3 3 $ED F3 I $O J $C 34 M3E34$
CF$ $ED F3 C F343QO $- FH4 T3D H 1$O H C-NF I 34CHE $E H R
$EN3 $ F3 '$ 3 H& ; 2F ?F E2C 5! 2 ! I4H D3D $ $OC F$
EH I 34CHE CF$ Q3 3E 3D H 43N3 3 C-NF H $EN3 $C $&H43C$ D FH
CF$ FH D $EO P $4O <&& N3 H4 ; J 1 HO J 3E H& I 4H& -ED34 8 C
P $(3C O H4 $EO H F34 MH 34E J 3E $ED F$ FH I 34CHE FH Q3&H43
F3 6 4C G$O H& 5-E3 <E3 FH-C$ED 3 2F F-ED43D $ED 3E O E E3
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E F3 @H HE 3C H4 I HCC3CC HEC H& 8 C P $(3C O Q3OHED F3 ?3$C H4
-ED34 $EO H F34 MH 34E J 3E CF$ 43N3 3 $EO I $4 H& F3 C$ D R
H $EN3 &H4 $EO * J 3 D-4 E2 F NF F3 F3 D C-NF @ 8 $N3 H4 ; J R
1 HO J 3E 3 N31 E F3 @$C3C E F NF F3 ; J H - J 3E C H& C-NF
@ I $N3 H4 ; J 1 HO J 3E CF$ EH 3 N33D *F433 * J 3C F3 J H-E
H& F3 C$ D H $EN3 $ED -E 3CC D C-NF 3 (31 3D @$C3C 8 C P $R
(3C O C @HEC3E H F3 FH D E2 H& C-NF @ I $N3 H4 ; J 1 HO J 3$
CF$ F$ 3 Q33E C 2E & 3D F4H-2F F3 ?3N43 $4O $ 9 $4 $ED F$ EH
I 34CHE $11H E 3D HE H4 $& 34 F3 6 4C G$O H& ?3#! 6 FH-C$ED
3 2F F-ED43D $ED 3E O E E3 H7$EO @ I $N3 H4 ; J 1 HO J 3E
H& I 4H& -ED34 8 C P $(3C O <4 E F3 @H HE 3C H4 I HCC3CC HEC H& 8 C
P $(3C O Q3OHED F3 ?3$C H4 -ED34 $EO < F34 MH 34E J 3E CF$ 43R
N3 3 $EO I $4 H& F3 C$ D H $EN3 &H4 $EO * J 3 D-4 E2 F NF F3
CF$ FH D C-NF @ I $N3 H4 ; J 1 HO J 3E I 4H D3D $ $OC F$ $EO
D(- $E $11H E 3D $& 34 F3 * 3E O &H-4 F G$O H& 2!'! 4! <E3
FH-C$ED 3 2F F-ED43D $ED &H-4 33E 9 FH CF$ F$ 3 C34 3D &$ FR
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H4 >HN$ P $ &H4 F3 &- *34 J H& *F 4 O =3$4C E F3 FH 3
F343H& 6 & 33E CF$ F$ 3 Q33E E ?34 N3 $C $E D(- $E H& '3R
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&H4 &-4 F34 ?34 N3 CF$ -1HE 14HD-N E2 H F3 ?3N43 $4O J 9 $4
$ @34 & N$ 3 H& C-NF ?3 N3 H& *F 4 O =3$4C $C $&H43C$ D &4H J F3
@H J J $ED E2 <&& N34C H& F3 D &&343E @H41C H F NF F3 CF$ F$ 3
Q3 HE23D $ED -1HE HQ $ E E2 $E <4D34 &4H J F3 ?3N43 $4O $ 9 $4
&H-ED3D -1HE C-NF @34 & N$ 3 Q3 3E 3D H 43N3 3 $E H $EN3
$ F3 '$ 3 H& ? ?F E2C $ G$O E +3 P $EE34 $ED C-Q(3N H F3
C$ J 3 '3C 4 N HEC $ED @HED HEC $C F3 $&H43C$ D H $EN3 H& ; 2F
?F E2C I 4H D3D $ CH F$ EH C-NF D(- $E CF$ HC3 $EO 2F
F3 J $O F$ 3 H 8 $ & I $O H4 <- I 3EC HE QO 43$CHE H& 43N3 E2 C-NF
H $EN3 H& ; 2F ?F E2C H4 ? ?F E2C $ G$O $C $&H43C$ D Q-
CF$ Q3 3E 3D H 43N3 3 C-NF 8 $ & I $O H4 <- I 3EC HE $C 3 $C
C-NF H $EN3

WW ED F343$C N34 $ E H $EN3C F$ 3 Q33E 24$E 3D E 1-4
C-$EN3 H& &H4 J 34 N C H D(- $E C ?-423HEC $ED \-$4 34 J $C 34C H D(3 5 E
H& '32- $4 P $ FH F$ 3 QO 23 H4 E& 4 J O Q33E 43ED343D -E&
&H4 &-4 F34 ?34 N3 Q3 &-4 F34 3E$N 3D *F$ C-NF H $EN3C 7c
CF$ Q3 CC-3D $ED 1$ D D-4 E2 F3 @HE E-$EN3 H& F C N E J
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'3D-N3D'
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WW ' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' E' N$C3' $EO' '32 J 3E ' B$ $ HE' H4' @H41C' H&' P $' CF$ ' F$ 3' $ 43$DO' N3$C3D' $ED' D3 34R J E3D' H4' Q33E' 43D-N3D' E' C' ;C $Q CF J 3E ' H4' CF$ ' N3$C3' $ED' D3 34 J E3' H4' Q3' 43D-N3D' E' C' ;C $Q 8 CF J 3E ' D-4 E2' F3' @HE E-$EN3' H&' F C' N ' F3' ?-J' H&' 6H-4' ?F E2C' 5! ' 2 ! ' CF$ ' Q3' 1$ D' H' C-NF' I 34CHE' $C' $C' H4' CF$ ' Q3' $N -$ O' C34 E2' $C' D(- $E ' H' C-NF' '32 J 3E ' B$ $ HE' H4' @H41C' $ ' F3' * J 3' H&' '3D-N HE' &4H J' F3' *F 4 3 F' G$O' , ' ?3#!' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H ' H4' & H J' F3' * J 3' C-NF' '32 J 3E ' CF$ ' N3$C3' $ED' D3 34 J E3' H4' F3' 43R D-N3D' E' C' ;C $Q CF J 3E ' ^$C' F3' @$C3' J $O' Q3 _' H' F3' *F 4 3 F' G$O' H&' <E3' FH-C$ED' 3 2F ' F-ED 3D' $ED' F 4 0 F433 ' E' +3' P$EE34' $ED' C-Q(3N ' H' F3' C$J3' '3C N HEC' $ED' @HED HEC' $C' F3' H $EN3C' 24$E 3D' QO' F C' N ' H' D(- $E C' FH' CF$ ' QO' 23' H4'

' 2F ' H' 8 $ &
I$O 43C34 3D'
E& 4 J O' Q3' 43ED343D' -E& ' &H4' &-4 F34' ?34 N3.' I 4H D3D' $ $OC ' F$ ' B< C-NF' 43D-N3D' D(- $E ' CF$ ' HC3' $EO' ' 2F ' F3' J $O' F$ 3' H' 8 $ &' I $O' H&' F3' , $ O' J O ' P$4 E3C(, ' I 4H C HE$ ' B$ $ HE' &H4 J 3D' &4H J' F3' P $' QO' 43$CHE' 34& 43N3 E2' C-NF' #H 9 $E33' $C' $C ' $&H43C$ D' Q- ' CF$ ' Q3' 3E 3D' H' 43N3 3' C-NF' 8 $ &' I $O' $? 3 ' $C' C-NF' H $EN3 ' '

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WW ' ED' F343$C' N34 $ E' D(- $E C' $ED' ?3((3$E ' P H4C' $43' 3E 3D' H' $ED' F$ 3' 43N3 3D' N34 $ E' H $EN3C' E' NHEC3X-3EN3' H&' F$ E2' Q33E' 43D-N3D' -ED34' F3' I 4H C HEC' H&' $E' N ' 1$CC3D' E' F3' *F 4 0 E E F' $ED' 6H4 3 F' =3$4C' H&' F3' 3 2#' H&' 8 C' P$(3C O' % E2' !, (!' F3' *F 4D ' F NF' H $EN3C' F$ 3' Q33E' NHE E-3D ' $ED' $C' H' C-NF' D(- $E C' $-2 J 3E 3D' H' 6H-4' ?F E2C' 1@4' 2 ! ' Q3 ' F343R &H43' 3E$N 3D ' *F$ ' $ ' C-NF' - $E C' $ED' ?34(3$E ' P$(H4C' CF$ ' Q3' 3E 3D' H' 43N3 3' $ED' CF$ ' 43N3 3' C-NF' H $EN3' &4H J' F3' *F 4 3 F' G$(4' H&' ?3#!' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 (H' H' F3' *F 4 3 F' G$O' H&' ?3#!' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 ' F433

'3D-N3D' DR
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WW ' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' 3 34O' '3D-N3D' D(- $E ' 3E 3D' H' $EO' H $EN3' 24$E 3D' -ED34' F3' C$ D' N ' H&' F3' *F 4 0 ' E E F' $ED' 6H4 3 F' =3$4C' $&H43C$ D' $ED' NHE E-3D' QO' $EO' C-QC3X-3E ' N C' H4' QO' F C' N ' J $O' 43N3 3' $ED' $+3' C-NF' H $EN3 ' H23 F34' F' $EO' 6- ' I $O ' 8 $ &' I $O ' H4' H $EN3' F NF' $C' 3E$ & 3 ' H23 F34' F' C-NF' '3D-N3D' H $EN3 ' -ED34' F3' I 4H C HEC' H&' $E' N ' 1$CC3D' E' F3' * 3E O C F' =3$4' H&' F3' '3 2E' H&' 8 C' P$(3C O' % E2' !, (!' F3' *F 4D ' E - 3D' / ' / ' ' , ' !#& #(' #&' !&3' #(' # , ' 6#!' / ' ' , ' * % !# ')!' < F1' !% #(' , ')!' O ' #') ' * ' V ' M43$ ' B4 $ E' ' %%!&' ; E2 $ED ' H4' -ED34' F3' 14H C HEC' H&' F3' $&H43C$ D' N C' H&' F3' *F 4 0 E E F $ED' 6H4 3 F' =3$4C' H&' F3' '3 2E' H&' 8 C' P$(3C O' % E2' !, (!' F3' *F 4D I H D3D' $ $OC ' F$ ' EH' C-NF' '3D-N3D' D(- $E ' CF$ ' Q3' 3E 3D' H' 43N3 3' $EO' H $EN3' -ED34' F C' N ' D-4 E2' F3' * J 3' F3' CF$ ' FH D' $EO' P $40' <&& N3' H&' I 4H& ' -ED34' 8 C' P$(3C O' H F34' F$E' C-NF' $C' $&H43C$ D' H4 -ED3&' $EO' H F34
' '

H 834' M4H 34E J 3E ' H4' $EO' @ ' <&& N3' H4' ; J 1 HOE 3E ' -ED34' 8 C' P $(3C O' H4' $EO' H F34' MH 34E J 3E ' H F34 C3' F$E' $NNH4D E2' H' F3' I 4H C HEC' H&' F C' N ' E' 43 $ HE' H' F3' H $EN3C' 24$E 3D' H' DR (- $E C' HE' $NNH-E ' H&' 23' H4' E& 4 J O

WW ' ED' F343$C' N34 $ E' H $EN3C' F$ 3' Q33E' 24$E 3D' H' '3C 4 N HEC' 5 ' 3D-N3D' D(- $E C' H&' F3' >HN$ ' P $' Q3' '&-4 F34' 3E$N 3D' * F$ ' $C H' H ' F3' C$ D' H $EN3C' CF$ ' Q3' CC-3D' $ED' 1$ D' D-4 E2' F3' @HE E-$EN3' H&' F C' N ' E' +3' P $EE34' $ED' C-Q(3N ' H' F3' C$ J 3' '3C 4 N HEC' $C' D(- $E C' H&' 3' H $EN3C' H&' F3' I $O J $C 34C' ?-423HEC' $ED' \ -$4 34 J $C 34C' H&' F3(HN$ F3' '32- $4' P $' FH' 343' 43D-N3D' E' F3' =3$4' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' 3E O J E3'. I 4H D3D' $ $OC' F$ ' E' F3' @$C3C' E' F NF' $EO' C-NF' >HN$ ' P $' D(- $E C' F$ 3' Q33E' 134 J 3D' H' 43N3 3' F3' C$ D' H $EN3C' F C ' FH D E2' $EO' @ ' <&& N3C' -ED34' F3' @4H E' H' F NF' <&& N3C' F ' F$D' Q33E' $11H E 3D' 143 H-C O' H' F3' * 3E O 3 2F F' G$O' H&' ?3% ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' 3E O ' ' 3 2F ' ' CF$ ' Q3' $ &-' H' NHE E-3' F3' I $O J 3E ' H&' F3' C$ D' H R $EN3C' -ED34' F3' C$ J 3' '32- $ HEC' $ED' '3C 4 N HEC' $C' FHC3' -ED34' F NF' F3' I 34 J CC HE' $C' H4 2 E$ O' 24$E 3D

WW ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' 7 E' 3 34O' @H-E O' E' H $EN3C' 8#(% #&' $ED' %!1' F3E' F3' '32- $4' P P $' C' H4' CF$ ' Q3' 4$ C3D H' @ 34 NC' H&' H $EN3C' CF$ ' Q3' J $D3' H' F3' @ 34+C' H&' M3E3 J ' P 33 E2C' $ED' < M3E34$' $ED' F3' @ 34+C' H&' ?-QD C HE' P 33 E2C' H&' > 3- 3E$ENO' &H4' F3 4' * 4H-Q 3' ?-QD C HE' P 33 E2C' E' $ED' ; 13EN3C' E' F3' D-3' ; 3N- HE' H&' $E' N ' 1$CC3D' E' F3' ; H4 O ' ?E2 $ED C3NHED' =3$4' H&' F3' '3 2E' H&' 8 C' $ 3' P $(3C O' % E2' M3H423' F3' * F 4D' E - 3D' / P' / ' ' , ' !#& #(')!' < ' !% #(' ,')!' O ' UM S N V [#' ; E2 $ED' #&' , ' 3(!# #(')!' % ' $ED' H&' $EO' H F34' N C' 43 $ E2' H' F3' C$ D' P $' $ED' $ CH' H' F3' @ 34+C' H&' M3E34$' P 33 ' E2C' $ED' F3' @ 34+C' H&' ?-QD C HE' P 33 E2C' H&' > 3- 3E$ENO' &H4' F3 4' * 4H-Q 3' $ED' ; 13EN3C' E' F3' D-3' ; 3N- HE' H&' $E' N ' 1$CC3D' E' F3' * F 4 O C3 3E F' =3$4' H&' F3' '3 2E' H&' 8 C' $ 3' P $(3C O' % E2' !, (!' F3' * F 4D' E - 3D' / #' / ' ' , ')!' 4! !' 1 #(' &' , &! #(')!' O ' S M S N U!' R, '!1' , ')!' 7, &!!' %! 1' #')!' @HT J ' H / P DD 3C3 ' $ED' $EO' H F34' N C' 43 $ E2' H' F3' C$ D' P $' $ED' $ CH' H' F3' @ 34+C' H&' M3E34$' P 33 E2C' $ED' F3' @ 34+C' H&' ?-QD C HE' P 33 E2C' H&' F3' >H4D' 9 $4D3E' $ED' G31- O' 9 $4D3EC' H&' F3' ? EE4 3C' H&' I , %% / ' 2 !0 ,#' &H4' F3 4' * 4H-Q 3' $ED' ; 13EN3C' E' F3' D-3' ; 3N- HE' H&' $E' N ' 1$CC3D' E' F3' 6H4 O C3NHED' =3$4' H&' F3' '3 2E' H&' 8 C' $ 3' P $(3C O' % E2' !, (!' F3' * F 4D' E - 3D' / ' ' , ' !5! % #(' #' / ' ' &!' #')!' UM S @ U' 7) ! ( ))' H! ' , ')!' L! (#' , ' 1'5 !1!#' U!1 ' #(' M3H423')!' 7) &' # 3%!&' 7 / #' / ' ' , ' 1 #(' ' " , & ' , ' #! 1' #')!' 7 I ,3# !1' , ' @H4E $' #&' G3 HE' , ')!' 2! !#'!' , ')!' #(&, ' 7 &3 #(')!'5 !1!#' ' #&' , ')!' , !'! !' 3 %% ' 1 #(' #&' !(3[% #(' ' " , & ' , ' #! 1' , ')!' 2! !#'!' , ' M43$' B4 $ E' $ED' H&' $EO' H F34' N C' 43 $ E2' H' F3' C$ D' P $' $ED' E' 3 34O' @H-E O' ? @ $4 40 H $EN3C' @ O' H4' I $N3' E' +' , % #&' F343' F3' '32- $4' P $' C' H4' CF$ ' Q3' H' C-NF' <&& R 4$ C3D' H $EN3C' CF$ ' $ CH' Q3' J $D3' H' F3' @ 34+C' H&' M3E34$' N34C' $ED' P 33 E2C' $ED' @ 34+C' H&' F3' C3 34$' ?-QD C HE' P 33 E2C' $ED' H' H F34C' E' ?NFHH J $C 34C' @HEC $Q 3C' $ED' H F34' <&& N34C' &H4' F3 4' * 4H-Q 3' $ED' ?NH $ED ; 13EN3C' 1' F3' D-3' ; 3N- HE' H&' $E' N ' 1$CC3D' E' F3' 6H4 O C3NHED' =3$4' H&' F3' '3 2E' H&' 8 C' $ 3' P $(3C O' % E2' !, (!' F3' * F 4D' E R - 3D' / #' / ' ' ,' 1!' #&' !1 4% 1)' ' O ' #' ?NH $ED' $ED' H&' $EO' UM S N V ' H F34' N C' 43 $ E2' H' F3' C$ D' P $

WW ' ED

P$EE34 H& 24$E E2 H $EN3C

WW ' ED'Q3' '& 4D 34' E$N 3DO' * F$ ' F3' C$ D' H $EN3C' CF$ ' Q3' 24$E 3D' $C &H H C' G0 &!% '! A' F3' NNH-E ' CF$ 'Q3' N34 & 3D' QO' F3' > 3- 3E$E ' H&' F3' @H-E O ' ? 3 4$4 40' @ O ' H4' I $N3 ' H4' QO' * H' H4' 4EH43' G31- O' > 3- 3E$E C' $N E2' &H4' C-NF' @H-E O ' ? 3 $4 40' @ O ' H4' I $N3 ' H4' QO' F3' >14D' 9 $4D3E' H&' F3' ? EE4 3C' , ' I , #F %% $ED' 2!0,# ' H4' QO' * H' H4' JH43' G31- O' 9 $4D3EC' H&' F3' ? EE4 3C' H&' I , #F %% $ED' 2!0,# ' $ED' F3' @ 34+C' H&' M3E34$ ' $ED' ?-QD C HE' P 33 E2C' E' ! '+ # ' $ED' F3' ?NFHH J $C 34C' @HEC $Q 3C' $ED' H F34' <&& N34C' E' + ' , % #& ' CF$ ' J $+3' <$ F' H' F3' 5-C E3CC' H&' F3' NNH-F C ' E' F3' &H H E2' * 34 J C' 43C13N 3 O ' Q3&H43' CH J 3' 5-C N3' H&' F3' I 3$N3 ' 0 &!% '!

@34+C' KN' H' J$+3' <$ F' H&' F3' 5-C R E3CC' H&' F3 4 NNH-E C

6)' V ' ' Y! 'H(& !#! %, '+34& 0 1 ,#' !! #(1

7 *' DH' C 3$4' * F$ ' F3' 143N3D E2' NNH-E ' CH' &$4' $C
7 5' 432$4DC' J O' E 343C ' F343 E' C' $' (-C ' $ED' 4-3' NNH-E ' H&'
7 B-C E3CC' 134&H4 J 3D' QO' J 3' &H4' $ED' E' Q3F$ &' H&' F3' I -Q N' ?34 N3
7 $NNH4D E2' H' F3' P $EE34' F343 E' C3 ' &H4 F ' $ED' F3' ?- J C' N $ J 3D' $C
7 D CQ-4C3D' 343' $N -$ O' 1$ D' QO' J3

6)' , ' '+' , ,% ' ! ' I ,#1 4%! ' , ' ,)! ' 6 '! ' #' + ' , % #&

7 *' DH' C 3$4' * F$ ' ' $J' F3' I $4HNF $ ' ?NFHH J $ C 34
7 * H4' @HEC $Q 3' H4' ,)! ' \ 34m5' H&' F3' G C 4 N ' H&'
7 E' F3' ?-QD C HE' H&' F3' @H-E O' H&'
7 $ED' F$ ' F3' 143N3D E2' NNH-E ' C' $' (-C ' $ED' 4-3' NNH-E ' H&'
' B-C E3CC' $N -$ O' 134& J J 3D' QO' J OC3 &' &H4' $ED' E' Q3F$ &' H&' F3'
7 I -Q N' ?34 N3 ' $NNH4D E2' H' F3' P $EE34' F343 E' C3 ' &H4 F ' $ED' F$ '
7 ' $C' 3 J 1 HO3D' HE' C-NF' B-C E3CC' F3' &- ' * J 3' F343 E' C $ 3D ' $ED'
7 F$ ' F3' ?- J C' N $ J 3D' $C' D CQ-4C3D' 9 343' $N -$ O' 1$ D' QO' J 3

ED' F3' C$ D' NNH-E C' CF$ ' Q3' 4$EC J 3D' H' F3' ?3N43 $4O' $ ' 9 $4' FH' C' F343QO' 3 J 1H 343D' H' CC-3' F3' H $EN3C' $NNH4D E2' H' F3' ' $ 3C' C13N & 3D' E' F3' * $Q 3' H' F C' N ' $EE3 3D ' H4' C-D ' ?- J C' $C' F3' CF$ ' F E+' 43CHEQ 3' $ED' 14H134

G31- O' > 3-R 3E$E C' J$O' 43X- 43' F3' 3ED$EN3' H&' $EO' ?-4R 23HE' 43C D E2' E3$4' F3' I $N3' H&' P 33 E2' &H4' 113$ C

WW ' ED' F343$C' ' C' 3 13D 3E ' F$ ' F3' G31- O' > 3- 3E$E C' $N E2' E' $EO' ?-QD C HE' H&' $EO' @H-E O ' ? 3 $4 40' @ O ' H4' I $N3' E' ! ' " # ' $ED' F3' ?13N $ ' G31- O' 9 $4D3EC' $N E2' E' $EO' ?-QR D C HE' E' F3' ? EE4 3C' H&' F3' @H-E 3C' H&' I , #F %% $ED' 2!0,# ' CFH- D' Q3' $CC C 3D' QO' F3' D N3' H&' $' ?-423HE' $E' D3N D E2' -1HE' F3' 113$ C' H&' I 34CHEC' N $ J E2' H' Q3' 3 3 J 1 ' &4H J ' ?34 N3' E' F3' P J' QO' 43$CHE' H&' QHD O' E& 4 J O ' $ED' -1HE' F3' 6 E3CC' &H4' ?34 N3' H&' F3' I 34CHEC' 143C3E E2' F3 J C3 3C' &H4' E4H J 3E ' Q3' ' F343&H43' 3E$N 3D ' * F$ ' ' CF$ ' Q3' $ &- ' &H4' $EO' * H' G31- O' > 3- 3E$E C ' $ED' F3O' $43' F343QO' 3 J 1H 343D' $ED' 43X- 43D ' H' C- J J HE ' QO' * H' G$OC' 143 H-C' , H N3' E' 9 4 E2' ' $EO' NH J 13 3E ' ?-423HE' 43C D E2' $ ' H4' E3$43C ' H' F3' I $N3' F343' $EO' P 33 E2' &H4' 113$ C' H4' E4H J 3E ' CF$ ' Q3' F3 D ' H' $ 3ED' $ ' C-NF' P 33 E2 ' $ED' 3 340' C-NF' ?-423HE' CF$ ' Q3&H43' F3' Q32 EC' $EO' C-NF' ; $ J E$ HE ' $+3' F3' &H H E2' <$ F ' F NF' <$ F' $EO' G31- O' > 3- 3E$E ' C' F343QO' $- FH4 T3D' H' $D J E C 34 ' 0 &!% '!

<$ F' H' Q3' $+3E ' ' ?-423HE

7 *' DH' C 3$4' * F$ ' ' ' H' F3' Q3C ' H&' J O' Q O
7' &$ F&- O' $ED' 4- O' 431H4 ' $C' H' F3' 6 E3CC' &H4 ?34 N3' H&' F3'
7 P $E' H4' P 3E' $QH- ' H' Q3' C-Q J 3D' H' J O' ; $ J E$ HE ' $ED' F$ ")

EH 43N3 3 &4H J $EO H& F3 J $EO 633 H4 3 $4D F$ 3 34 &H4
$EO C-NF ; $J E$ HE

ED 3 34O C-NF ?-423HE CF$ 43N3 3 &H4 3$NF G$O C 3ED$EN3 $ H $EN3 H
C-NF P 33 E2C $?-J EH 3CC F$E 8 $ & $ M- E3$ EH4 3 N33D E2 * H ?-423HE
M- E3$C $NNH4D E2 H F3 ; 3E H& F3 G- O 134&H4 J 3D. I4H D3D
$ $OC F$ F3 NNH-E C $ED H-NF34C -1HE F NF F3 C$ D H R
$EN3C CF$ Q3 43NH J J 3ED3D QO F3 G31- O > 3- 3E$E C H& F3
43C13N 3 ?-QD C HEC CF$ Q3 4$EC J 3D H F3 ?3N43 $4O H& 9 $4
F F3 NNH-E C H& F3 > 3- 3E$ENO @ 34+C &H4 ; $J E$ HE $ED
I $O J 3E

WW W ED Q3 &-4 F34 3E$N 3D *F$ $# ?-J C H& P HE3O I$O KN H Q3
24$E 3D &H4 F3 I $O @ H F E2 H $EN3C $ED NHE E23E $ED H F34 CC-3D -ED34
; 13EN3C $C $&H43C$ D &H4 F3 32- $4 P $ F3E D C3 J QHD 3D
CF$ Q3 CC-3D $ED 1$ D -ED34 F3 G 43N HE H& F3 ?3N43 $4O $ 9 $4 $
$NNH4D E2 H C-NF 32- $ HEC $C F$ 3 Q33E H4 CF$ Q3 3C $Q CF3D
HE F$ 8 3$D

WWW ED Q3 &-4 F34 3E$N 3D *F$ $ B C G4$& C $ED B C D4$ E
<4D34C D4$ E &H4 I $O H4 H $EN3C -ED34 F C N J $O Q3 H4 CF$ KN
Q3 D4$ E -1HE -EC $J 13D I $134 $ED EH C-NF B G4$& H4 <4D34 E5 $J13D
CF$ Q3 H D QO 43$CHE H& Q3 E2 D4$ E H4 4 3E HE -EC $J 13D I$134
I $134

WWW I4H D3D $ $OC $ED Q3 &-4 F34 3E$N 3D *F$ EH 633 , H 633 H Q3
H4 M4$ - O F$ CH3 34 CF$ Q3 2 3E H4 1$ D &H4 H4 -1HE $NNH-E $+3E
H& $EO 9 44E H4 ?-J H& P HE3O F NF CF$ Q3 CC-3D E 43 $ HE
H H4 E 1-4C-$EN3 H& F C N

WWW ED Q3 &-4 F34 3E$N 3D *F$ F3 8 43 H& $EO 8 H-C3 13EN3 H&
H4 I $N3 H Q3 14H D3D &H4 F3 +331 E2 H& F3 4 J C NNH1 43 J 3F C 8 H-C3 &H4 D3R
@ H F E2 H4 H F34 ? H43C $ED &H4 F3 3C D3EN3 $ED NNH J J HD$ HE 1HC E2 4 J C
H& F3 D(- $E Q3 HE2 E2 H $EO 32 J 3E H4 B$ $ HE H& P $ $ED ? H43C H&
E $!% #& F3E EH 3 J QHD 3D CF$ Q3 D3&4$O3D QO F3 @H-E O (F3 P $ E
$ED F3 E3N3CC$4O ?-J &H4 F$ I -41HC3 CF$ Q3 4$ C3D QO F3 I 43R 43 $ED ZNN
C3E J 3E H& F3 M4$ED 5-4O H& F3 C$ D @H-E O $ED F NF I 43C3E R H Q3 D3&4$O
J 3E F3 M4$ED 5-4O H& F3 @H-E O C F343QO $- FH4 T3D $ED 43X- 43D 3D QO F3
H 1$CC HE $ @34 & N$ 3 C 2E3D QO F3 @F 3& ?3N43 $4O H& F3 <4D @H-E O
> 3- 3E$E H4 H F34 @F 3& MH 34EH4 H4 MH 34EH4C H& $!% #& &H4
F3 * J 3 Q3 E2 H4 E F3 QC3EN3 H& C-NF @F 3& ?3N43 $4O QO F3
#ED34 ?3N43 $4O H4 QO F3 6 4C @ 34+ E F3 P $4O G31$4 J 3E
$ED C13N &O E2 F3 3E $2433D H Q3 1$ D &H4 F3 C$ J 3 F NF
@34 & N$ 3 CF$ Q3 4$EC J 3D QO C-NF @F 3& H4 #ED34 ?3N43 $4O H4
6 4C @ 34+ H F3 @ 34+ H& F3 @4H E &H4 C-NF @H-E O H4 $ $EO
* J 3 14 H4 H F3 & 4C G$O H& F3 CC T3C &H4 C-NF @H-E O H4 & E
F3 @H-E O H4 @H-E O H& F3 @ O H& 234% # F3E 14 H4 H F3 & 4C
G$O H& F3 I 43C3E E2 *344$. I4H D3D F$& E EH @$C3 $EO 243$ 34 B4H C H $C
3E F$E 6 & O I H-EDC @-443ENO H& F3 # E 3D % E2DH J H& ! H JH-E H&
" # $ED $!% #& CF$ Q3 143C3E 3D QO C-NF M4$ED 5-4O &H4 *F3 3E
$EE-$ 3E H& C-NF 8 H-C3 H4 I $N3

WWW I4H D3D $ $OC $ED Q3 3E$N 3D *F$ CF$ $ED D -
J $O Q3 $ &- &H4 F3 >H4D > 3- 3E$E H4 H F34 @F 3& MH 34EH4 H4 3E$E $$O
Z e MH 34EH4C

44$C H&' P ' ,0! ,7+'] '$!% #&' &H4' F3' * J 3' Q3 H2' F3' H4' F30' CF$ ' C33' $' H&' 43 $ED' C-&& N 3E ' @$-C3' &H4' CH' DH E2_' H' H4D34' $ED' D 43N ' F$ ' F3' 4 J C' H Q3' D31HR NNH- 43 J 3E C ' $ED' H F34' ? H43C ' H4' $EO' I $4 ' F343H& ' Q3 HE2 E2 ' H' C 3D' E' F3' $EO' ' 32 J 3E ' H4' ' $ $ HE' H&' F3' C$ D' P $ ' CF$ ' $ ' $EO' * J 3' F 3' <4DE$EN3' ' C-NF' ' 32 J 3E ' H4' B$ $ HE' CF$ ' EH ' Q3' 3 J QHD 3D' H4' E' $N -$ ' ?34 N3 ' ? H43C' E' Q3' NHE 303D' H' $ED' D31HC 3D' $ED' +31 ' E' $EO' H&' 8 C' P $(3C O C' G-Q E <4DE$EN3' ? H43C' E' F3' I ' , ' 2 34% # ' H4' H' $ED' E' $EO' C-NF' <4DE$EN3' ? H43 ' H4' H' $ED' E' $EO' < F34' I $N3' H&' ?3N-4 O ' E' $EO' H F34' I $4 ' E' $!% #& ' $C' F3' H&' F30' CF$ ' &4H J ' * J 3' H' * J 3' H4D34' <4' D 43N ' $ED' -ED34' C-NF' ' - 3C' $ED' ' 32- $ HEC' $C' F3 ' H4' F30' CF$ ' F E+' & ' $ED' 14H134' E' F$ ' B3F$ &

I4H C HEC' H&' WWW ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' $ ' I 4H C HEC ' G 43N HEC ' E C N ' 43 ' \ $-C3C ' P $ 34C ' $ED' * F E2C' E' F C' N ' NHE $ E3D ' 43 $ E2' H' $ E2 H' @H-E 3C' ' @H-E 3C' $ED' H' ' 32 J 3E C' H&' P $' 43C13N 3 O ' CF$ ' 3 3ED' $ED' CF$ ' 3 3ED' Q3' NHEC 4-3D' H' 3 3ED' H' $ ' ' D E2C ' ?F 43C ' ? 3 $4 4 3C ' @ 3C ' $ED' H' ' D E2C' I $N3C ' $ED' H' $ ' B$ $ HEC ' @H41C ' $ED' ED 3ED3E ' @H J 1$E 3C' 43R ? 3 $4 4 3C' C13N 3 O ' $ED' H' F3' @H41C' H&' P E34C' H&' @Q4 $ $ED' $ KN &- O' $ED' 3&&3N -$ O' $C' &' F30' 343' 43C13N 3 O' $ED' ?3 34$ O' 4313$ 3D' E' 3 340' C-NF' I 4H C HE ' G 43N HE ' @ $-C3 ' $ED' F' 43 $ HE' H' 3 340' C-NF' P $ 34' H4' * F E2

@HE E-$EN3' WWW ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F C' N ' CF$ ' $+3' 3&&3N ' H&' N ' $ED' NHE E-3' E' &H4N3' &4H J ' F3' * F 4 3 F' G$O' H&' ?3#!' <E3' FH-C$ED' ' 3 2F ' F-ED43D' $ED' F 4 O H' -E ' F3' 6 4C ' G$O' H&' ?3% ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O F433

V_ @9?6':6 '' '&' #) !

* B>;' H' FNF' FC' N' 43&34C

0 A+' H&' 2+%' H&' '3J-E34$ HE' H' F3' @34+C' H&' M3E34$' $ED' ?-QR D CHE' P33 E2C' H&' >3- 3E$ENO' E' M43$' B4 $E' EN-D E2' F3' @34+C' H&' F3' *H 34' 8$J 3C' $ED' F3' ? EE4 3C' H&' @H4E $' $ED' G3 HE' $ED' H' ?NFHH J$C 34C' @HEC $Q 3C' $ED' H F34' <&& N34C' E' ?NH $ED' &H4' N$440 E2' E H' 3 3N- HE' * H' NC' H&' I$4 $J3E' 1$CC3D' E' F3' 6H4 O C3NHED' =3$4' H&' F3' '3 2E' H&' % E2' M3H 23' F3' *F 4D' @$1' V[' $ED' V ' $ED' H F34' NC' 43 $ E2' H' F3' P $'

>>< 9 ,@;?' ' " ' @>;'%?' :' M; ,;' >' P;;* ,M?

' 6H4' *4H-Q 3' E' N$ E2' $' M3E34$' P33 E2' QO' @4N- $4' >3 34C U!'1' &'
H4' D 34 C3J3E C' ^EH' C31$4$ 3' @F$423' Q3 E2' J$D3' &H4'
4 4' F3' >3 34C' H4' &4$J E2' F3' D 34 C3J3E C_' ' [' Y'
B' 6H4' $ 3ED E2' M3E34$' P33 E2C' $' FNF' F3' '?$-H4O
\-H4-J' H&' >3- 3E$ENO' CF$' Q3' 143C3E' 3$NF' ' ?' !' [
6H4' 3$NF' P33 E2' FNF' CF$' Q3' E3N3CC$4 O' $D(H-4E3D' QO'
F3' @34+' E' NHEC3X-3EN3' H&' F3' QC3EN3' H&' F3' >H4D'
>3- 3E$E' H4' G31- O' >3- 3E$4 C' ' ' ' ' ' ;
9 FNF' H $EN3C' $43' H' Q3' E' &-' &H4' 3E24HCC E2'
P E- 3C' 3' NC3 34$
S' 6H4' & E2' -1' 14 E 3D' I43N31 C' H' F3' 8 2F' H4' @F 3&' @HEC $Q 3
H&' 3$NF' ?-QD CHE' 8-ED43D' >$ F3' '$13' H4' 9 $13E $+3'
E' ;E2 $ED' $ED' 9 $ 3C' EN-D E2' F3' *H 34' 8$J 3C' $ED'
F3' ? EE4 3C' H&' @H4E $' $ED' G3 HE' H' 43 -4E' > CC' 3$NF' ' '
6H4' & E2' -1' 14 E 3D' I43N31 C' H' F3' ?NFHH J$C 34C' @F 3&'
@HEC $Q 3C' H4' H F34' <&& N34C' E' ?NH $ED' H' 43 -4E' > CC'
3$NF' ' ' ' ' '
' 6H4' 4 E2' F3' EE-$' D 34 C3J3E C' &H4' 432- $ E2' 44E2R
E2' $ED' & E2' F3' 6 4C' ?-QD CHE' P33 E2' H&' F3' G31- O'
>3- 3E$E C' &H4' 43N3 E2' F3' I$4HNF $' > CC' $ED' F3$4 E2'
113$ C' g' g' ' g' [' Y
!' 6H4' 44E2 E2' ?-QD CHE' > CC' $ED' J$+ E2' QC 4$N C' F343H&
?NF3D- 3' ^G _' &H4' F3' I4 O' @H-EN ' F3' ?3N43 $4O' H&' ? $ 3'
$4D' F3' ?3N43 $4O' $' 9 $4' F3' $ 34' @H1O' H' Q3' $EE3 3D'
H' F3' @34+ C' NNH-E C' $C' $' H-NF34' D3 N3
E' @H-E 3C' &-4E CF E2' $' \-H $' H&' U[[' P3E' H4' -ED34'
E' F3' H4 2 E$' ,-JQ34' H&' F3' P $' ' ' '
E' @H-E 3C' &-4E CF E2' &4HJ' U[' H' [[' P3E' ' '
G H' ' ' ' ' [' H' Y[[' P3E' ' ' ' ' [
G H' ' ' ' ' Y[' H' Z[[' P3E !' !' [
G H' ' ' ' ' Z[' P3E' $ED' -1 $4DC
Y' 6H4' C 4 + E2' F3' I4H1H4 HE' H&' P3E' H' C34 3' &H4' F3' C3 34$
8-ED43DC' '$13C' >$ F3C' 9 $13E $+3C' H4' H F34' G CHEC'
H&' $' @H-E O' E' ;E2 $ED' $ED' 9 $ 3C' $ED' &H4' 3$NF' 43C13N '
& 3' I$4 CF' H4' H F34' G CHE' H&' $' @H-E O' H4' ? 3 $4 4O' E'
?NH $ED' -ED34' F3' C3 34$' NC' H&' I$4 $J3E' 43 $ E2' H'
F3' 432- $4' P $' F3E' E3N3CC$4O' H' Q3' DHE3.
E' @H-E 3C' &-4E CF E2' $' \-H $' H&' U[[' P3E' H4' -ED34' '
G H' ' ' ' &4HJ' U[' H' [[' P3E'
G H' g' g' g' &4HJ' [' H' Y[[' P3E
G H' g' ' g' ' &4HJ' Y[' H' Z[[' P3E 9' 9
G H' ' ' ' &4HJ' Z[' P3E' $ED' -1 $4DC .' .

V _ V9 ? 6 ' : 6 ' '& #)

* 6H4 *4H-Q 3 E 3E24HCC E2 E $ BHH+ F3 , $ J 3C H& F3 P 3E W 1 <P
NHE $ E3D E 3$NF ?-QD C HE ' 3 -4E H& E4H J 3E ^?NF3R
D- 3 ; _.
6H4 3E24HCC E2 ! [, $ J 3C $ED -ED34 V ! V
G H ! H W! [, $ J 3C V [V
G H ! H U ! [, $ J 3C [
G H U! , $ J 3C $ED -1 $4DC V [
Z 6H4 D4$ E2 H- &$ 4 @+ 10 H& F3 >H4D > 3- 3E$E C EE-$
'3 -4E H& F3 P $ &H4 F3 @H-E O 3HE $ E (2 F3 , - J R
Q34 , $ J 3C $ED ' $E+ H& F3 <&& N34C $ED F3 , - J Q34
H& F3 , HE NH J J CC H& 3D <&& N34C G4- J J 34C $ED I 4 $ 3
P 3E.
E @H-E 3C &-4E CF E2 <E3 ' 32 J 3E B$ $ HE <4
@H41C V ! V
G H g g * H G H *H [
G H *F433 G H U [[
, H C31$4$ 3 @F$423 Q3 E2 J $D3 &H4 3ED$EN3 -1HE
F3 >H4D > 3- 3E$E H4 G31- O > 3- 3E$E C &H4 F(C
H4 F3 4 ? 2E$ -43C F343 H
, H 3 h * F C H $EN3 C H& NH-4C3 HE O NF$423R
$Q 3 QO F3 M3E34$ @ 34+C H& HC3 @H-E 3C
E ?NH $ED F NF &-4E CF F3 243$ 3C I 4H1H4R
HE H& P 3E H $4DC F3 6H4 J $ HE H& F3
' 32 J 3E B$ $ HE H4 @H41C
V 6H4 ? $ HE340.
*H F3 @ 34+ H& M3E34$ P 33 E2C E $ @H-E O F343 F3
, - J Q34 E F3 H4 2 E$ \ -H $ H& F3 P & $ C -ED34
?1H P 3E 4 O 1
G H &4H J SV H Y [[P 3E
G H &4H J Y [H V [[P 3E g k g 9
G H &4H J V [P 3E $ED -1 $4DC .
[6H4 @H1O E2C @H443C1HED3EN3 3 <C3 34$ 3 N$3 34$
*H F3 @ 34+ H& M3E34$ P 33 E2C 1 $ @H-E O F343 F3
, - J Q34 E F3 H4 2 E$ \ -H $ H& F3 P $ C UV [P 3E
H4 -ED34
E $ @H-E O &-4E CF E2 &4H J U [H [[P 3E S [[
G H &4H J [H Y [[P 3E [[
G H &4H J Y [H Z [[P 3E ! [[
G H &4H J Z [P 3E $ED -1 $4DC
*F3 $N -$ JH-E 3 13ED3D &H4 14 E E2 $ED 1-Q CF E2
F3 D 34 C3 J 3E C &H4 I HC $23C ; 143CC3C $ED P 3CC3ER
234C H Q3 $ H 3D -1HE $E NNH-E C13N &O E2 3$NF
4 N 3 H& I HC $23 3 N$3 34$ N34 & 3D C13N $ O QO F3
> 3- 3E$ENO FHC3 @34 & N$ 3 CF$ C $ 3 F$ F3 C$ J 3
343 E3N3CC$4O $ED $N -$ O 134&H4 J 3D
*F3 @F$423 &H4 14 E E2 $ED 1-Q CF E2 D 34 C3 J 3E C
C E $4 $Q O H Q3 C-11H4 3D QO F3 ' 3N3 1 H& F3
I 34CHE H FH J 1$ D

F - 0

U 6H4 & E2 -1 14 E 3D , H N3C H F3 @ 34+C H& -QD C&HE
P 33 E2C H& F3 * J 3 $ED I $N3 & 3D QO F3 >H4D > 3-R
3E$E H4 G31- O > 3- 3E$E C &H4 $CC3 J Q E2 F3 P 8 $
H Q3 4$ E3D $ED 3 34N C3D 3$NF , H N3
S 6H4 J $+ E2 H- NH443N QC 4$N C &4H J F3 D(- $E C H4
H F34 @H J J $ED E2 <&& N34 C ' 3 -4EC ?NF3D- 3 ^6 _ E F3
6H4 J ?NF3D- 3 ^M _ &H4 8 C P $(3C O C ?3N43 H& ? $ 3
&H4 F3 8 H J 3 G31$4 J 3E E @H-E 3C E ; E2 $ED $ED

U K S M # > ; > P @$1 Y S

?NH $ED &-4E CF E2 $ \ -H $ H $4DC F3 6H4 J $ HE H& $E 1 &
3E 43 ' 32 J 3E H4 B$ $ HE \ [
E @H-E 3C E ; E2 $ED 9 $ 3C $ED ?NH $ED &-4E CF
E2 < E3 ' 32 J 3E B$ $ HE H4 @H41C U [[
G H * H G H S [[
G H *F433 G H [[

>>< 9 , @ ; ? @> ; ' %? ?#BG ? < , P ; ; * , M?

6H4 *4H-Q 3 E N$ E2 $?-QD C HE P 33 E2 QO D 34 C3R
J 3E EH C31$4$ 3 @F$423 Q3 E2 J $D3 &H4 4 E2 >3 34C
H4 &4$ J E2 D 34 C3 J 3E [! [
< 4 &H4 N$ E2 $ P 33 E2 QO @ 4N- $4 >3 34C H F3 G31- O
> 3- 3E$E C F3 D(- $E <4 H F34 @H J J $ED E2 <&& N34
^EH @F$423 Q3 E2 J $D3 &H4 F3 G4$& _ &H4 3$NF >3 34 [[
! 6H4 $ 3ED E2 ?-QD C HE P 33 E2C &H4 3$NF H& F3 *F433
& 4C H4 14 EN 1$ P 33 E2C $ F NF F3 ? $ - H4O \ -H4- J
H& > 3- 3E$ENO CF$ Q3 143C3E D3 N3
6H4 43N3 E2 > C C $ED F3$4 E2 113$ C
6H4 Q$ H E2
6H4 E4H E2
ED &H4 F3 P 33 E2 F3 D H $11H4 HE F3 G3& N 3EN 3C
$ J HE2 F3 I $4 CF3C 3 NC3 34$ F3E E3N3CC$4O H Q3
DHE3 $ED $ CH &H4 N$ E2 H- F3 \ -H $ H4 11H4R
HE J 3E H& F3 ?-QD C HE H Q3 4$ E3D $ED 3 34R
N C3D F NF H $EN3 CF$ Q3 E &- &H4 3E24HCC E2
P E- 3C $ED J $+ E2 -1 > C C g g g
ED &H4 3$NF P 33 E2 F3 D QO D(H-4E J 3E H NH J 1 3 3 F3
B-C E3CC H& $EO H4 3 F34 H& F3 *F433 & 4C H4 14 EN 1$
P 33 E2C $QH 3 3E- J 34$ 3D F NF H $EN3 CF$ Q3 E
&- &H4 3E24HCC E2 P E- 3C $ED J $+ E2 -1 > C C 4 ! [
ED &H4 3$NF P 33 E2 F NF CF$ F$ 3 Q33E C- J J HE3D
Q- F NF C E3N3CC$4 O 1HC 1HE3D QO F3 ?-QD C HE
@ 34+ E NHEC3X-3EN3 <& F3 QC3EN3 H& F3 G31- O > 3-R
3E$E g [! [
Y 6H4 & E2 -1 14 E 3D I 43N31 C H F3 @F 3& H4 8 2F @HER
C $Q 3C E ; E2 $ED $ED 9 $ 3C EN -D E2 F3 *H 34 8 $ J R
3 C $ED ? EE4 3C H& @H4E $ $ED G3 HE H 2 3
, H N3 H& F3 , - J Q34 H& P 3E $11H4 HE3D H C34 3 &H4
3$NF I $4 CF $ED H CC-3 H- F3 4 <4D34C H F3 I 3 O
@HEC $Q 3C H C34 3 , H N3C -1HE Q$ H 3D P 3E 3$NF
I 43N31 g
ED &H4 & E2 -1 14 E 3D I 43N31 C H F3 ?NFHH J $C 34C
@F 3& @HEC $Q 3C @HEC $Q 3C H4 H F34 <&& N34C E ?NH $ED
&H4 F3 I 34&H4 J $EN3 H& C J $4 G- O 3$NF I 43N31
6H4 *4H-Q 3 E $ J 3ED E2 F3 ' 3 -4EC H& I 34CHEC $Q 3 H
C34 3 E F3 ' 32- $4 P $ QO $+ E2 H- F3 , $ J 3C H&
$ I 34CHEC FH J $O 113 $ED FHC3 113$ C H4 @ $ J C
H& ; 3 J 1 HE F$ 3 Q33E $ H 3D $ED EC34 E2 F3 , $ J 3C
H& $EO I 34CHEC F$ F$ 3 Q33E H J 3D H Q3 EC34 3D $ED
E E- J Q34 E2 F3 ' 3 -4EC $ED J $+ E2 H- F3 * N+3 C
&H4 F3 B$ H $& 34 F3 ' $ 3 H& * H I H-EDC &H4 3 34O
< E3 FH-C$ED , $ J 3C H& I 34CHEC 43 - J 3D $Q 3 H C34 3
$ED CH E 14H1H4 HE &H4 $ 243$ 34 H4 C J $ 34 , - J Q34 H&
P 3E g g WD 134 [[[
Z 6H4 J $+ E2 H- F3 EE-$ QC 4$N C H& > C C ?NF3D- 3
^@ _ &H4 F3 # C3 H& F3 @ 34+ H& M3E34$ P 33 E2C F343
F3 H4 2 E$ \ -H $ H4 11H4 HE J 3E H& F3 ?-QD C HE
C ! [P 3E $ED -ED34 g

V

1' &

64HJ' !' H' ![' P3E' ' S' S' [
64HJ' !' H'U![' P3E' ' ' ' ' ' ['
64HJ'U! ' P3 '$E?'E1 $43C' Y' !' [

V' 6H4' J$+ E2' H-' &$4' $ED' 4-Y' @H1 3C' H&' > C C' H&' P3E' E 4H 3D' &H4' 3$NF' ?-QD C HE' H&' $' @H-E O' E' M43$' B4 $E' EN -D E2' F3' *H 34' B$J 3 C' $ED' F3' ? EE4 3C' H&' @H4ER $ '$ED' G3 HE' &H4' F3' #C3' H&' F3' @ 34+' H&' M3E34$' P 33 R E2C' ?NF3D- 3' ^; _' $ED' F3' @H HE3' H4' @H J JEDE' H&' F3' '32 J3E 'H&' F3' @H-E O' D3 N3

&H4'$' 'H 'NHE $ E E2' ![' ,$J3C' $ED' #ED34' [' !' ['
&4HJ' !' H' ![' ,$J3C' [' [' ['
&4HJ' !' H'U![' ,$J3C' ' ' ' [' !' [
&4HJ'U! ' &34$3C' $ED' -1 $4DC' ' ' [' [

U[' 6H4' ? $ HE34O' H' F3' @ H4+' H&'$' ?-QD C HE' &-4E CF E2' P3E H C4DC' F3' \-H $' H&' $' @H-E O' E' F3' &H H E2' I4H1H4R HEC' D3 N3

6H4' $' ?-QD C HE' &-4E CF E2'?<' P3E' $ED' -ED34' ' [
&4HJ' !' ' ![' P3E' ' U' [' ['
&4HJ' !' H'U![' P3E' ' ' U' [' ['
&4HE'U! ' P3E' $ED' -1 $4DC' ' S' [' [

U ' 6H4' @H443C1HED3EN3' @H1O E2C' 3 'N$3 34-' H' F3' @ 34+' H&'$?-QD C HE' &-4E CF E2' P3E' H $4DC' F3' \-H $' H&' $' @H-E O' E' F3' &H H E2' I4H1H4 HEC' D3 N3

' '
6H4' $' ?-QD C HE' & 4E CF E2' Y[' P3E' $ED' -ED34
&4HJ' !' H' ![' P3E' ' S' [' [
&4HJ' !' H'U![' P3E' g g ' ' '
&4HJ'U! ' P3E' $ED' -1 $4DC !' [' [

UU' *F3' $N -$' JH-E '3 13ED3D' &H4' 14 E E2' $ED' 1-Q CF E2 D 34 C3J3E C' &H4' IHC $23C' ; 143CC3C' $ED' P3CC3E234C' H' Q3' $ H 3D' -1HE' $E' NNH-E ' C13N &O E2' 3$NF' 4 N 3' H&' IHC $23' $ED' C13N $ O' N34 & 3D' QO' F3' > 3- 3E$ENO' FHC3' @34 & N$ 3' CF$ ' C $ 3' F$' F3' C$J3' 9$C' E3N3CC$4O' $ED' $N -$ O' 134&H4J3D

*F3' @F$423' &H4' 14 E E2' $ED' 1EQ CF E2' D 34 C3J3E C' C' E $4 $Q O' H' Q3' C-11H4 3D' QO' F3' '3N3 1 'H&' F3' I34CHE' H' FHJ' 1$D

US' 6H4' *4H-Q 3' E' $11H4 HE E2' $ED' D C 4 Q- E2' H' F3' M&J C $Q 3C' H&' F3' C3 34$' *H ECF 1C' I$4 CF3C' 3 'NC3 3&$' F E' F3' > J C' H&' F3' ?-QD C HE' F3' $4 H-C' 6H4J C' H&' ?NF3R D- 3C' 3 'N33 34$.

6H4' $' ?-QD C HE' &-4E CF E2' ![' P3E' $ED' -ED34' [' !' ['
&4HJ' !' H' ![' P3E' [' [' ['
&4HJ' !' H'U![' P3E' ' ' ' [' !' ['
&4HJ'U! ' $ED' -1 $4DC' ' ' [' [

' ' F - H

U ' 6H4' & E2' #1' 14 E 3D' I43N31 C' H' 3' 8 2F' H4' @F 3&' @HER C $Q 3' E' 3$NF' ?-QD C HE' H&' $EO' @H-E O' E' / ; E2 $ED' $ED' 9 $ 3C' EN -D E2' F3' *H 34' 8$J 3 C' $ED' F3' ? EE4 3C' H&' @H4E $ '$ED' G3 HE' H' CC-3' H-' F3 4' 9 44E C' H' F3' I3 O' @HEC $Q 3C' * F E2J3E' H4' H F34' <&& N34C' F E' F3 4' 43C13N 3' 8 -ED43DC' H' 2 3' ,H N3' E' 9 4 E2' H' F3' P3E' E4H 3D' H' $ 3ED' F3' *4$ E E2' $ED' ; 34N C3' H&' F3' P $.

6H4' 3$NF' I43N31 'NHE $ E E2' ![' ,$J3C' $ED' -ED34' [' !' ['
&4HJ' !' H' ![' ,$J3C' [' [' ['
&4HJ' !' H'U![' ,$J3C' ' ' [' !' ['
& HJ'U! ' ,$J3C' $ED' -1 $4DC [' [

1 &

ED &H4& E2 -1 14 E 3D I43N31 C H F3 @F 3& @HEC $Q 3C $ED H F3 ?NFHH J $C 34C @HEC $Q 3C H4 H F34 <&& N34C H& F3 I $4 CF3C F E F3 ?-QD C HEC H& $EO @H-E O ? 3 $4 40 @ O H4 I $N3 E ?NH $ED H 2 3 , H N3 E 9 4 E2 H F3 P 3E E4H 3D H $ 3ED F3 *4$ E E2 $ED ; 34N C3 H& F3 P $

6H4 3$NF I43N31 NHE $ E E2 [, $ J 3C $ED -ED34 [[Y
&4H J H S[, $ J 3C g [[
&4H J S H ![, $ J 3C g g g U Y
&4H J ! H *< , $ J 3C [[
&4H J * H [[, $ J 3C g [[
&4H J [[-1 $4DC [[[

U! 6H4 J $+ E2 H- &- $ED J3 > C C H& F3 , $ J 3C $ED G$ 3C H& E4H J 3E H& $ I34CHEC E4H 3D F E 3$NF ?-QD R C HE 43C13N 3 O &H4 F3 # C3 H& F3 @H J J $ED E2 <&& N34 $ED D(- $E H& 3$NF 32 J 3E B$ $ HE H4 @H41C H& $EO @H-E O ? 3 $4 40 @ O H4 I $N3 E M43$ B4 $ E 143 H-C O H F3 *4$ E E2 $ED ; 34N C3.

6H4 $ H NHE $ E E2 U[, $ J 3C $ED -ED34 [U Y
&4H J U H ![, $ J 3C [! [
&4H J ! H ![, $ J 3C [[$
&4H J ! H U![, $ J 3C [! [
&4H J U! $ED -1 $4DC [[

UY 6H4 NH443N E2 F3 BHH+C H& E4H J 3E H& F3 ?-QD C HE CH $C H NH443C1HED $NN-4$ 3 O F F3 ; 4$N C &4H J F3 D(- $E C H4 H F34 @H J J $ED E2 <&& N34 C 3 -4E ?NF3R D- 3 ^6 _ H& F3 ? $ 3 H& F3 @ $CC3C H& F3 P 3E &H4 J E2 F3 \ -H $ H4 11H4 HE J 3E C34 E2 E F3 32 J 3E B$ $ HE H4 @H41C H& P $ H& $EO @H-E O ? 3 $4 40 @ O H4 I $N3 E M43$ B4 $ E.

6H4 $?-QD C HE &-4E CF E2 ![P 3E $ED -ED34 [! [
&4H J ! H ![P 3E [[[
&4H J ! H U![P 3E g [! [
&4H J U! $ED -1 $4DC [[

>>< 9 ,@;? ?@8<<>P ?*; ? ?@<*> ,G

U* 6H4 & E2 -1 $ED D3 34 E2 , H N3C H 8H-C3FH D34C &H4 3$NF G$O NHEC C E2 H& ; 2F 8H-4C g g [! [
UZ 6H4 J $+ E2 H- > C C &H4 3$NF 6H H NHEC C E2 H& ? O > E3C g [[
UV 6H4 $ 3ED E2 P 33 E2C H& > 3- 3E$ENO 3$NF P 33 E2 [[[
S[6H4 & E2 -1 $ED D3 34 E2 , H N3C H Q$ H 3D P 3E 134 G$O [! [
S 6H4 ? $ HE340 134 EE- J g g [! [

>>< 9 ,@;? @<,?* B>;? ?@<*> ,G

SU 6H4 & E2 -1 $ED D3 34 E2 , H N3C H 8H-C3FH D34C &H4 3$NF G$O NHEC C E2 H& ; 2F 8H-4C [[
SS 6H4 J $+ E2 H- > C C &H4 3$NF 6H H NHEC C E2 H& ? O > E3C g g
S 6H4 $ 3ED E2 3$NF P 33 E2 H& > 3- 3E$ENO 134 G$O [
S! 6H4 & E2 -1 $ED D3 34 E2 , H N3C H Q$ H 3D $ED E4H 3D P 3E 134 G$O g [[
SY 6H4 ? $ HE340 F343 F3 > C C $43 J $D3 H- QO F3 @HER C $Q 3C 134 EE- J [! [

[U K S C M # > ; > P $ C @ $ 1 Y

? I ; @ > @ < , * , M ; , * > > < 9 , @ ; ? $11 N$Q 3 H F3 @ 34+C
H& M3E34$ $ED ?-QD a HE P 33 E2C H& > 3- 3E$ENO 43C13N 3 O

+$ 9 F3E C E3N3CC$ O H N$ $ I 34CHE &4H J $ G C $EN3 H 134&H4 J F3 G - O
H& $ M3E34$ H4 ?-QD C HE @ 34+ C-NF I 34CHE CF$ F$ 3 $E H $EN3
&H4 F C 4$ 3 E2 ; 13EN3C EH 3 N33D E2 , E3 13EN3 134 P 3 $ED F3
; 13EN3 H& * H C $ED 63440 P HE3O Q- F3 I $4 N- $4C H& C-NF ;
13EN3C CF$ Q3 C13N & 3D E $? $ 3 J 3E $ED @34 & 3D QO F3 > 3- 3E$ENO
$ED 4$EC J 3D E C-11H4 H& F3 @F$423 E F3 @ 34+C EE-$ NNH-E

SZ * F3 ; 13EN3 E3N3CC$4 O EN-443D &H4 F3 # C3 H& $ ' HH J $ F3 I $N3 H&
P 33 E2 H Q3 $ H 3D -1HE F3 I 4HD-N HE H& F3 ' 3N3 1 H& F3 I 34CHE
H FH J F3 C$ J 3 J $O Q3 1$ D

> < , G < , I 4 E 3D QO # + . (/ + & (+ $ED) * (+ , O1 . 223% , . . * +
I 4 E 34$ H F3 % E2 C J HC ; N3 3E P $(3C O X.-B
B

, , <ʻ ? ; @# , G<ʻ Kʻ * ; ' * <

M#> ; >Pʻ ʻ ' ;M?

@ʻ ʻ I ʻ >WW

Eʻ Nʻ&H4ʻ F3ʻQ3 34ʻ '32-$ HEʻH&ʻ F3ʻ> E3Eʻ $EDʻ
83J13Eʻ P$E-&$N -43Cʻ H&ʻ

I Cʻ #ʻ ZSU m

> 8 ; ' ; ?ʻ $Eʻ Nʻ $Cʻ 1$CC3Dʻ Eʻ F3ʻ , E Fʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P$(3C Oʻ E - 3Dʻ / #ʻ / ' ʻ , ʻ) !ʻ 4! ! ʻ L ! (3% ,#ʻ , ʻ) !ʻ < #!#ʻ #&ʻ ! 5!#ʻ ' 3 !1ʻ , ʻ 43 $EDʻ F343QOʻ $& 34ʻ 4313$ E2ʻ $ʻ N34 $ Eʻ Nʻ 1$CC3Dʻ Eʻ F3ʻ ? Fʻ =3$4ʻ H&ʻ F3ʻ C$J3ʻ '3 2Eʻ &H4ʻ $ʻ +3ʻ I -41HC3ʻ $EDʻ 43 H+ E2ʻ $EDʻ $ H D E2ʻ F3ʻ 11H E J3Eʻ H&ʻ N34 $ Eʻ *4-C 33Cʻ $EDʻ H F34ʻ <&& N34Cʻ J$D3ʻ Q3&H43ʻ H4ʻ $& 34ʻ F3ʻ C$ Dʻ $C 43N 3Dʻ Nʻ D 34Cʻ '32-$ HECʻ 343ʻ J$D3ʻ &H4ʻ F3ʻ MH 34E J3Eʻ H&ʻ F3ʻ > E3Eʻ $EDʻ 83J13Eʻ P$E-R &$N -43Cʻ ʻ $!% #&=ʻ $EDʻ ʻ $Cʻ 14H D3Dʻ F$ʻ C-NFʻ '32-$ HECʻ CFH- Dʻ 43J$ Eʻ $EDʻ NHE E-3ʻ Eʻ &H4N3ʻ &H4ʻ *F433ʻ =3$4Cʻ &4HJʻ F3ʻ @HJR J3EN3J3Eʻ H&ʻ F3ʻ C$ Dʻ Nʻ $EDʻ F3EN3ʻ -E ʻ F3ʻ ; EDʻ H&ʻ F3ʻ E3 ʻ ?3CC HEʻ H&ʻ I$4 $J3E .ʻ EDʻ F343$Cʻ ʻ Cʻ 3 13D 3Eʻ F$ʻ C-NFʻ '3R 2-$ HECʻ CF$ʻ Q3ʻ Fʻ N34 $ Eʻ PHD & N$ HECʻ 43 3E$N 3Dʻ &H4ʻ $ʻ * J3ʻ Hʻ Q3ʻ J 3Dʻ Q3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ JHCʻ ; N3 3Eʻ P$(3C Oʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3Eʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ʻ $EDʻ *3J1H4$ʻ $EDʻ @HJ JHECʻ Eʻ F Cʻ 143C3Eʻ I$4 $J3Eʻ $CC3JQ 3Dʻ $EDʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$J3ʻ *F$ʻ &4HJʻ $EDʻ $& 34ʻ F3ʻ @HJR J3EN3J3Eʻ H&ʻ F Cʻ Nʻ $ʻ 6$ʻ CH Dʻ QOʻ ?$J1 3ʻ H4ʻ H F34 C3ʻ H4ʻ 3 1HC3Dʻ &H4ʻ ?$ 3ʻ Eʻ H13Eʻ 6$ 4ʻ H4ʻ P$4+3ʻ Eʻ $!% #&ʻ CF$ʻ Q3ʻ H&ʻ 3X-$ʻ @ 3$EE3CCʻ $EDʻ \ -$ Oʻ F4H-2FH-ʻ 3$NFʻ I$4N3 ʻ -1HEʻ 1$ Eʻ F$ʻ $EOʻ I34CHEʻ C3 E2ʻ H4ʻ 3 1HC E2ʻ &H4ʻ ?$ 3ʻ C-NFʻ 6$ ʻ H4ʻ F3ʻ < E34ʻ F343H&ʻ$ʻ F3ʻ * J3ʻ H&ʻ ?$ 3ʻ CF$ʻ &H4&3 ʻ $EDʻ 1$Oʻ $ʻ ?- Jʻ EHʻ 3 N33D E2ʻ F3ʻ JH-Eʻ H&ʻ <E3ʻ ?F E2ʻ &H4ʻ 3 34Oʻ ? HE3ʻ H&ʻ 6$ ʻ CHʻ CH Dʻ H4ʻ 3 1HC3Dʻ &H4ʻ ?$ 3ʻ F NFʻ CF$ʻ EHʻ Q3ʻ H&ʻ 3X-$ʻ @ 3$EE3CCʻ $EDʻ \ -$ Oʻ F4H-2FH-ʻ 3$NFʻ I$4N3

ʻVMʻ ʻNʻYUʻ YM @ UU

ʻ8$ʻCH Dʻ H4ʻ 3 1HC3Dʻ &H4ʻ ?$ 3ʻ Eʻ 6$ 4ʻ H4ʻ P$4R +3ʻ Hʻ Q3ʻ H&ʻ 3X-$ʻ @ 3$ER E3CCʻ $EDʻ \ -$ Oʻ F4H-2FH-ʻ 63E$ Oʻ EHʻ 3 N33D E2ʻ Cʻ 134ʻ ? HE3

ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ʻ $ʻ Q4H Eʻ H4ʻ -EQ 3$NF3Dʻ H4ʻ -E1-423Dʻ > E3Eʻ =$4Eʻ CH Dʻ Eʻ H13Eʻ 6$ 4ʻ H4ʻ P$4+3ʻ Eʻ $!% #&ʻ CF$ʻ Q3ʻ 3 ʻ$EDʻ C-&& N 3E Oʻ C1-Eʻ $EDʻ J$D3ʻ -1ʻ E Hʻ 8$E+Cʻ 3$NFʻ 8$E+ʻ Hʻ NHEC Cʻ H&ʻ * 3 3ʻ @- Cʻ $EDʻ EHʻ JH43ʻ C$ 3ʻ $EDʻ 3 N31ʻ Eʻ F3ʻ @$C3ʻ H&ʻ =$4Eʻ H4ʻ M4 Cʻ H&ʻ * Hʻ 8$E+Cʻ Eʻ F3ʻ IH-EDʻ NHJ JHE Oʻ N$ 3Dʻ

Vʻ Bʻ IH-ED

ʻ32-$ HECʻ $Cʻ Hʻ 433 E2ʻ $EDʻ NH-E E2ʻ W E3Eʻ =$4Eʻ F3Eʻ CH Dʻ Eʻ 6$ 4ʻ H4ʻ P$4+3

I H-ED =$4E H4 8 3$D =$4E F NF $C J 3E HE3D G3CN4 1 HE H& =$4E CF$ Q3 J $D3 -1 E 8 $ & 8$E+C H& ? @- C $ED EH 3CC $ED 3 340 C-NF @- CF$ NHE $ E <E3 F-ED43D $ED 3E O *F43$DC $ED EH J H43 $ED 3 340 C-NF 8 $E+ CF$ Q3 <E3 =$4D $ED <E3 \ -$4 34 E >3E2 F H4 * H =$4DC $ED <E3 8 $ & E @ 4N- J &343EN3 $ED EH J H43 $ED 3$NF C-NF @- E 3 340 C-NF 8 $E+ CF$ Q3 C31$4$ 3D $C F3 C$ J 3 CF$ Q3 433 3D $ED EH $& 34 $4DC $ED E 433 E2 C-NF > E3E =$4E EH J H43 F$E <E3 *F43$D $ $ * J 3 CF$ Q3 433 3D $ED $ F3 =$4E NHE $ E3D E 3 340 C-NF 8 $E+ CF$ Q3 H& 6 $ =$4E HE O H4 *H =$4E HE O H& F3 C$ J 3 @H H-4 $ED 6 E3E3CC F4H-2FH- 3$NF 8 $E+ $ED F3E F3 8 $E+ H4 * 3 3 @- C $43 433 3D F3 C$ J 3 CF$ Q3 J $D3 -1 E C-NF P $EE34 $C H $D J H& H13E E2 F343H& $ 3 340 I $4 $ *3E ENF3C $ 3$C &H4 F3 I -41HC3 H& C143$D E2 HE F3 B 3$NF M433E ($ED E N$C3 $EO I 34CHE H4 I 34CHEC CF$ C3 H4 3 1Ha3 &H4 ?$ 3 E H13E 6$ 4 H4 P $4+3 $EO =$4E F NF CF$ EH Q3 NHE&H4 J $Q 3 H F3 $QH 3 ' 32- $ HEC H4 F NF CF$ Q3 D3& N 3E E \ -$ O >3E2 F H4 @H-E C-NF I 34CHE H4 I 34CHEC H4 F3 < E34 H4 < E34C H& C-NF =$4E $ F3 * J 3 H& ?$ 3 CF$ &H4&3 $?- J $& 34 F3 ' $ 3 H& EH 3CC F$E <E3 I 3EEO EH4 J H43 F$E 6H-4 13EN3 &H4 3 340 8 $E+ H& C-NF =$4E CH CH D H4 3 HC3D &H4 ?$ 3 $C $&H43C$ D $ED F$ E $ @$C3C H& 64$-D H4 &- G3&$- E F3 I 431$4$ HE H& > E3E =$4E F NF CF$ Q3 CH D H4 3 1HC3D &H4 ?$ 3 E H13E 6$ 4 H4 P $4+3 F3 I 34CHE H4 I 34CHEC C3 E2 H4 3 1HC E2 &H4 ?$ 3 C-NF =$4E H4 F3 < E34 H4 < E34C F343H& CF$ &H4&3 $?- J EH 3CC F$E <E3 I 3EEO EH4 J H43 F$E 6H-4 13EN3 &H4 3 340 8 $E+ H& C-NF =$4E CH CH D $C $&H43C$ D I 4H D3D $ $OC F$ EH F E2 F343 E Q3&H43 NHER $ E3D CF$ 3 3ED H4 Q3 NHEC 4-3D H 3 3ED H P C1-4E =$4E $ED F$ EH P C1-E =$4E CF$ Q3 ?-Q(3N H F3 ' 32- $ HEC $&H43C$ D

I $N3C $ED 8H-4C H& & X 6$ $4E $E

8 ED Q3 &-4 F34 3E$N 3D *F$ &H4 F3 I -41HC3C H& F C N $ 6 $ H4 > E3E =$4E F NF CF$ Q3 CH D H4 3 1HC3D &H4 ?$ 3 F E F3 @-C H J M$1C H4 @-C H J M$ 3C H& $EO 6$ 4 H4 P $4+3 Q3 33E F3 8H-4C H& ; 2F H& F3 @ HN+ E 43 6H43EHHE $ED * H H& F3 @ HN+ E F3 & 34EHHE H& $EO 6$ 4 H4 P $4+3 G$O CF$ Q3 D33 J 3D $ED $+3E H Q3 CH D H4 H&&343D &H4 ?$ 3 E H13E 6$ 4 H4 P $4+3 $ED EHE3 H F34 $EO >$ #C$23 H4 @-C H J , F3 NHE 4$40 EH FC $ED E2

93$ 34 H 3$ 3 * H NH$4C3 *F43$DC $ED 94 3 F C , $ J 3 $ED ' 3C D3EN3 HE 3 340 I 3N3 H& > E3E $ED $ CH @&! ; F3 >3E2 F $ED B43$D F I 3E$ O &H4 , 32 3N

ED Q3 &-4 F34 3E$N 3D *F$ $N4HCC 3$NF ; ED H& 3 340 I 3N3 H& > E3E @ H F CH D H4 3 1HC3D &H4 ?$ 3 E H13E 6$ 4 H4 P $4+3 C6$!% #& F343 CF$ Q3 H 3E * H NH$4C3 *F43$DC H4 @H4DC D C $E &4H J 3$NF H F34 $QH- <E3 6H-4 F I $4 H& $E ENF $ED F343 CF$ Q3 4 3E F I 3E $ED E+ N HC3 H C-NF NH$4C3 *F43$DC H4 @H4D HE 3$NF ; ED E 32 Q 3 @F4N 34C F3 @F4 C $E , $ J 3 ?-4E$ J 3 $ED I $N3 H& ' 3C D3EN3 H& F3 93$ 34 H4 P $E-&$N -434 F343H& $ED F343 CF$ Q3 $ CH 4 3E H4 J $4+3D -1HE F3 H- C D3 6H D H& 3 340 C-NF I 3N3 H& > E3E F3 >3E2 F $ED B43$D F F343H& ($ED E N$C3 $EO I 34CHE CF$ C3 H4 H&&34 &H4 ?$ 3 E H13E 6$ 4 H4 P $4+3 $EO I 3N3 H& > E3E F343 E C-NF *F43$DC H4 @H4DC CF$ EH F3 CH H 3E H4 F343HE F3 , $ J 3 $ED ' 3C D3EN3 H& F3 93$ 34 H4 P $E-&$N -434 $ED F3 >3E2D $ED B43$D F F343H& CF$ EH Q3 CH 4 3E C-NF I 34CHE CH H&&3ED E2 CF$ -1HE @H J 1 $ E $ED I 4HH& F343H& &H4&3 $?- J EH 3 N33D E2 6 3 ?F E2C &H4 3 340 C-NF <&&3EN3 $NNH4DR E2 H F3 5-D2 J 3E $ED G CN43 HE H& F3 5-C N3 H4 @F 3& P $2 C 4$ 3 Q3&H43 FH J $EO C-NF @H J 1 $ E CF$ Q3 J $D3

ʻ ʻ ED' Q3' ʻ &-4 F34' 3E$N 3D' *F$ ʻ EH' I34CHE' CF$ ʻ C3 ʻ H4' 3 1HC3' 9 D FC' H&'
&H4' ?$ 3' E' H13E' I$ 4' H4' P$4+3 ʻ E' $!% #&' $EO' I 3N3' H&' Q4H E' > E3E' > E3E' @ H F
@ H F ʻ Q3 E2' H&' H4' 3 N33D E2' F3' ?3 ʻ H&' * 3 3' F-ED43D ʻ J$D3' H4'
E 3ED3D' H' Q3' H&' F3' G3EH J E$ HE' NH J J HE O' N$ 3D' =$4D' D3 ʻ =$4D' D3' ʻ
F$ ʻ CF$ ʻ EH ʻ Q3 ʻ F3E' Q4H E' $ED' Q3&H43' F3' C$J 3' CF$ ʻ Q3' Q 3$NF3D ʻ
*F 4 O C3 3E' ENF3C' $ED' $' 8 $ &' Q4H$D' $ ʻ 3$C ʻ $ED' F$ ʻ $ ʻ @ H F'
H&' F3' G3EH J E$ HE' H&' =$4D' D3 ʻ Q3 E2' -ED34' F3' ?3 ʻ H&' * 3 3'
F-ED43D ʻ CF$ ʻ Q3 ʻ F3E' Q4H E' ʻ *F 4 O C ʻ ENF3C' Q4H$D' $ ʻ 3$C ʻ
$ED' F$ ʻ EH' I34CHE' CF$ ʻ C3 ʻ H4' 3 1HC3' &H4' ?$ 3' E' $EO' 1-Q N' P$4+3 ʻ ʻ C FC' D3'
$EO' I 3N3' H&' 1 $ E' > E3E' @ H F ʻ Q3 E2' H&' F3' G3EH J E$ HE' NH J R
J HE O' N$ 3D' ?3 3E' ; 2F FC' D3 ʻ F$ ʻ CF$ ʻ EH ʻ Q3 ʻ F3E' Q4H E'
$ED' Q3&H43' F3' C$J 3' CF$ ʻ Q3' Q 3$NF3D ʻ *F 4 O H' ENF3C' Q4H$D' $ ʻ
3$C ʻ ʻ $ED' F$ ʻ FH' I34CHE' CF$ ʻ C3 ʻ H4' 3 1HC3' &H4' ?$ 3' E' $EO' 1-Q N' S FC' D3'
P$4+3 ʻ $EO' I 3N3' H&' 1 $ E' > E3E' @ H F' Q3 E2' H&' F3' G3EH J E$ HE'
NH J J HE O' N$ 3D' *F433' \ -$4 34C' D3 ʻ F$ ʻ CF$ ʻ EH ʻ Q3 ʻ F3E'
Q4H E' $ED' Q3&H43' F3' C$E$3' CF$ ʻ Q3' Q 3$NF3D ʻ * 3E O 3 2F ʻ ENF3C'
Q4H$D' $ ʻ 3$C ʻ $ED' F$ ʻ EH' I34CHE' CF$ ʻ C3 ʻ H4' 3 1HC3' &H4' ?$ 3' E' 2C FC D3'
$EO' 1-Q N' P$4+3 ʻ $EO' I 3N3' H&' 1 $ E' > E3E' @ H F' H&' F3' G3-1 J ʻ
E$ HE' H&' , E3' ; 2F FC' D3' ?F33 E2 ʻ F$ ʻ CF$ ʻ EH ʻ Q3 ʻ F3E' Q4H E'
$ED' Q3&H43' F3' C$J 3' CF$ ʻ Q3' Q 3$NF3D ʻ 6H4 O HE3' ENF3C' QOH$D' $ ʻ
3$C ʻ $ED' F$ ʻ EH' I34CHE' CF$ ʻ C3 ʻ H4' 3 1HC3' &H4' ?$ 3' E' $EO' 1-Q N' 1' \4"' D3'
6$ 4' H4' P$4+3 ʻ $EO' I 3N3' H&' 1 $ E' > E3E' @ H F' H&' F3' G3EH J E$ HE'
H&' 6 3' \ -$4 34C' D3' ?F33 E2 ʻ F$ ʻ CF$ ʻ EH ʻ Q3 ʻ F3E' Q4H E' $ED'
Q3&H43' F3' C$J 3' CF$ ʻ Q3' Q 3$NF3D ʻ 6H4 O & 3' ENF3C' Q4H$D' $ ʻ 3$C ʻ
$ED' F$ ʻ EH' I34CQE' CF$ ʻ C3 ʻ H4' 3 1HC3' &H4' ?$ 3' E' $EO' 1-Q N' 6$ 4' H4' Y \4 ʻ D3'
P$4+3 ʻ $EO' I 3N3' H&' 1 $ E' > E3E' @ H F' H&' F3' G3EH J E$ HE' H&' ? ʻ
\ -$4 34C' D3' ?F33 E2 ʻ F$ ʻ CF$ ʻ EH ʻ Q3 ʻ F3E' Q4H E' $ED' Q3&H43'
F3' C$J 3' CF$ ʻ Q3' Q 3$NF3D ʻ 6 & O &H-4' ENF3C' Q4H$D' $ ʻ 3$C ʻ $ED' I3E$ O'
F$ ʻ &' $EO' I34CHE' CF$ ʻ C3 ʻ H4' 3 1HC3' &H4' ?$ 3' E' $EO' 6$ 4' H4' P$4+3 ʻ
$EO' > E3E' @ H F' H4' ?F33 E2C' H&' F3' G3EH J E$ HEC' $QH 3' J 3E HE3D'
F NF' CF$ ʻ EH ʻ Q3' 43C13N 3 O' H&' F3' 9 D FC' $QH 3' D 43N 3D' $ED'
C13N & 3D ʻ 3 34O' C-NF' I34CHE' CF$ ʻ Q3' C-Q(3N ʻ H' $' I3E$ O' H&' EH ʻ 3CC'
F$E' 6 3' ?F E2C' EH4' J H43' F$E' * 3E' ?F E2C' &H4' 3$NF' C-NF' I 3N3'
CH' CH D' E' H13E' 6$ 4' H4' P$4+3

ʻ ED' Q3' ʻ &-4 F34' 3E$N 3D ʻ *F$ ʻ 3 34O' I 3N3' H&' Q4H E' H4' 8H > H3E'
-EQ 3$NF3D' > E3E' @ H F' F NF' CF$ ʻ Q3' 3 1HC3D' H' ?$ 3' E' H13E' 6$ 4' N H8 ʻ CFCD'
H4' P$4+3 ʻ CF$ ʻ Q3' CH' 3 1HC3D' E' H13E' 6H DC ʻ $ED' EH' $OC' 3D' ?$3 6 4 ʻ
3 F34' ; ED' H4' E' F3' P DD 3 ʻ -1HE' 1$ E' F$ ʻ $EO' I34CHE' C3 E2' H4' H4' P$4+3
3 1HC E2' &H4' ?$ 3' $EO' C-NF' > E3E' @ H F' NHE 4$4O' H' F3' G 43N HEC'
$&H43C$ D' CF$ ʻ &H4&3 ʻ EH ʻ 3CC' F$E' * H' ?F E2C' $ED' ? 13EN3' EH4'
J H43' F$E' 6 3' ?F E2C' &H4' 3 34O' C-NF' I 3N3' CH' CH D' H4' 3 1HC3D'
&H4' ?$ 3' $C' $&H43C$ D

ʻ ED' Q3' ʻ &-4 F34' 3E$N 3D ʻ *F$ ʻ EH' I34CHE' CF$ ʻ E' H13E' > E3E' H' Q3'
6$ 4' H4' P$4+3 ʻ C3 ʻ H4' 3 1HC3' &H4' ?$ 3' $EO' I 3N3' H&' Q4H E' H4' -E ʻ
Q 3$NF3D' 1 $ E' > E3E' @ H F' F NF' CF$ ʻ Q3' F N+34' H4' & E34' E' F3'
?$ $23' F$E' E' F3' BHDO' H&' C-NF' I 3N3 ʻ H4' F NF' CF$ ʻ EH ʻ Q3' H&'
3X-$ ʻ 6 E3E3CC' $ED' *F N+E3CC' F4H-2FH- ʻ 3 34O' I$4 ʻ H&' F3' > 3E2 F'
$ED' B43$D F' H&' C-NF' I 3N3 ʻ -ED34' $' I3E$ O' H&' $' ?- J' EH ʻ 3CC' F$- ʻ ʻ
* H' ?F E2C' $ED' ? 13EN3' EH4' J H43' F$E' * 3E O' ?F E2C' &H4'
3 34O' C-NF' I 3N3' H&' > E3E' CH' CH D' H4' 3 1HC3D' &H4' ?$ 3' $C' $&H43C$ D

O ʻ ED' Q3' ʻ &-4 F34' 3E$N 3D ʻ *F$ ʻ EH' I34CHE' CF$ ʻ C3 ʻ H4' > E3E' EH ʻ H
3 1HC3' &H4' ?$ 3' E' H13E' 6$ 4' H4' P$4+3 ʻ $EO' I 3N3' H&' Q4H E' H4' 1$C 3D +!
-EQ 3$NF3D

U K S Č M # > ; > P @$1

-EQ 3$NF3D > E3E $EO I $4 F343H& CF$ F$ 3 Q33E $T3D 1$C 3D H4 C1H- 3D $& 34D C H 3E H4 DO3D H4 C $ E3D 3 F34 E 3 =$4E H4 @ H F F $EO P$ 34 $ F NF F$C $ *3ED3ENO H 43ED34 F3 I $4 CH 2 $T3D 1$C 3D C1H- 3D DO3D H4 C $ E3D J H43 D && N- H Q 3$NF H4 H D3N3 3 F3 B-O34 $C H \ -$ O HE 1$ E H& &H4&3 E2 EH 3CC F$E 6 3 ?F E2C EH4 J H43 F$E * 3E O ?F E2C &H4 3 34O C1NF I 3N3 CH CH D $C $&H43C$ D

9 F$ CF$ Q3 D33 J 3D $?$ 3 H4 ; R 1HC-43 &H4 ?$ 3 H& > E3E E 6$ 4 H4 P$4+3

W 1D Q3 &-4 F34 3E$N 3D *F$ &H4 F3 I -41HC3C H& F C N $ > E3E F NF CF$ Q3 CH D H4 3 1HC3D &H4 ?$ 3 F E F3 @-C H J M$1C H4 @-C H J M$ 3C H& $EO I $ 4 H4 P $4+3 HE F3 43C13N 3 6$ 4 H4 P $4+3 G$OC Q3 33E F3 8H-4C F343 E $& 34 J 3E HE3D ^ F$ C H C$O _ Q3 33E *3E H& F3 @ HN+ E F3 6H43EHHE $ED * H H& & 3 @ HN+ E F3 & 34EHHE &4H J F3 * 3E O & & F G$O H& ')' -E F3 * 3E O & & F G$O H& +!5 ! 4! E 3$NF =3$4 $ED Q3 33E I 3 3E H& F3 @ HN+ E F3 6H43EHHE $ED * H H& F3 @ HN+ E F3 & 34EHHE &4H J F3 * 3E O & & F G$O H& +!5 ! 4! -E F3 * 3E O & & F G$O H& ')' E 3$NF =3$4 CF$ Q3 D33 J 3D $ED $+3E H Q3 CH D H4 3 1HC3D &H4 ?$ 3 E H13E 6$ 4 H4 P $4+3 $ED EHE3 H F34 $EO >$ #C$23 H4 @-C H J H F3 NHE 4$4O EH FC $ED E2

I 4HN33D E2C Q3&H43 5-C N3 H4 @F 3& P$R 2 C 4$ 3 -1HE @H J 1 $ E C HE <$ F

W ED Q3 &-4 F34 3E$N 3D *F$ CF$ $ED J $O Q3 $ &- &H4 $EO 5-C N3 H& F3 I 3$N3 H4 F3 @F 3& P $2 C 4$ 3 H& $EO *H E Q3&H43 FH J $ @H J 1 $ E HE <$ F CF$ Q3 J $D3 2$ EC $EO I 34CHE H4 I 34CHEC &H4 C3 E2 H4 H&&34 E2 &H4 ?$ 3 E 6$ 4 H4 P $4+3 $EO 6 $ =$4E H4 > E3E EH NHE&H4 J $Q 3 H F3 '32- $ HEC E F C N NHE $ E3D H4 &H4 $EO 64$-D H4 &- G3&$- E F3 I 431$4$ HE H4 P $E-&$N -43 H& C-NF 6 $ =$4E H4 > E3E CH CH D H4 H&&343D &H4 ?$ 3 $ED C-NF 5-C N3 H4 @F 3& P $2 C 4$ 3 C F343QO 43X- 43D $ED 3 J R 1H 343D H C- J J HE Q3&H43 F J *F433 I 34CHEC C+ 3D E 6 $ =$4E H4 > E3E $C F3 @$C3 J $O Q3 H& FH J HE3 CF$ Q3 E$ J 3D QO F3 I $4 O J $+ E2 C-NF @H J 1 $ E $EH F34 QO F3 I $4 O 2 EC FH J C-NF @H J 1 $ E J $O Q3 J $D3 $ED F3 F 4D QO ?-NF 5-C N3 <4 @F 3& P $2 C 4$ 3 $ED E D3&$- H& 3 F34 I $4 O J $ DE2 C-NF , H J E$ HE C-NF 5-C N3 H4 @F 3& P $2 C 4$ 3 CF$ EH J E$ 3 $ I 34CHE HE Q3F$ & H& F3 I $4 O CH J $+ E2 D3&$- $ED F3 * 433 I 34CHEC CH C- J R J HE3D CF$ Q3 C H4E QO C-NF 5-C N3 H4 @F 3& P $2 C 4$ 3 3 $ED 4- O H 3 $ J E3 F3 6 $ =$4E H4 > E3E $C F3 @$C3 J $O Q3 F NF C F3 ?-Q(3N H& C-NF @H J 1 $ E $ED $ 4-3 34D N H 2 3 F3 F34 C-NF @H J 1 $ E Q3 H4 Q3 EH 3 &H-ED3D $ED C-NF 34D N CF$ Q3 NHEN -C 3 HE F3 ?-Q(3N H& C-NF @H J 1 $ E $ED & C-NF @H J R 1 $ E CF$ Q3 D3N $43D H Q3 &H-ED3D F3E $4 D E C-NF @$C3 F3 C$ D *F433 I 34CHEC CF$ $ $4D C-NF @H J 13EC$ HE $C F3O J $O D33 J (-C H Q3 1$ D QO F3 I $4 O J $+ E2 C-NF @H J 1 $ E H F3 I 34CHE H4 I 34CHEC 2 EC FH J C-NF @H J 1 $ E J $O F$ 3 Q33E J $D3 &H4 F C H4 F34 H4 F3 4 *4H-Q 3 $ED >HCC H& * J 3 $ED ; 13EN3C HNN$C HE3D QO C-NF -E&H-ED3D @H J 1 $ E $ED F3 P HE3O CH $ $4D3D CF$ $ED J $O Q3 43NH 343D QO $ C-NF P 3$EC $C $EO I 3E$ O J 2F F$ 3 Q33E 43NH 343D E N$C3 F3 C$ D @H J 1 $ E F$D Q33E 14H 3D H Q3 3 &H-ED3D

6H4 C3 E2 G C1- 3C Q3R 33E B-O34 $ED ?3 34 E 6$ 4C $ED P$4+3 C

W ED F343$C G C1- 3C &43X-3E O $4 C3 Q3 33E F3 B-O34 $ED ?3 34 E 43C13N H& 6 $ =$4E $ED @ H F CH D H4 $2433D H Q3 CH D E 6$ 4C H4 P $4+3 C &H4 '3 J 3DO F343H& Q3 3E$N 3D *F$ & F3 B-O34 H& $EO C-NF 6 $ =$4E $ED @ H F CH D H4 $2433D H Q3 CH D E

6$ 4' H4' P $4+3 ' CF$ ' FH- '(-C ' @$-C3' 43&-C3' H' 1$O' H' F3' I 34CHE' C3 E2' F3' C$ J 3' F3' I 4 N3' $2433D' -1HE' Q3 33E' F3 J ' H4' &' F3' ?3 34' CF$ ' FH- '(-C ' @$-C3' 43 -C3' H' D3 34' C-NF' 6 $ ' =$4E ' H4' @ H F' H' F3' I 34CHE' Q-O E2' F3' C$ J 3 ' HE' Q3 E2' 3ED343D' F3' I 4 N3' $2433D' -1HE' H' Q3' 1$ D' &H4' F3' C$ J 3 ' ' CF$ ' Q3' $ &- ' &H4' F3' B-O34' H4' ?3 34' H&' F3' C$ J 3' 43C13N 3 O' H' NH J 1 $ E ' $ ' $EO' * J 3' F E' * 3E O &H-4' 8 H-4C ' H' F3' E3 '5-C N3' H&' F3' I 3$N3 ' H4' H' F3' @F 3&' P $2 C 4$ 3' H&' $EO' * H E' F343' C-NF' G C1- 3' CF$ ' F$ 3' $4 C3E ' $ED' 3 34O' C-NF' 5-C N3' H&' F3' I 3$N3' H4' P $2 C 4$ 3' C' F343QO' 43X- 43D' $1D' $- FH4 T3D' &H4 F F' H' C- J J HE' F3' I $4 3C' H' $113$4' Q3&H43' C-NF' 5-C N3' $ED' CH J 3' H F34' 5-C N3' H4' @F 3&' P $2 C 4$ 3' ' $ED' &' ' CF$ ' $113$4' H' C-NF' 5-C N3C ' H4' @F 3&' P $2 C 4$ 3' $ED' 5-C N3 ' F$ ' F3' B-O34' CF$ ' FH- '(-C ' $ED' 43$CHE$Q 3' @$-C3' 43&-C3' H4' F$ 3' 43&-C3D' H' 1$O' F3' ?3 34' F3' I 4 N3' & 4C ' $2433D' -1HE' Q3 33E' C-NF' B-O34' $ED' ?3 34' $ ' C-NF' 6$ 4' H4' P $4+3 ' C-NF' 5-C N3C' H&' F3' 13$N3 ' H4' P $2 C 4$ 3' $ED' 5-C N3 ' J $O' QO' 9 44E ' -ED34' F3 4' 8 $EDC' $ED' ?3$ C' 43C13N 3 O' H4D34' C-NF' 6 $ ' =$4E ' H4' @ H F' H' Q3' 43 -4E3D' H' F3' ?3 34' F343H&' $ED' J $O' QO' C-NF' 9 44E ' D 43N ' $EO' I 3E$ O' EH '3 N33D E2' F3' ?- J ' H&' * 3E' ?F E2C' H' Q3' 3 3D' H&&' F3' MHHDC' $ED' @F$ 3 C' H&' F3' B-O34' F343H&' $ED' &' ' CF$ ' $113$4' H' C-NF' 5-C N3C' H&' F3' I 3$N3 ' H4' H' C-NF' @F 3&' P $2 C 4$ 3' $ ED' 5-C N3 ' F$ ' F3' ?3 34' CF$ ' FH- ' 43CHEQ 3' @$-C3' 43&-C3' H4' F$ 3' 43&-C3D' H' D3 34' -1' C-NF' 6 $ ' =$4E ' H4' @ H F' H' F3' I 34CHE' H4' I 34CHEC' H' FH J ' F3' F$D' CH D' H4' $2433D' H' C3 ' F3' C$ J 3 ' C-NF' 5-C N3C' H&' F3' I 3$N3 ' H4' @F 3&' P $2 C 4$ 3' $ED' 5-C N3 ' J $O' QO' 9 44E ' -ED34' F3 4' 8 $EDC' $ED' ?3$ C' H4D34' F3' C$ J 3' H' Q3' D3 343D' -1' H' F3' I 34CHE' FH' F$D' QH-2F ' H4' $2433D' H' Q-O' F3' C$ J 3 ' $ED' J $O' $ CH' QO' C NF' 9 44E ' D 43N ' $EO' I 3E$ O' EH '3 N33D E2' F3' ?- J ' H&' * 3E' ?F E2C' H' Q3' 3 3D' H&&' F3' MHHDC' $ED' @F$ 3 C' H&' F3' ?3 34

W ' I 4H D3D' $ $OC ' $ED' Q3' '3E$N 3D' ' * F$ ' EH F E2' E' F C' N ' NHE $ E3D' CF$ ' 3 3ED' H4' Q3' NHEC 4-3D' H' 3 3ED' H' EH4' CF$ ' $&&3N ' $EO' 6 $ ' =$4E ' H4' > E3EC' EH ' CH D' EH4' 3 1HC3D' &H4' ?$ 3' E' H13E' 6$ 4' H4' P $4+3 ' ' Q3 E2' F3' 4-3' E 3E ' $ED' P 3$E E2' H&' F C' N ' F$ ' $ ' I 34CHEC' J $O' J $E-&$N -43' $ED' J $+3' -1 6 $ ' =$4E ' H4' > E3EC' E' $EO' P $EE34' F3O' J $O' F E+' 14H134 ' $ED' C3 ' F3' C$ J 3 ' FH- ' Q3 E2' C-QR (3N ' H' $EO' ' 32- $ HEC ' I 3E$ 3C ' H4' I 4H C HEC' E' F C' N ' NHE $ E3D' -E 3CC' F3O' C3 ' H4' 3 1HC3' &H4' ?$ 3' F3' C$ J 3' E' H13E' 6$ 4' H4' P $4+3 I&$ ' =$4E ' $ED' > E3EC' FH ' H' Q3' C-Q(3N ' H' ' 32- $ HEC ' -E 3CC' CH D' E' H13E' P $4+3

W ' ED' F343$C' ' C' 3 13D 3E ' $ED' E3N3CC$4O' F$ ' & ' $ED' 14H134' I 34CHEC' CFH- D' Q3' 14H D3D' H' 3 $ J E3 ' J 3$C-43 ' $ED' C $ J 1' $ ' Q4H E' H4' -EQ 3$NF3D' > E3EC' CH D' E' 1-Q N' P $4+3 C ' E' $ ' @$C3C' F343' F3' B-O34C' H&' $EO' C-NF' > E3EC' CF$ ' 43X- 43' F3' C$ D' > E3EC' H' Q3' 3 $ J E3D ' J 3$C-43D ' $ED' C $ J 13D' QO' $EO' C-NF' I 34CHEC' Q3&H43' F3O' 1$O' &H4' F3' C$ J 3' ' $ED' H' F3' 3ED' F$ ' EH' ENHE 3E 3EN3' CFH- D' Q3' &3 ' &4H J ' F3' 9 $E ' H&' $EO' C-NF' I 34CHEC ' -1HE' $ED' J J 3D $ 3 O' $& 34' F3' @H J J 3EN3 J 3E ' H&' F C' N ' Q3' '3E$N 3D ' * F$ ' $ ' I 34CHEC' FH' $ ' $EO' * J 3' Q3&H43' F3' @H J J 3EN3 J 3E ' H&' F C' N ' F$ 3' Q33E' $11H E 3D' ?3$ 4$$C 34C' H&' B4H E' > E3E' QO' F3' C$ D' 43N 3D' N ' H&' F3' , E F' =3$4' H&' 8 C' $ 3' P $(3C O C' ' 3 2E ' $ED' FH' CF$ ' Q3' $N E2' E' F$ ' @1N O' $ ' F3' * J 3' H&' F3' @H J J 3EN3 J 3E ' H&' F C' N ' CF$ ' NHE E-3' H' $N ' F343 E' -E ' F3' 11H E J 3E ' H4' 11H E J 3E C' H&' 3 34O' C-NF' ?3$ J $C 34' 43C13N 3 O' CF$ ' Q3' $& 34 $4DC' NHE& 4 J 3D' H4' 43 H+3D' E' J $EE34' D 43N 3D' QO' F C' N ?3$ J $C 34C' H&' Q4H E' > E31C' &H4R J 34 O' $1R 1H E 3D' H' Q3' NHE E-3D

W ' ED' Q3' '3E$N 3D ' * F$ ' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' F3' H4D' > 3- ' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&' $!% #&' 3E$E ' H' $1

J 33E' 3$NF' @H-E O' C*$? 34C '

K4' F3' * J3' Q3 E2' &4H J' * J3' H' * J3' H' EH J E$ 3' $ED' $11H E ' E' $EO' $ED' 3 34O' @H-E O' E' F NF' F3' > E3E' P $E-&$N -43' H4' $EO' B4$ENF' F343H&' C' H4' CF$ ' Q3' N$44 3D' HE ' * 3 3' C-NF' I 34CHEC' 43C D E2' E' C-NF' @H-E O ' H4' Q-O E2' H4' C3 E2' > E3EC' F343 E ' $C' CF$ ' $113$4' H' Q3' & ' $ED' 14H134' I 34CHEC ' H' Q3' $' @H J J 33' &H4' $11H E E2 ' D 43N E2C' $ED' @HE 4H E2' F3' EC13N H4C' $ED' B4H E' > E3E' ?3$ J $C 34C' H&' C-NF' ' @H-E O ' NHE&H4 J $Q O' H' F3' ' 32- $ HEC ' I 4H C HEC ' $ED' G 43N HEC' 143CN4 Q3D' QO' F C' N ' H&' F NF' , H J E$ HE' $ED' 11H E J 3E ' 1-Q N' , H N3' CF$ ' Q3' 2 3E' E' F3' 234% #' ! ! ' $ED' E' CH J 3' I $134' 1-Q CF3D' E' 3 34O' C-NF' @H-E O' 43C13N 3 O ' $ED' E' N$C3' H&' F3' G3$ F' H4' ' 3C 2E$ HE' H&' $EO' I 34CHE' $11H E 3D' H' Q3' $' P 3 J Q34' H&' C-NF' @H J J 33 ' $ED' E' N$C3' H&' $EO' ' 3 J H $ ' J $D3' QO' F3' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH J EH4' H4' MH 34EH4C' H&' $!% #& ' &H4' F3' * J 3' Q3 E2' H&' $EO' I 34CHE' &4H J ' F3' ? -$ HE' H&' P 3 J Q34' H&' F3' C$ D' @H J J 33 ' F NF' ' 3 J H $ ' F3' C$ D' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&' $!% #& ' &H4' F3' * J 3' Q3 E2' C' $ED' $43' F343QO' 3 J 1H 343D' H' J $+3 ' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' C-NF' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&' $!% #&' &H4' F3' * J 3' Q3 E2' $C' $&H43C$ D' H' EH J E$ 3' $ED' $11H E ' C-NF' H F34' I 34CHE' H4' I 34CHEC' $C' F3' H4' F3O' CF$ ' F E+' & ' H' Q3' $' P 3 J Q34' H4' P 3 J Q34C' , ' C-NF' @H J J 33' E' F3' ' HH J ' $ED' ? 3$D' H&' F3' I 34CHE' H4' I 34CHEC' FH' CF$ ' F$ 3' D 3D' H4' 43C 2E3D ' H4' FH ' CF$ ' F$ 3' Q33E' CH' 43 J H 3D ' $ED' , H N3' H&' 3 34O' C-NF' , H J R E$ HE' H4' 11H E J 3E ' CF$ ' Q3' 2 3E' E' F3' 234% #' ! ! ' $ED' E' $EO' , 3 C1$134' H&' 3' @H-E O' H' F NF' C-D ' , H J E$ HE' CF$ ' 43 $ 3

$ HE ' O 4KG/ ' H' NHE E-3' -E 3CC' C-134 '

W ' I 4H D3D' $ $OC ' $ED' Q3' ' 3E$N 3D ' * F$ ' F3' I 34CHEC' $11H E 3D' -ED34' F3' F343 E Q3&H43' 43N 3D' N ' H&' F3' , E F' ' =3$4' H&' 3' ' 3 2E' H&' 8 C' $ 3' P $(3C O ' H' NHEC - 3' @H J J 33C ' E' F3 4' C3 34$ ' @H-E 3C' &H4' F3' I -41HC3C' H&' C-NF' N ' $ED' FH' CF$ ' Q3' $N E2' E' F$ ' @1N O' $ ' H4' 143 H-C' H' F3' @H J J 3EN3 J 3E ' H&' F C' N ' CF$ ' Q3' $ED' NHEC - 3' FH- ' &-4 F34' , H J E$ HE' ^9 11H E R J 3E ' F3' 43C13N 3' @H J J 33C' E' C-NF' @H-E 3C' &H4' F3' I -41HC3C' H&' F C' N ' $ED' CF$ ' Q3' D33 J 3D' $ED' $+3E' H' Q3' $ED' H' F$ 3' Q33E' $11H E 3D' F343-ED34 ' $ED' CF$ ' F$ 3' I H 34' $ED' - FH4 O' $NNH4D E2 O' H' $N ' E' 3 3N- HE' H&' F C' N ' -E ' H4' -E 3CC' F3' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' CF$ ' F E+' & ' H' C-134C3D3' C-NF' I 34CHFC

@H J J 33' J $O' 43 J H 3' ?3$ J $C 34C' $ED' $11H E ' H F34C

W ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' 3 34O' C-NF' @H J J 33 ' F$ E2' &H4 J 3D' $' > C ' H&' $ ' I 34CHEC' $N E2' $C' ?3$ J $C 34C' E' F3 ' @H-E O' &H4' F NF' C-NF' @H J J 33' CF$ ' Q3' $11H E 3D ' CF$ ' F3E' 14HR N33D' H' 43 C3' F3' C$ D' > C ' $ED' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' 3 34O' C-NF' @H J J 33 ' H4' $EO' 6 3' H4' J H43' H&' F3 J ' -1HE' C-NF' ' 3 C HE ' H' D C J CC' $EO' I 34CHE' &4H J ' F3' ? -$ HE' H&?3$ J $C 34' FH J ' F3O' CF$ ' NHEC D34' H' Q3' #E& ' &H4' C-NF' ? -$ HE ' $ED' H' $11H E ' $EH F34' E' I $N3' H&' F3' I 34CHE' CH' D C J CC3D ' $ED' CH' &4H J ' * J 3' H' * J 3' H' D C J CC' $ED' $11H E ' 3 34O' C-NF' I 34CHE' $C' C-NF' @H J J 33 ' H4' $EO' 6 3' H4' J H43' H&' F3 J ' CF$ ' D33 J ' ' 4 2F ' H' D C J CC' &4H J ' H&' $11H E ' H' F3' <&& N3' $ED' ? -$ HE' H&' $' ?3$ J $C 34' H&' B4H E' > E3E ' J E2' H4' 3 3ED E2' F3' , - J Q34' H&' C-NF' ?3$ J $C 34C' $NNH4D E2' $C' ' CF$ ' C33 J ' H' C-NF' @H J J 33' H' Q3' 3 13D 3E ' $ED' E3N3CC$4O ' $ED' ' CF$ ' ' $ED' J $O' Q3' $ &- ' &H4' 3 34O' C-NF' @H J J 33 ' H4' $EO' 6 3' H4' J H43' H&' F3 J ' H' NHE& E3' F3' G- 3C' $ED' - FH4 3C' H&' 3 34O' ?3$ J $C 34' H' C-NF' 1$4 N- $4' > E3E' P $4+3 ' H4' P $4+3 C' E' F3 4' 43C13N 3' @H-E 3C

U" K' S¢M # > ; > P ' ' @$1 '

$C' F3O' CF$ ' F E+' 14H134' $ED' H' D C J CC' $EO' ?3$ J $C 34' FH' CF$ ' 43&-C3' H4' E32 3N ' H' HQ3O' $EO' C-NF' ' - 3C ' '32- $ HEC ' $ED' G 43N HEC' $C' C-NF' @H J J 33' CF$ ' $O' DH E' &H4' F3' ^5H 34E J 3E ' H&' C-NF' ?3$ J $C 34 ' 14H D3D' F$ ' EH F E2' NHE $ E3D' E' F3' C$ D' ' - 3C ' '32- $ HEC ' $ED' G 43N HEC' CF$ ' Q3' NHE 4$4O' H '$EO' H&' F3' I 4H C HEC' H&' F C' N

W ' I 4H D3D' $ $OC ' $ED' Q3' '3E$N 3D ' * F$ ' 'CF$ '$ED' J $O' Q3' $ &- ' &H4' F3' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&'$!% #&' E' F C' H4' F3 4' G CN43 HE ' H' H4D34' $ED' D 43N ' F$ ' C-NF' @H J J 33' $C' $&H43C$ D' CF$ ' F E' $' * J 3' H' Q3' C13N & 3D' J $+3' $ ' 31H4 ' H&' F3' M4H-EDC' -1HE' F NF' $EO' G C J CC$ ' H&' $EO' ?3$ J $C 34' J $O' F$ 3' $+3E' 1 $N3' QO' H4' -ED34' F3' <4D34C' H&' C-NF' @H J J 33 ' $ED' F NF' '31H4 ' C-NF' @H J E 33' $43' F343QO' 43X- 43D' H' J $+3' $NNH4DR E2 O ' F E' C-NF' * J 3' $C' CF$ ' Q3' C13N & 3D' &H4' F$ ' I -41HC3 ' $ED' 'CF$ ' $ED' J $O' Q3' $ &- ' &H4' F3' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&'$!% #&' &H4' F3' * J 3' Q3 E2' H' D 43N ' F$ ' F3' P$ 34' H&' C-NF' '31H4 ' CF$ ' Q3' EX- 43D' E H' QO' $EO' I 34CHE' H4' I 34CHEC' H' Q3' E$ J 3D' $ED' $11H E 3D' &H4' F$ ' I - 1HC3' QO' C-NF' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&'$!% #&=' $ED' $NNH4D E2' H' F3' ' 3C- ' H&' C-NF' EX- 4O' H4' E' N$C3' EH' '31H4 ' D$ ' Q3' J $D3' QO' C-NF' @H J J 33' F E' F3' * J 3' CH' C13N & 3D' 'CF$ ' $ED' J $O' Q3' $ &- ' &H4' F3' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' 3 J H4' H4' MH 34EH4C' H&' $!% #&' 3 F34' H' NHE& 4 J ' C-NF' G C J CC$ ' H4' H' 43 H+3' F3' C$ J 3 ' $ED' H' D 43N ' F$ ' F3' I 34CHE' CH' D C J CC3D' CF$ ' Q3' 43C H43D' H' F C' ? -$ HE' H&' ?3$ J $C 34

>H4D' > 3-R 3E$E ' J $O' D 43N ' F3' @H J J 33' H' 431H4 ' F3' M4H-EDC' #1HE' F NF' F3O' F$ 3' D C J CC3D' $EO' ?3$ J $C 34 ' $ED' N$#C3' C-NF' '31H4 ' HQ3 E ' d- 43D' E H $ED' NHH& J ' ' ' ()* ' C-NF' ?C ' H 3C$

W ' ED' Q3' '&-4 F34' 3E$N 3D ' * F$ '3 34O' I 34CHE' FH' CF$ '$ 'H4' 143 H-C' H' F3' @H J J 3EN3 J 3E ' H&' F C' N ' Q3' $N E2' $C' $' ?3$ J $C 34' E' $EO' @H-E O ' $ED' D3C 4H-C' H&' NHE E- E2' CH' H' DH' CF$ ' F E' * 3E O' G$OC' $& 34' F3' 1$CC E2' F343H& ' 3E 34' F' * H' C-&& N 3E ?-43 3C ' E H' C-NF' ?3N-4 O' $C' F343 E $& 34' J 3E HE3D ' $ED' F$ ' 3 34O' I 34CHE' FH' CF$ ' Q3' $ ' $EO' * J 3' $& 34' F3' 1$CC E2' H&' F C' N ' $11H E 3D' $' ?3$ J $C 34' CF$ ' Q3&H43' DH E2' $EO' N ' QO' 4 -3' H&' C-NF' 11H E J 3E ' 3E 34' F' * H' C-&& N 3E ' ?-43 3C ' E H' C-NF' ?3N-4 O' $C' F343 E $& 34' J 3E HE3D ' ^ F$ ' C' H' C$O _' $' ?3N-4 O' QO' 9 4 E2' <Q 2$ H4O' H' H-4' ?H 343 2E' >H4D' F3' % E2' E' C-NF' 13E$ ' ?- J ' H4' ?- J C' $C' CF$ ' Q3' D 43N 3D' QO' F3' @H J J 33' &H4' F3' @H-E O' F343 E' C-NF' ?3$ J $C 34' CF$ ' $N ' C-NF' 9 4 E2' <Q 2$ H4O' H' Q3' E' C-NF' 6H4 J ' H&' 9 H4DC' EC' <Q 2$ HEC' H' F3' % E2 C' P $(3C O' $43' -C3D' H' Q3' J $D3 '&H4' F3' I 34&H4 J $EN3' H&' F3' @HED HE' F343-ED34' 4 3E' ' $ED' F3' @H J J 33' &H4' 3$NF' @H-E O' CF$ ' F$ 3' I H 34' $ED' - FH4 O' H' $+3' $ED' N$-C3' C-NF' 9 4 E2' <Q 2$ H4O' H' Q3' J $D3' $ED' 3E 343D' E H' ' $ED' $ ' <Q 2$ HEC' CH' J $D3' CF$ ' Q3' 2HHD' $ED' 3&&3N -$ ' E' >$ ' H' $ ' E 3E C' $ED' I -41HC3C' $C' $EO' <Q 2$ HE' J $D3' H' H-4' ?H 343 2E' >H4D' F$ F' F343 H&H43' Q33E' H4' J $O' Q3' $D(-D23D' H4' $+3E' H' Q3' ' $ED' F3' @HED HE' H&' 3 34O' C-NF' ?3N-4 O' CF$ ' Q3' F$ ' F3' I 34CHE' CH' $11H E 3D' $' ?3$ J $C 34' CF$ ' D- O' $ED' D 23E O' 3 3N- 3' F C' <&& N3' $NNH4D E2' H' F3' ' 32- $ HEC' H&' F C' N ' $ED' F$ ' C-NF' ?3$ J $C 34 ' F C' ; 3N- H4C' H4' D J E C 4$ H4C ' CF$ ' D- O' $ED' FH- ' G3 $O' 1$O' $ ' C-NF' 6 E3C' $C' CF$ ' Q3' J 1HC3D' HE' F J ' &4H J ' * J 3' H' * J 3' QO' $EO' 5-C N3' H4' @F 3&' P $2 C 4$ 3 ' $ED' $ ' C-NF' G$ J $23C' $C' J $O' Q3' $ $4D3D' 2 EC ' F J ' E' $EO' ?- ' H4' I 4HN33D E2' -ED34' F C' N ' $ED' F$ ' E' N$C3' H&' F3' G3$ F' H&' $EO' H&' F C' ?-43 3C ' C-NF' ?3$ J $C 34' ' ' F E' <E3' PHE F' $& 34' C-NF' G3$ F' CF$ ' F$ 3' NH J 3' H' F C' %EH R 3D23 ' 14HN-43' $EH F34' C-&& N 3E ' I 34CHE' H' 3E 34' E H' $' +3 ?3N-4 O

?3$ J $C 34

> ,+ $

?3N-4 O $ED F$ C-NF ?3$ J$C 34 F C ; 3N- H4C H4 DJ E C
4$ H4?(C-443ED34 $ED 2 3 -1 F C ?3$ H4 ? $J1 F3E F343-E H
43X- 43D QO C-NF @HJJ 33 H4 $EO 6 3 H4 JH43 H& F3J $ED
F$/ F3 EH $ $EO * J3 3ED F 43 H- H4 C3 F C ?$J1
4 ?3$ H4 C-&&34 F3 C$J3 H Q3 -C3D QO $EO I34CHE Q- F JC3 & H4
F C +EH E ?34 $E H4 CC C $E $ F C -C-$ I $N3 H& 3C D3EN3

@HJJ 33 WW ED Q3 &-4 F34 3E$N 3D *F$ CF$ $ED J$O Q3 $ &-
H 143CN4 Q3 &H4 3 34O C-NF @HJJ 33 H4 $EO 6 3 H4 JH43 H& F3J H NFHHC3
H4C3$ 4 143CN4 Q3 F3 6H4J $ED G3 N3 H& F3 ?3$ H4 ? $J1 H Q3 -C3D
?$J1C H Q3 F3 ?3$ J$C 34 H& F3 4 43C13N 3 @H-E O $ED H $ 34 F3 C$J3
-C3D QO ?3$ $C H& <E $C C-NF @H F J 33 CF$ F E+ & $ED & $EO I34CHE CF$
J$C 34C &H423 H4 @H-E 34&3 $EO ?3$ H4 ? $J1 H& $EO ?3$ J$C 34 $11H E 3D
6H42 E2 H4 H Q3 $11H E 3D QO C-NF @HJJ 33 H4 $EO 6 3 H4 JH43 H& F3J
?3$ C H $EO I 3N3 H4 I$4 H& $ I 3N3 ^4&^Q4H E > E3E C-NF I34CHE Q3 E2
F343H& $ &- O NHE N 3D CF$ Q3 J 14 CHE3D F H4 FH-
F$4D >$QH-4 &H4 #EO I34 HD EH 3 N33D E2 <E3 =3$4 $ F3 G C
N43 HE H& F3 5-D23 H4 5-D23C FH CF$ 4O C-NF <&&3EN3

3C D3EN3 H& WW ED Q3 &-4 F34 3E$N 3D * $ 3 34O ?3$ J$C 34 H& Q4H E
?3$ J$C 34C >-(3E 3WN31 C-@F $C $43 H4 CF$ 3$11H E 3D H 1$4 N- $4 P$4+3 C
CF$ 43C D3 F E F3 I$4 CF J3E HE3D HE F C ?3J $ED F$ <E3 H&
F3 I34CHEC FH CF$ 3E 34 E H ?3N-4 O &H4 F J $C $&H43C$ D CF$
Q3 43C D3E F E F3 C$J3 I$4 CF H4 E H4 F E <E3 P 3 H& F3
E3 P$4+3 *H E F343 H F E F3 C$J3 @H-E O $ED F$ $
?3$ J$C 34 $11H E 3D &H4 $EO 1$4 N- $4 P$4+3 CF$ Q3 $ Q34 O H
-C3 F C ?3$, ? $J1 E 43C13N H $ > E3EC 1431$43D &H4 ?$ 3 E
C-NF P$4+HEO 43&343EN3 H F I $N3 H& 3C D3EN3

G- 3$H& WW ED Q: &-4 F34 3E$N 3D *F$ 3 34O ?3$ J$C 34 H& Q4H E
?3$ J$C 34C H4 #EQ 3$NF3D > E3E $11H E 3D $C $&H43C$ D CF$ N$43&- O 3
3 $J E3 $ED J3$C-43 3 34O I 3N3 H& C-NF > E3E F NF CF$ Q3 14HR
D-N3D $ED H&&343D H F J H Q3 C3$ 3D $#D & F3 ?$J3 CF$ $113$4
H F J H Q3 J34NF$E $Q 3 $ED H Q3 NHE&H4 J$Q 3 H F3 G 43N HEC
E F C N NHE $ E3D F3E $ED EH H F34 C3 C-NF ?3$ J$C 34 CF$
$&& H4 N$-C3 H Q3 $&& 3D $ &$ 4 J 143CC HE H& C-NF ?3$ $C CF$ Q3
$11H E 3D &H4 F J QO F3 C$ D @HJJ 33 F >$J1 B $N+ H4 34R
J HE H4 ? HE3 B -3 $ED ? T3 H4 NHJ J HE < HE F3 P DD 3 H&
C-NF 6H D & #, JH43 F$E *F 4 33E ENF3C &4HJ F3 ; ED H& C-NF
I 3N3 $ED CF$ +3 C3 J$4+ H4 N$-C3 H Q3 J$4+3D F C-NF
E243D 3E C $C $&H43C$ D HE F3 B$N+ H4 <- C D3 H& 3 34O C-NF I 3N3
F3 >3E2 F H& C-N I 3N3 $ED F3 , -JQ34 H& ENF3C NHE $ EC E
B43$D F $ED $ CH F3 8$ & ENF & F3 C$J3 CF$ Q3 E B43$D F
8$ & $E ENF JH43 F$E $EO , -JQ34 H& ENF3C ^ FH- 432$4D H
$EO 3CC34 64$N HEC H& $E ENF_ H23 F34 F F3 , $J3 H& C-NF
?3$ J$C 34 $ED F3 I$4 CF $ED @H-E O F343 F3 43C D3C H4 F3 , $J3
H& F3 P$4+3 *H E &H4 F NF F3 J$O Q3 $11H E 3D H $N $ED &
$EO I$4 C H& C-NF I 3N3 CF$ Q3 DJ23D H4 &$- O Q- EH CH
DJ23D H4 &$- O $C H 43ED34 F3 C$J3 -EJ34NF$E $Q 3 3 34O
C-NF DJ23D H &$- O I$4 CF$ Q3 &$4 O 3 1HC3D E F3 >$1 H4
BHCHJ H& C-NF I 3N3 CH $C F$ F3 ?$J3 J$O Q3 3$C O C33E $ED
H11HC 3 H C-NF DJ23D H4 &$- O I$4 1HE F3 BHCHJ H& 3 34O
C-NF I 3N3 C-NF ?3$ J$C 34 CF$ $&& H4 N$-C3 H Q3 $&& 3D $E JR
143CC HE H& F C ?3$ F C-NF E243D 3E C $C $&H43C$ D H D3EH 3
*F3 4 633C C-NF DJ23D H4 &$- O I$4 $ED C-NF ?3$ J$C 34 CF$ $ED J$O
D3J$ED $ED $+3 F3 ?-J H& @_E3 I3EEO $ED H JH43 &H4 3 34O I 3N3
H&

H&ʿQ4H Eʿ H4ʿ -EQ 3$NF3Dʿ> E3Eʿ NHE $ E E2ʿ * 3E O & 3ʿ =$4DCʿ H4ʿ -ED34ʿ F NFʿ CF$ ʿ Q3ʿ QOʿ F J ʿ C3$ 3Dʿ $Cʿ $&H43C$ D ʿ $EDʿ CHʿ Eʿ 14H1H4 HEʿ &H4ʿ $ʿ 243$ 34ʿ \ -$E Oʿ ʿ $EDʿ &ʿ$EOʿ C-NFʿ ?3$ J $C 34ʿ CF$ ʿ H&&3EDʿ QOʿ E32 3N ʿ E2ʿ H4ʿ 4$EC243CC E2ʿ $EOʿ HE3ʿ H&ʿ F3ʿ ' 32- $ HECʿ $&H43C$ D ʿ 3 34Oʿ C-NFʿ ?3$ J $C 34ʿ CF$ ʿ &H4&3 ʿ $ʿ ?- J ʿ EH ʿ 3CCʿ F$Eʿ 6 3ʿ ?F FE2Cʿ EH ʿ 3 N33D E2ʿ * 3E Oʿ ?F E2Cʿ &H4ʿ 3 34Oʿ C-NFʿ <&&3EN3 I3E$ Oʿ &H4 , 32 3N ʿ

WW ʿ EDʿQ3ʿ ʿ&-4 F34ʿ3E$N 3D ʿ * F$ ʿ EHʿ I34CHEʿ CF$ ʿ Eʿ H13Eʿ 6$ 4ʿ H4ʿ P $4+3 ʿ Eʿ $!% #&ʿ C3 ʿ H4ʿ 3 1HC3ʿ Hʿ ?$ 3 ʿ Q-Oʿ H4ʿ $2433ʿ Hʿ Q-O ʿ $EOʿ I 3N3Cʿ H&ʿQ4H Eʿ H4ʿ -EQ 3$NF3Dʿ > E3E ʿ F NFʿ CF$ ʿ EH ʿ $ ʿ F3ʿ * J 3ʿ H&ʿ C3 E2ʿ H4ʿ 3 1HC E2ʿ F3ʿ C$ J 3ʿ Hʿ ?$ 3ʿ Q3ʿ C3$ 3Dʿ $EDʿ J $4+3Dʿ $Cʿ 43X- 43Dʿ QOʿ F Cʿ N ʿ -1HEʿ 1$ Eʿ H&ʿ &H4&3 E2ʿ F3ʿ ?-4$ʿ H&ʿ 6 3ʿ ?F E2Cʿ &H4ʿ 3 34Oʿ I 3N3ʿ H&ʿ > E3Eʿ CHʿ CH Dʿ H4ʿ 3 1HC3Dʿ Hʿ ?$ 3 , Hʿ I34CHEʿ Hʿ H4 Q-Oʿ 3D > E3E -H ʿ C3$ 3D

WW ʿ EDʿ Q3ʿ ʿ&-4 F34ʿ 3E$N 3D ʿ * F$ ʿ $ ʿ Q4H Eʿ > E3Eʿ CF$ ʿ Q3ʿ J 3$C-43Dʿ Q3 33Eʿ ?3$ ʿ $EDʿ ?3$ ʿ $EDʿ Q$Dʿ $EDʿ EC-&& N 3E ʿ ; EDCʿ CF$ ʿ EH ʿ Q3ʿ $+3Eʿ E Hʿ F3ʿ >3E2 Fʿ F343H&ʿ $EDʿ C-NFʿ > E3Eʿ CF$ ʿ Q3ʿ QH-2F ʿ $EDʿ CH Dʿ QOʿ EHʿ H F34ʿ P 3$C-43ʿ F$Eʿ F3ʿ ? $ - 3ʿ =$4Dʿ NHE $ E E2ʿ * F 4 O C ʿ ENF3C ʿ $EDʿ EHʿ 3 4$H4D E$4Oʿ P 3$C-43ʿ H4ʿ H $EN3 3 N31 ʿ F3ʿ B43$D Fʿ H&ʿ $ʿ * F- J Q ʿ $Cʿ Cʿ EH ʿ 23E34$ Oʿ 14$N C3D ʿ Hʿ 3 34Oʿ =$4Dʿ Eʿ F3ʿ J 3$C-4 E2ʿ F343H&ʿ CF$ ʿ Q3ʿ J $D3ʿ F343 Eʿ QOʿ F3ʿ ?3 34ʿ Hʿ F3ʿ B-O34ʿ H4ʿ 43X- 43Dʿ H4ʿ $NN31 3Dʿ H&ʿ H4ʿ $+3Eʿ QOʿ F3ʿ B-O34ʿ &4H J ʿ F3ʿ ?3 34ʿ -1HEʿ 1$ Eʿ F$ ʿ 3 34Oʿ I34CHEʿ Q-O E2ʿ H4ʿ C3 E2ʿ $EOʿ C-NFʿ > E3Eʿ NHE 4$4Oʿ Hʿ F3ʿ 4-3ʿ E 3E ʿ $EDʿ P 3$E E2ʿ H&ʿ F Cʿ N ʿ CF$ ʿ &H4&3 ʿ EH ʿ 3CCʿ F$Eʿ * Hʿ ?F E2Cʿ $EDʿ ? 13EN3ʿ EH4ʿ J H43ʿ F$Eʿ 6 3ʿ ?F E2Cʿ &H4ʿ 3 34Oʿ C-NFʿ <&&3EN3 ?3$ J $C 34Cʿ Hʿ J 3$C-43ʿ B 5 *$EDʿ C3 34 ʿ

WW ʿ EDʿ Q3ʿ ʿ&-4 F34ʿ 3E$N 3D ʿ * F$ ʿ &ʿ$EOʿ I34CHEʿ CF$ ʿ C-C $ Eʿ $EOʿ >HCCʿ H4ʿ G$ J $23ʿ Eʿ F3ʿ Q-O E2ʿ $EOʿ I 3N3ʿ H&ʿ Q4H Eʿ H4ʿ -E ʿ Q 3$NF3Dʿ > E3E ʿ QOʿ $EOʿ D$ J $23Dʿ I $4 ʿ Q3 E2ʿ NHEN3$ 3Dʿ Eʿ F3ʿ 6H DCʿ F343H&ʿ H4ʿ QOʿ Cʿ EH ʿ $EC 34 E2ʿ F3ʿ P 3$C-43ʿ $Cʿ Hʿ F3ʿ >3E2 Fʿ H4ʿ B43$D Fʿ J $4+3Dʿ F343HEʿ QOʿ $EOʿ ?3$ J $C 34 ʿ ʿ CF$ ʿ $EDʿ J $Oʿ Q3ʿ $ &- ʿ Hʿ $EDʿ &H4ʿ C-NFʿ I34CHEʿ Hʿ C-3ʿ &H4ʿ $EDʿ 43NH 34ʿ &4H J ʿ F3ʿ ?3$ J $C 34ʿ H&ʿ C-NFʿ I 3N3 ʿ H4ʿ F3ʿ I34CHECʿ FHʿ CF$ ʿ $ ʿ F3ʿ * J 3ʿ H&ʿ C-NFʿ C3$ E2ʿ Q3ʿ QH-EDʿ $Cʿ ?3N-4 Oʿ &H4ʿ F Cʿ &$ F&- ʿ G CNF$423ʿ H&ʿ F3ʿ <&& N3ʿ H&ʿ ?3$ J $C 34 ʿ F3ʿ &- ʿ $ -3ʿ H&ʿ F3ʿ >HCCʿ H4ʿ G$ J $23ʿ CHʿ C-C $ E3D B-O34Cʿ J $Oʿ 43NH 34ʿ &4H J ʿ ?3$ J $C 34Cʿ &H4ʿ G$ J $23ʿ H4 G3& N 3ENOʿ Eʿ > E3E

WW ʿ EDʿ Q3ʿ ʿ&-4 F34ʿ 3E$N 3D ʿ * F$ ʿ ʿ CF$ ʿ $EDʿ J $Oʿ Q3ʿ $ &- ʿ &H4ʿ F3ʿ @H J J 33Cʿ $&H43C$ D ʿ H4ʿ $EOʿ 6 3ʿ H&ʿ F3 4ʿ BHDO ʿ Hʿ $11H E ʿ EC13N H4Cʿ &H4ʿ C-NFʿ Q4H Eʿ > E3Eʿ $EDʿ > E3Eʿ =$4Eʿ $EDʿ 6 $ ʿ P $4+3 C F Eʿ 3$NFʿ H&ʿ F3 4ʿ C$ Dʿ @H-E 3Cʿ $Cʿ J $Oʿ $113$4ʿ Hʿ C-NFʿ @H J J 33Cʿ E3N3CC$4Oʿ &H4ʿ F3ʿ Q3 34ʿ ' 32- $ HEʿ H&ʿ C-NFʿ Q4H Eʿ > E3E ʿ > E3Eʿ =$4E ʿ $EDʿ 6 $ ʿ P $4+3 Cʿ F Eʿ C-NFʿ @H-E 3C ʿ $EDʿ F$ ʿ ʿ CF$ ʿ $EDʿ J $Oʿ Q3ʿ $ &- ʿ &H4ʿ C-NFʿ @H J J 33C ʿ $ ʿ $EOʿ * J 3 ʿ Hʿ D C J CCʿ H4ʿ D CNHE E-3ʿ C-NFʿ EC13N H4C ʿ $EDʿ Hʿ $11H E ʿ H F34Cʿ Eʿ F3 4ʿ I $N3C ʿ 14H D3Dʿ F$ ʿ ʿ CF$ ʿ EH ʿ Q3ʿ $ &- ʿ &H4ʿ C-NFʿ @H J J 33Cʿ Hʿ J 1HC3ʿ $EOʿ 6 E3 @F$423 ʿ H4ʿ J 1HC ʿ F$ CH3 34ʿ &H4ʿ F3ʿ ' 3 J -E34$ HEʿ H4ʿ ; J H - J 3E ʿ H&ʿ C-NFʿ EC13N H4C @H J J 33Cʿ CF$ ʿ $11H E ʿ

WW ʿ EDʿ Q3ʿ ʿ&-4 F34ʿ 3E$N 3D ʿ * F$ ʿ 3 34Oʿ C-NFʿ EC13N H4ʿ CHʿ $1 ʿ 1H E 3Dʿ CF$ ʿ F$ 3ʿ &- ʿ I H 34ʿ $EDʿ - FH4 Oʿ Hʿ EC13N ʿ $EDʿ 3 $ J E3ʿ $ ʿ Q4H Eʿ > E3E ʿ > E3Eʿ =$4E ʿ H4ʿ 6 $ ʿ 3 1HC3Dʿ &H4ʿ ?$ 3ʿ Eʿ $EOʿ 1-Q Nʿ P $4+3 ʿ H4ʿ 6$ 4ʿ Hʿ F NFʿ F3ʿ CF$ ʿ F$ 3ʿ Q33Eʿ $11H E 3Dʿ $Cʿ $&H43C$ Dʿ ! $EDʿ F3ʿ Cʿ F343QOʿ $- FH4 T3Dʿ $EDʿ 43X- 43Dʿ Hʿ C3 T3ʿ $EOʿ > E3Eʿ =$4Eʿ H4ʿ 6 $ ʿ CHʿ CH Dʿ H4ʿ 3 1HC3Dʿ &H4ʿ ?$ 3ʿ Eʿ 1-Q Nʿ 6$ 4ʿ H4ʿ P $4+3 ʿ EH ʿ NHE&H4 J $Q 3ʿ Hʿ F3ʿ ' 32- $ HECʿ 143CN4 Q3Dʿ Eʿ F Cʿ N ʿ $EDʿ C-NFʿ EC13N H4ʿ CF$ ʿ &H4 F Fʿ @$44Oʿ C-NFʿ > E3Eʿ =$4Eʿ H4ʿ 6 $ ʿ Q3&H43ʿ F3ʿ E3 ʿ5-C N3ʿ H&ʿ G- Oʿ H&ʿ E ʿ C13N 34C ʿ

F3' I3$N3' H4' H F34' @F 3&' P$2 C 4$ 3' F E' F3 4' 43C13N 3' 5-4 CR D N HEC' H' Q3' D3$ ' F' $NNH4D E2' H'>$ ' ' $ED' E' N$C3' $' 5-C N3' H&' F3' I3$N3' H4' H F34' P$2 C 4$ 3' N$EEH ' Q3' &H4 F F' &H-ED ' F3E' C#NF' EC13N H4' J$O' D3 $ E' C-NF' > E3E' =$J ' H4' 6 $ ' CH' C3 T3D ' &' E3N3CC$4O ' &H4' 6H4 O 3 2F ' 8H-4C ' Q- ' EH' HE234 ' H' Q3' D3$ ' F' $C' $&H43C$ D ' $ED' C-NF' EC13N H4' CF$ ' $C' H& 3E' $C' F3' J$O' Q3' N$ 3D' HE' QO' F3' @H J J 33' H&' F3' @H-E O' &H4' F NF' F3' CF$ ' $N ' 43 -4E' $' G $4O' H4' 5H-4E$' H&' F C' I 4HN33D E2C ' $ED' $' 4-3' NNH-E ' H&' $ ' > E3EC ' =$4EC ' $ED' 6 $ ' QO' F J ' C3 T3D' H4' E&H4 J 3D' 2 EC ' $ED' $ CH' $' 4-3' NNH-E ' H&' F3' 6 E3C' J 1HC3D' $ED' 3 3D' H4' 1$ D' HE' C-NF' > E3EC ' =$4EC ' H4' 6 $ ' $ED' $ CH' 1$O' F3' J H-E ' H&' F3' C$ D' 6 E3C' 43N3 3D' QO' F J ' H' C-NF' @H J J 33' F3E' 43X- 43D' CH' H' DH

I34CHEC' 3 JR Q3TT E2' KN' > E3E' =$4E' KN' CF$ ' &H4R &3 ' *F433' * J3C' F3' $ -3' H&' F3' C$J3

WW ' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' &' $EO' I34CHE' 3E 4-C 3D' F' $EO' > E3E' =$J ' 83J1 3E' =$4E' @H HE' =$4E' H4' $EO' < E3' H4' J H43' H&' FHC3' P$ 34 $ C' J 3D' F' 3$NF' H F34' H4' $EO' * HH C ' P$R 34 $ C ' H4' 11$4$ -C' &H4' J $E-&$N -4 E2' F3' C$J3 ' CF$ ' &4$-D- 3E O' C3 ' 1$ E ' H4' 3J Q3TT 3' C-NF' > E3E' =$4E' 83J13E' =$4E' @H HE' =$4E' H4' 3$NF' H4' $EO' H&' F3J ' 43C13N 3 O ' H4' C-NF' * HH C ' P$ 34 $ C ' H4' 11$4$ -C ' 3 34O' C-NF' < &&3ED34 ' $ED' F3' ' 3N3 34' H&' $EO' C-NF' 4 N 3' +EH E2' F3' C$J3' H' Q3' <4 F$ 3' Q33E' CH' &4$-D- 3E O' CH D ' 1$ E3D ' H4' 3J Q3TT 3D ' CF$ ' &H4&3 ' * F433' * J 3C' F3' $ -3' H&' F3' C$J3

93$ 34C' H &- & ' F3 4' 2433 J3E C' HE' 1$ E' H&' &H4&3 E2' F3' $ -3' H&' F3' =$4E' 3ER 4-C 3D' H F3J

WW ' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' 3 34O' 93$ 34' CF$ ' 3 ' $ED' C-&& N 3E O' 3$ 3' $ ' CH-ED' $ED' C-&& N 3E ' > E3E' =$4E' $ED' @H HE' =$4E' $ED' 83J13E' =$4E' H' F J ' D3 343D' H' Q3' H 3E ' F E' C-NF' * J 3 ' $ED' E' C-NF' ' 33DC ' $ED' E H' @ H F' H&' C#NF' B43$D FC ' $C' CF$ ' Q3' $2433D' -1HE' Q3 33E' F3' < E34' H4' < E34C' H&' C-NF' =$4E' $ED' C-NF' 93$ 34 ' -1HE' 1$ E' H&' &H4&3 E2' F3' &- ' $ -3' H&' C-NF' =$4E ' H4' F3' &- ' I 4 N3' $2433D' -1HE' &H4' 3$ E2' F3' C$J3

, 32 3N ' H' 43 -4E' =$4E' KN' $& 34' 6H-4 33E' G$OC' , H N3' D33 J 3D' $C' 3J Q3TT E2

WW W' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' &' $EO' I34CHE' H4' I34CHEC' FH' CF$ ' Q3' 3E 4-C 3D' F' $EO' > E3E' H4' > E3E' =$4E' H4' 83J13E' =$4E ' H4' P$ 34 $ C' H4' * HH C' H4' 11$4$ -C' &H4' J $E-&$N -4 ' F3' C$J3 ' CF$ ' 43&-C3' H4' E32 3N ' H' 43 -4E' C-NF' =$J ' P$ 34 $ C ' * HH C ' H4' 11$4$ -C' F E' 6H-4 33E' G$OC' $& 34' F3' C$J3' CF$ ' F$ 3' Q33E' D3J $ED3D' QO' H4' E' Q3F$ &' H&' F3' < E34' F343H& ' C-NF' , 32 3N ' H4' ' 3&-C$ ' CF$ ' Q3' D33 J 3D' $ED' $+3E' $C' 3J Q3TT E2' -ED34' F C' N

P$E-&$NR -434C' J$+ E2 @HJ1 $ E' HE' <$ F

WWW' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' E' N$C3' $EO' P$E-&$N -434' CF$ ' J $+3' <$ F' Q3&H43' $' 5-C N3' H&' F3' I3$N3' F$ ' F3' F$C' 3E 4-C 3D' $EO' > E3E' =$4E' 83J13E' H4' @H HE' =$4E' H4' F3' P$ 34 $ C ' * HH C ' H4' 11$4$ -C' &H4' J $E-&$N -4 E2' F3' C$J3 ' H' $EO' I34CHE' H4' I34CHEC ' $ED' F$ ' F3' F$C' (-C ' @$-C3' H' C-C13N ' $ED' DH3C' C-C13N ' F$ ' C-NF'

5-C N3C' J$O' H4D34' ?3$4NF' $ED' 43C H43' I HCC3CC HE

I34CHE' C' $QH- ' H' $QCNHED' F' F3' C$J3 ' F3E' C-NF' 5-C N3' CF$ ' F$ 3' I H 34' $ED' - FH4 O ' $ ' F C' G CN43 HE ' H' CC-3' F C' 9$44$E ' 43X- 4 E2' C-NF' I34CHE' H4' I34CHEC' H' 43C H43' F3' 4 N 3' H4' * F E2' 3E 4-C 3D' H' F J ' H4' F3J ' $ED' E' D3&$- ' F343H&' H' $1143F3ED' C-NF' I34CHE' H4' I34CHEC ' $ED' Q4 E2' F J ' H4' F3J ' Q3&H43' F J ' H4' CH J 3' H F34' 5-C N3' H&' F3' I3$N3' &H4' F3' C$J3' @H-E O ' $ED' -E 3CC' C-NF' I34CHE' H4' I34CHEC' CF$ ' 2 3' ?3N-4 O' &H4' F3' ' 3 -4E' H&' F3' 4 N 3' H4' * F E2' CH' 3E 4-C 3D' H' F J ' H4' F3J ' F E' $' * J X' F3E' J 3E HE3D ' C-NF' 5-C N3' CF$ ' QO' 9$44$E ' H4D34' $EO' @HEC $Q 3' H' 3E 34' F3' 8H-C3' H&' C-NF' I34CHE' H4' I34CHEC ' $ED' 2 3' I HCC3CC HE' ' H&' C-NF' 4 N 3' H4' * F E2 H' F3' < E34' F343H& ' C-NF' < E34' J $+4X2' C-NF

' 43CHEQ 3

U K ?ĉM # > ; > P @$1 !

43CHEQ 3 @H J 13EC$ HE &H4 $EO >$QH-4 3 13ED3D F343 E H4 F343R -1HE $C H C-NF 5-C N3 CF$ C33 J 14H134

WWW ED Q3 &-4 F34 3E$N 3D *F$ E $ @$C3C F343 QO F3 ??)!@&#)+ I4H C HEC H& F C N $EO <$ F H4 && D$ C $- FH4 T3D H4 43X- 43D \-$+34 H4 H Q3 $+3E F3 CH 3 J E && 4 J $ HE H& $EO I34CHE Q3 E2 $ \-$+34 H4 ((3L $ 3E E P H4$ $E CF$ Q3 C-&& N 3E E F3 I $N3 H& C-NF <$ F H4 && D$ 53- H& <JQ $ED 3 34O I34CHE FH CF$ +EH E2 O C 3$4 H4 $&& 4 J $EO) #(&$ C3 E $EO C-NF <$ F H4 && 4 J $ HE CF$ Q3 D33 J 3D $ED !# H 4! 2- O H& I34(-4O $ED Q3 E2 $ &- O NHE N 3D)! !, C-&&34 C-NF "(! G!B1 I-E CF J 3E $C I34CHEC NHE N 3D H& &- $ED NH44-1 I 3 (-4O $43 QO F3 >$ C E &H4N3 E $!% #& C-Q(3N H

WWW ED Q3 &-4 F34 3E$N 3D *F$ $ @H J 1 $ E C F NF CF$ @H J 1 $ E C Q3 J $D3 H& $EO <&&3EN3 H4 <&&3EN3C NH J J 3D 2 EC $EO H& F3 F343 I 3R 32- $ HEC H4 G 43N HEC NHE $ E3D E F C N F3 I 3E$ O H4 6H4R E$ O DH3C &3 -43 E 43C13N F343H& CF$ EH 3 N33D E J H-E H4 $ -3 F3 EH 3 N33D ?- J H& * 3E I H-EDC CF$ $ED J $0Q3 F3$4D QO $EO <E3 5-C N3 H& F3 [J $O Q3 I 3$N3 $N E2 F E F C 5-4 CD N HE H4 QO F3 @F 3& P $2 C 4$ 3 H& $EO F3$4D Q3&H43 * H E 143C D E2 E F C @H-4 E C-NF * H E $ED &H4 F$ I-41HC3 $ 5-C N3 H4 C-NF 5-C N3 H4 P $2 C 4$ 3 CF$ $ED J $O 3 $ J E3 $EO I34CHE H& $ @F 3& P $R I34CHEC -1HE <$ F $ED E D3&$- H& F3 I $0 J 3E H& $EO C-NF 2 C 4$ 3 H& $ I 3E$ O H4 ?- J H& P HE3O $C CF$ Q3 $ $4D3D QO $EO C-NF 5-C N3 * H E H4 @F 3& P $2 C 4$ 3 QO 4 -3 H& F C N -1HE F3 F3$4 E2 H& $EO C-NF @H J 1 $ E CF$ $ED J $O Q3 $ &- &H4 C-NF 5-C N3 H4 @F 3& P $2 C 4$ 3 H 3 O F3 C$ J 3 QO 9 44E H& G C 43CC -ED34 F C 8 $ED $ED ?3$ HE $ED H&& F3 MHHDC $ED @F$ 3 C H& F3 I34CHE $Q 3 H F3 I $0 J 3E H& C-NF I 3E$ O H4 ?- J H& P HE3O 43ED34 E2 F3 < 34R 1 -C & $EO $& 34 I $0 J 3E H& F3 @HC C $ED ; 13EN3C H& C-NF G C 43CC H C-NF I34CHE $ED E N$C3 EH C-&& N 3E G C 43CC CF$ Q3 &H-ED F3E H NH J J C-NF I34CHE H M$H H4 H F3 8 H-C3 H& @H443N HE &H4 $EO I 34 HD EH 3 N33D E2 <E3 @$ 3ED$4 P HE F -E 3CC C-NF I 3E$ O H4 ?- J H& P HE3O CF$ Q3 CHHE34 1$ D

WWW >' ED Q3 &-4 F34 3E$N 3D *F$ E $ @$C3C F343 $EO ?3$ I4HN33D E2C J $C 34 CF$ Q3 NH J 1 $ E3D 2 EC &H4 F$ E2 NH J J 3D $EO <&&3EN3 1HE @H J -ED34 F C N & C-NF ?3$ J $C 34 CF$ 43C D3 J H43 F$E 6 3 P 3C D C $E &4H J F3 I $N3 E F NF ?-NF @H J 1 $ E CF$ 1Q3 J $D3 CF$ Q3 C-&& N 3E & F3 ?- J J HEC CC-3D 2 EC F E H $EC 34 C-NF @H J 1 $ E Q3 14H 3D HE <$ F H Q3 1- E H F3 I HC <&& N3 H& F3 * H E E F NF C-NF @H J 1 $ E F$C Q33E CH J $D3 $ED $DD43CC3D H C-NF ?3$ J $C 34 QO F C , $ J 3 ' 3C D3EN3 $ED <NN-1$ HE 14H D3D C-NF ?- J J HEC Q3 CH 1- E F3 I HC <&& N3 H& C-NF * H E $&H43C$ D 6H-4 G$0C 143 H-C H F3 G$0 $11H E 3D &H4 F3 F3$4 E2 H& C-NF @H J 1 $ E

WWW ED Q3 &-4 F34 3E$N 3D *F$ &$EO ?3$ J $C 34 H& $EO H&&3EN3 HQ3 HE3 @H-E O CF$ NH J J $EO <&&3EN3 1-E CF$Q 3 QO F C N $ED F3 4 3D F343 I 3N3 H& > E3E E 43C13N F343H& C-NF <&&3EN3 CF$ F$ 3 Q33E NH J J 3D Q3 CH D H4 3 1HC3D &H4 ?$ 3 $ED C3 T3D E $EH F34 @H-E O F3 @H J 1 $ E J $D3 2 EC C-NF ?3$ J $C 34 CF$ Q3 F3$4D Q3&H43 $ED D3 34 J E3D QO $ED F3 I 3E$ O 3 3D -ED34 F3 9 44E H& $E O 5-C N3 H& F3 I 3$N3 H& F3 @H-E O E F NF C-NF I 3N3 H& > E3E CF$ Q3 CH D H&&343D &H4 ?$ 3 H4 C3 T3D $C & F3 G3&$- H4 , 32 3N H& C-NF ?3$ J $C 34 E 43C13N H& C-NF I 3N3 H& > E3E F$D Q33E NH J J 3D E F3 @H-E O E F NF C-NF I 3N3 H& > E3E $C C3 T3D

WWW ED

11 N$ HE' H&' I3E$ 3C

WWW' ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ '$EO' 13E$ O' F NF' CF$ 'Q3' $ $4D3D' $ED' 3 3D' QO' $EO' 5-C N3' H&' F3' I3$N3' H4' @F 3&' P$2 C 4$ 3' E' 1-4C-$EN3' , ' F3' I4H C HEC' H&' F C' N 'CF$ '$ED' J$O' Q3' D 43N 3D' QO' C-NF' 5-C N3' H4' @F 3&' P$2 C 4$ 3' H' Q3' $11 3D' E' J$EE34' &H H E2' ^ F$' C' H' C$O _' E' 3 34O' @$C3' F343' F3' I34CHE' 143&344 E2' F3' @HJR 1$E 'CF$ '$113$4' H' F$ 3' C-&&343D' $EO' G$J$23' @HC C' >HCC' H&' * J3' H4' H F34' E(-4O' E' F3' P$ 34' Q3 E2' F3' ?- 9 3N 'H&' @HJ 1$E '$EO' C-NF' I3E$ O' F ' $ED' E$$O' Q3' 1$D' H' C-NF' I34CHE' H4' &' EH' GJ23C' @HC C' >HCC' H&' * J3' H4' H F34' E(-4O' CF$ '$113$4' H' F$ 3' Q33E' C-C' $E3D' QO' C-NF' I34CHE' F3E' C-NF' I3E$ O' CF$ 'Q3' 1$D' H' F3' @HJR J 33' $11H E 3D' E' J$EE34' F343 E Q3&H43' D 43N 3D' E' F3' @H-E O' E' F NF' F3' @HJ 1$E' H4 2 E$ 3D' H' Q3' $11 3D' QO' C-NF' @HJ J 33' H $4DC' &H4 J E2' $' 6-ED' &H4' D3&4$O E2' $EO' ; 13EN3C' E' 3 3N- E2' F3' G- 3C' 7$CC 2E3D' H' F3 J' QO' F C' N ' H4' 'CF$ ' $ED' (E$O' Q3' $ &-' &H4' C-NF' 5-C N3' H4' @F 3&' P$2 C 4$ 3' H' D 43N' $EO' I H4 HE' H&' $EO' C-NF' I3E$ O' CH' 3 3D' H' Q3' 1$D' H' F3' I$4 O' $224 3 3D' $ED' F3' 43 J$E E2' I H4 HE' <&' C-NF' I3E$ O' H' Q3' 1$D' H' C-NF' @HJ J 33

I3E$ 3C' 3 R N33D E2' M6&' 43NH 34$Q 3' QO' N HE

WWW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ '$ ' I3E$ 3C' $ED' 6H4R &3 -43C' EN-443D' -ED34' $EO' @ $-C3' H4' 4 N 3' E' F C' N ' 3 N33D E2' E' JH-E 'H4' $ -3' *3E' I H-EDC'4 F$ '$ED' J$OQ3' C-3D' &H4' $ED' 43NHR 343D' QO' $EO' I34CHE' F1' ' C-3' &H4' F3' C$J3' QO' ?- ' H4' N HE' $ '>$ ' H4' QO' B ' I $E ' H4' E&H4 J$ HE' E' -EO' H&' 8 C' P$(3C O C' @H-4 C' H&' % E2 C' B3ENF' @HJ JHE' I 3$C' H4' ; NF3X-34' E' $!% #&' F343 E' EH' ; CCH 2E' I 4H 3N HE' EH4' 9 $234' H&' >$ ' EH4' JH43' F$E' <E3' J1$4 $EN3' CF$ 'Q3' $ H 3D' ' $ED' F$' E' $ ' C-NF' N HEC' ?- C' H4' I 4HC3N- HEC' F NF' CF$ ' Q3' Q4H-2F' H4' 14HC3N- 3D' &H4' ; 3NH 34O' H&' C-NF' 6H4&3 -43C' H4' I3E$ 3C' F3' 3E-3' CF ' Q3' $D' E' F3' @H-E O' H4' E' F3' @H-E O' H&' F3' @ O' H4' F3' @H-# O' H&' F3' *H E' F343 E' C-NF' 6H4&3 -43C' H&' I3ECD 3C' 343' EN-443D' CJD' E' EHE3' H F34

3E-3' H' Q3' $D' E' F3' @H-E

G3&3ED$E' J$O' 1 3$D' F3' M3E34$' CC-3

WWW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' &' $EO' N HE' H4' ?- CF$ 'Q3' NHJ J3EN3D' H4' Q4H-2F '2 EC '$EO' I34CHE' &H4' H E2' H4' N$-C E2' H' Q3' DHE3' $EO' N ' P$ 34' H4' *F E2' E' 1-4C-$EN3' H&' F C' N ' F3' G3&3ED$E 'H4' G3&3ED$E C' E' C-NF' N HE' H4' ?- 'CF$ '$ED' J$O' 1 3$D' F3' M3E34$' CC-3' $ED' 2 3' F C' N ' #8D' F3' C13N $' P$ 34' E' ; D3EN3' $ED' &' -1HE' C-NF' N HE' H4' E' C-NF' ?- ' 5-D2 J3E' CF$ ' Q3' 2 3E' &H4' F3' G3&3ED$E 'H4' G3&3ED$E C' H4' F3' I $E &&' H4' I $E &&C' F343 E' CF$ ' Q3NHJ3' , HEC- ' H4' D CNHE E-3' F C' F34' H4' F3 4' N HE' H4' ?- ' F3' G3&3ED$E 'H4' G3&3ED$E C' F343 E' CF$ ' F$ 3' GH-Q 3' @HC C' '

@HJ J3EN3' J3E 'H&' N

WWW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' F C' N 'CF$ ' NHJR J3EN3' $ED' $+3' 3&&3N' &4H J' $ED' $& 34' F3' ; ED' H&' F C' 143C3E' ?3CC HE' H&' I$4 $J3E '$ED' CF$ ' NHE E-3' $ED' Q3' E' &H4N3' &H4' * H' =3$4C' $ED' &4H J' F3EN3' H' F3' ; ED' H&' F3' F3E' E3 ' ?3CC HE' H&' I$4 $J3E

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114H14 $ HEʿ H&ʿ $ ʿG - 3Cʿ F NFʿ J $Oʿ F343$& 34ʿ
Q3ʿ 4$ C3Dʿ F Eʿ F3ʿ C$ Dʿ C $ED

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> 8 ; ' ; ?ʿ $Eʿ N ʿ $Cʿ 1$CC3Dʿ Eʿ F3ʿ 6 & Fʿ =3$4ʿ H&ʿ F3ʿ ' 3 21 H&ʿ 8 Cʿ $ 3ʿ P $(3C Oʿ % E2ʿ ! , (!ʿ F3ʿ 6H-4 F ʿ E - 3Dʿ /#ʿ ʿ ʿ ʿ ʿ;Pʿ / ' ʿ , ʿ)!ʿ4! ! ʿ/& # 1 ,#ʿ , ʿ?31 '!ʿ # , 3 &H-ED $ED ʿ #&ʿ , ʿ,) ! ʿ*3 5 , 1!1 ʿ EDʿ F343$Cʿ $ʿ N34 $ Eʿ H F34ʿ N ʿ $Cʿ 1$CC3Dʿ Eʿ F3ʿ C$ Dʿ 6 & Fʿ =3$4ʿ H&ʿ 8 Cʿ C$ Dʿ $ 3ʿ P $(3C O Cʿ ' 3 2E ʿ E - 3Dʿ / #ʿ ! / ʿ ʿNʿ ʿ / ' ʿ ,ʿ !5! % # / ' ʿ5 11!&ʿ #ʿ)!ʿ R 1!0!#)ʿ H! ʿ, ʿ)!ʿ L ! (#ʿ , ʿ 1ʿ% !ʿ U!1 ʿ #(ʿM3H423ʿ)!ʿ 7) &ʿ # 3%!&ʿ /#ʿ / ' ʿ ,ʿ !(3% ! ʿ)!ʿ I !%!4 ,#ʿ , ʿ (!1ʿ #ʿ , 3 &H-ED $ED ʿ #&ʿ ,ʿ !ʿ 3) ! ʿ ʿ * ,0 1 ,#ʿ , ʿ)!ʿ I !%!4 ,#ʿ , ʿ (!1ʿ #ʿ)!ʿ 1 &ʿ I ,%,# ʿ #&ʿ 1ʿ ʿ 2!5!#&!#' !1 ʿ EDʿ F343$Cʿ QOʿ $Eʿ N ʿ 1$CC3Dʿ Eʿ F3ʿ *3E Fʿ =3$4ʿ % ʿ H&ʿ 8 Cʿ C$ Dʿ $ 3ʿ P $(3C Oʿ % E2ʿ ! , (!ʿ F3ʿ 6H-4 Fʿ F3ʿ C$ Dʿ N Cʿ 343ʿ NHE E-3Dʿ Eʿ &H4N3ʿ -E ʿ F3ʿ *F 4 0 & 4C ʿG$Oʿ H&ʿ 2!'! 4! ʿ<E3ʿ FH-R C$EDʿ 3 2F ʿF-ED43Dʿ $EDʿ F 4 0 Hʿ: EDʿ F343$Cʿ ʿ Cʿ 3 13D 3E ʿ F$ ʿ F3ʿ C$ Dʿ N Cʿ Q3ʿ &-4 F34ʿ NHE E-3Dʿ Eʿ &H4N3ʿ -E ʿ F3ʿ C$ J 3ʿ CF$ ʿ Q3ʿ 4313$ 3D ʿ $ 343D ʿ H4ʿ $ J 3ED3Dʿ QOʿ $EOʿ N ʿ H4ʿ N Cʿ F NFʿ J $Oʿ &H4ʿ F$ ʿ I -41HC3ʿ Q3ʿ J $D3ʿ QOʿ 8 Cʿ P J 3C O ʿ Fʿ F3ʿ D N3ʿ $EDʿ @HEC3E ʿH&ʿ $EOʿ 8 H-C3ʿ H4ʿ 8 H-C3Cʿ H&ʿ M3E34$ʿ CC3 J Q Oʿ F NFʿ 8 Cʿ P $(3C Oʿ J $Oʿ $ ʿ$EOʿ * J 3ʿ C33ʿ & ʿ Hʿ NHE H+3ʿ F Eʿ F3ʿ C$ Dʿ @H HEOʿ H&ʿ E !0 ,3#&% #&=ʿ Q3ʿ ʿ F343&H43ʿ 3E$N 3Dʿ QOʿ F3ʿ % E2 Cʿ J HC ʿ ; N3 3E ʿ P $(3C O ʿ QOʿ $EDʿ Fʿ F3ʿ D N3ʿ $EDʿ @HEC3E ʿ H&ʿ F3ʿ >H4DCʿ ?1 4 -$ʿ $EDʿ *3 J 1H4$ ʿ $EDʿ Vʿ ;ʿ @H J J HEC

'3N 3D N C NHE E-3D

@H J J HEC ' E F C 143C3E ' I$4 $J3E '$CC3 J Q 3D ' $ED QO F3 - * H4 O H&' F3 C$J3 ' *F$ ' 'CF$ ' $ED J$O Q3 $ &- '&H4 8 C P$(3C O ' H4 &H4 $EO MH 34EH4 ' > 3- 3E$E ' MH 34EH4 ' H4 <&& N34 $D J E C 34 E2 F3 MH 34E J3E H& E! F ,3#&% #&' E 1-4C-$EN3 H&' $EO @H J J CC HE H4 EC 4-N HEC H F J' &H4 F$ ' I-41HC3 $DD43CC3D QO 8 C P$(3C O ' F F3 D N3 $ED @HEC3E ' H&' $EO 8H-C3 H4 8H-C3C H&' M3E34$ ' CR C3 J Q O F NF 8 C P$(3C O J$O F343$& 34 Q3 1 3$C3D H NHE H+3 &4H J' $J HE2 F3 EF$Q $E C H& F3 C$ D @H HEO ' QO $EO N ' H4 N C H Q3 &4H J' * J3 H * J3 &H4 F$ ' I-41HC3 1$CC3D ' H 4313$ ' E FH 3 H4 E 1$4 ' H4 H $J3ED '$ 34 ' H4 $4O ' F3 C$ D 43N 3D N C H4 $EO H&' F3 J ' H4 $EO I$4 ' F343H& ' $ED F$ ' -E 'CH 4313$ 3D '$J3ED3D '$ 343D ' H4 $4 3D ' F3 C$ D 43N 3D N C CF$ ' Q3 $ED NHE E-3 E &- ' 6H4N3 $ED ; &&3N

114H14 $R HE H& G- 3C

' ED F343$C QO 4 -3 H& D 34C N C H& I$4 $J3E 'D 34C G- 3C $43 EH '1$O$Q 3 H 8 C P$(3C O F E F3 C$ D C $ED H& E!F ,3#&[% #&' = Q3 ' F343&H43 &-4 F34 3E$N 3D ' *F$ ' F3E $ED CH CHHE $C $EO 8H-C3 H4 8H-C3C H& M3E34$ ' CC3 J Q O CF$ ' F$ 3 Q33E NHE H+3D QO 8 C P$(3C O &4H J' $J HE2 F3 EF$Q $E C H& F3 C$ D @H HEO ' $ED CF$ ' F$ 3 $N -$ O J3 ' &H4 F3 G C1$ NF ' H& F3 1-Q N B-C E3CC F343H& ' F3 E3 ' I4HD-N3 H&' $ ' G- 3C 3 3D F E F3 C$ D @H HEO ' QO $EO N ' H& I$4 $J3E ' EH ' H4 F343$& 34 H Q3 E &H4N3 F343 ' CF$ ' Q3 $114H14 $ 3D $ED $11 3D E C-NF P$EE34 $ED H $ED &H4 C-NF I-41HC3C $C 8 C P$(3C O ' F F3 D N3 $ED @HEC3E ' H& C-NF 8H-C3 H4 8H-C3C H& M3E34$ ' CC3 J Q O ' CF$ ' &4H J' * J3 H * J3 D 43N : I4H D3D $ $OC ' F$ ' &4H J' $ED H- ' H& C-NF E3 ' I4HN33DC CF$ ' Q3 D3D-N 3D E 3$NF $ED 3 34O =3$4 $?- J' EH ' 3 N33D E2 ? ' FH-C$ED & 3 F-ED43D $ED & & O I H-EDC ' &H Q3 $11 3D &4H J' * J3 H * J3 E $ED H $4DC F3 P$ E 3E$EN3 $ED ?-11H4 ' H& F3 MH 34EH4 ' H4 H& F3 <&& N34 &H4 F3 * J3 Q3 E2 $D J E C 34 E2 F3 MH 34E J3E ' H& F3 C$ D @H HEO ' $ED H& F3 @F 3& $ED H F34 5-D23C ' $ED H& 8 C P$(3C O C H4E3O M3E34$ ' $ED H& F3 @H HE $ ' ?3N43 $4O H& $ED &H4 F3 C$ D @H HEO ' $ ' C-NF * J3C $ED E C-NF ?F$43C $ED I4H1H4 HEC $C F3 >H4DC @H J J CC HE34C H& 8 C P$(3C O C *43$C-4O ' H4 $EO *F433 H& F3 J ' QO $EO 9$44$E ' H4 9$ *$E C H Q3 QO F3 J' &4H J' * J3 H * J3 CC-3D ' CF$ ' D 43N ' 14H D3D $ CH ' F$ ' CH &$4 $C 43C13N C C-NF 114H14 $ HE $C $&H43C$ D H& F3 C$ D G- 3C ' F C 143C3E ' N ' CF$ ' EH ' $+3 3&&3N ' H4 NH J3 E H H134$ HE ' F3 6 4C ' G$O H& / 5 % <E3 FH-C$ED 3 2F ' F-ED43D $ED F 4 O F433 ' $ED 14H D3D $ CH ' F$ ' 'CF$ ' $ED J$O $ ' $EO * J3 F343$& 34 Q3 $ &- ' H $ED &H4 8 C P$(3C O ' QO $EO N ' H4 N C H Q3 QO 8 J' &H4 F$ ' I-41HC3 J$D3 ' F F3 D N3 $ED @HEC3E ' H& $EO C-NF 8H-C3 H4 8H-C3C H& M3E34$ ' CC3 J Q O $C $&H43C$ D ' H 4313$ ' CH J -NF H& F C 143C3E ' N ' $C 43 $ 3C H F3 11 N$ HE H& F3 C$ D $EE-$ ' ?- J' H& ? ' FH-C$ED & 3 F-ED43D $ED & & O I H-EDC ' E N$C3 C-NF 8H-C3 H4 8H-C3C H& M3E34$ ' CC3 J Q O CF$ ' NHEN-4 F 8 C P$(3C O E J$+ E2 F$ ' CF$ ' $113$4 H 8 C P$(3C O H Q3 $E $D3X-$ 3 I4HR C HE &H4 F3 P$ E 3E$EN3 H& F3 C3 34$ ' <&& N34C $&H43C$ D ' 134R J$E3E O C3N-43D -1HE 6-EDC $D3X-$ 3 H F$ ' I-41HC3

E $EE-$' ?- J' H Q3 C3 ' $1$4 ' &H4 F3 P$ E 3E$EN3 H& F3 MH 34R EH4 ' F3 5-D23C ' R H4E3O M3E34$ ' $ED @H HE $?3N43 $4O

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G3N J 4' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 '
&H-4 ' $E' N ' H&' F3' 6 & F' =3$4' H&' 8 C' $ 3' P $(3C O'
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> 8 ; ' ; ?' $E' N ' $C' 1$CC3D' E' F3' 6 & F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' !, (!' F3' 6H-4 F ' E - 3D' /#' / ' ' ,' !5! %' 1!0! %' < F1' !% #(' ,')!' R 1)! !1' . : 9 ' H . ' ' !&' ,#' 35,#')!' " # 1' #&' +), !1' , 3 &H-ED $ED ' #&' ,' !' * ,0 1 ,#' , ')!' 4! ! ' I ,#&3' ' , ')!' 1 &' R 1)! !1' , ' R 0!' H! 1' #&' , ')!#' !' ,')!' 8#&' , ')!')!#' #!J ' +!11 ,#' , ' * % !#
ED' F343$C' QO' $E' N ' 1$CC3D' E' F3' *3E F' =3$4' H&' 8 C' C$ D' $ 3' P $(3C O C' ' 3 2E' F3' C$ D' 43N 3D' N ' H23 F34' F' N34 $ E' H F34' N C' F343 E' J 3E HE3D ' 343' NHE E-3D' E' &H4N3' -E ' F3' *F 4 0 ' & 4C ' G$O' H&' 2!'! 4! ' F NF' ' Q3' E' F C' 143C3E ' =3$4' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H' ' $ED' ' C' 3 13D 3E ' F$ ' F3' C$ D' N ' Q3' &-4 F34' NHE E-3D ' Q3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$ ' $ED' *3 J 1H4$ ' $ED' @H J J HEC ' E' F C' 143C3E ' I $4 $R J 3E ' $CC3 J Q 3D ' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3 ' *F$ ' F3' C$ D' (H)#(<' H#' N ' CH' 1$CC3D' $C' $&H43C$ D' E' F3' 6 & F' =3$4' H&' 8 C' C$ D' $ 3' P $(3C O C' ?G!#J(!' H+ %' ' 3 2E' CF$ ' Q3' $ED' F3' C$ J 3' C' F343QO' NHE E-3D ' $ED' CF$ ' Q3' $ D' #) (<1' 43 J $ E' E' &H4N3' -E ' F3' *F 4 0 & 4C ' G$O' H&' G3N3 J Q34' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 &H-4 ' $ED' EH' HE234

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@H 32 $ 3ʿ @H41H4$ HECʿ ISDʿ #ʿ ZSU m

> 8 ; ' ; ?ʿ F3ʿ 4NFQ CFH1Cʿ $EDʿ B CFH1Cʿ H&ʿ F3ʿ C3 34$ʿ G HN3C3Cʿ $EDʿ F3ʿ G3$ECʿ $EDʿ G3$ECʿ $EDʿ @F$1 34Cʿ 4NFR D3$NHECʿ I43Q3ED$4 3Cʿ $EDʿ @$EHECʿ $EDʿ H F34ʿ G 2E $4 3Cʿ $EDʿ <&& N34Cʿ H&ʿ F3ʿ C3 34$ʿ @$ F3D4$ʿ $EDʿ @H 32 $ 3ʿ @F-4NF3Cʿ $EDʿ @F$13 Cʿ $EDʿ F3ʿ P $C 34Cʿ H4ʿ H F34ʿ 8 3$DCʿ $EDʿ 63 H Cʿ $EDʿ ?NFH $4Cʿ H4ʿ H F34ʿ ?HN 3 3Cʿ H&ʿ F3ʿ C3 34$ʿ @H 323Cʿ $EDʿ 8 $ Cʿ "ʿ F3ʿ #E 34R C 3Cʿ H&ʿ 6 , &ʿ $EDʿ I 4 &(!ʿ $EDʿ H&ʿ F3ʿ @H 323Cʿ H&ʿ #') !1 !ʿ $EDʿ 8 , #ʿ $43ʿ I 4H14 3 H4Cʿ H&ʿ D 34Cʿ P $EH4Cʿ P 3CC-$23Cʿ >$EDCʿ * 3E3R J 3E Cʿ * F3Cʿ $EDʿ 8 343D $ J 3E Cʿ $EDʿ Eʿ J $EOʿ @$C3Cʿ F3ʿ BH-ER D$4 3Cʿ H4ʿ \ -$E 3Cʿ $EDʿ F3ʿ D3E Oʿ H&ʿ >$EDCʿ F Eʿ C-NFʿ P $R EH4Cʿ $EDʿ H&ʿ C-NFʿ P 3CC-$23Cʿ >$EDCʿ * 3E3 J 3E Cʿ $EDʿ 8 343D $R J 3E Cʿ $EDʿ H&ʿ >$EDCʿ C-Q(3Nʿ Hʿ $EOʿ C-NFʿ * F3Cʿ H4ʿ CH J 3ʿ I $4ʿ H4ʿ I $4 Cʿ F343H&ʿ $43ʿ -E+EH Eʿ H4ʿ D C1- 3Dʿ $EDʿ ʿ H- Dʿ Q3ʿ $ʿ 243$ʿ B3E3& ʿ $Cʿ 3 ʿ Hʿ C-NFʿ I 4H14 3 H4Cʿ 43C13N 3 Oʿ $Cʿ Hʿ F3 4ʿ >3CC33Cʿ @H1OFH Dʿ H4ʿ @-C H J $4Oʿ * 3E$E Cʿ ?-Q 3CC33Cʿ H4 #ED34 3E$E Cʿ F3 4ʿ F Cʿ H4ʿ F34ʿ 8 3 4Cʿ ; 3N- H4Cʿ D J E C 4$ H4Cʿ H4ʿ CC 2ECʿ &ʿ F3ʿ C$ Dʿ P $EH4Cʿ P 3CC-$23Cʿ >$EDCʿ * 3E3 J 3E Cʿ * F3Cʿ $EDʿ 8 343D $ J 3E Cʿ 343ʿ D3E & 3Dʿ $EDʿ F3ʿ BH-ED$4 3Cʿ $EDʿ \ -$E 3Cʿ F343H&ʿ $CN34R $ E3Dʿ $EDʿ & E$ Oʿ C3 3D: B3ʿ ʿ 3E$N 3Dʿ QOʿ F3ʿ % -2 Cʿ J HCʿ ; N3 3Eʿ P $(3C Oʿ QOʿ $EDʿ Fʿ F3ʿ D N3ʿ $EDʿ @HEC3Eʿ H&ʿ F3ʿ >H4DCʿ ?1 4 -$ʿ $EDʿ * 3 J 1H4$ ʿ $EDʿ @H J J HECʿ Eʿ F Cʿ 143C3Eʿ I $4 $ʿ

V ʿ Mʿ J 3E

J3Eʻ$CC3JQ3Dʻ $EDʻ QOʻ F3ʻ - FH4 OʻH&ʻ F3ʻ C$J3ʻ *F$ʻ &4HJʻ$EDʻ
$& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ Nʻ ʻCF$ ʻ$EDʻ J$OʻQ3ʻ $ &-ʻ Hʻ $EDʻ &H4ʻ $EOʻ
4NFQ CFH1ʻ B CFH1ʻ G3 Eʻ G3$Eʻ $EDʻ @F$1 34ʻ H4ʻ H F34ʻ @H41H4$ HEʻ
22432$ 3ʻ H4ʻ ?H 3ʻ F343 EQ3&H43ʻ J3E HE3Dʻ Hʻ 3E 34ʻ E Hʻ $Eʻ 2433R
J3EʻH&ʻ ʻ3&343EN3ʻ H4ʻ G33Dʻ H&ʻ ?-QJ CC HEʻ Fʻ F Cʻ H4ʻ F3 4ʻ >3CC33ʻ
H4ʻ >3CC33Cʻ @H1OFH Dʻ H4ʻ @-C HJ$ Oʻ *3E$Eʻ H4ʻ *3E$E Cʻ?-Q 3CC33ʻ H4ʻ
?-Q 3CC33Cʻ #ED34 3E$Eʻ H4ʻ #ED34 3E$E CʻF CʻF34ʻ H4ʻ F3 4ʻ 83 4Cʻ
; 3N- H4Cʻ DJ E C 4$ H4CʻH4ʻ CC 2ECʻ H4ʻ Fʻ F3ʻ < E34ʻ H4ʻ < E34Cʻ
H&ʻ $EOʻ H F34ʻ 8343D $J3E Cʻ $D(H E E2ʻ Hʻ H4ʻ E 34J 3Dʻ Fʻ F3ʻ C$ Dʻ
P$EH4Cʻ P3CC-$23Cʻ >$EDCʻ *3E3J3E Cʻ * F3Cʻ H4ʻ 8343D $J3E Cʻ
F343QOʻ ʻCF$ ʻF3ʻ $2433Dʻ F$ʻ $EOʻ -E+EH Eʻ Q4ʻ D C1- 3Dʻ BH-ED$4 3Cʻ
H4ʻ \-$E 3Cʻ H&ʻC-NFʻ P$EH4Cʻ P3CC-$23Cʻ >$EDCʻ *3E3J3E Cʻ * F3Cʻ
H4ʻ 8343D $J3E Cʻ H4ʻ $EOʻ I$4ʻ F343H&ʻ CF$ ʻ Q3ʻ 43&3443Dʻ Hʻ F3ʻ
D(-D N$ HEʻ H&ʻC-NFʻ I34CHEʻ H4ʻ I34CHECʻ $Cʻ J$OʻQ3ʻ $2433Dʻ -1HEʻ $EDʻ
E$J3Dʻ QOʻ F3ʻ C$ Dʻ 4NFQ CFH1ʻ B CFH1ʻG3$EʻG3$Eʻ $EDʻ @F$1 34ʻH4ʻ
H F34ʻ @H41H4$ HEʻ 22432$ 3ʻ H4ʻ ?H 3ʻ $EDʻ QOʻ F Cʻ H4ʻ F3 4ʻ >3CC33ʻ H4ʻ
>3CC33Cʻ @H1OFH Dʻ H4ʻ @-C HJ$4Oʻ *3E$Eʻ H4ʻ *3E$E Cʻ ?-Q 3CC33ʻ H4ʻ
?-Q 3CC33Cʻ #ED3P3E$EʻH4ʻ #ED34 3E$E CʻF Cʻ F34ʻ H4ʻ F3 4ʻ 83 4Cʻ
; 3N- H4Cʻ DJ E C 4$ H4CʻH4ʻ CC 2ECʻ H4ʻ QOʻ C-NFʻ < E34ʻ H4ʻ < E34Cʻ
H&ʻ $EOʻ H F34ʻ 8343D $J3E Cʻ C -$ 3ʻ $Cʻ $&H43C$ Dʻ $EDʻ F$ʻC-NFʻ ʻ3R
&3433ʻ H4ʻ ʻ3&3433Cʻ CF$ ʻ Q3ʻ &- Oʻ $- FH4 T3Dʻ Hʻ J$+3ʻ H4ʻ N$-C3ʻ Hʻ Q3ʻ
J$D3ʻ ?-4 3OCʻ P$1Cʻ $EDʻ DJ3$C-43J3E Cʻ H&ʻ F3ʻ C$ Dʻ P$EH4Cʻ
P3CC-$23Cʻ >$EDCʻ *3E3J3E Cʻ * F3Cʻ $EDʻ 8343D $J3E Cʻ H4ʻ $EOʻ
I$4ʻ F3 3H&ʻ $EDʻ Hʻ C-JJHEʻ $EOʻ I34CHECʻ $Cʻ 9 E3CC3Cʻ $EDʻ 3 $J E3ʻ
F3Jʻ HEʻ <$ Fʻ ^ F NFʻ <$ Fʻ F3ʻ H4ʻ F3Oʻ $43ʻ F343QOʻ $- FH4 T3Dʻ Hʻ $DJ R
E C 34_ʻ H-NF E2ʻ H4ʻ NHEN34E E2ʻ $EOʻ H&ʻ F3ʻ P$ 34Cʻ H4ʻ *F E2Cʻ CHʻ
43&3443Dʻ $Cʻ $&H43C$ Dʻ H4ʻ Eʻ $EOʻ 9 $Oʻ 43 $ E2ʻ F343 Hʻ ʻ $EDʻ $ CHʻ Hʻ N$ ʻ
&H4ʻ F3ʻ I4HD-N HEʻ H&ʻ$ ʻ?-4 3OCʻ P$1CʻG33DCʻ BHH+Cʻ I$134Cʻ $EDʻ
9 4 E2Cʻ Eʻ F3ʻ @-C HDOʻ H4ʻ IH 34ʻ H&ʻ $EOʻ H&ʻ F3ʻ I$4 3Cʻ Hʻ F3ʻ C$ Dʻ
ʻ3&343EN3ʻ H4ʻ H&ʻ$EOʻ H F34ʻ I34CHEʻ H4ʻ I34CHECʻ H&ʻ H4ʻ NHEN34E E2ʻ F3ʻ
P$ 34Cʻ EʻX-3C HEʻ $EDʻ F3ʻ C$ Dʻ ʻ3&3433ʻH4ʻ ʻ3&3433CʻF$ E2ʻ JʻʻEDʻ
C-&& N 3E Oʻ E 3C 2$ 3Dʻ $EDʻ NHEC D343Dʻ F3ʻ C$J3ʻ $EDʻ $ ʻ P$ 34Cʻ Hʻ
F Jʻ H4ʻ F3Jʻ 43&3443Dʻ CF$ ʻ $EDʻ J$Oʻ J$+3ʻ F Cʻ H4ʻ F3 4ʻ $4Dʻ H4ʻ
$4DCʻ Eʻ 9 4 E2ʻ -ED34ʻ F Cʻ H4ʻ F3 4ʻ 8$EDʻ $EDʻ ?3$ʻ H4ʻ 8$EDCʻ $EDʻ
?3$ Cʻ Fʻ $ P$1ʻ H4ʻ P$1Cʻ D4$ Eʻ F343-1HEʻ H4ʻ F343-E Hʻ $EE3 3Dʻ
$EDʻ F NFʻ C$ Dʻ $4Dʻ H4ʻ $4DCʻ $EDʻ P$1ʻ H4ʻ P$1Cʻ CF$ ʻ Q3ʻ -1HEʻ
I$4NFJ3EʻH4ʻ 3 -Jʻ $EDʻ CF$ ʻ $ $4Dʻ $EDʻ D3 34J E3ʻ D3E o ʻD3 R
E3$ 3ʻ $EDʻD3CN4 Q3ʻ F3ʻ BH-ED$4 3Cʻ \-$E 3Cʻ I$4 N- $4Cʻ $EDʻ ? -$R
HECʻ H&ʻ F3ʻ C$ Dʻ P$EH4Cʻ P3CC-$23Cʻ >$EDCʻ *3E3J3E Cʻ * F3Cʻ $EDʻ
8343D $J3E Cʻ CHʻ 43&3443Dʻ Hʻ F Jʻ H4ʻ F3Jʻ $Cʻ $& 43C$ Dʻ $EDʻ F3ʻ C$ Dʻ
$4Dʻ H4ʻ $4DCʻ $EDʻ P$1ʻ H4ʻ P$1Cʻ CF$ ʻ Q3ʻ $ Dʻ Q3&H43ʻ $ ʻ F3ʻ
I$4 3Cʻ Hʻ $EOʻ C-NFʻ 2433J3EʻH&ʻ ʻ3&343EN3ʻ H4ʻ G33Dʻ H&ʻ ?-QJ CC HEʻ
EN -D E2ʻ F3ʻ I$4 Oʻ H4ʻ I$4 3Cʻ FHC3ʻ @HEC3Eʻ Cʻ 43X- 43Dʻ QOʻ F Cʻ Nʻ
FHC3ʻ 114HQ$ HEʻ F343H&ʻCF$ ʻQ3ʻ 4 3Eʻ -1HEʻ F3ʻ C$ Dʻ $4Dʻ H4ʻ
$4DCʻ $EDʻ CF$ ʻ Q3ʻ C 2E3Dʻ $EDʻ C3$ 3Dʻ QOʻ F3J ʻ $EDʻ F343-1HEʻ F3ʻ
C$ Dʻ $4Dʻ H4ʻ $4DCʻ $EDʻ P$1ʻ H4ʻ P$1Cʻ CF$ ʻQ3ʻ &H4ʻ 3 34ʻ $& 34 $4DCʻ
Q ED E2ʻ -1HEʻ $ ʻ I$4 3Cʻ $EDʻ & E$ʻ $EDʻ NHEN -C 3ʻ $Cʻ Hʻ $ ʻ P$ 34Cʻ
F343 Eʻ NHE $ E3Dʻ H4ʻ F343QOʻ 43&3443Dʻ H

ʻ I4H D3Dʻ $ $OCʻ $EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3Dʻ *F$ʻ Eʻ 3 34Oʻ
@$C3ʻ Eʻ F NFʻ $EOʻ H&ʻ F3ʻ IH 34Cʻ F343 E Q3&H43ʻ NHE $ E3Dʻ CF$ ʻ Q3ʻ
3 34N C3Dʻ QOʻ $EOʻ B CFH1ʻ G3$Eʻ 4NFD3$NHEʻ I43Q3ED$4Oʻ H4ʻ H F34

;NN 3C $C N$ʻ @H41H4$ HEʻ ?H 3ʻ F3ʻ G33Dʻ H&ʻ ?-QJ CC HEʻ H4ʻ 2433ʻ I4HN33D E2Cʻ
J3E ʻ H&ʻ ʻ3&343EN3ʻ $EDʻ $ CHʻ F3ʻ 114HQ$ HEʻ H&ʻ F3ʻ $4Dʻ CF$ ʻ
Eʻ F3ʻ @$C3ʻ H&ʻ $ʻ B CFH1ʻ Q3ʻ 3 3N- 3Dʻ QOʻ F3ʻ 4NFQ CFH1ʻ H&ʻ F3ʻ I4HR
EN3ʻ 3C &O E2ʻ F Cʻ @HEC3E ʻ F343 Hʻ H4ʻ Eʻ @$C3ʻ H&ʻ $ʻ G3$E ʻ F3ʻ C$J3ʻ
CF$ ʻQ3ʻ 3 3N- 3Dʻ QOʻ F3ʻ G3$Eʻ $EDʻ @F$1 34ʻ 3C &O E2ʻ F3 4ʻ @HEC3E ʻ
F343 Hʻ H4ʻ Eʻ F3ʻ @$C3ʻ H&ʻ $Eʻ 4NFD3$NHE ʻ I43Q3ED$40ʻ H4ʻ H F34ʻ
;NN 3C $C N$ʻ @H41H4$ HEʻ ?H 3ʻ F3ʻ C$J3ʻ CF$ ʻ Q3ʻ 3 3N- 3Dʻ QOʻ F3ʻ
4NFQ CFH1ʻ H4ʻ B CFH1ʻ H&ʻ F3ʻ G HN3C3ʻ 3C &O E2ʻ F Cʻ @HEC3E ʻ F343 H

ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ ʻ&4HJʻ $EDʻ $& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ IH 34ʻ Hʻ
F Cʻ Nʻ ʻ CF$ ʻ $EDʻ J$Oʻ Q3ʻ $ &-ʻ Hʻ $EDʻ &H4ʻ F3ʻ C$Dʻ >3CC33ʻ H4ʻ E&$E Cʻ
>3CC33?(@H1OFH Dʻ H4ʻ @-C HJ$40ʻ *3E$E ʻ H4ʻ *3E$E Cʻ ?-Q 3CC33ʻ H4ʻ
?-Q 3CC33Cʻ #ED34 3E$E ʻ H4ʻ #ED34 3E$E Cʻ $EDʻ C-NFʻ H F34ʻ < E34ʻ >-E$ NCʻ KNʻ
H4ʻ < E34Cʻ $Cʻ F343 E Q3&H43ʻ E$J3D_ F Cʻ F34ʻ H4ʻ F3 4ʻ 83 4Cʻ ; 3ʻ Hʻ 3E 34ʻ E Hʻ
N- H4Cʻ DJ E C 4$ H4Cʻ H4ʻ CC 2ECʻ FHʻ $ʻ F3ʻ * J3ʻ H&ʻ J$+ E2ʻ $EOʻ ʻ3&343EN3ʻ
ʻ3&343EN3ʻ $- FH4 T3Dʻ QOʻ F Cʻ Nʻ CF$ ʻ Q3ʻ *3E$E ʻ H4ʻ *3E$E Cʻ Eʻ
633ʻ *$ ʻ M3E34$ʻ H4ʻ ?13N $ ʻ H4ʻ &H4ʻ > &3ʻ H4ʻ > 3Cʻ $EDʻ &H4ʻ F3ʻ
M-$4D $ECʻ 8-CQ$EDCʻ @HJJ 33Cʻ H4ʻ H4E 3Cʻ H&ʻ H4ʻ $N E2ʻ &H4ʻ
$EOʻ C-NFʻ >3CC33ʻ H4ʻ >3CC33Cʻ @H1OFH Dʻ H4ʻ @-C HJ$40ʻ *3E$E ʻ H4ʻ
*3E$E Cʻ ?-Q 3CC33ʻ H4ʻ ?-Q 3CC33Cʻ #ED34 3E$E ʻ H4ʻ #ED34 3E$E Cʻ
$EDʻ C-NFʻ H F34ʻ < E34ʻ H4ʻ < E34Cʻ $Cʻ F343 E Q3&H43ʻ E$J3Dʻ F Cʻ F34ʻ
H4ʻ F3 4ʻ 83 4Cʻ ; 3N- H4Cʻ DJ E C 4$ H4Cʻ H4ʻ CC 2ECʻ FH $ʻ F3ʻ
* J3ʻ H&ʻ J$+ E2ʻ $EOʻ C-NFʻ ʻ3&343EN3ʻ CF$ ʻ Q3ʻ 43C13N 3 Oʻ $Eʻ E&$E ʻ
H4ʻ E&$E Cʻ 63J3ʻ @H 34ʻ H4ʻ 63J3Cʻ @H 34 ʻ H4ʻ H&ʻ -ECH-EDʻ P EDʻ H4ʻ
Q3OHEDʻ F3ʻ ?3$Cʻ H4ʻ -ED34ʻ $EOʻ H F34ʻ 32$ʻ G C$Q Oʻ H4ʻ H F34 C3ʻ
D C$Q 3Dʻ Hʻ $N ʻ&H4ʻ F3JC3 3Cʻ F JC3 &(H4ʻ F3 C3 &ʻ Hʻ C 2Eʻ C3$ ʻ $EDʻ
D3 34ʻ $EOʻ 2433J3E ʻ H&ʻ ʻ3&343EN3ʻ H4ʻ G33Dʻ H&ʻ ?-QJ CC HEʻ H4ʻ
114HQ$ HEʻ H&ʻ $EOʻ $4Dʻ H4ʻ $4DCʻ $EDʻ P$1ʻ H4ʻ P$1Cʻ $- FHR
4 T3Dʻ QOʻ F Cʻ Nʻ Hʻ Q3ʻ J$D3ʻ $Cʻ &- Oʻ $EDʻ 3&&3N -$ Oʻ Hʻ $ ʻ E 3E Cʻ
$EDʻ I-41HC3Cʻ $Cʻ &ʻ C-NFʻ >3CC33ʻ H4ʻ >3CC33Cʻ @H1OFH Dʻ H4ʻ @-C HJ$40ʻ
*3E$E ʻ H4ʻ *3E$E Cʻ ?-Q 3CC33ʻ H4ʻ ?-Q 3CC33Cʻ #ED34 3E$E ʻ H4ʻ
#ED34 3E$E Cʻ $EDʻ C-NFʻ H F34ʻ < E34ʻ H4ʻ < E34Cʻ $Cʻ F343 E Q3&<43ʻ
E$J3Dʻ F Cʻ F34ʻ H4ʻ F3 4ʻ 83 4Cʻ ; 3N- H4Cʻ DJ E C 4$ H4Cʻ H4ʻ CC 2ECʻ
F$Dʻ Q33Eʻ *3E$E ʻ H4ʻ *3E$E Cʻ Eʻ 633ʻ ? J13ʻ $EDʻ H&ʻ &- ʻ 23ʻ CH 3ʻ
H&ʻ CH-EDʻ P EDʻ H4ʻ F Eʻ F3ʻ ʻ3$ Jʻ H&ʻ 8#(% #&ʻ $EDʻ EH ʻ -ED34ʻ
$EOʻ H F34ʻ 32$ʻ G C$Q O

ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ ʻ JJ3D $ 3 Oʻ $& 34ʻ F3% ʻ!ʻ
; 3N- HEʻ QOʻ F3ʻ I$4 3Cʻ H&ʻ F3ʻ EC 4-J3E ʻ CF3 E2ʻ F3 4ʻ 114HR ʻ@ #ʻ $
Q$ HEʻ H&ʻ $EOʻ $4Dʻ Hʻ Q3ʻ J$D3ʻ QOʻ 4 -3ʻ H&ʻ F Cʻ Nʻ F3ʻ 2433ʻ
J3E ʻ H&ʻ ʻ3&343EN3ʻ H4ʻ G33Dʻ H&ʻ ?-QJ CC HE ʻ $EDʻ $ CHʻ F3ʻ $4Dʻ H&ʻ "ʻ ʻ!ʻ -ʻ
$4DCʻ $EDʻ P$1ʻ H4ʻ P$1Cʻ $- FH4 T3Dʻ Hʻ Q3ʻ J$D3ʻ QOʻ F Cʻ Nʻ $EDʻ # ! #
$ʻ @H1Oʻ H&ʻ F3ʻ P E- 3Cʻ H&ʻ ; D3EN3ʻ F343-1HEʻ F3ʻ C$J3ʻ Cʻ J$D3ʻ = % !2ʻ
CF$ ʻQ3ʻ D31HC 3D_ Eʻ F3ʻ @$C3ʻ H&ʻ $EOʻ ʻ3&343EN3ʻ QOʻ $EOʻ 4NFQ CFH1ʻ
H4ʻ B CFH1ʻ Eʻ F3ʻ <&& N3ʻ H&ʻ F3 4ʻ H Eʻ ʻ32 C 4$4ʻ $EDʻ Eʻ N$C3ʻ H&ʻ $EOʻ ʻB
ʻ ʻ3&343EN3ʻ QOʻ $EOʻ G3$E ʻ G3$Eʻ $EDʻ @F$1 34ʻ 4NFD3$NHE ʻ I43Q3ED$40
@$EHE ʻ $EDʻ H F34ʻ G 2E $40ʻ $EDʻ <&& N34ʻ H&ʻ $ʻ @$ F3 4$ʻ H&ʻ @H ʻ ʻ
32 $ 3ʻ @F-4NFʻ H4ʻ @F$13 ʻ Eʻ F3ʻ <&& N3ʻ H&ʻ F3ʻ ʻ32 C 4$4ʻ H&ʻ F3ʻ G3$Eʻ
$EDʻ @F$1 34ʻ F343H&ʻ $EDʻ Eʻ N$C3ʻ H&ʻ $EOʻ ʻ3&343EN3ʻ QOʻ $EOʻ P$C 34Cʻ
H4ʻ H F34ʻ 83$DCʻ H4ʻ QOʻ $EOʻ 63 H Cʻ $EDʻ ?NFH $4Cʻ H4ʻ H F34ʻ ?HN 3 3Cʻ
F343 E Q3&H43ʻ E$J3Dʻ Eʻ F3ʻ <&& N3ʻ H&ʻ F3ʻ ? 3 $4Dʻ H4ʻ H F34ʻ 14H134ʻ 122k 3E Cʻ
<&& N3 ʻ H&ʻ F3 4ʻ C$Dʻ @H 323Cʻ $EDʻ 8$ Cʻ $EDʻ 3 340ʻ C-NFʻ ʻ32 C 4$4ʻ 0
? 3 $4Dʻ H4ʻ H F34ʻ <&& N34ʻ H4ʻ CHJ3ʻ I34CHEʻ H4ʻ I34CHECʻ HEʻ F Cʻ B3F$ &ʻ # #$
CF$ ʻ EC13N HEʻ

CF$ '14HD-N3' F3' G1N# J3E C' $ED' I$134C' CH' D31HC 3D' F' F J 'H4' $EO' H&' F3 J ' $ ' $ '14H134' $ED' OC-$' 8H-4C' H&' B-C E3CC' H' 3 34O' I34CHE' E 343C 3D' E' F3' ?-Q(3N ' P$ 34' H&' C-NF' $4D 'H4' H' F C' H4' F34' 23E ' D- O' $- FH4 T3D' FH' CF$ ' J$+3' 11 N$ HE' H' E(3N ' F3' C$J3' H4' $EO' H&' F3 J ' $ED' CF$ ' &-4E CF' $' @H1O' H4' @H1 3C' H4' F3' C$J3' H4' $EO' H&' F3 J' H' 3 34O' C-NF' I34CHE' H4' 23E ' FH' CF$ ' J$+3'

= % ! ' P J

11 N$ HE' &H4' C-NF' @H1O' H4' @H1 3C ' $ED' 3 34O' C-NF' '32 C 4$4' ?3 $4D' H4' H F34' < N34' CF$ ' E' 3 34O' @$C3' F3' 3E 3D' H' F3' ?- J' H&' 6 3' ?F E2C' $ D' EH' J H43' &H4' 43N3 E2' $ED' 143C34 E2' F3' 2433 J 3E ' <&' '3&343EN3' H4' G33D' H&' ?-Q J CC HE ' $4D' H4' $4DC ' P$1' H4' P$1C ' $ED' @HEO' H&' F3' P E- 3C' H&' ; D3EN3' $C' $&H43C$ D ' $ED' F3' ?- J' H&' <E3' ?F- E2' $ED' EH' J H43' &H4' 3 34O' I4HD-N HE' H&' F3' C$J3' H4' $EO' H&' F3 J' H' Q3' EC13N 3D' ' $ED' F3' ?- J' H&' ? 13EN3' $ED' EH' J H43' &H4' 3 34O ' D H' NHE $ E E2' ?3 3E O H' 9 H4DC' H&' 3 34O' @H1O ' $ED' F3' ?- J' H&' *3E' ?F E2C' $ED' EH' J H43' &H4' 3 34O' @H1O' H&' $' P$1' CH' J$D3' $C' $&H43C$ D

B 13-N3C' H&' '3&343EN3' FH ' H' Q3

' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' F3' ; 13EN3C' $ 3ED E2' 3 34O' '3&343EN3' F NF' CF$ ' Q3' J$D3' -ED34' F3' - FH4 O' H&' F C' N ' $ED' $ ' F3' I4HN33D E2C' F343QO' 43X- 43D' 43 $ E2' H' F3' C$J3 ' CF$ ' Q3' 1$ D' $ED' QH4E3' QO' F3' I$4 3C' F343 H' E' C-NF' P$EE34 ' ?F$43C ' $ED' I4H1H4 HEC' $C' F3O' CF$ ' $2433 ' $ED' E' N$C3' F3' C$ D' I$4 3C' CF$ ' EH ' J$+3' $EO' 2433 J3E ' 43 $ E2' H' C-NF' ; 13EH3C ' F3E' $ 'C-NF' ; 13EN3C ' H4' CH' J -NF' F343H&' $C' CF$ ' EH ' Q3' 14H D3D' &H4' QO' C-NF' 2433 J3E 'CF$ ' Q3' 1$ D' $ED' QH4E3' QO' F3' C$ D' I$4 3C' E' 3X-$' P H 3 3C

' 5! #' !': %' #' D #' '

' I4H D3D' E CH ' $ED' F3' ' &-4 F34' 3E$N 3D ' *F$ ' F C' N ' CF$ 3 3ED' HE O' H' F$ ' I$4 ' H&' F3' #E 3D' % E2DH J' N$ 3D' $ED %!1

, , <ʼ ? ; @# , G<ʼ Kʼ * ; ' * <

MW5> ; # P ʼ ʼ ' ; M ?

@ I ʼ >WWW>

Eʼ N ʼ Hʼ 3E$Q 3ʼ 8 Cʼ P $(3C Oʼ Hʼ N$EOʼ E Hʼ 3&&3N ʼ $
@HE 3E HEʼ J $D3ʼ Q3 33Eʼ 8 Cʼ C$ Dʼ P $(3C Oʼ $EDʼ
F3ʼ ; J 134H4ʼ H&ʼ $ ʼ F3ʼ E ## #

ISDʼ # ʼ ZSU ㎜

9 8 ; ' ; ?ʼ QOʼ $ʼ @HE 3E HEʼ J $D3ʼ $EDʼ C 2E3Dʼ $ ʼ < , #& , #ʼ HEʼ F3ʼ ? 33E Fʼ G$Oʼ H&ʼ E , 0! 4! ʼ Eʼ F3ʼ =3$4ʼ < E3ʼ FH-C$EDʼ 3 2F ʼ F-ED43Dʼ $EDʼ F 4 O HE3 ʼ Q3 33Eʼ 8 Cʼ P $(3C Oʼ $EDʼ F3ʼ ; J 134H4ʼ H&ʼ $ ʼ F3ʼ L311 1 ʼ 8 Cʼ C$ Dʼ P $(3C Oʼ $EDʼ F3ʼ C$ Dʼ ; J 134H4ʼ H&ʼ $ ʼ F3ʼ L311 1 ʼ NHEC D34 E2ʼ F$ ʼ F3ʼ ; 3E Cʼ F NFʼ F$Dʼ HNN-443Dʼ Eʼ F3ʼ # E 3Dʼ % E2DH J ʼ H&ʼ F3ʼ E !) ! % #&1ʼ C EN3ʼ F3ʼ =3$4ʼ < E3ʼ FH-C$EDʼ 3 2F ʼ F-ED 3Dʼ $EDʼ F 4 Oʼ F$Dʼ 43ED343Dʼ ʼ E3N3CC$4Oʼ F$ ʼ F3ʼ @H-4 Cʼ H&ʼ ! ʼ " #ʼ $EDʼ L311 ʼ CFH- Dʼ 3 $ J E3ʼ F3ʼ ? 1- $ HECʼ H&ʼ F3 4ʼ @HE 3E HEʼ H&ʼ F3ʼ , E3 33E Fʼ G$Oʼ H&ʼ ʼ < E3ʼ FH-C$EDʼ 3 2F ʼ F-ED43Dʼ $EDʼ & & 33E ʼ $Cʼ 3 ʼ $Cʼ H&ʼ F3ʼ DD HE$ ʼ 4 N 3ʼ $EE3 3Dʼ F343 H ʼ NHEC D34 E2ʼ F$ ʼ C-NFʼ ; $ J E$ HEʼ F$Dʼ 3Dʼ F3ʼ * Hʼ 8 2Fʼ @HE 4$N E2ʼ I $4 3Cʼ Hʼ F3ʼ @HEN -C HEʼ F$ ʼ NH J 1 3 3ʼ 2433 J 3E ʼ D Dʼ EH ʼ 3 C ʼ Q3 33Eʼ F3ʼ >3 34ʼ $EDʼ ?1 4 ʼ H&ʼ F$ ʼ @HE 3E HE ʼ F3Eʼ 432$4D3Dʼ Eʼ NHEE3N HEʼ Fʼ F3ʼ @ 4N- J C $EN3Cʼ F NFʼ F$Dʼ $ 3ED3Dʼ F3ʼ ?31$4$ HEʼ F$ ʼ F$Dʼ $+3Eʼ 1 $N3ʼ Q3 33Eʼ F3ʼ * Hʼ 14 EN 1$ ʼ G C HECʼ H&ʼ F3ʼ # E 3Dʼ % E2DH J ʼ H&ʼ F3ʼ E !) ! % #&1ʼ Q- ʼ F$ ʼ HEʼ 43&344 E2ʼ Hʼ F3ʼ < Q(3N ʼ H&ʼ F 3 $QH 3 J 3E HE3Dʼ @HE 3E HEʼ H&ʼ F3ʼ , E3 33E Fʼ G$Oʼ H&ʼ ʼ < E3ʼ FH-C$EDʼ 3 2F ʼ F-ED43Dʼ $EDʼ & & 33E ʼ ʼ $113$43Dʼ F$ ʼ F$ ʼ < Q(3N ʼ $Cʼ Hʼ $&&H4Dʼ Hʼ ! ʼ " #ʼ $ʼ M-$4$E 33ʼ F$ ʼ L311 ʼ H- Dʼ HEʼ $ ʼ \ -3C HECʼ NHEN34E E2ʼ " !%(3 ʼ D3E &Oʼ F34ʼ I H NOʼ F ʼ F$ ʼ F NFʼ F3ʼ @H-4 ʼ H&ʼ < , #& , #ʼ F$Dʼ D33 J 3Dʼ F3ʼ Q3C ʼ D1 3Dʼ &H4ʼ F3ʼ P $ E 3E$EN3ʼ H&ʼ $ʼ (-C ʼ B$ $EN3ʼ H&ʼ I H 34ʼ Eʼ " 3 ,5! ʼ Vʼ 8ʼ $ED

$EDʻ HEʻ F3ʻ H F34ʻ 8$EDʻ Hʻ C3N-43ʻ Hʻ L 1 ʻ F3ʻ I$0J3E ʻ H&ʻ$ʻ IH4 HEʻ H&ʻF34ʻ H Dʻ G3Q ʻ Eʻ NHEC D34$ HEʻ H&ʻ F3ʻ 23E34$ʻ 44$E23J3E C H&ʻ F3ʻ @HE243CCʻ , ʻ C !## ʻ Hʻ F NFʻ CF3ʻ F$Dʻ 2 3Eʻ F34ʻ DF3C HE ʻ 44$E23J3E Cʻ F NFʻ 43J$E3Dʻ Eʻ &- ʻ 6H4N3 ʻ * F3 4ʻ C$Dʻ P$(3C 3C ʻ Q3 E2ʻ D3C 4H-Cʻ F$ʻ F3ʻ C$J3ʻ I4 EN 1 3Cʻ CFH- Dʻ NHE E-3ʻ Hʻ 2H 34Eʻ F3 4ʻ '3$ HECʻ Hʻ 3$NFʻ H F34ʻ $EDʻ F$ʻ F3ʻ C13N $ʻ * 3ʻ F NFʻ F3ʻ @HE 3E HEʻ H&ʻ F3ʻ , E3 33E Fʻ G$0ʻ , ʻ ʻ <E3ʻ FH-C$EDʻ 3 2F ʻ F-ER D43Dʻ $EDʻ & & 33Eʻ F$Dʻ &H4 J3Dʻ Q3 33Eʻ F3ʻ * Hʻ @H-4 Cʻ CFH- Dʻ Q3ʻ J$E $E3D /ʻ $2433Dʻ -1HEʻ $EDʻ NHEN -D3Dʻ F3ʻ &H H E2ʻ 4 N 3C ʻ $JHE2ʻ H F34$ʻ F$ʻ Cʻ Hʻ C$0

4 N [ʻ h Eʻ 4 -3ʻ H&ʻ F3ʻ @HEC D34$ HECʻ $QH 3ʻ C13N & 3Dʻ 8 Cʻ " # 'ʻ P$(3C 0ʻ 3E2$23Cʻ Hʻ 43NHJ J3EDʻ Hʻ 8 Cʻ I$4 $J3E ʻ Hʻ 3E$Q 3ʻ 8 J ʻ Hʻ -ED34 $+3ʻ Hʻ NHE E-3ʻ HEʻ 8 Cʻ I$4 ʻ F3ʻ I$OR J3E Cʻ C 1- $ 3Dʻ Eʻ F3ʻ @HE 3E HEʻ H&ʻ F3ʻ , E3 33E Fʻ G$0ʻ H&ʻ ʻ 6#!ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ & & 33E ʻ $NNH4D E2ʻ Hʻ F3ʻ PHD3ʻ $EDʻ -E ʻ F3ʻ @HJ1 3 HEʻ H&ʻ F3ʻ ?- J ʻ & 3Dʻ &H4ʻ ! ʻ " #ʻ Eʻ F3ʻ C$Dʻ @HE 3E HE.

4 N 3ʻ 8 h Eʻ 4 -3ʻ H&ʻ F3ʻ C$J3ʻ @HEC D34$ HECʻ 8 Cʻ P$(3C 0ʻ F3ʻ ; J134H4ʻ H&ʻ $ ʻ F3ʻ ? 311 1ʻ 3E2$23Cʻ F$ʻ &ʻ ^ F NFʻ MHDʻ &H4Q D_ʻ F3ʻ 44$E23J3E Cʻ $2433Dʻ -1HEʻ &H4ʻ F3ʻ ED313ED3EN3ʻ $EDʻ F3ʻ , 3- 4$ 0ʻ H&ʻ " !%(ʻ $EDʻ Hʻ F3ʻ P$E 3E$EN3ʻ H&ʻ F NFʻ F3ʻ * Hʻ 8 2Fʻ IH 34Cʻ $03ʻ 3X-$ 0ʻ QH-ED ʻ CFH- Dʻ Q3ʻ 3ED$E2343Dʻ Q0ʻ F3ʻ @H-4C3ʻ H&ʻ ; 3E C ʻ 8 3ʻ ʻ EH ʻ NHE 4$N ʻ $E0ʻ H F34ʻ ; E2$23R J3E ʻ FH- ʻ$ʻ 143 H-Cʻ 2433J3E ʻ Fʻ 8 Cʻ " # 'ʻ P$(3C 0ʻ $EDʻ 8 Cʻ &H4 J$ʻ CC3E .

EDʻ F343$Cʻ F3ʻ C$Dʻ @HE 3E HEʻ F$Cʻ Q33Eʻ 4$ & 3D ʻ $EDʻ F3ʻ '$ & R N$ HECʻ F343H&ʻ 3 3ʻ 3 NF$E23Dʻ HEʻ F3ʻ * 3E 0 & 4C ʻ G$0ʻ H&ʻ ?3 ʻ $C : EDʻ Q4E43$Cʻ Q0ʻ F3ʻ ? 1- $ HECʻ H&ʻ F3ʻ C$Dʻ @HE 3E HEʻ H&ʻ F3ʻ , E3 33E Fʻ G$0ʻ H&ʻ ʻ Eʻ F3ʻ =3$4ʻ <E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ & & 33E ʻ Q3 33Eʻ 8 Cʻ P$(3C 0ʻ F3ʻ % E2ʻ H&ʻ F3ʻ ! ! % #&1ʻ $EDʻ 8 Cʻ $ 3ʻ P$(3C 0ʻ F3ʻ ; J134H4ʻ H4ʻ $ ʻ F3ʻ L311 1ʻ Hʻ F NFʻ 8 Cʻ $ 3ʻ P$(3C 0ʻ % E2ʻ !, (!ʻ F3ʻ * F 4Dʻ $2433Dʻ Hʻ Q3ʻ $ʻ I$4 0ʻ J3E HE3Dʻ Eʻ F3ʻ C$Dʻ 43N 3Dʻ @HE 3E HEʻ H&ʻ F3ʻ ? 33E Fʻ G$0ʻ H&ʻ E, 0! 4! ʻ <E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ F 4 0 H#3 ʻ 8 Cʻ P$(3C 0ʻ F3ʻ % E2ʻ H&ʻ F3ʻ E!)! % #&1 ʻ Q0ʻ F3ʻ 6 4C ʻ 4 N 3ʻ F343H&ʻ 3E2$23Dʻ Hʻ $+3ʻ -1HEʻ F J C3 &ʻ $ʻ I$4 ʻ H&ʻ F3ʻ @$1 $ ʻ $EDʻ 443$4Cʻ H&ʻ E 343C ʻ Hʻ F3ʻ 6 4C ʻ G$0ʻ H&ʻ ? #3 ʻ <E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ C 33E ʻ H&ʻ F3ʻ L311 #ʻ >H$Eʻ J$D3ʻ Eʻ ,%% #&ʻ F4H-2Fʻ F3ʻ E 34 3E HEʻ H&ʻ F3ʻ 8H-C3ʻ H&ʻ ,5!ʻ $EDʻ @HJ1$E0ʻ Eʻ / 1! & ʻ Hʻ F3ʻ JH-E ʻ H&ʻ * 3E 0 & 3ʻ P HECʻ H&ʻ 6 H4 EC ʻ @-443ENO ʻ F3ʻ $EE-$ʻ E 343C H&ʻ F NFʻ ?- J ʻ H23 F34ʻ Fʻ $Eʻ $EE-$ʻ I$0J3E ʻ &H4ʻ F3ʻ > X- D$ QEʻ H&ʻ F3ʻ C$J3 ʻ $Cʻ F343$& 34ʻ C13N & 3D ʻ CFH- Dʻ F3ʻ QH4E3ʻ Q0ʻ $EDʻ Q3NHJ3ʻ $ʻ @F$423ʻ -1HEʻ F3ʻ % E2DHJ ʻ H&ʻ F3ʻ E!)! % #&1ʻ ʻ $EDʻ 8 Cʻ P$(3C 0ʻ F3ʻ % E2ʻ H&ʻ F3ʻ #E 3Dʻ % E2DHJ ʻ H&ʻ ! ʻ " #ʻ $EDʻ $!% #&ʻ 3E2$23Dʻ HEʻ 8 Cʻ I$4 ʻ Hʻ 43NHJ J3EDʻ Hʻ 8 Cʻ I$4 $J3E ʻ Hʻ 3E$Q 3ʻ 8 J ʻ Hʻ $+3ʻ -1HEʻ 8 J C3 &ʻ $Eʻ 3X-$ʻ @$1 $ʻ H&ʻ F3ʻ C$Dʻ L311 #ʻ >H$E ʻ 0 &!% '! ʻ * 3E 0 & 3ʻ P HECʻ H&ʻ 6 H4 EC ʻ 2 3 ')ʻ @-443ENO ʻ F3ʻ $EE-$ʻ E 343C ʻ H&ʻ F NFʻ ?- J ʻ H23 F34ʻ Fʻ $Eʻ $EE-$ʻ I$0J3E ʻ &H4ʻ F3ʻ > X- D$ HEʻ H&ʻ F3ʻ C$J3 ʻ $Cʻ F343$& 34ʻ C13N & 3D ʻ CFH- Dʻ Q3ʻ QH4E3ʻ Q0ʻ $EDʻ Q3NHJ3ʻ $ʻ @F$423ʻ -1HEʻ F3ʻ MH 34E J3E ʻ H&ʻ 8 Cʻ " # 'ʻ P$(3C 0: EDʻ Q0ʻ F3ʻ ?3NHEDʻ 4 N 3ʻ ʻ $Cʻ 14H D3Dʻ F$ʻ F3ʻ &- -43ʻ @F$423ʻ Hʻ F NFʻ * F3 4ʻ C$Dʻ " !%('ʻ $EDʻ " # 'ʻ P$(3C 3Cʻ CFH- Dʻ Q3ʻ 43C13N 3 0ʻ $Q 3ʻ Eʻ 3X-$ʻ ?F$43C ʻ HEʻ $NNH-E ʻ H&ʻ F3ʻ C$D

G3Q ' $C H NHEC C ' H&' $E $EE-$' E 343C ' H&' 6 3'5! ' I!#3 ' HE
F3' C$D @$1 $C ' 3$NF H&' * 3E O & 3' P HEC H&' 6 H4 EC ' H23 F34
F $? E+ E2' 6-ED H&' <E3'5! ' I!#3 ' &H4 F3' ; EN HE H&' F3
C$J3' F3' C$D ? E+ E2' 6-ED Q3 E2' C-Q(3N ' FH 3 34 H Q3' EN43$C3D '
HE F3' G3J$ED H&' F3' L311 # MH 34EJ3E ' H $EO $EE-$' ! - J ' EH '
3 N33D E2' *F433'5! ' I!#3 ' F3' C$J3' H Q3' 1$O$Q 3' ' F3' @$1 $'
H&' F3' C$D G3Q ' CFH-D Q3' &- O D CNF$423D ' F3E F3' $&H43C$D
@F$423' &H4 E 343C ' $ED ? E+ E2' 6-ED CFH-D FH O N3$C3' H Q3'
QH4E3' QO *F3 4' C$D " !%(" $ED " # " P$(3C 3C 43C13N 3 O ' ED
QO F3' *F 4D 4 N 3' *F3 4' C$D " !%(" $ED " # " P$(3C 3C
43C13N 3 O QH-ED F3J C3 3C ' HE H4 Q3&H43' F3' -C-$' G$O H4 G$OC
E 3$NF =3$4 HE F NF F3' E 3C3C ' HE F3' C$D G3Q ' CFH-D Q3' D-3'
$ED 1$O$Q 3' H D31HC ' F F3' 23E ' H&' F3' L311 # MH 34EJ3E '
E ,%% #&' F3 4' 43C13N 3' I4H1H4 HEC H&' F3' C$D E 343C ' $ED
? E+ E2' 6-ED $C $QH 3' C13N & 3D ' I4H D3D $ $OC ' F$' 143 H-C O
H F3' D $EN3' H&' 3$NF C-NN3CC 3' EC $ J3E ' CH H Q3' 1$D F3' C$D
23E ' CFH-D Q3' $- FH4 T3D H &-4E CF $ @34 & N$ 3' H 3$NF H&' F3'
C$D * H 8 2F @HE 4$N E2' I$4 3C ' D3N $4 E2' F$' F3' 143N3D E2'
EC $ J3E ' F$D Q33E D- O $11 3D E G CNF$423' H&' F3' E 343C ' $ED
E ' 3D-N HE H&' F3' I4 EN 1$' H&' F3' C$D G3Q ' H23 F34 F F3'
NH443C1HED E2' I$OJ3E C HE $NNH-E ' H&' F3' L311 # MH 34EJ3E ' HE
F$' I$4 ' H&' F3' G3Q ' F NF CFH-D 43J$E $ @F$423' HE F3' C$D
MH 34EJ3E .' ED QO F3' 6H-4 F 4 N 3' ' $C 14H D3D F$' F3'
L311 # MH 34EJ3E ' CFH-D NHE E-3' $C F343 H&H43' H Q3' ?3N-4 O
H F3' @43D H4C &H4 F3' FH 3' H&' F3' C$D >H$E ' $ED CFH-D Q3'
NF$423D F F3' D J E C 4$ HE H&' F3' C$J3' F3' MH 34EJ3E C H&'
F3' % E2' H&' F3' E!)! % #&1' $ED H&' 8 C " # " P$(3C O 4 3J$E E2'
$Q 3' $ED QH-ED H F3' MH 34EJ3E ' H&' 8 C J134 $' P$(3C O 3$NF
&H4 F3' 1-EN -$' G CNF$423' $C $QH 3' H&' F3' 43C13N 3' I4H1H4 HEC
H&' F3' C$D @F$423.' ED QO F3' 6 & F 4 N 3' ' $C F343QO -ED34R
C HHD $ED $2433D Q3 33E F3' 8 2F @HE 4$N E2' I$4 3C ' F$' F3'
C$D I$OJ3E C HE F3' I$4 ' H&' *F3 4' P$(3C 3C F3' % E2' H&' F3'
E!)! % #&1' $ED F3' % E2' H&' ! ' " # $C $&H43C$D CFH-D N3$C3'
$ED D3 34J E3' CFH-D F3' IHCC3CC HE $ED ?H 343 2E O ^ F NF MHD
&H4Q D_' H&' F3' " !%(" I4H EN3C $' $EO * J3' 1$CC H4 Q3' C3 343D &4HJ'
F3' GHJ E HEC H&' 8 C P$(3C O F3' % E2' H&' F3' E!)! % #&1' (_43 H-C
H F3' NHJ1 3 3' >X- D$ HE H&' F3' C$J3' $ED ' $C $CH -ED34R
C HHD $ED $2433D Q3 33E F3' 8 2F @HE 4$N E2' I$4 3C ' F$' F3'
I$OJ3E C HE F3' I$4 ' H&' *F3 4' P$(3C 3C F3' % E2' H&' F3' E!)! [
% #&1' $ED F3' % E2' H&' ! ' " # $C $&H43C$D CFH-D EH ' Q3'
E 344-1 3D E F3' ; 3E ' ^ F NF MHD &H4Q D_' H&' $ 9 $4 Q43$+ E2' H- '
Q3 33E $EO H&' F3' *F433' 8 2F @HE 4$N E2' I$4 3C ' F3' MH 34ER
J3E ' H&' 8 C P$(3C O F3' ; J134H4 H&' $ ' F3' L311 1' Q3 E2' $N -$ O
QH-ED H C @43D H4C QO $ C J $4 2433J3E .' ED F343$C $E
N ' 1$CC3D E F3' 6 & O & & F =3$4 H&' F3' ' 3 2E H&' 8 C $ 3' P$(3C O
% E2' !, (! F3' *F 4D &H4 N$44O E2' E H 3&&3N ' F3' C$D $C '
J3E HE3D @HE 3E HE.' ED F343$C ' C 3 13D 3E ' F$' 8 C
P$(3C O CFH-D Q3' 3E$Q 3D H N$44O E H 3&&3N ' F3' C$D @HE 3E HE
H&' F3' ? 33E F G$O H&' E,0! 4! ' <E3' FH-C$ED 3 2F ' F-ED43D
$ED F 4 O HE3.' B3' ' F343&H43' 3E$N 3D QO F3' % E2 C JHC ' ; R
N3 3E ' P$(3C O ' QO $ED F F3' D N3' $ED @HEC3E ' H&' F3' >H4DC
?1 4 -$' $ED *3J1H4$ ' $ED @HJJHEC ' E F C 143C3E ' I$4 $J3E
$CC3J Q 3D

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CC3 J Q 3Dʻ $EDʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$ J 3ʻ *F$ʻ ʻCF$ ʻQ3ʻ $ &-ʻ &H4ʻ 8 Cʻ P $(3C Oʻ 8 Cʻ 8 3 4Cʻ $EDʻ ?-NN3CCH4Cʻ $EDʻ F3Oʻ $43ʻ F343QOʻ $- FH4 T3Dʻ NHEC D34 E2ʻ F3ʻ @FN-4$C $EN3Cʻ H&ʻ F3ʻ ?31$4$ HEʻ Q3 33Eʻ F3ʻ * Hʻ 14 EN 1$ʻ G C HECʻ H&ʻ F3ʻ #E 3Dʻ % E2DH Jʻ H&ʻ F3ʻ E!)! [% #&1ʻ Hʻ NHE E-3ʻ F3ʻ I$O J 3E Cʻ C 1- $ 3Dʻʻ Eʻ F3ʻ C$ Dʻ @HE 3E HEʻ H&ʻ F3ʻ , E3 33E Fʻ G$Oʻ H4ʻ ʻ<E3ʻ FH-C$EDʻ 3 2Fʻ F-ED43Dʻ $EDʻ & & 33-ʻ $NNH4D E2ʻ Hʻ F3ʻ P HD3ʻ $EDʻ -E ʻ F3ʻ @H J 1 3 HEʻ H&ʻ F3ʻ ?- Jʻ & 3Dʻ ,ʻ ! ʻ" #ʻ Eʻ F3ʻ C$ Dʻ $C J 3E HE3Dʻ @HE 3E HEʻ $EDʻ Hʻ NH J 1 3 3ʻ $EDʻ N$44Oʻ E Hʻ 3&&3Nʻ Eʻ $ ʻ H F34ʻ '3C13N Cʻ F3ʻ ? 1-R $ HECʻ H&ʻ F3ʻ C$ Dʻ $C J 3E HE3Dʻ @HE 3E HEʻ $EDʻ H&ʻ F3ʻ C$ Dʻ @HER 3E HEʻ H&ʻ F3ʻ ? 33E Fʻ G$Oʻ H&ʻ E,0! 4!ʻ <E3ʻ FH-C$EDʻ 3 2Fʻ F-ED43Dʻ $EDʻ F 4 O HE3ʻ $EDʻ $ ʻ F3ʻ IH 34Cʻ 2 3Eʻ QOʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ Hʻ F3ʻ >H4Dʻ 8 2Fʻ *43$C-434ʻ H4ʻ @H J J CC HE34Cʻ H&ʻ F3ʻ *43$C-4Oʻ H4ʻ $EOʻ *F433ʻ H4ʻ J H43ʻ H&ʻ F3 J ʻ&H4ʻ 3E$Q E2ʻ 8 Cʻ P $(3C Oʻ Hʻ J $+3ʻ F3ʻ I$O J 3E Cʻ 43X- 43Dʻ $EDʻ Hʻ D3&4$Oʻ F3ʻ ; 13EN3Cʻ F NFʻ J 2Fʻ Q3ʻ EN-443Dʻ Eʻ F3ʻ ; 3N- HEʻ H&ʻ F3ʻ C$ Dʻ @HE 3E HEʻ H&ʻ F3ʻ , E3 33E Fʻ G$Oʻ H&ʻ ʻ<E3ʻ FH-C$EDʻ 3 2Fʻ F-ED43Dʻ $EDʻ & & 33Eʻ $EDʻ $ ʻ F3ʻ ;E$N J 3E Cʻ Eʻ F3ʻ C$ Dʻ N ʻ NHE $ E3Dʻ CF$ ʻQ3ʻ $EDʻ NHE E-3ʻ Eʻ &H4N3ʻ $EDʻ CF$ ʻQ3ʻ 3 3ED3Dʻ $EDʻ $11 3Dʻ Hʻ F3ʻ @H J R 1 3 HEʻ $EDʻ N$44O E2ʻ E Hʻ 3&&3Nʻ F3ʻ ? 1- $ HECʻ H&ʻ F3ʻ C$ Dʻ @HER 3E HEʻ H&ʻ F3ʻ , E3 33E Fʻ G$Oʻ H&ʻ ʻ<E3ʻ FH-C$EDʻ 3 2Fʻ F-ED43Dʻ $EDʻ & & 33Eʻ $EDʻ H&ʻ F3ʻ C$ Dʻ @HE 3E HEʻ H&ʻ F3ʻ ? 33E Fʻ G$Oʻ H&ʻ <E3ʻ FH-C$EDʻ 3 2Fʻ F-ED43Dʻ $EDʻ F 4 O HE3

>< , G< , ʻ I4 E 3Dʻ QOʻ ʻ ʻ $EDʻ ʻ ʻ
I4 E 34Cʻ Hʻ F3ʻ % E2 Cʻ J HCʻ ; N3 3Eʻ P $(3C Oʻ X."B

, , <ʻ ? ; @# , G<ʻ Kʻ * ; ' * <

M* * * *6* P*ʻ ʻ ' ; M ?

@ I ʻ >WWW >

ʻ Nʻ Hʻ 43D-N3ʻ F3ʻ G- 3Cʻ EH ʻ 1$0$Q 3ʻ Eʻ
N34 $ Eʻ @$C3Cʻ HEʻ @$44 $23Cʻ Fʻ 3CCʻ F$Eʻ 6H-4ʻ
9 F33 Cʻ ISDʻ # ʻ ZSU m

9 8 ; ' ; ?ʻ QOʻ F3ʻ C3 34$ʻ N Cʻ Eʻ &H4N3ʻ 43 $ E2ʻ Hʻ F3ʻ G- 3Cʻ H&ʻ CC3CC3Dʻ *$ 3Cʻ $EOʻ I34CHEʻ H4ʻ I34CHECʻ +331 E2ʻ &H4ʻ F Cʻ F34ʻ H4ʻ F3 4ʻ H Eʻ #C3ʻ $EDʻ EHʻ &H4ʻ 8 43ʻ $EOʻ @$44 $23ʻ Fʻ 3CCʻ F$Eʻ IH-4ʻ 9 F33 Cʻ D4$ Eʻ QOʻ <E3ʻ 8H4C3ʻ P$43ʻ H4ʻ M3 D E2ʻ $EDʻ EHʻ H F34 C3ʻ J$0ʻ &ʻ C-NFʻ I34CHECʻ Q3ʻ EHʻ NF423Q 3ʻ Hʻ F3ʻ G- 0ʻ &H4ʻ $ʻ 6H-4 F33ʻ @$44 $23ʻ H4ʻ &H4ʻ * Hʻ P$ 3ʻ ?34 $E Cʻ +331ʻ F3ʻ C$J3ʻ FH-ʻ I$0J3Eʻ H&ʻ $EOʻ G- 0ʻ Eʻ 43C13Nʻ F343H&ʻ 14H D3Dʻ C-NFʻ @$44 $23ʻ Cʻ Q- ʻ $EDʻ NHEC 4-N 3Dʻ Eʻ $ ʻ 43C13N Cʻ $NNH4D E2ʻ Hʻ F3ʻ ' 32- $ HECʻ $11 0 E2ʻ Hʻ * H F33ʻ @$4R 4 $23Cʻ &H4 J34 0ʻ D3EH J E$ 3Dʻ *$ 3Dʻ @$4 Cʻ F$ʻ Cʻ Hʻ C$0ʻ FH 0ʻ H&ʻ 9 HHDʻ $EDʻ 4HEʻ FH-ʻ $EOʻ <4E$J3Eʻ H F34ʻ F$Eʻ I$ Eʻ H&ʻ $ʻ D$4+ʻ @H H-4ʻ &H4ʻ F3ʻ I43C34 $ HEʻ H&ʻ F3ʻ 9 HHDʻ H4ʻ 4HEʻ HE 0ʻ $EDʻ FH-ʻ $EOʻ @H 34 E2ʻ H F34ʻ F$Eʻ $ʻ 3Dʻ @H 34 E2ʻ $EDʻ FH-ʻ $EOʻ > E E2.ʻ EDʻ F343$Cʻ $#ʻ C-NFʻ @$44 $23Cʻ $43ʻ EHʻ EH ʻ NF$423$Q 3ʻ Fʻ G- 0ʻ QOʻ 43$CHEʻ H&ʻ F3 4ʻ Q3 E2ʻ Q- ʻ $EDʻ NHEC 4-N 3Dʻ Fʻ $ʻ ?14 E2ʻ H4ʻ ?14 E2Cʻ H&ʻ $EOʻ P$ 34 $Cʻ F$ 3 34ʻ &ʻ C-NFʻ ?14 E2Cʻ Q3ʻ EHʻ H&ʻ 4HEʻ ? 33 ʻ H4ʻ H F34ʻ P3 $ Nʻ ?-QC $EN3ʻ H4ʻ $EOʻ @HJ1HC HEʻ H&ʻ 4HEʻ ? 33 ʻ H4ʻ H F34ʻ P3 $ Nʻ ?-QC $EN3ʻ FH 0ʻ H4ʻ Eʻ 1$4 ʻ $EDʻ &ʻ F3ʻ C$Dʻ @$44 $23ʻ Q3ʻ -C3Dʻ Fʻ $ʻ NH 343Dʻ H4ʻ C -&&3Dʻ ?3$ʻ H4ʻ @-CF HEʻ H4ʻ Fʻ $ʻ NH 343Dʻ 6HH QH$4Dʻ H4ʻ 14HEʻ 43C13N 3 0ʻ & 3Dʻ Vʻ ʻ H4

[UčK' S/' M # > ; > P ' ' @$1 ' ZU

H4' EH ' & 3D ' $ED' &' 3' H4 2 E$ ' I 4 N3' H&' $EO' @$44 $23' CH' Q- ' $ED'
NHEC 4-N 3D' CF$ ' EH ' F$ 3' 3 N33D3D ' H4' F3' $ -3' F343H&' CF$ ' EH '
$ ' $EO' * J3' 3 N33D ' F3' ?- J ' H&' * 3E O HE3' I H-EDC' ? 34 E2' ' ED'
F343$C' @$E $23C' F' 3CC' F$E' 6H-4' 9 F33 C' N$ 3D' H4' +EH E' QO'
F3' , $ J 3' H&' @H J J HE' ? $23' @$4 C' +31 ' 4- O' $ED' FH- ' 64$-D'
H' Q3' -C3D' FH O' E' F3' &&$ 4C' H&' 8 -CQ$ED4O ' H4' E' F3' @$4E$23'
H&' MHHDC' E' F3' NH-4C3' H&' * 4$D3 ' $ED' F343HE' F3' , $ J 3' $ED'
1 $N3' H&' ' 3C D3EN3' H&' F3' < E34 ' $ED' F3' 9 H4DC' 7@H J E$HE'
? $23' @$4 c' CF$ ' Q3' 32 Q O' 1$ E 3D ' $43' 3 3 J 1 ' &4H J ' G- O'
F343' EH ' -C3D' &H4' 4 D E2' F343 E' H4' F343HE ' 3 N31 ' HE' F3' &H R
H E2' < NN$C HEC ' F$ ' C' H' C$O ' F343' F3' < E34' H4' F C' ?34 $E '
CF$ ' <4' J $O ' &H4' F3' I -41HC3' H&' D4 E2' HO' NHED-N E2' F3' C$ J 3'
HE O' HNN$C HE$ O' 4 D3' F343 E' H4' F3431E' F3E' $D3E ' H4 ' F3E'
43 -4E E2' &4H J ' $EO' I $N3' H' F NF ' H4' F3E' 2H E2' H' $EO' I $N3'
&4H J ' F NF ' $EO' >H$D' CF$ ' F$ 3' Q33E' H4' CF$ ' Q3' H' Q3' @$44 3D' E'
C-NF' @$4 ' E' F3' NH-4C3' H&' 8 -CQ J D4O' H4' * 4$D3 ' H4' F NF' CF$ '
Q3 ' -C3D' &H4' NHE 3O E2' F3' < E34C' F343H&' H4' F3 4' 6$ J 3C' H' H4'
&4H J ' $EO' I $N3' H&' G E3' 9 H4CF 1' HE' +3#& ' H4' HE' I) 1 1' ?6 '
H4' HE' , , &' R & ' H4' HE' $EO' G$O' $11H E 3D' &H4' $' I -Q N' 6$C ' H4'
* F$E+C2 E2 ' H4' &H4' N$44O E2' I 34CHEC' 2H E2' H' H4' N - J E2' &4H J '
F3' ; 3N HEC' H&' P 3 J Q34C' H' C34 3' E' I $4 $ J 3E ' E' N$C3' C-NF'
@$44 $23' CF$ ' EH ' F$ 3' Q33E' H4' Q3' 3 ' H' 8 43' &H4' F3' I -41HC3' H&'
4 D E2' F343 E' H4' F343HE ' ED' F343$C' F3' @HEC 4-N HE' H&' @$4R
4 $23C' &H4 J 34 O' D3EHE E$ 3D' * $ 3D' @$4 C' $ED' F3' # C3C' H&' @$44 $23C'
N$ 3D' @H J J HE' ? $23' @$4 C' &H4' 4 D E2' F343 E' H4' F343HE ' F$ 3' E'
C3 34$ ' EC $EN3C' 3 N33D3D' F3' C$ D' ' - 3C' $#D' ' 32- $ H-C' J E2'
' F3' C$ D' ; 3 J 1 HEC' &4H J ' G- O ' 9 F343QO' F3' I 34CHEC' +331 E2' C-NF'
@$4E$23C' Q3NH J 3' NF423Q 3' H' F3' G- 3C' H&' * F433' I H-ED' 6 3'
?F E2C' 1OQ 3' -ED34' ?NF3D- 3' ^G _' , H ' U ' H&' F3' C$ D' N ' HE'
@$44 $23C' F' 3CC' F$E' 6H-4' 9 F33 C' ' ED' F343$C' ' C' 3 13D 3E '
H' 43D-N3' F3' C$ D' G- 3C' HE' * H F33 ' @$44 $23C ' $ED' H' J $+3'
I 4H C HE' &H4' ' 3 3&' E' F3' 1$4 N- $4' @$C3C' F343 E' J 3E HE3D ' F343'
@$44 $23C' CF$ ' EH ' 3 N33D' F3' @HEC 4-N HE' $ED' # C3C' F343 E' D3CN4 Q3D'
$ED' $ H 3D' ' F3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC ' ; N3 3E '
P $(3C O ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$ '
$ED' * 3 J 1H4$ ' $ED' @H4H4$HEC ' E' F C' 143C3E ' I $4 $ J 3E ' $CC3 J Q 3D '
7 ' ' $! ' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3' * F$ ' &H4' $ED' E' 3-' H&' F3'
@ ! ' $ G- 3C' H&' * F433' I H-EDC' 6 3' ?F E2C' J 3E HE3D' E' F3' C$ D'
A' ' 5 * ?NF3D- 3' J $4+3D' ^G _' , H ' U ' H&' F3' C$ D' N ' 1$CC3D' E' F3' & & O '
! # ' C3NHED' =3$4' $&H43C$ D' $ED' EH ' 1$O$Q 3' &H4' $ED' E' 43C13N ' H&'
) # R@1 @$44 $23C' F' 3CC' F$E' 6H-4' 9 F33 C' F343 E $& 34' D3CN4 Q3D ' F343'
& ' ' $ CF$ ' Q3' NF$423D ' &H4' $EO' =3$4' NH J J 3EN E2' &4H J ' $ED' $& 34' F3' 6 & F'
! ' ' ' _ ' G$O' H&' / 5 %' 6 # !' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H ' F3' C3 34$ '
' % # ! ' 43D-N3D' G- 3C' &H H E2 ' $ED' EH' J H43 ' $ED' F3' C$ D' G- 3C' F343QO'
@ ! $ 0 43D-N3D' CF$ ' $ED' $43' F343QO' D3N $43D' H' Q3' G- 3C' 1$O$Q 3' -ED34'
%' Q F3' C$ D' ?NF3D- 3' ^G _' , H ' U ' $ED' CF$ ' F3' $CC3CC3D ' 4$ C3D ' 3 3D '
NH 3N 3D ' $NNH-E 3D' &H4 ' $ED' $11 3D' E' +3' P $EE34' $C' F3' C$ D'
G- 3C' EH ' E' &H4N3' ' ^ F$ ' C' H' C$O _

@ !2' ' 0' 6H4' 3 34O' @$44 $23' F' 3CC' F$E' 6H-4' 9 F33 C' +31 ' QO' $EO'
4 0 ' ' ' I 34C< E' H4' I 34CHEC' &H4' F C' H4' F34' H E' # C3 ' $ED' EH ' &H4' 8 43
#FH* P3 $')$ED' D4$ E' QO' < E3' 8 H4C3 ' P $43' M3 D E2 ' H4' P - 3' HE O ' $ED'
) % ' ! 7 ' EH ' < F34 C3' $ED' Q- ' $ED' NHEC 4-N 3D' F' $EO' P $ 34 $ C
Y' ^3 N31

UL' K' S ' M # > ; > P ' ' @$1 ZU

^3 N31 '$C' F343 E' J 3E HE3D_ '$ED' E' $EO' 6H4 J ' Q- ' FH- ' $EO' 8 # % S
8 3$D' H4' @H 34 E2 ' H4' $EO' > E E2 ' & 3D' H4' EH '& 3D' $ED' FH- ' U E' 9 ' Q'
$EO' ?14 E2' H4' ?14 E2C' H&' 4HE ' ? 33 ' H4' H F34' P 3 $ N' ?-QR
C $EN3 ' H4' H&' $EO' @H J 1HC HE' H&' 4HE ' ? 33 ' H4' H F34' P 3 $ N'
?-QC $EN3 ' 3 F34' FH O' H4' E' 1$4 ' ^H F34' F$E' 43E' * 1C '@$1C'
H ' ? 3 C ' 3$NF' EH ' 3 N33D E2' * F433' ENF3C' E' >3E2 F ' $ED'
1$ E 3D' H&' $' D &&343E ' @H H-4 ' H' D C E2- CF' F3' 4HE' &4H J ' F3'
?14 E2 ' $ED' $ ' F3' ; 43 J O' HE O' H&' 3$NF' ?14 E2' H&' C-NF' @$4R
4 $23 _' $ED' F3' H4 2 E$ ' I 4 N3' H&' F NF' @$44 $23 ' H23 F34' F'
F3' @-CF HE' H4' @-CF HEC ' $ED' $EO' H F34' 4 N 3' H4' * F E2' -C3D'
F' H4' Q3 HE2 E2' H' C-NF' @$44 $23 ' CF$ ' EH ' F$ 3' 3 N33D3D '
H4' F3' $ -3' F343H&' C $ ' EH ' $ ' $EO' * J 3' 3 N33D ' F3'
?- J ' H&' * 3E O HE3' I H-EDC' ? 34 E2 ' F3' 43D-N3D' G- O' H4' ?- J '
H&' < E3' I H-ED' * 3E' ?F E2C' .

B ' 6H4' 3 340' @$44 $23' F' 3CC' F$E' 6H-4' 9 F33 C ' 4 , #&U &! ' Q- ' @ !2' '
$ED' NHEC 4-N 3D' FH O' H&' 9 HHD' $ED' 4HE ' F' $EO' ?14 E2' H4')! '%' ' !'
?14 E2C' ^ FH O' H4' E' 1$4 ' H&' P 3 $ _' $ED' FH- ' $EO' @H 34 E2' ! "C ! ! #
H F34' F$E' $' 3D' @H 34 E2 ' $ED' FH- ' $#O' > E E2 ' 14HE ' $ ' ! ' ' *
H4' @-CF HE ' $ED' F' F3' ?3$ ' & 3D' H4' C-C13ED3D' QO' ? E2C' H4' '% ' $
B4$N3C ' C-NF' @$44 $23' Q3 E2' +31 ' $C' $' @H J J HE' ? $23' @$4 ' # ' '* ' 2 #
$ED' -C3D' 4- O' $ED' FH- ' 64$-D' E' F3' &&$ 4C' H&' 8 -CQ$ED40 ' $ ' # %'
H4' E' F3' @$44 $23' H&' MHHDC ' H4' E' F3' NH-4C3' H&' * 4$D3 ' $ED' !
-C3D' HNN$C HE$ O' &H4' F3' I -41HC3' H&' 4 D E2' F343 E' QO' F3'
< E34' H4' F C' H4' F34' 6$ J O' H4' ?34 $E C' HE O'(14H D3D' F$ '
3 340' C-NF' @$44 $23' CF$ ' F$ 3' F3' , $ J 3' $ED' ' 3C D3EN3'
H&' F3' < E34 ' $ED' F3' 9 H4DC' ` @H J J HE' ? $23' @$4 c' 3R
2 Q O' 1$ E 3D' HE' $' NHEC1 N-H-C' I $4 ' F343H&' $ED' CF$ ' EH '
HE' $EO' < NN$C HE' Q3' 3 ' H4' -C3D' QO' F3' < E34' H4' $ EO' H F34'
I 34CHE' H4' I 34CHEC' &H4' 8 43' H4' I 4H& ' F3' 43D-N3D' G- O' H4'
?- J ' H&' < E3' I H-ED' * 3E' ?F E2C

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' EH F E2' E' F C' N ' NHER 4 ' f f
$ E3D' CF$ ' $Q4 D23' H4' $ 34' F3' ' - 3C' E' &H4N3' $ ' F3' 1$CC E2' H&' F C' ! ' '$$! '
N ' F NF' 3 3 J 1 ' &4H J ' G- O' @$44 $23C' &H4 J 34 O' D3EH J E$ 3D' * $ 3D' 8 ! %' : 8*
@$4 C' $ED' @H J J HE' ? $23' @$4 C' 43C13N 3 O ' @HEC 4-N 3D' $ED' -C3D' 5 !
F E' $ED' $NNH4D E2' H' F3' C$ D' ' - 3C' $ED' ' 32- $ HEC' F343 E'
J 3E HE3D ' $ED' F343' $EO' P $C 34' <4 P C 43CC ' QO' 43$CHE' H&' Q C' H4' I 34CHEC' $CR
F34' > $Q O' &H4' EH ' J H43' F$E' < E3' 8 H4C3' H' F3' G- O' HE' 8 H4C3C' C3CC3D' &H4' $
NHE $ E3D' E' ?NF3D- 3' ^; _' , H ' X' , ' F3' C$ D' N ' 1$CC3D' E' F3' @$44 $2 3' QO'
6 & O C3NHED' =3$4' $&H43C$ D ' $ED' EH ' &H4' $EO' @$44 $23' NF$423$Q 3' F C' N ' EH '
F' G- O' -ED34' F3' C$ D' N ' C' H4' CF$ ' QO' F3' >$ C' E' &H4N3' Q3' H' HC3' F3'
3E 3D' H' ; 3 J 1 HE' &4H J ' G- O' &H4' $' P $ 3' ?34 $E ' E' 43C13N ' ; 3 J 1 HE'
H&' $EO' I 34CHE' 43 $ E3D' &H4' F3' I -41HC3C' H&' 8 -CQ$ED40 ' P $E-&$N -43 ' &H4' ?340$E C'
H4' * 4$D3 ' $ED' $ ' $EO' * J 3' 3 J 1 HO3D' E' F3' @1N O' H&' M4HH J ' E' 8 -CQ$ED40'
? $Q 3' BHO ' H4' 8 3 134' E' F3' ? $Q 3C ' C-NF' P $C 34' H4' P C 43CC' CF$ ' H4' * 4$D3
F$ 3' F3' B3E3& ' H&' F3' C$ D' ; 3 J 1 HE ' EH FC $ED E2' F C' H4'
F34' I $O J 3E ' H&' F3' 43D-N3D' G- 3C ' H4' 3 F34' H&' F3 J ' &H4' $' @$4R
4 $23' -ED34' F C' N ' $ED' $EO' 8 H4C3 ' P $43 ' M3 D E2 ' H4' P - 3 ' EH '
H F34 C3' NF423Q 3' H' F3' G- 3C' H&' F3' C$ D' ?NF3D- 3' ^; _' CF$ ' ' ; O '
EH ' QO' 43$CHE' H&' D4$ E2' $EO' @$44 $23' N$ 3D' $' @H J J HE' ? $23' @$4 ' # ' % '
NF423Q 3' F' F3' C$ D' 43D-N3D' G- O' -ED34' F C' N ' Q3' ?$Q 3' H' 5 5
$EO' H F34' H4' F 2F34' G- O' F$E' F3' G- O' H&' * 3E' ?F E2C' $ED')! '%' ' f
? 13EN3' EH ' 1OQ 3' QO' ?NF3D- 3' ^6 _' H&' F3' C$ D' N ' H&' F3 # ' % #! ' '
6 & O ! ' # #
@ !2' f ! '
- ' ' # '

U U K S M # > ; > P @$1 ZU

6 & O C3NHED =3$4 $&H43C$ D $EO N H4 N C H F3 NHE 4$4O
EH FC $ED E2

ED F3 &H& F34 3E$N 3D * F$ F C N J $O F3 $ J 3ED3D
$ 343D H4 4313$ 3D QO $EO N H4 N C H Q3 1$CC3D E F C 143C3E
?3CC HE H& I$4 $ J 3E

>< , G< , I 4 E 3D QO D
I 4 E 34C H F3 % E2 C J HC ; N3 3E P $(3C O ZS

, , <ʿ ? ; @# , G<ʿ Kʿ * ; ' * <

M#> ; >P ʿ ʿ ' ;M ?

@ I ʿ >WWW

Eʿ N ʿ Hʿ $- FH4 T3ʿ &H4ʿ <E3ʿ =3$4ʿ F3ʿ ' 3 J H $ ʿ H&ʿ
I 4 CHE34Cʿ &4H Jʿ F3ʿ C3 34$ ʿ M$H Cʿ Eʿ *ʿ Eʿ
@$C3Cʿ H&ʿ 31 D3 J Nʿ G C3$C3C

ISDʿ # ʿ ZSU m

> 8 ; ' ; ?ʿ $ʿ J$ 2E$E ʿ 31 D3 J Nʿ G C3$C3ʿ F$Cʿ &H4ʿ CH J 3ʿ * J 3ʿ 143 $ 3Dʿ Eʿ F3ʿ @ Oʿ H&ʿ 2 34% #ʿ $EDʿ Eʿ H F34ʿ I $N3Cʿ Eʿ $!% #&ʿ ʿ EDʿ F343$Cʿ F3ʿ I 4H243CCʿ H&ʿ F3ʿ C$ Dʿ G C3$C3ʿ Cʿ +3 Oʿ Hʿ Q3ʿ J -NFʿ $-2 J 3E 3Dʿ QOʿ F3ʿ 9 $E ʿ H&ʿ 14H134ʿ NNH J R J HD$ HEʿ Eʿ F3ʿ M$H Cʿ H&ʿ F3ʿ C$ Dʿ @ Oʿ $EDʿ H F34ʿ I $N3C ʿ $EDʿ F3ʿ , - J Q34ʿ H&ʿ I 34CHECʿ FHʿ J $Oʿ Q3ʿ NHE& E3Dʿ F343 E ʿ EDʿ F343$Cʿ F3ʿ ' 3 J H $ ʿ H&ʿ C-NFʿ I 4 CHE34Cʿ Hʿ H F34ʿ I 4 CHECʿ H4ʿ I $N3Cʿ N$EEH ʿ $Cʿ F3ʿ >$ ʿ EH ʿ C $EDC ʿ $+3ʿ 1 $N3ʿ FH- ʿ ' C+ʿ Hʿ I 34CHECʿ Hʿ FHC3ʿ @-C HDOʿ C-NFʿ I 4 CHE34Cʿ 43C13N 3 Oʿ J $Oʿ Q3ʿ NH J J 3Dʿ EDʿ F343$Cʿ I 34CHECʿ 43 J $ED3Dʿ H4ʿ H4D343Dʿ Hʿ Q3ʿ J 14 CHE3Dʿ QOʿ F3ʿ @H J J CC HE34Cʿ H&ʿ 8 Cʿ P $(3C O Cʿ @H-4 ʿ &H4ʿ F3ʿ ' 3 3&ʿ H&ʿ ECH 3E ʿ G3Q H4Cʿ Eʿ $!% #&ʿ N$EEH ʿ QOʿ $EOʿ <4D34ʿ H&ʿ F3ʿ C$ Dʿ @H-4 ʿ H4ʿ H F34 C3ʿ Q3ʿ D CNF$423Dʿ H4ʿ 43 J H 3Dʿ Hʿ H F34ʿ @-C HDO ʿ $EDʿ ʿ Cʿ 3 13D 3E ʿ F$ ʿ F3ʿ >$ ʿ CFH- Dʿ Eʿ C-NFʿ @$C3Cʿ Q3ʿ $ J 3ED3D ʿ &H4ʿ F3ʿ B3E3& ʿ $EDʿ ?$&3 Oʿ H&ʿ F3ʿ I - Q N. B3ʿ ʿ F343&H43ʿ 3E$N 3Dʿ QOʿ F3ʿ % E2 Cʿ J HC ʿ ; N3 3E ʿ P $(3C O ʿ QOʿ $EDʿ Fʿ F3ʿ D N3ʿ $EDʿ @HEC3E ʿ H&ʿ F3ʿ >H4DCʿ ?1 4 -$ ʿ $EDʿ * 3 J 1H4$ ʿ $EDʿ @H J J HEC ʿ Eʿ F Cʿ 143C3E ʿ I $4R $ J 3E ʿ $CC3 J Q 3D ʿ $EDʿ QOʿ F3ʿ - FH4 Oʿ H&ʿ F3ʿ C$ J 3 ʿ * F$ ʿ F3Eʿ ʿ ' ʿ $ $EDʿ) ,ʿ H& 3Eʿ $Cʿ $EOʿ NHE $2 H-C ʿ 31 D3 J N ʿ H4ʿ 3ED3 J Nʿ G C3$C3ʿ CF$ ʿ !'% ʿ
ʿ %ʿ " 3 C ʿ <

U ʻ Kʻ S ʻ M # >   ; > P   ʻ   ʻ   @$1 ʻ ZS

J$0ʻ Q3ʻ 43R JH 3Dʻ QOʻ <4D34ʻ H&ʻ >H4Dʻ > 3-R 3E$E

3 C ʻ H4ʻ Q3ʻ $1143F3ED3Dʻ Eʻ F3ʻ @ Oʻ H4ʻ Eʻ F3ʻ @H-E Oʻ H&ʻ 234% #ʻ H4ʻ Eʻ $EOʻ H F34ʻ @ O ʻ * H E ʻ H4ʻ I $N3ʻ Eʻ $!% #& ʻ ʻ CF$ ʻ $EDʻ J $0ʻ Q3ʻ $ & - ʻ Hʻ $EDʻ &H4ʻ F3ʻ >H4Dʻ > 3 - 3E$E ʻ H4ʻ H F34ʻ @F 3&ʻ MH 34EH4ʻ H4ʻ MH 34EH4Cʻ H&ʻ $!% #& ʻ) ʻ F Cʻ H4ʻ F3 4ʻ <4D34 ʻ Hʻ Q3ʻ C 2E & 3Dʻ QOʻ F Cʻ H4ʻ F3 4ʻ @F 3&ʻ ?3N43 $40ʻ H4ʻ #ED34ʻ ?3N43 $40 ʻ Hʻ D 43N ʻ F$ ʻ $EOʻ I 34CHEʻ H4ʻ I 34CHEC ʻ Q3 E2ʻ J 14 CHE3Dʻ Eʻ $EOʻ M$H ʻ I 4 CHE ʻ B4 D3 3 ʻ H4ʻ H F34ʻ I $N3ʻ H&ʻ @HE& E3 J 3E ʻ Eʻ F3ʻ @ Oʻ H4ʻ Eʻ F3ʻ @H-E Oʻ H&ʻ 234% # ʻ H4ʻ Eʻ $EOʻ H F34ʻ @ O ʻ * H E ʻ H4ʻ I $N3ʻ Eʻ $!% #& ʻ -ED34ʻ H4ʻ QOʻ 4 -3ʻ H&ʻ $EOʻ I 4HN3CC ʻ N   ʻ H4ʻ N4 J E$ ʻ H4ʻ -ED34ʻ H4ʻ QOʻ 4 -3ʻ H&ʻ $EOʻ <4D34ʻ H4ʻ 9 4 ʻ H&ʻ $EOʻ @H-4 ʻ H&ʻ 5-C N3ʻ Eʻ $!% #& ʻ CF&D ʻ $EDʻ J $0ʻ Q3ʻ 43 J H 3Dʻ &4H J ʻ C-NFʻ M$H ʻ I 4 CHE ʻ B4 D3 3 ʻ ʻ H4ʻ H F34ʻ I $N3ʻ H&ʻ @HE& E3 J 3E ʻ Hʻ C-NFʻ H F34ʻ M$H ʻ I 4 CHE ʻ H4ʻ I $N3ʻ H&ʻ @-C HDOʻ $Cʻ Hʻ C-NFʻ >H4Dʻ > 3 - 3E$E ʻ H4ʻ H F34ʻ @F 3&ʻ MH 34EH4ʻ H4ʻ MH 34EH4Cʻ H&ʻ $!% #&ʻ CF$ ʻ C33 J ʻ & ʻ $EDʻ 14H134 ʻ &H4ʻ $EDʻ D-4 E2ʻ C-NFʻ * J 3ʻ $Cʻ Hʻ F J ʻ H4ʻ F3 J ʻ CF$ ʻ $113$4ʻ 3 13D 3E ʻ $EDʻ 3 340ʻ C-NFʻ I 34CHEʻ F3Eʻ CHʻ 43 J H 3Dʻ CF$ ʻ Q3ʻ Hʻ $ ʻ E 3E Cʻ $EDʻ I -41HC3Cʻ D33 J 3Dʻ $EDʻ NHEC D343Dʻ Hʻ Q3ʻ Eʻ F3ʻ 14H134ʻ 32$ ʻ @-C HDOʻ &H4ʻ $EDʻ D-4 E2ʻ F3ʻ * J 3ʻ H&ʻ C-NFʻ #3 J H $ ʻ $4 Dʻ &H4ʻ $4 Dʻ D-4 E2ʻ C-NFʻ * J 3 ʻ $Cʻ F3ʻ H4ʻ CF3ʻ CF$ ʻ Q3ʻ Eʻ F3ʻ I $N3ʻ Hʻ   F NFʻ F3ʻ H4ʻ CF3ʻ CF$ ʻ Q3ʻ CHʻ 43 J H 3D ʻ Eʻ +3ʻ P $EE34ʻ Hʻ $ ʻ E 3E Cʻ $EDʻ I -41HC3Cʻ $Cʻ &ʻ C-NFʻ I 34CHEʻ F$Dʻ NHE E-3Dʻ Eʻ F Cʻ <4 F34ʻ H4 2 E$ ʻ I $N3ʻ ^4&ʻ @HE& E3 J 3E ʻ $EDʻ F$Dʻ EH ʻ Q33Eʻ QOʻ $EOʻ C-NFʻ <4D34ʻ H4ʻ H F34   C3ʻ 43 J H 3Dʻ &4H J ʻ F3ʻ C$ J 3(ʻ $EDʻ   F$ ʻ EHʻ B o F ʻ G - O ʻ - FH4 O ʻ > $Q   O ʻ 5-4 CD N HE ʻ 64$ENF C3 ʻ I H 34 ʻ   4$ 323 ʻ H4ʻ 6-EN HEʻ H&ʻ $EOʻ I 34CHEʻ   F$ CH3 34 ʻ   F NFʻ   &ʻ C-NFʻ ' 3 J H $ ʻ F$Dʻ EH ʻ $+3Eʻ 1 $N3ʻ   H - Dʻ F$ 3ʻ 3   C 3D ʻ   ʻ NH - Dʻ H4ʻ J 2F ʻ F$ 3ʻ Q33Eʻ -C3Dʻ H4ʻ 3 34N C3D ʻ CF$ ʻ Q3ʻ Eʻ $EOʻ 43C13N ʻ H4ʻ D32433ʻ $& 3N 3D ʻ $ 343D ʻ D J E CF3D ʻ 143(-D N3D ʻ H4ʻ $4 3Dʻ QOʻ H4ʻ Eʻ NHEC3X-3EN3ʻ H&ʻ $EOʻ C-NFʻ ' 3 J H $

@H J J 3EN3R J 3E ʻ $ED ʻ @HE E-$EN3ʻ H&ʻ N

ʻ   EDʻ Q3ʻ   ʻ & -4 F34ʻ 3E$N 3D ʻ * F$ ʻ F Cʻ   N ʻ CF$ ʻ NH J J 3EN3ʻ $EDʻ $+3ʻ 3 <*3Nʻ &4H J ʻ $EDʻ $& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ F3ʻ C$ J 3 ʻ $EDʻ CF$ ʻ NHE   E-3ʻ $EDʻ Q3ʻ Eʻ &H4N3ʻ &H4ʻ   F3ʻ ?1$N3ʻ H&ʻ < E3ʻ =3$4 ʻ $EDʻ &4H J ʻ   F3EN3ʻ Hʻ F3ʻ ; EDʻ H&ʻ F3ʻ   F3Eʻ E3   ʻ ?3CC HEʻ H&ʻ I $4 $ J 3E

> < , G < , ʻ .ʻ I 4 E 3Dʻ QOʻ # + . (/ +ʻ   & (+ʻ $EDʻ   ) * (+ , ʻ O1 . 223% , . ;* + ʻ
I 4 E 34Cʻ   Hʻ F3ʻ % E2 Cʻ J HC ʻ ; N3 3E ʻ P $(3C O ʻ   X . . B

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M # > ; > P ʻ ʻ ' ; M ?

@ I ʻ >WWW

Eʻ Nʻ Hʻ $J3EDʻ F3ʻ >$ Cʻ43 $ E2ʻ Hʻ F3ʻ @-C HJC
ISDʻ #ʻ ZSU m

9 8 ; ' ; ?ʻC3 34$ʻ N Cʻ 343ʻ 1$CC3Dʻ Eʻ F3ʻ? Fʻ=3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P$(3C Oʻ % E2ʻ !, (!ʻ F3ʻ 6H-4 Fʻ &H4ʻ NHECH D$ E2ʻ F3ʻ >$ Cʻ H&ʻ F3ʻ @-C HJCʻ $EDʻ ʻ Cʻ &H-EDʻ E3N3CC$4Oʻ Hʻ J$+3ʻ N34 $ Eʻ 34$ HECʻ $EDʻ J3ED J3E Cʻ F343 Eʻ Q3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ JHCʻ ; N3 3Eʻ P$(3C Oʻ QOʻ $EDʻ Fʻ F3 D N3ʻ $EDʻ @HEC3Eʻ <&ʻ F3ʻ >H4DCʻ ?1 4 -$ʻ ʻ $EDʻ *3J1H4$ʻ $EDʻ @HJ JHECʻ Eʻ F Cʻ 143C3Eʻ I$4 $J3Eʻ $CC3JQ 3Dʻ ʻ $EDʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$J3ʻ *F$ʻ&4HJʻ $EDʻ $& 34ʻ F3ʻ 1$CC E2ʻ @HJ J3EN3ʻ H&ʻ F Cʻ Nʻ F3ʻ C3 34$ʻ ; E$N J3E Cʻ F343 E $& 34ʻ NHE $ E3Dʻ CF$ʻ NHJ3ʻ ` 3Eʻ, ʻ Nʻ E Hʻ $EDʻ Q3ʻ $EDʻ NHE E-3ʻ Eʻ &- ʻ 6H4N3ʻ $EDʻ <134$ HEʻ &H4ʻ $ ʻ F3ʻ I-41HC3Cʻ J3E HE3Dʻ F343 E

ʻ EDʻ F343$CʻQOʻ <E3ʻ H&ʻ F3ʻ C$ Dʻ N Cʻ E - 3Dʻ / ' ʻ, ʻ # (! !#ʻ)!ʻ # (! !#ʻ, ʻ)!ʻ I31, 1ʻ N34 $ Eʻ '32- $ HECʻ $43ʻ J$D3ʻ 43ʻ hʻ C13N E2ʻ F3ʻ G$OCʻ Hʻ Q3ʻ +31ʻ $Cʻ 8H D$OCʻ $EDʻ ʻ Cʻ 3 13D 3Eʻ Hʻ D ($ʻ bʻ $J3EDʻ F3ʻ C$J3ʻ Q3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ *F$ʻ EHʻ G$OʻCF$ ʻQ3ʻ +31ʻ j $Cʻ $ʻ I-Q Nʻ 8H D$OʻQOʻ F3ʻ <&& N34Cʻ H&ʻ @-C HJCʻ3 N31ʻ I) 1 1ʻ 2 ʻ $EDʻ ,,&ʻR & ʻ Eʻ 3 34Oʻ =3$4ʻ $EDʻ $EOʻ G$OCʻ $11H E 3DʻQOʻ 8 Cʻ P$R (3C O Cʻ I4HN J HEʻ &H4ʻ F3ʻ I-41HC3ʻ H&ʻ $ʻ M3E34$ʻ 6$Cʻ H4ʻ H&ʻ $ʻ M3E340 ʻ *F$E+C2 E2ʻ $EDʻ $ CHʻ CHʻ &$4ʻ $Cʻ432$4DCʻ+', % #&ʻ $EOʻ G$OCʻ $11H E 3Dʻ &H4ʻ C-NFʻ I-41HC3CʻQOʻ - FH4 Oʻ H&ʻ F3ʻ M3E34$ʻ CC3JQ Oʻ $EDʻ $ CHʻ C-NFʻ G$OCʻ $Cʻ CF$ ʻ F$ 3ʻ Q33Eʻ $11H E 3Dʻ &H4ʻ F3/ʻ @3 3Q4$ HEʻ H&ʻ F3ʻ

/*@*# &' B 4 F D$OC' H&' * F3 4' P 3C 3C' $ED' H& * F3- ' ?-NN3CCH4C' ' $ED' F$ 'C-NF' G$OC' CF$ ' Q3' +31 ' $C' I-Q N' 8H D$OC' QO' F3' <&& N34C' $ED' ?34 $E C' H&' $ ' F3' IHN+' @HJ 1$E 3C' E' F3' #E 3D' % E2DHJ

L!(3% ,#

YM [' @34 & N$ 3' H&' F3' DH3' $ED E2' EH' H'Q34 X 43D' &H4' G4$ Q$N+' H4' BH-E O' MHHDC' &4HJ' M-34EC3O' H4' 534C3O

8 ' ED' F343$C' QO' HE3' H F34' H&' F3' C$ D' N C' E - 3D' / #' / ' ' , ')!'(Z %L!(3% &#' V ')!' I , M' ' C' 3E$N 3D' F$ 'EH' G4$ R Q$N+' H4' BH-E O' C' H' Q3' $ H 3D' &H4' $EO' M4HHDC' 3 1H4 3D' &4HJ' F3' #E 3D' % E2DHJ' H' 3! #1! ' ?! 1! ' / %&! #! ' , ' + ' -E ' $' @34 & N$ 3' CF$ ' Q3' 14HD-N3D' &4HJ' F3' '32 C 4$4' H&' @34 & N$ 3C' H4' H F34' NF 3&' <&& N34' H&' F3' @-C HJC' E' F3' C$ D' C $EDC' H&' F3' D-3' $ED E2' H&' C-NF' ^(4HHDC' $ED' ' C' 3 13D 3E' H' 4313$' CH' J-NF' H&' F3' C$ D' N ' Q3' ' F343&H43' 3E$N 3D' * F$ '&4HJ' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' EH' @34 & N$ 3' CF$ ' Q3' 43X- 43D' H&' F3' D-3' $ED E2' H&' G4$ Q$N+' H4' BH-E O' <HHDC' E' $EO' H& Q3' C$ D' C $EDC' $EO' F E2' E' F3' C$ D' N ' H' F3' NHE 4$4O' F343H&' EH FC $ED E2

P$C 34C' H&' 3CC3 C' NHJ E2' &4HJ' &4 N$ H' 431H4 ' H ' J$EO , $ 3C' H&' &4 N$ F3O' F$ 3' $+3E' HE' QH$4D' E' &4 N$

' ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$' F3' P$C 34' H&' 3 34O' 3CC3 ' NHJ E2' &4HJ' F3' @H$C 'H&' / ' ' $ED' F$ E2' $+3E' HE' QH$4D' $ ' $EO' I $N3' E' / ' ' $EO' I34CHE' H4' I34CHEC' Q3 E2' H4' $113$4 E2' H' Q3' , $ 3C' , ' / ' ' CF$ ' E' $DD HE' H' $ ' P$ 34C' EH ' 43X- 43D' QO' >$ ' H' Q3' 431H4 3D' QO' F J 'C $ 3' E' F3' '31H4 ' H&' Q C' 3CC3 ' FH ' J$EO' C-NF' I34CHEC' F$ 3' Q33E' $+3E' HE' QH$4D' QO' F J' E' / ' '$ED' $EO' C-NF' P$C 34' &$&& E2' F343 E' CF$ '&H4&3 ' F3' ?$J' H&' <E3' F-ED43D' IH-EDC'

P$C 34C' H4' < E34C' H&' 3CC3 C' NHJ E2' &4HJ' &4 N$ H2 3' BHED' H' C$ E J$ <4 C3ED' Q$N+' C-NF' &4 N$EC' $C' F3O Q4 E2' &4HJ' F3EN3

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$' F3' P$C 34' H4' < E34' H4' < E34C' H&' C-NF' 3CC3 ' H4' CHJ3' H4' <E3' H&' F3J '$' F3' * J3' H&' J$+ E2' C-NF' B31H4 ' Q3' 43X- 43D' H' 3E 34' E H' BHED' H' 8 C' P$(3C O' E' F3' f- J' H&' <E3' F-ED43D' IH-EDC' 3HED J 3D' H' +331' F$4J 3CC' $EO' I$4 CF' H4' $EO' ; 4$ 1$4HNF $ 'H4' H F34' I $N3' J$ E $ E E2' C' H E' IHH4' 2 EC '$EO' ; 13EN3' F NF' C-NF' I$4 CF' H4' H F34' I $N3' J$O' Q3' 1- ' H' E' C-11H4 E2' $EO' C-NF' I34CHE' D-4 E2' F3 4' ? $O' E' F3' #E 3D' % E2DHJ ' $ED' $EO' C-NF' P$C 34' < E34' H4' < E34C' 43&-C E2' H4' E32 3N E2' H' 3E 34' E H' C-NF' BHED' CF$ ' &H4&3 ' F3' ?- J' H&' * H' F-ED43D' IH-EDC

@34 & N$ 3' H&' F3' ; E 4 3C' H&' MHHDC' E $4DC' E F3' I H4 'H&' >HEDHE' 43R 13$ 3D

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$' ?H 1 -NF' H&' F3' C$ D' $C E3E HE3D' N ' $C' 43X- 43C' F3' @H 3N H4' $ED' @H(#1 H 34' H' CC-3' @34 & N$ 3C' H&' F3' ; E 4O' H&' MHHDC' E $4DC' &H4' F3' @HJ 1- $ HE' H&' F3' G4$ Q$N+' $ H $Q 3' HE' C-NF' MHHDC' H4' &H4' F3' D-3' G3 34O' F343H&' &4HJ' F3' 9$43FH-C3' CF$ ' Q3' $ED' F3' C$J 3' C' F343QO' 4313$ 3D' 3 N31 ' CH' &$4' $C' 43C13N C' MHHDC' 3E 343D' H' Q3' CF 113D' &H4' ; 1H4 $ HE' &H4' G4$ Q$N+' $' $EO' H F34' IH4 ' F$E' F$' H&' J 1H4 $ HE'

'3C 4 N HEC' $C' 'H' I 3N3' MHHDC' 43R 13$ 3D

' ' ED' F343$C' QO' F3' C$ D' $C J 3E HE3D' N ' ' C' 3E$N 3D' F$' F3' $ -3' H&' $ 'MHHDC' N$ 3D' `' I 3N3' MHHDC c' Q3 E2' 4 N 3C' J$E-&$N -43D' H&' ? +' 8$ 4' H4' @H HE' H4' $EO' P -43' F343H&' J 1H4 3D' QO' $EO' I34CHE' E H' F3' I H4 'H&' <, #&, #' &4HJ' I $N3C' F E' F3' > J C' H&' F3' @F$4 34' H&' F3' 8 1 '$#& ' @HJ 1$EO' CF$ ' Q3' $CN34R $ E3D' QO' F3' 24HCC' I4 N3' $' F NF' F3' C$J 3' CF$ ' F$ 3' Q33E' CH D' QO' -N HE' $' F3' 1-Q N' ?$ 3C' H&' F3' C$ D' @HJ 1$EO' $ED' ' C' 3 13R D 3E' H' 4313$' CH' E&-NF' H&' F3' C$ D' $C J 3E HE3D' N ' $ED' H' J$+3

H F34

U7K S`M#> ;> P ' ' @$1 Z

< F34' I4H C HEC' E' 3-' F343H&' Q3' ' F343&H43' 3E$N 3D' *F$' CH' :*/G. !#'
J-NF' H&' F3' C$D' $C J3E HE3D' N' $C' F$C' Q33E' F343 E Q3&H43' h '
43N 3D' CF$ 'Q3' $ED' F3' 2$J3' C' F343QO' 4313$ 3D'

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' $ -3' H&' C-NF' MHHDC'
CF$ 'Q3' $CN34 $ E3D' E' F3' C$J3' P$EE34' $C' F$'H&' $ 'H F34' MHHDC' $-3 H&' '
3E 343D' $' $ -3' $ED' C#NF MHHDC' CF$ 'Q3' C-Q(3N' $ED' $Q 3' H' F3' C N#' MHHDC'
C$J3' '32- $ HEC' '3C 4 N HEC' $ED' 6H4&3 -43C' $C' H F34' MHHDC'
3E 343D' $' $ -3' $43' $Q 3' H

W' ED' F343$C' QO' F3' C$D' $C J3E HE3D' N' F3' J1H4 $R @H E C'
HE' H&' *HQ$NNH' $ED' ?E-&' C' 43C 4 N 3D' H' N34 $ E' I H4 C' F343 E' C HE34C' H&'
J3E HE3D' $ED' ' J$O' Q3NH J3' 3 13D 3E' F$' F3' I4H C HEC' H&' F3' *43$C-4O' &E$O'
C$D' N' CFH- D' Q3' 3 3ED3D' H' H F34' I H4 C' E' F3' #E 3D' % E2DH J'($11H E' $DD R
Q3' ' F343&H43' 3E$N 3D' *F$' &4H J' $ED' $& 34' F3' 1$CC E2' H&' F C' N' HE$' I H4 C
'CF$ '$ED' J$O' Q3' $ &-' &H4' F3' @H J J CC HE34C' H&' ? C' P$(3C O C' &H4' $43R
*43$C-4O' QO' F3 4' <4D34' &4H J' * J3' H' * J3' H' $11H '$EO' $DD R FH-C E2'
HE$' I H4 'H4' I H4 C' E' F3' #E 3D' % E2DH J' &H4' F3' J1H4 E2' E H' H4' *HQ$NNH
$43FH-C E2' H&' *HQ$NNH' $ED' ?E-&&' FH-' I $O J3E' H&' G- O' -1HE'
F3' & 4C' ;E 4O' F343H&.' I4H D3D' $ $OC' F$' $ ' C-NF' 11H E R
J3E C' CF$ 'Q3' 1-Q CF3D' E' F3' <,#&,#' ! !' &H4' C-NF' $C' CF$ 'QD'
$11H E 3D' E' @) ! '" #' $ED' E' F3' 234% #' ! !' &H4' C-NF' $C'
CF$ 'Q3' $11H E 3D' E' $!% #&'=' $ED' C-NF' *HQ$NNH' H4' ?E-&&' CH' J1H4 3D'
E H' H4' $43FH-C3D' $' $EO' C-NF' I H4' H4' I H4 C' CF$ 'Q3' C-Q(3N' H' F3'
+3' I4HF Q HEC' $ED' '3C 4 N HEC' $C' $43' J3E HE3D' E' F3' *$Q 3' H&' '
I4HF Q HEC' $ED' '3C 4 N HEC' E' F3' C$D' 43N 3D' N 'H4' $EO' H F34' N'
EH ' E' &H4N3' H4' F343$& 34' H' Q3' J$D3

W' ED' F343$C' QO' F3' C$D' $C J3E HE3D' N' ' C' 3E$N 3D' 6H43 2E'
F$' $ ' 6H43 2E' MHHDC' G343 N' 53 C$J' 6 H C$J' $ED' 9 43N+C' MHHDC' G3'
Q&H-2F' H4' NH J E2' E H' F3' #E 3D' % E2DH J' H4' E H' F3' $1%!' , ' #
CF$ 'Q3' C-Q(3N' H' F3' C$J3' G- 3C' $C' MHHDC' H&' F3' +3' % ED' J1H4 3D' D33 J3D' F3
E H' F3' #E 3D' % E2DH J' 43C13N 3 O' $43' C-Q(3N' H'. ED' F343$C' I4HD-N3' H&'
&4H J' F3' ,$ -43' $ED' @ 4N- J C $EN3C' $ 3ED E2' C-NF' MHHDC' F3' C NF' @H-E 4O'
'3X- C 3C' H&' F3' >$ 'N$EEH' E' $ '@$C3C' Q3' D- O' NH J 1 3D' F' &$ HE344H&'
$ED' ' C' 3 13D 3E' H' 43 J 3DO' F3' C$J3' ' Q3' ' F343&H43' 3E$N 3D' *F$' N-C H J C'
&4H J' $ED' $& 34' F3' 1$CC E2' H&' F C' N' $ '6H43 2E' MHHDC' G343 N' CF$ 'D3 34'
53 C$J' 6 H C$J' $ED' 9 43N+' Q4H-2F' H4' NH J E2' E H' F3' #E 3D'
% E2DH J' H4' E H' F3' $1%!' , ' #' CF$ 'Q3' D33 J 3D' H' Q3' F3' M4H F'
H4' I4HD-N3' H&' C-NF' @H-E 4O' H4' I $N3' $C' F3' @H J J CC HE34C' H&' 8 C'
P$(3C O C' @-C H J C' CF$ ' -1HE' E 3C 2$ HE' D3 34 J E3' $ED' CF$ 'Q3'
NF$423D' F' G- O' $NNH4D E2 O' I4H D3D' $ $OC' F$' $ ' C-NF' MHHDC'
MHHDC' F NF' 'EH 'C3 '&H4' F3' J H-E 'H&' G- O' D-3' F343HE' CF$ ' &K4'
Q3' D3 343D' H 34' H' F3' >H4D' H&' F3' P$EH4' H4' H F34' I 34CHE' 3E 3D' J H-E' H&'
H' 43N3 3' F3' C$J3' $ED' CF$ 'Q3' D33 J 3D' $ED' $+3E' H' Q3' -E3E-' G- O' H 1$O
J 34$ 3D' MHHDC' $ED' CF$ ' Q3' $Q 3' H' $ED' NF$423D' F' G- O'
$NNH4D E2 O'

W' ED' Q3' '&-4 F34' 3E$N 3D' *F$' &' $EO' C-NF' MHHDC' Q3' H $EN3
C-NF' $C' $43' 3E 3D' H' $E' H $EN3' &H4' G$J$23' C-NF' H $EN3' G$J$23
CF$ ' Q3' J$D3' -ED34' C-NF' '32- $ HEC' $ED' @HED HEC' $C' F3' @H J'
J CC HE34C' H&' 8 C' P$(3C O C' @-C H J C' CF$ '&4H J' * J3' H' * J3' F 1+
& ' H' D 43N

W ' ED

L!(3%
MHHDC $ D3D'
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W ' ED'Q3' '&-4 F34' 3E$N 3D '*F$ ' F343' $EO' I $N+$23' H4' I $4N3 ' F$ 3'Q33E $ED3D' QO'5B 5H&'? 2F '$ED' $EO' MHHDC' H4'H F34' * F E2C CF$ 'Q3' &H-ED' E' C-NF' I $N+$23' H4' I $4N3 ' NHEN3$ 3D' E' $EO' $O ' H4' 1$N+3D' F' E 3E ' H' D3N3 3' F3' <&& N34C' H&' 8 C' P $(3C O C' @-C H4HC ' $C' 9 3 ' $ ' C-D ' MHHDC' $ED' H F34' * F E2C' $C' F3' I $N+$23' H4' I $4N3 ' E $ED' $ ' H F34' * F E2C' NHE $ E3D' E' C-NF' I $N+$23' H4' 1$4N3 ' CF$ ' Q3' &H4&3 3D '

*HEE$23' H&'
?F 1HE J '
IE&43 L'
13$ 3D'

W 8 I' ED' Q3' '&-4 F34' 3E$N 3D ' * F$ ' CH' J -NF' H&' F3' $C J 3E ' H 3D' N ' FC' 43C 4 N C' F3' J 1H4 $ HE' H&' 9 E3 ' -E 3CC' E' $' ?F 1' H&' F3' B-4 F3E' H&' ? O' * HEC' H4' -1 $4DC ' CF$ ' Q3' $ED' F3' C$ J 3' C' F343QO' 4313$ 3D

BH 34 &H4
8 C' P$ 3C(4
>32$' \ -$OC'
$ED' H $EE- '
Q3' C$ J 3

W ' ED'Q3' '&-4 34' 3E$N 3D' $ED' D3N $43D ' * F$ ' 'CF$ 'Q3' $ &- ' &H1' 8 2' P $(3C O ' QO' 8 C' @H J J CC HE' <- 'H&' F3' @H-4 'H&' ; NF3X-34' &4H J ' * J 3' H' * J 3' H' $11H E ' $EO' I H4 ' 8$ 3E ' H ' @433+' E' F3' #E 3D' % E2DH J ' <4 E' F3' $1 ' , ' # ' $ED' H' C3 ' H- ' F3' ; 4$ C' F343H&' $ED' <' $11H E ' F3' 14H134' I $N3C' F E' F3' C$ J 3' H' Q3' >32$ \ -$OC' &H4' F3' $D E2' $ED' -E $D E2' H&' MHHDC ' $ED' H' D3N $43' F$ ' $EO >32$ ' \ -$O' F NF' F$D' Q33E' C3 ' H- ' QO' C-NF' - FH4 O' E' $EO' I H4 ' CF$ ' EH' HE234' Q3' CH ' $ED' H' $11H E ' $EO' E3 ' I $N3' F E' $EO' I H4 ' H' Q3' $' >32$ ' \ -$O' &H4' F3' $D E2' $ED' #E $D E2' H&' MHHDC

34 J 3E '
H&' <&&3EN3

W ' ED' Q3' '& 4 FH4' 3E$N 3D ' * F$ ' E' $EO' E&H4 J $ HE' H4' H F34' I 4HN33D E2' &H4' $EO' <&&3EN3' 2 EC ' $EO' N ' J $D3' <4 H' Q3' J $D3' 43R $ E2' H' F3' @-C H J C ' F3' 34 J 3E ' F$ ' C-NF' <&&3EN3' $C' NH J J 3D' F E' F3' > J C' H&' $EO' I H4 ' CF$ ' F3' C-&& N 3E ' <- ' I 4HH&' H&' C-NF' > J C' -E 3CC' F3' NHE 4$4O' Q3' 14H 3D '

#E$- #H '
4 T3D' I34CHEC'
EH ' H' Q3'
134 J 3D' H
J $+3' ; E 4 3C

W ' ED' Q3' '&-4 F34' 3E$N 3D ' * F$ ' $EO' I 34CHE' H4' I 34CHEC' FH' CF$ ' J $+3' H4' N$-C3' H' Q3' J $D3' $' $EO' @-C H J ' 8H-C3' E' F3' #E 3D' % E2DH J ' ; E 4O' E $4DC' H&' $EO' MHHDC ' EH ' Q3 E2' D- O' $- FH4 T3D' F343 H' 9 ' F3' I 4H14 3 H4' H4' @HEC 2E33' H&' C-NF' MHHDC ' CF$ ' &H4' 3 34O' C-NF' <& 3EN3' &H4&3 ' F3' ?- J ' H&' <E3' F-ED43D' I H-EDC' : I 4H D3D' $ $OC ' F$ ' EH' C-NF' I 3E$ O' CF$ ' 3 3ED' H4' Q3' D33 J 3D' H' 3 3ED' H' $EO' I 34CHE' H4' I 34CHEC' $N E2' -ED34' F3' G 43N HEC' H&' F3' C3 34$ ' GHN+' @H J 1$E 3C' H4' H F34' @H41H4$ 3' BHD 3C' $- FH4 T3D' QO' >$ ' H' 1$CC' ; E 4 3C

+ 3((% #(
: 9
BH$ 3' -C3D'
E' & CF E2' HE'
F3' @H$C ' H&'
43 $ED' EH '
43X- 43D' H
F$ 3' > R
N3EC3C

' W ' ED' F343$C' QO' HE3' H F34' H&' F3' C$ D' $C J 3E HE3D' N C ' , E - 3D' / #' / ' ' , ' % !' * ! !# ,#' , '+ 3((% #(' ' C' 3E$N 3D ' F$ ' $ ' BH$ C' Q3 HE2 E2' (E' F3' FH 3' H4' E' 1$4 ' H' 8 C' P $(3C O C' ?-Q(3N C' &H-ED' F E' N34 $ E' > J C' $43' &H4&3 3D ' -E 3CC' F3' < E34C ' F343H&' F$ 3' HQ $ E3D' $' > N3EC3' &H4' E$ 2$ E2' F3' C$ J 3' &4H J ' F3' @H J J CR C HE34C' H&' 8 C' P $(3C O C' @-C H J C' 4 ED' F343$C' ' C' 3 13D 3E ' H' D C13EC3' F' C-NF' > N3EC3C' &H4' BH$ C' -C3D' E' & CF E2' HE' F3' @H$C ' H&' $!% #&=' Q3' ' F343&H43' 3E$N 3D ' * F$ ' &4H J ' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' F3' < J34C' H&' BH$ C' CH 3 O' -C3D' E' & CF E2' HE' F3' @H$C ' H&' $!% #&' CF$ ' EH ' Q3' 43X- 43D' H' HQ $ E' > N3EC3C' &H4' E$ 2$ E2' F3' C$ J 3' &4H J ' F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' @-C H J C' -ED34'' F3' I 4H C HEC' H&' F3' C$ D' N : I 4H D3D' $ $OC ' F$ ' &' C-NF' BH$ ' CF$ ' Q3' 3 J 1 HO3D' E' C J -22 E2' F3' < E34' 4' < E34C' F343H&' CF$ ' Q3' $Q 3' H' $' I 3E$ O' 3X-$' H' F3' $ -3' H&' C-NF' BH$ ' CH' 3 J 1 HO3D' E C J -22 E2

CJ-22 E2' $C' $&H43C$ D' H 34' $ED' $QH 3' $ O' H F34' I3E$ O' H' F NF' + 3((% #('
F3' I$4 3C' J$O' Q3' $Q 3' HE' $NNH-E 'H&' C-NF' ?J-22 E2' *4ECN HE' 4

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ '$EO' I34CHE' , 'I34CHEC' FH' I3E$ O' CF$ ' QO' $EO' P3$EC' 14HN-43' H4' F 43' $EO I34CHE' H4' 134CHEC' H4' FH' *! 1,#1'5 ' CF$ 'D31- 3' $- FH4 T3' H4' D 43N' $EO' *! 1,#' , ' *! 1,#1' ,' 5 ,'3 !' '$3J93 ' H4' F 43' $EO' I34CHE' H4' I34CHEC' H' $CC3 J Q 3' , ')!' I-41HC3' H&' 4! #(' +! ' %% % #/' NHEN34E3D' E' F3' $ED E2' H4' -ECF 11 E2' H4' ' #(' , ' ',#0! #(' #G#%) ;; #/' $EO' MHHDC' F NF' $43' 14HF Q 3D' H' Q3' J 1H4 3D' H4' F3' G- 3C' &H4' F NF' F$ 3' EH 'Q33E' 1$ D' H4' C3N-43D' CF$ ' &H4' 3 340' I34CHE' CH' MHHDCOc ' 14HN-43D' H4' F 43D' &H4&3 ' F3' ?- J' H&' <E3' F-ED43D' I H-EDC

W W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ '3 340' I34CHE' F$ CH3 34' I34CHEC' FH' CF$ ' -ECF 1' H4' Q3' $ D E2' $CC C E2' H4' H F34 C3' NHEN34E3D' E' N$440 E2' KN' F3' -ECF 11 E2' H&' $EO' *3$' H4' 6H43 2E' P$E-&$N -43D' ? +' H&' F3' *3$' H4' $ -3' H&' * 3E O' IH-EDC' $Q 3' H' 6H4&3 -43' -ED34' $EO' N '43 $ E2' P$E-&$NR H' F3' '3 3E-3' H&' @-C HJC' H4' ; N C3' H4' FH' CF$ ' N$440' NHE 30' -43D' ? +' H' H4' NHEN3$ ' H4' Q3' $ D E2' $CC C E2' H4' NHEN34E3D' E' F3' N$440 E2' &H4&3 *43Q 3' NHE 30 E2' H4' NHEN3$ E2' H&' C-NF' *3$' H4' ? +' CF$ ' &H4&3 ' &H4' 3 340' F3' =$ - 3' C-NF' <&&3EN3' *43Q 3' F3' $ -3' F343H&' H' Q3' $CN34 $ E3D' $NNH4D E2' $ED' H Q3' H' F3' I4 N3' F NF' MHHDC' H&' F3' +3' ?H4 '$ED' H&' F3' Q3C ' \ -$ O' $Q 3' H $ED' -1HE' F NF' F3' G- 3C' F$ 3' Q33E' (&$ D' Q3$4' $ ' F3' IH4 ' H4' G3 3E HE I $N3' F343' F3' <&&3EN3' C' NH J J 3D' $ED' 3 340' C-NF' I34CHE' CF$ ' $ED' J$O' Q3' D3 $ E3D' QO' $EO' <&& N34' H4' <&& N34C' H&' 8 C' P$(3C O C' 4J O' ,$ O' H4' P$4 E3C' Q3 E2' D- O' $- FH4 T3D' $ED' HE' &- ' I$O' H4' QO' $EO' <&& N34' H4' <&& N34C' H&' @-C HJC' H4' ; N C3' H4' QO' $EO' H F34' I34CHE' $N E2' E' F C' H4' F3 4' D' H4' CC C $EN3' H4' D- O' 3J 1 HO3D' &H4' F3' I43 3E HE' H&' CJ-22 E2' $ED' $+3E' Q3&H43' $EO' 5-C N3' H&' F3' I3$N3' E' F3' #E 3D' %E2DHJ' H4' Q3&H43' F3' MH 34EH4' G31- O' MH 34EH4' H4' $EO' <E3' H&' F3' G33J C 34C' E' F3' $1 !' , ' # ' H' Q3' D3$ ' F' $C' C' D 43N 3D' QO' F3' $C J3E HE3D' N ' E' F3' @$C3' H&' I34CHEC' $Q 3' H' Q3' $443C 3D' $ED' D3 $ E3D' QO' 4 -3' H&' F$ ' N ' H4' H&' $EO' H F34' N '$J3ED E2' F3' C$J3' I4H D3D' $ $OC' F$ ' ' CF$ ' $ED' J$O' Q3' $ &-' &H4' C-NF' I34CHE' CH' D3 $ E3D' H' 2 3' ?3N-4 O' H' *43Q 3' F3' JH-E 'H&' F3' MHHDC' C3 T3D' QO' '3NH2E R T$EN3' H4' H F34 C3' H' F3' ?$ C&$N HE' H&' C-NF' 5-C N3' H&' F3' I3$N3' H4' G33J C 34' H' $113$4' $ ' $ * J3' $ED' I $N3' H' Q3' $11H E 3D' $ED' F$ ' EH' C-NF' I34CHE' CF$ ' Q3' $Q 3' H' C34 3' 8 C' P$(3C O' E' 8 C' ,$ $' ?34 N3

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' F3' < E34' H4' < E34C' H&' 3CC3 C' $ED 3 340' 3CC3 ' H4' BH$ ' 3J 1 HO3D' HE' F3' @H$C C' H&' F3' #E 3D' %E2 ' -C3D DHJ' E' 1 H E2' H4' &CF E2' CF$ ' F E' ? ' PHE FC' &4HJ' F3' * J3 H&' 1$CC E2' F C' N ' 1$ E ' 3 340' C-NF' 3CC3 ' H4' BH$ ' H4' N$-C3' F3' 1$ E 3' C$J3' H' Q3' 1$ E 3D' H4' $443D' 3E 43 O' B $N+' 3 N31 ' F3' ,$ J3' H4' B $N+' H F34' G3CN4 1 HE' EH '43X- 43D' QO' >$ ' H' Q3' 1$ E 3D' HE' C-NF' 3CC3 ' H4' BH$ ' HE' 1$ E' H&' 6H4&3 -43' H&' C-NF' 3CC3 ' H4' BH$ ' EH 'CH' 1$ E 3D' (14H D3D' $ $OC' F$ ' EH F E2' F343 E' NHE $ E3D' CF$ '3 3ED' H' 143R 3E '$EO' D C E2- CF E2' P$4+' &4HJ' Q3 E2' 1 $N3D' HE' F3' BH C' H&' $EO' C-NF' 3CC3 ' H4' BH$

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' ' CF$ 'Q3' $ &-' &H4' $EO' <&& N34C' H&' <&& N34' H&' @-C HJC' H4' ; N C3' H4' H F34' I34CHE' $N E2' E' F C' H4' F3 4' @-C HJC' H4' ; N C3' J$O

H"' 14HQ$Q 3 @$-CC' C H1' ' @$4 C' **' $ED C3$4NF &H4 MHHDC' G4 34C 43R &-C E2 H C H1' $ED C-QJ ' H ; $J E$R HE' H &H4R &3 ' <<

D' $ED CC C $EN3' H4 D- O 3 J 1 HO3D &H4 F3 I 43 3E HE H&' C J -2R 2 E2' -1HE 43CHEQ 3 ?-C1 N HE' H C H1' $ED 3 $ J E3 $EO @$4 ' 9 $22HE' H4 H F34 P 3$EC H&' @HE 30$EN3' &H4 F3 I -41HC3 H&' $CN34R $ E E2 F3 Q34 $EO ?- J J 3D' @&HHDC $43 NHE $ E3D F343 E' $ED &' EH C-NF MHHDC CF$ ' F3 &H-ED' F3E $ED E C-NF @$C3 F3 <&& N34 CH C H11 E2 $ED 3 $ J E E2 C-NF @$4 ' 9 $22HE' H4 H F34 @HE 30$EN3' ' F$ E2 F$D 14HQ$Q 3 @$-C3 H C-C13N' F$' C-NF @$4 ' 9 $22HE' H4 H F34 @HE 30$EN3 F$D ? J -22 3D' MHHDC NHE $ E3D F343 E' CF$ ' EH ' HE $NNH-E' H&' C-NF ? H11$23 $ED ?3$4NF' Q3 $Q 3 H $EO I 4HC3N- HE H4 N HE $' >$ ' HE $NNH-E' F343H&' $ED $ ' I 34CHEC D4 E2 H4 NHED-N E2 C-NF @$4 ' 9 $22HE' H4 H F34 @HE 30$EN3' 43&-C E2 H C H1' F3E 43X- 43D CH H DH E F3 % E2 C , $ J 3' CF$ ' &H4&3 ' F3 ?- J' H&' < E3 F-ED43D I H-EDC

I 3E$ O JR 1HC3D QO N C 43 $ E2 H F3 ' 3R 3E-3 H& @-C H J C H4 &H4 F3 I 43R 3E HE H& C J -22 E2 J $O H3 43R NH 343D E F3 @H-4 C H& % E2 C B3ENF $ED @H J J HE I 3$C E 43 $ED

WW ' ED' Q3 ' &-4 F34 3E$N 3D' * F$' $ ' I 3E$ 3C J 1HC3D QO F3 C$ D $C J 3E HE3D N ' H4 QO $EO H F34 N ' H4 N C EH ' E &H4N3 H4 F343$& 34 H Q3 J $D3' 43 $ E2 H F3 ' 3 3E-3 H&' @-C H J C H4 &H4 F3 I 43 3E HE H&' C J -22 E2' $ED EN-443D H4 F NF CF$ ' F343$& 34 Q3 EN-443D &H4 H4 QO 43$CHE H&' $EO <&&3EN3 H4 <&&3EN3C 2 EC' F3 C$ D $C J 3E HE3D N ' H4 F3 C$ D H F34 N C' H4 $EO H&' F3 J ' J $OQ3 C-3D &H4 $ED 43NH 343D' $ED $ ' MHHDC' @H J R J HD 3C' $ED @F$ 3 C C3 T3D J ' F NF CF$ ' F343$& 34 Q3 C3 T3D $C &H4&3 3D -ED34 H4 QO 4 -3 H&' F3 C$ D $C J 3E HE3D N ' H4 $EO < F34 N ' H4 N C EH ' E &H4N3 H4 F343$& 34 H Q3 J $D3' 43 $ E2 H F3 ' 3 3E-3 H&' @-C H J C H4 &H4 F3 I 43 3E HE H&' C J -22 E2' J $O Q3 43 -4E3D &H4 @HED3 J E$ HE ' $ED NHED3 J E3D E 8 C P $(3C O C @H-4 ' H&' % E2 C B3ENF' @H J J HE I 3$C' H4 ; NF3X-34 $ ' 234% #' E $ ' @$C3C E F NF C-NF I 3E$ 3C' <&&3EN3C' ?3 T-43C' $ED 6H4&3 -43C J $O QO >$ ' Q3 C-3D &H4 $ED 14HC3N- 3D E $!% #&-' I 4H D3D $ $OC' F$' F3 I 4HN33D E2C &H4 F3 ' 3NH 34O H&' $EO C-NF I 3E$ O H4 I 3E$ 3C' H4 &H4 F3 @HED3 J E$ H$ H&' $EO C-NF MHHDC' @H J J HD 3C' H4 @F$ 3 C' CF$ ' Q3 NH J J 3EN3D 43C13N 3 O F E * F433 =3$4C E3 ' $& 34 F3 @H J J CC HE H&' F3 <&&3EN3 H4 <&&3EN3C QO F NF C-NF I 3E$ ' H4 I 3E$ 3C CF$ ' F$ 3 Q33E EN-443D' H4 $& 34 F3 ?3 T-43 H&' C-NF MHHDC' @H J J HD 3C' H4 @F$ 3 C CF$ ' F$ 3 Q33E J $D3

@H-4 C H& % E2 C B3ENF $ED @H J J HE I 3$C E 43R $ED H F$ 3 NHEN-443E' 5-4 CD N HE F F3 @H-4' H&' ; R NF3X-34' E 432$4D H ?3 T-43C H& MHHDC' $ED E N34 $ E H F34 P $ R 34C

WW ' ED' Q3 ' &-4 F34 3E$N 3D' * F$' 8 ? P $(3C O C @H-4 C H&' % E2 C B3ENF $ED @H J J HE I 3$C E $!% #&' 43C13N 3 O CF$ ' F$ 3 $ NHEN-443E' 5-4 CD N HE E F3 M$C3C $&H43C$ D F F3 @H-4' H&' ; NF3X-34 E 54N 4D' $ED F$' F3 5-D23C H&' F3 C$ D @H-4 C H&' % E2 C B3ENF $ED @H J J HE I 3$C 43C13N 3 O CF$ ' $ED F ' $43 F343QO 43C13N 3 O $- FH4 T3D $ED 3 J 1H 343D H 3 34N C3 F3 +3 5-4 CD N HE' $ED H J $+3' CC-3' FH D' $ED 3E&H4N3 F3 +3 ' - 3C' <4D34C' I 4HN3CC' $ED I 4HN33D E2C' EN -D E2 F3 9 4 ' H&' 114$ C3R J 3E ' E $ED &H4 F3 @HED3 J E$ HE H&' $EO MHHDC' @H J J HD 3C' $ED @F$ 3 C &H4&3 3D -ED34 H4 QO 4 -3 H&' F3 C$ D $C J 3E HE3D N ' H4 $EO H F34 N ' H4 N C EH ' E &H4N3 H4 F343$& 34 H Q3 J $D3' 43 $ E2 H F3 ' 3 3E-3 H&' @-C H J C H4 &H4 F3 I 43 3E HE H&' C J -2 ' 2 E2' $ED E $ED &H4 F3 ' 3NH 34O H&' $EO G3Q C' G- 3C' I 3E$ 3C $ED 6H4&3 -43C D-3 Q4 F343$& 34 H Q3NH J 3 D-3 H 8 C P $(3C O' 8 C 8 3 4C H4 ?-NN3CCH4C' $4 C E2 &4H J' H4 43 $ E2 H F3 ' 3 3E-3 H&' @-C H J C' H4 EN-443D H4 H Q3 EN-443D -ED34 H4 QO 4 -3 H&' F3 C$ D $C J 3E HE3D N ' H4 F3 C$ D H F34 N C' H4 $EO H&' F3 J ' $C

$43ʹ D 43N 3Dʹ QOʹ F Cʹ N ʻ Hʹ Q3 ʻ H4ʹ $Cʹ $ ʻ $EDʹ J J 3D $ 3 Oʹ Q3&H43ʹ F3ʹ + 3((% #(ʻ
@H J J 3EN3 J 3E ʻ H&ʹ F Cʹ N ʻ $43ʹ H4ʹ J $Oʹ Q3 ʻ H4ʹ $Cʹ F343$& 34ʹ J $Oʹ Q3 ʻ
3 34N C3D ʻ J $D3 ʻ CC-3D ʻ F3 D ʻ H4ʹ 3E&H4N3Dʹ &H4ʹ C-NFʹ I -41HC3Cʹ 43C13NR
3 Oʹ Eʹ H4ʹ QOʹ 8 Cʹ P $(3C O Cʹ @H-4 ʻ H&ʹ ; NF3X-34ʹ Eʹ $!% #& ʻ $EDʹ
F3ʹ B$4HECʹ $EDʹ 5-D23Cʹ F343H& ʻ $EDʹ $NNH4D E2ʹ Hʹ F3ʹ I 4$N N3ʹ H&ʹ
C-NFʹ $C J 3E HE3Dʹ @H-4 ʻ $EDʹ F$ ʻ $ ʻ E&H4 J $ HECʹ &H4ʹ C-NFʹ G3Q C
G- 3C ʻ I 3E$ 3C ʻ $EDʹ 6H4&3 -43Cʹ $Cʹ $&H43C$ D ʻ $EDʹ $ ʻ @ $ J Cʹ F &NFʹ
CF$ ʻ Q3ʹ E$D3ʹ Hʹ $EOʹ MHHDC ʻ @H J J HD 3C ʻ H4ʹ @F$ 3 Cʹ C3 T3Dʹ $Cʹ
&H4&3 3Dʹ -ED34ʹ H4ʹ QOʹ 4 -3ʹ H&ʹ F3ʹ C$ Dʹ $C J 3E HE3Dʹ N ʻ H4ʹ $EOʹ
H F34ʹ N ʻ H4ʹ N Cʹ EH ʻ Eʹ &H4N3ʹ H4ʹ F343$& 34ʹ Hʹ Q3ʹ J $D3 ʻ 43 $ E2ʹ Hʹ
F3ʹ ʻ 3 3E-3ʹ H&ʹ @-C H J Cʹ H4ʹ &H4ʹ F3 ʻ I 43 3E HEʹ H&ʹ C J -22 E2 ʻ F343ʹ
F3ʹ I 4HN33D E2Cʹ CF$ ʻ Q3ʹ Eʹ 8 Cʹ P $(3C O Cʹ @H-4 ʻ H&ʹ % E2 Cʹ B3ENFʹ $ ʻ
234% #ʻ CF$ ʻ Q3ʹ & 3Dʹ $EDʹ 3E 343Dʹ Fʹ F3ʹ 6 $N34ʹ H&ʹ F3ʹ ?$ Dʹ @H-4 ʻ
H&ʹ % E2 Cʹ B3ENF ʻ $EDʹ F343ʹ F3ʹ I 4HN33D E2Cʹ CF$ ʻ Q3ʹ Eʹ F3ʹ @H-4 ʻ
H&ʹ @H J J HEʹ I 3$Cʹ CF$ ʻ Q3ʹ & 3Dʹ $EDʹ 3E 343Dʹ Fʹ F3ʹ @ 34+ʹ H&ʹ F3ʹ
I 3$D E2Cʹ H&ʹ F3ʹ C$ Dʹ @H-4 ʻ H&ʹ @H J J HEʹ I 3$C ʻ F Eʹ C-NFʹ * J 3 ʻ Eʹ
C-NFʹ P $EE34ʹ $EDʹ 6H4 J ʻ Eʹ C-NFʹ , $ J 3ʹ $EDʹ , $ J 3C ʻ Fʹ C-NFʹ G3R
CN4 1 HEʹ H&ʹ ʻ 3C D3EN3ʹ $EDʹ B-C E3CCʹ H4ʹ I H&3CC HE ʻ 34 & 3Dʹ QOʹ C-NFʹ
<$ Fʹ ^ Hʹ Q3ʹ J $D3ʹ Q3&H43ʹ <E3ʹ H&ʹ F3ʹ 5-D23Cʹ H&ʹ F3ʹ C$ Dʹ @H-4 Cʹ H&ʹ
% E2 Cʹ B3ENFʹ H4ʹ @H J J HEʹ I 3$C ʻ $Cʹ F3ʹ @$C3ʹ J $Oʹ Q3_ʻ Fʹ C-NFʹ
?3N-4 Oʹ &H4ʹ F3ʹ I $O J 3E ʻ H&ʹ @HC C ʻ $EDʹ C-Q(3N ʻ Hʹ C-NFʹ $EDʹ F3ʹ +3ʹ
ʻ - 3C ʻ ʻ 32- $ HEC ʻ ʻ 3C 4 N HEC ʻ $EDʹ @HED HEC ʻ $EDʹ Hʹ C-NFʹ @HER
D3 J E$ HEʹ $EDʹ 5-D2 J 3E ʻ QOʹ G3&$- ʻ H4ʹ 6$ -43ʹ H&ʹ @H J 1 $EN3ʹ
F343 F ʻ $Cʹ $ ʻ H4ʹ J J 3D $ 3 Oʹ Q3&H43ʹ F3ʹ 1$CC E2ʹ H&ʹ F Cʹ N ʻ $43ʹ (
H4ʹ F343$& 34ʹ J $Oʹ Q3ʹ QOʹ >$ ʻ 14$N C3Dʹ $EDʹ 43X- 43Dʹ Eʹ @$C3Cʹ H&ʹ @ $ J Cʹ
J $D3ʹ Eʹ 8 Cʹ P $(3C O Cʹ C$ Dʹ @H-4 ʻ H&ʹ ; NF3X-34ʹ Hʹ MHHDC ʻ @H J R
J HD 3C ʻ H4ʹ @F$ 3 Cʹ C3 T3Dʹ $Cʹ &H4&3 3Dʹ -ED34ʹ H4ʹ QOʹ 4 -3ʹ H&ʹ F3ʹ
C$ Dʹ N Cʹ H4ʹ $EOʹ H&ʹ F3 J ʻ $EDʹ 43 -4E3Dʹ &H4ʹ @HED3 J E$ HEʹ E Hʹ F3ʹ
C$ Dʹ $C J 3E HE3Dʹ @H-4 ʻ $EDʹ F$ ʻ 3 34Oʹ I 34CHEʹ FHʹ CF$ ʻ Q3ʹ NHER
N 3Dʹ H&ʹ J $+ E2ʹ H4ʹ $+ E2ʹ $ʹ &$ C3ʹ <$ Fʹ Q3&H43ʹ $EOʹ H&ʹ F3ʹ 5-D23Cʹ H&ʹ
F3ʹ C$ Dʹ @H-4 Cʹ H&ʹ % E2 Cʹ B3ENFʹ H4ʹ @H J J HEʹ I 3$C ʻ Hʹ $EOʹ H&ʹ F3ʹ
I $N Cʹ D 43N 3Dʹ H4ʹ 43X- 43Dʹ Hʹ Q3ʹ C H4Eʹ Hʹ H-NF E2ʹ $EOʹ C-NFʹ @ $ J ʻ
$Cʹ $&H43C$ D ʻ CF$ ʻ Q3ʹ D33 J 3Dʹ 2- Oʹ H&ʹ I 3 (-40 ʻ $EDʹ CF$ ʻ Q3ʹ $Q 3ʹ
Hʹ $ ʻ F3ʹ I $ ECʹ $EDʹ I 3E$ 3Cʹ Hʹ F NFʹ I 34CHECʹ $43ʹ $Q 3ʹ &H4ʹ &- ʻ
$EDʹ NH44-1 ʻ I 3 (-40

WW ʻ EDʹ Q3ʹ ʻ &-4 F34ʹ D3N $43Dʹ $EDʹ 3E$N 3D ʻ * F$ ʻ ʻ CF$ ʻ $EDʹ &&N34Cʹ
J $Oʹ Q3ʹ $ &- ʻ &H4ʹ $EOʹ <&& N34ʹ H4ʹ <&& N34Cʹ H&ʹ @-C H J C ʻ H4ʹ I 34CHEʹ $- FH4 T3Dʹ
$N E2ʹ -ED34ʹ F3ʹ G 43N HEʹ H&ʹ F3ʹ @H J J CC HE34Cʹ H&ʹ 8 Cʹ P $(3C O C QOʹ 9 4 ʻ H&ʹ
@-C H J C ʻ F$ E2ʹ $ʹ 9 4 ʻ H&ʹ CC C $EN3ʹ -ED34ʹ F3ʹ ?3$ ʻ H&ʹ 8 Cʹ P $(3C O C CC C $EN3 ʻ
@H-4 ʻ H&ʹ ; NF3X-34 ʻ Hʹ $+3ʹ $ʹ @HEC $Q 3 ʻ 8 3$DQH4H-2F ʻ H4ʹ H F34ʹ $EDʹ F E2ʹ $
I -Q N ʻ <&& N34ʹ EF$Q E2ʹ E3$4ʹ Hʹ F3ʹ I $N3 ʻ $EDʹ Eʹ F3ʹ G$O J 3 ʻ Dʹ I 3$N3ʹ <&& N34 ʻ
3E 34ʹ E Hʹ $EDʹ C3$4NFʹ $EOʹ 8 H-C3 ʻ ?FH1 ʻ @3 $4 ʻ 9 $43FH-C3 ʻ ʻ HH J ʻ J $Oʹ C3$4NFʹ
H4ʹ H F34ʹ I $N3 ʻ $EDʹ Eʹ N$C3ʹ H&ʹ & 3C C $EN3ʹ Hʹ Q43$+ʹ H13Eʹ GHH4C ʻ 8 H-C3Cʹ &H4ʹ
@F3C C ʻ * 4-E+C ʻ $EDʹ H F34ʹ I $N+$23C ʻ F343ʹ Hʹ C3 T3 ʻ $EDʹ &4H J ʻ F3EN3ʹ 14HF Q 3Dʹ
Hʹ Q4 E2 ʻ $EOʹ -EN-C H J 3Dʹ H4ʹ 14HF Q 3Dʹ MHHDC ʻ $EDʹ Hʹ 1- ʻ $EDʹ $EDʹ -EN-C ʻ
C3N-43ʹ F3ʹ C$ J 3ʹ Eʹ F3ʹ @-C H J FH-C3ʹ 9 $43FH-C3ʹ Eʹ F3ʹ I H4 ʻ H J 3DM1HDC ʻ
E3 ʻ Hʹ F3ʹ I $N3ʹ &4H J ʻ F3EN3ʹ C-NFʹ MHHDCʹ CF$ ʻ Q3ʹ CHʹ $+3Eʹ $Cʹ $EDʹ Q43$+ʹ
$&H43C$ D.ʹ I 4H D3Dʹ $ $OC ʻ F$ ʻ &H4ʹ F3ʹ I -41HC3Cʹ H&ʹ F Cʹ N ʻ H13Eʹ GHH4Cʹ
$EOʹ C-NFʹ @HEC $Q 3 ʻ 8 3$DQH4H-2F ʻ H4ʹ H F34ʹ I -Q Nʹ <&& N34 ʻ D- Oʹ $EDʹ I $N+$23Cʹ
C H4Eʹ $Cʹ C-NF ʻ J $Oʹ $N ʻ $Cʹ 3 ʻ FH- ʻ F3ʹ > J Cʹ H&ʹ $EOʹ I $4 CF ʻ Hʹ C3 T3ʹ C-NFʹ
3 ʻ H4ʹ H F34ʹ I $N3ʹ &H4ʹ F NFʹ F3ʹ CF$ ʻ Q3ʹ CHʹ C H4E ʻ $Cʹ F Eʹ C-NFʹ MHHDC
> J C

WW ʻ ED

+ 3((%#(

I34CHEC ' 43C C E2 <&& N34C' H4 '3CN- E2' H4 D3C 4HO E2 MHHDC H 143 3E ' ?3 T-43' H &H4&3 ' [[

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' &'$EO' I34CH$' F$ CH3 34' CF$ 'F ED34' J H 3C 'H4' HQC 4EN' EO'<&& N34' H4' <&& N34C' H&' F3' 4 J O' , $ O' H4' 8 $4 E3C' Q3 E2' D- O' $- FH4 T3D' $ED' HE' &- ' I $O' H4' $EO' <&& N34C' H&'@-C H J C' H4' ; N C3' H4' $EO' H F34' I34CHE' $N E2' E' F C' H4' F3 4' D' <4 CC C $EN3' H4' D- O' 3 J 1 HO3D' &H4' F3' I43 3E HE' H&' C J -22 E2' E' F3' ; 3N- HE' H&' F C' G- O' H4' E' F3' D-3' C3 T E2' H&' $EO' MHHDC' <4 CF$ '43CN-3' H4' N$-C3' H' Q3' 43CN-3D' $EO' MHHDC' F NF' CF$ 'F$ 3' Q33E' D- O' C3 T3D' H4' CF$ ' $ 3 J 1 'H4' 3ED3$ H-4' H' DH' CH' H4' CF$ ' Q3&H43' H4' $'H4' $& 34' $EO' ?3 T-43' C $ 3' Q43$+' H4' H F34 C3' D3C 4HO' $EO' MHHDC' H' 143 3E ' F3' ?3 T-43' F343H&' H4' F3' C3N-4 E2' H&' F3' C$ J 3' F3E' $ED' E' C-NF' @$C3' F3' I $4 3C' && &3ED E2' CF$ ' &H4&3 ' &H4' 3 3 O' C-NF' <&&3EN3' F3' ?- J' H&' <E3' F-ED43D' I H-ED+

I34CHEC H& 634 E2 B4 Q3C H <&& N34C H &H4&3 'U[[

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ '3 34O' I34CHE' FH' CF$ '2 3' H4' H&&34' H&' 14H J C3' H' 2 3' H4' 14HN-43' H' F3' 2 3E($EO' B4 Q3' '3' NH J 13EN3' H4' '3 $4D' H 'H4' CF$ ' J $+3' $EO' NH -C 3' 2433 J 3E ' F' $EO' <&& N34' H4' <&& N34C' H&' @-C H J C' H4' ; N C3' H4' $EO' <&& N34' H4' <&& N34C' H&' F3' 4 J O' , $ O' H4' P $4 E3C' D- O' $- FH4 T3D' $ED' HE' &- ' I $O' H4' $EO' I34CHE' D- O' 3 J 1 HO3D' &H4' F3' I43 3E HE' H&' C J -2 F2' H' ED-N3' F J' E' $EO' $O' H' E32 3N 'F C' G- O' H4' H' DH' NHEN3$ ' H4' NHEE 3' $'$EO' N ' E343 o' $EO' H&' F3' I 4H C HEC' H&' $EO' N ' H&' I $4 $ J 3E' 43 $ E2' H' F<' '3 3E-3' ND' @-C H J C' J $O' Q3' 3 $D3D' CF$ # &H4&3 ' F3' ?-4$' H&' * H' F-ED43D' I H-EDC

' 3CC3 C' BH$ C' $ED MHHDC' C3 T3D' -ED34' $EO B$ ' H&' @-CR H J C' $ED' H4D343D' H' Q3' 14HC3N- 3D' CF$ ' Q3' D33 J 3D' H' Q3' NHED3 J E3D' #E 3CC' F3' < E34' 2 3C , H N3' F$' F3' E 3EDC' H N $ J

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' $ ' 3CC3 C' BH$ C' $ED MHHDC' F NF' CF$ 'F$ 3' Q33E' H4' CF$ ' Q3' F343$& 34' C3 T3D' $C' &H4&3 3D' -ED34' $EO' *$ '43 $ E2' H' F3' '3 3E-3' H&' @-C H J C' $1D' F NF' CF$ ' F$ 3' Q33E' H4' CF$ ' Q3' F343$& 34' H4D343D' H' Q3' 14HC3N- 3D' QO' & 3' @H J J CC HE34C' H&' 8 C' P $(3C O C' @-C H J C' CF$ ' F3' D33 J 3D' $4 D' Q3' $+3E' H' F3' NHED3 J E3D' $ED' J $O' F3' CH D' E' F3' P $ J 34' D 43N 3D' QO' >$ ' E' 43C13N' H' 3CC3 C' BH$ C' $ED' MHHDC' C3 T3D' $ED' NHED3H J 3D' &H4' B43$NF' H&' $EO' >$ '43 $ E2' H' F3' '3 3E-3' H&' @-C H J C' -E 3CC' F3' I34CHE' &4H J' FH J' C-NF' 3CC3 C' BH$ C' $ED' MHHDC' CF$ 'F$ 3' Q33E' C3 T3D' H4' F3' < E34' H&' F3 J ' H4' CH J 3' I34CHE' $- FH4 T3D' QO' F J ' CF$ ' F E' <E3' @$ 3ED$4' P HE F' &4H J' F3' G$O' <&' C3 T E2' F3' C$ J 3' 2 3' , H N3' E' 9 4 E2' &' E' <,#&,#' H' F3' I34CHE' C3 T E2' F3' C$ J 3' H4' H' F3' ?3N43 $4O' H4' ?H N H4' &H4' F3' @-C H J C' $ED' &' 3 C3 F343' H' F3' I34CHE' C3 T E2' F3' C$ J 3' H4' H' F3' @H 3N H4' $ED' @H J 1 4H 34' H4' H F34' NF 3&' <&& N34' H&' F3 @-C C' F3' E3$43C' I H4 F$' F3' N $ J C' F3' 3CC3 C' BH$ C' D4' MHHDC' H4' E 3EDC' H' N $ J' F3 J

34CHEC NHER N 3D' $ED EH '1$O E2 F3' I3E$ O' 5-C N3C' J$(4 NH J J '-E ' I3E$ O' 1$ D

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F343' $ O' I34CHE' CF$ ' F$ 3' Q33E' D- O' NHE N 3D' Q3&H43' $EO' * H' 5-C N3C' H&' F3' I3$N3' E' $EO' I3E$ O' H4' I3E$ 3C' -ED34' $EO' N ' EH ' 1$CC3D' H4' F343$& 34' H' Q3' 1$CC3D' &H4' F3' I43 3E HE' H&' C J -22 E2' H4' 43 $ E2' H' F3' '3 3E-3' H&' @-C H J C' H4' H' *4$D3' H4' , $ 2$ HE' $ED' C-NF' I3E$ O' H4' I3E$ 3C' CF$ 'EH ' Q3' 1$ D' C-NF' 5-C N3C' H4' @F 3' H&' F3 J ' H4' CH J 3' H F34' 5-C N3' H4' 5-C N3C' H&' F3' I3$N3C' $43' F343QO' $- FH4 T3D' $ED' '3X- 43D' QO' 9 44E' -ED34' F3 4' 8 $ED' $ED' ?3$ ' H' NH J J ' C- &&' *$4 O' H' $EO' H&' 8 C' P $(3C O C' M$H C' F E' F3 4' H4' F C' 5-4 CD N HE' F343' H' 43 J $ E' -E ' F3' I3E$ O' H4' I3E$ 3C' CF$ ' F3' 1$ D. I4H D3D' $ $OC' F$' C-NF' 9 44E C' CF$ ' $ED' J $O' Q3' 3 3N- 3D' E' $EO' I $4 'H&' F3' #E 3D' % E2DH J

U/ K Zč M # > ; > P ' ' @$1 Z Z

WW W ' ED' Q3' '&-4 F34' 3E$N 3D ' *F$ ' $ ' I 34CHEC' 3 J 1 HO3D' &H4' 3((#(F3' 143 3E HE' H&' C J -22 E2' -ED34' F3' G 43N HE' H&' F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' @-C H J C ' H4' H&' $EO' <&& N34' H4' <&& N34C' E' F3' ?34 N3' H&' F3' ' 3 3E -3' H&' @-C H J C ' CF$ ' Q3' D33 J 3D' $ED' $+3E' H' Q3' D- O' 3 J 1 HO3D' &H4' F3' I 43 3E HE' H&' C J -22 E2 ' $ED' F3' 34 J 3E ' E' $EO' E&H4 J $ HE' H4' ?- ' F$ ' C-NF' I $4 O' $C' CH' D- O' 3 J 1 HO3D' CF$ ' Q3' C-&& N 3E ' I 4HH&' F343H&' -E 3CC' F3' G3&3ED$E ' E' C-NF' E&H4 J $ HE' H4' ?- ' CF$ ' 14H 3' H' F3' NHE 4$4O

I 34CHEC' 3 J R 1 HO3D' &H4' I 43 3E HE' N C J -22 &&' Q3' D33 J 3D' D- O' 3 J R 1 HO3D

WWW ' ED' Q3' '&-4 F34' 3E$N 3D ' *F$ ' $ ' MHHDC' F3' J 1H4 $ HE' ' 3C 4 N 3D H&' F NF' C' 43C 4 N 3D ' 3 Q3 ' HE' $NNH-E ' H&' F3' * ' (!' H4') !' 1 $N3' &4H J ' F NF' F3' C$ J 3' CF$ ' Q3' Q4H-2F ' , 'H F34 C3 ' F) ')' !' , ' ' G3CN4 1 HE' $D J CC Q 3' H' 7) ' $ED' F NF' CF$ ' Q3' &H-ED' #&' 1! !&') !' *F5Z1!' E' F3' #E 3D' % E2DH J ' -ED34' $EO' >$ ' ! #(' , ') !' I 31 , 1' , ' , '5 ! ' !& #(' ; N C3 ' CF$ ' &H4' F3' I -41HC3' H&' 14HN33D E2' &H4' F3' ; H4&3 -43' H&' @) R, ! 3 !' F3 J ' H4' &H4' $EO' I 3E$ O' EN-443D' E' 43C13N ' H&' F3 J ' Q3' D3CN4 Q3D E' $EO' E&H4 J $ HE' 3 F Q 3D' HE' $NNH-E ' H&' C-NF' 6H4&3 -43' H4' I 3E$ O' $C' MHHDC' $Q 3' H' $ED' -ECF 113D' FH- ' I $O J 3E ' H&' G- 3C

WWW ' ED' Q3' '&-4 F34' 3E$N 3D ' *F$ ' &' $EO' I 34CHE' 2 EC ' FH J ' I 34CHEC' E' $' @$1 $C' CF$ ' CC-3' H- ' H&' $EO' H&' 8 C' P $(3C O C' @H-4 C' H&' ' 3NH4D CF$ ' Q3' $443C 3D' -1HE' C-NF' @$1 $C' $ED' $+3E' H' I 4 CHE' &H4' 9 $E ' H&' C-&& N 3E ' B$ ' $' @H1O' H&' F3' E&H4 J $ HE' 3 F Q 3D' 2 EC ' C-NF' Q3 E& J$ ' I 34CHE' CF$ ' Q3' C34 3D' -1HE' F J ' H4' F34' E' M$H ' H4' D3 343D' H' F3' HE M$H 34 ' %33134 ' H4' * -4E+3O' H&' F3' I 4 CHE' E' F NF' C-NF' I 34CHE' CF$ ' J$OQ3' Q3' NHE& E3D' ' $ED' &' C-NF' I 34CHE' CF$ ' E32 3N ' H4' 43&-C3' H' $113$4' H4' 1 3$D' H' F3' C$ D' E&H4 J $ HE' &H4' F3' ?1$N3' H&' * 3E O' G$OC ' 5-D2R J 3E ' CF$ ' Q3' 3E 343D' QO' G3&$- '($ED' E' N$C3' 5-D2 J 3E ' CF$ ' Q3' HQ $ E3D' 2 EC ' $EO' C-NF' I 34CHE' H4' I 34CHEC' QO' G3&$- ' 34D N ' H4' H F34 C3 ' $ED' C-NF' I 34CHE' H4' I 34CHEC' CF$ ' EH ' 1$O' F3' ?- J ' 43NH 343D' 2 EC ' F J ' F34 ' H4' F3 J ' &H4' F C ' F34 ' H4' F3 4' <&&3EN3 ' ; 3N- HE' CF$ ' Q3' F343-1HE' $ $4D3D' $ED' CC-3D ' EH ' HE O' 2 EC ' F3' BHDO' H4' BHD 3C' CH' E' I 4 CHE' $C' $&H43C$ D ' Q- ' 2 EC ' $ ' F3' ' 3$ ' $ED' I 34CHE$ ' ; C $ 3C' H&' C-NF' I 34CHE' H4' I 34CHEC ' &H4' C-NF' ?- J ' H4' ?- J C' H&' P HE3O' CH' $C' $&H43C$ D' 43NH 343D' 2 EC ' F J ' F34 ' H4' F3 J

WWW ' ED' Q3' '&-4 F34' 3E$N 3D' $ED' D3N $43D ' *F$ ' F&34Y' $EO' P$44 3D' I $4 O' NHE N 3D' Q3&H43' $EO' * H' 5-C N3C' H&' F3' I 3$N3' H&' $ EO' <&&3EN3' 9 H J 3E' J $O' 2 EC ' $EO' N ' 43 $ E2' H' F3' ' 3 3E -3' H&' @-C H J C' CF$ ' Q3' $ ' 1 OHE ' P $44 3D' 9 H J $E ' C-NF' I $4 O' CF$ ' F3' $Q 3' H' Q3' NH J J 3D' H' I 4 CHE QO' C-NF' 5-C N3C' EH FC $ED E2' F34' @H 34 -43

WWW ' ED' F343$C' HE3' H F34' H&' F3' C$ D' N C' $C' 1$CC3D' E' F3' L ! (1 ! ?$ D' ? F' =3$4' H&' 8 C' $ 3' P $(3C O C' ' 3 2E ' 3E - 3D') !' 2 / $ Y Z 3- ! (1 ! #(' , 'B4 CF' C!11!%1' $ED' ' C' 3 13D 3E ' H' 3 3ED' F3' NH 3N H4' I 4H C HEC' F343H&' H' " 1) ' I HCC3CC HEC' $ ' F NF' EH' 11H E J 3E ' F' @H 34 ' H&' @H J 1 4H 34' H&' 8 C' P $(3C O ? @-C H J C' F$C' Q33E' J $D3 ' Q3' ' H4 > 3 3' F343&H43' 3E$N 3D ' *F$ ' 'CF$ ' $ED' J $O' Q3' $ &- ' &H4' F3' @H 3N H4' H& 8 C' P $(3C O C' @-C H J C' $ ' $EO' I H4 ' H4' I $N3' E' $EO' " 1) ' I HCC3CC HE' J$ED34 Eč $ ' F NF' EH' 11H E J 3E ' H&' @H J 1 4H 34' H&' 8 C' P $(3C O C' @-C H J C' @F3&' H F$C' Q33E' J $D3 ' H23 F34' F' F3' MH 34EH4 ' > 3- 3E$E ' MH 34EH4 ' H4' @H J J $ED34' E' @F 3&' H&' $EO' C-NF' I HCC3CC HEC ' H' J $+3' ' 32 C 4O

V , ' H&' +@'#!+ (!1

U ʻ Kʻ S ʼ M#> ;>P ʻ ʻ @$1 Z

:*/ % * & Hʻ& 3CC3 C ʻ $EDʻ 24$E ʻ @34 & N$ 3Cʻ F343H& ʻ -ED34ʻ F3ʻ I 4H C HECʻ $EDʻ ' 32- $ HECʻ H&ʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ $EOʻ F E2ʻ Eʻ F3ʻ C$ Dʻ N ʻ Hʻ F3ʻ NHE 4$4Oʻ F343H&ʻEH FC $ED E2

G3N 4 HECʻ C-QC - 3Dʻ &H4ʻ <$ Cʻ F343ʻ 43 ʻ ʻ X- 43Dʻ QOʻ FYʻ '32 C 4Oʻ N Cʻ ʻ 4ʻ ʻ > ʻ 9 9

WWW ʻ EDʻ F343$Cʻ ʻ Cʻ 3 13D 3E ʻ F$ ʻ F3ʻ I 4H C HECʻ H&ʻ $Eʻ N ʻ 1$CC3Dʻ Eʻ F3ʻ 6 4C ʻ $EDʻ ?3NHEDʻ =3$4Cʻ H&ʻ 8 Cʻ 143C3E ʻ P $(3C O Cʻ ' 3 2E ʻ E - 3Dʻ / #ʻ / ' ʻ ,ʻ 4Y% 1?ʻ ' ! ʻ 6)1ʻ #&ʻ / ,#1ʻ !#ʻ #&ʻ &!ʻ #ʻ)!ʻ I 31 , 1ʻ #&ʻ8J ' 1!ʻ 2 !5 !# 1ʻ, ʻ 1ʻ U!1 1ʻ L!0!#3! ʻ #&ʻ ,ʻ 1341 3 !ʻ 2 ! '% ,#1ʻ #ʻ % !3ʻ CFH- Dʻ 3 3EDʻ Hʻ F3 <$ FCʻ EH ʻ 43X- 43Dʻ Hʻ F3ʻ $+3Eʻ FOʻ F3ʻ C$ Dʻ N ʻ &H4ʻ F3ʻ 432 C 34 E2ʻ 3CC3 C ʻ H4ʻ QOʻ $EOʻ H F34ʻ N ʻ J $D3ʻ $EDʻ 1$CC3Dʻ &H4ʻ $ 34 E2ʻ $EDʻ $ J 3ED E2ʻ F3ʻ C$ J 3ʻ(Q3ʻ ʻ F343&H43ʻ 3E$N 3D ʻ * F$ ʻ &4H J ʻ $EDʻ $& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ CHʻ J -NFʻ H&ʻ F3ʻ I 4H C HECʻ H&ʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ $Cʻ 43 $ 3Cʻ Hʻ F3ʻ G3N 4 HECʻ Eʻ 3-ʻ H&ʻ <$ FC ʻ CH 3 J Eʻ && 4 J $R HEC ʻ H4ʻ && D$ C ʻ $EDʻ Hʻ F3ʻ I 3E$ 3Cʻ F343 Eʻ NHE $ E3Dʻ &H4ʻ J $+ E2ʻ &$ C3ʻ G3N 4 HEC ʻ CF$ ʻ 3 3EDʻ H ʻ $& ʻ <$ FCʻ 43X- 43Dʻ Hʻ Q3ʻ $+3Eʻ QOʻ F3ʻ C$ Dʻ N ʻ &H4ʻ F3ʻ 432 C 34 E2ʻ H&ʻ " 1)ʻ 3CC3 C ʻ H&ʻ QOʻ $EOʻ H F34ʻ N ʻ &H4ʻ $ 34 E2ʻ $EDʻ $ J 3ED E2ʻ F3ʻ C$ J 3

NG *%ʻ ʻ , 3 ʻ G- 3Cʻ J 1HC3Dʻ #1HEʻ N34 $ Eʻ 4 N 3C

WWW ʻ EDʻ F343$Cʻ HE3ʻ H F34ʻ H&ʻ F3ʻ C$ Dʻ N Cʻ $Cʻ 1$CC3Dʻ &H4 24$E E2ʻ G- 3Cʻ H&ʻ @-C H J C ʻ $EDʻ ʻ Cʻ 3 13D 3E ʻ Hʻ $ J 3EDʻ F3ʻ C$ D N ʻ Q3ʻ ʻ F343&H43ʻ 3E$N 3D ʻ * F$ ʻ EC 3$Dʻ H&ʻ F3ʻ G- 3Cʻ J 1HC3Dʻ QOʻ F3ʻ C$ Dʻ $C J 3E HE3Dʻ N ʻ H&ʻ QOʻ $EOʻ H F34ʻ N ʻ -1<Eʻ F3ʻ C3 34$ ʻ 4 N 3Cʻ J 3E HE3Dʻ Eʻ F3ʻ * $Q 3ʻ F343 E $& 3&ʻ NHE $ E3D ʻ $EDʻ D3EHR J E$ 3Dʻ ʻʻ * $Q 3ʻ H&ʻ , 3 ʻ G- 3Cʻ E $4DC ʻ F3ʻ C3 34$ ʻ G- 3C C3 ʻ &H4 Fʻ Eʻ 6 2-43Cʻ Eʻ F3ʻ C$ Dʻ * $Q 3ʻ CF$ ʻ Eʻ 43C13N ʻ H&ʻ C-NFʻ MHHDCʻ $Cʻ $43ʻ J 3E HE3Dʻ F343 E ʻ Q3ʻ 4$ C3D ʻ 3 3D ʻ NH 3N 3D ʻ $EDʻ 1$ Dʻ -E Hʻ 8 Cʻ P $(3C O ʻ 8 Cʻ 8 3 4Cʻ $EDʻ ?-NN3CCH4C ʻ Eʻ +3ʻ P $EE34ʻ $Cʻ &ʻ C-NFʻ G- 3Cʻ F$Dʻ Q33Eʻ J 1HC3Dʻ Eʻ $EDʻ QOʻ F3ʻ C$ Dʻ $C J 3E HE3Dʻ N ʻ $EDʻ F$Dʻ Q33Eʻ C3 ʻ &H4 Fʻ Eʻ F3ʻ * 3ʻ F343-E Hʻ $EE3 3Dʻ(^ F$ ʻ Cʻ Hʻ C$O _

* B> ; ʻ < 6ʻ , ; 9 ʻ G # * ; ?ʻ , 9 ' G ? ʻ ZSU

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g h h hʻ 5H4D$Eʻ ʻ	F3ʻ @	U	[	[
b ʻ $EOʻ H F34ʻ ?H4	F3ʻ @		[	[
H3Cʻ ʻ ʻ ʻ ʻ g	F3ʻ Q	[	[	Z
F3ʻ 14HD-N3ʻ H&ʻ $EDʻ J 1H4 3Dʻ &4H J $EO B4	CFʻ I HC			
C3CC HEʻ ʻ ʻ ʻ `	F3ʻ Q	[	[	
J Q34 ʻ 4H-2Fʻ ʻ	F3ʻ Q	[	[	Y
J Q3424 C	F3ʻ HT	[	[	Y
E23 N$ʻ ʻ	F3ʻ @	[		[
EE$ Hʻ T				
6 $2ʻ ʻ ʻ ʻ	F3ʻ @	[		[
' H ʻ ʻ ʻ g 8	F&4ʻ @	[		[
E J HEO ʻ T				
h ʻ <43ʻ ʻ ʻ gg	F3ʻ * HE	[		[
ʻ ʻ ʻ ʻ ʻ @4-D3ʻ	F3ʻ @	[	Z	[
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7 ʿ SLʿ M # > ; > P ʿ @$1 Z Z

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E $ = #

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32 . ,ʿ 8 HH ʿ F3ʿ I 4HD - N3ʿ H&ʿ $EDʿ J 1H4 3Dʿ & 4H Jʿ $EOʿ B4 CF
I HCC3CC HEʿ ʿ ʿ ʿ F3ʿ @ [[
J 3E Nʿ ʿ ʿ ʿ ʿ F3ʿ @ Y Z \
C1F$ - Jʿ ʿ ʿ ʿ F3ʿ @ [\

B$ C$ J ʿ T
ʿ ʿ ʿ @ED$ʿ F3ʿ Q [[
ʿ @$1 ʿ ʿ ʿ iʿ F3ʿ @ [[
ʿ I 34 -ʿ ʿ gʿ F3ʿ Q [[
* D - F3ʿ Q [U [
B$4+ʿ T
h &H4ʿ * J E3N Cʿ "4 G O34 Cʿ # C3 F3ʿ @ [[Z
J 1H4 3Dʿ &4H Jʿ $EOʿ B4 CFʿ I HCC3CC HEʿ F3ʿ @ [[
H&ʿ H F34ʿ ?H4 C ʿ F3ʿ Q [[
; 4$N ʿ H&ʿ H4ʿ H&ʿ H F34ʿ 323 $Q 3ʿ ? - QC $EN3C ʿ Hʿ Q3ʿ - C3D
HE Oʿ &H4ʿ $EE E2ʿ ; 3$ F34ʿ J 1H4 3Dʿ &4H Jʿ $EOʿ B4 CFʿ I HC
C3CC HEʿ) ʿ ʿ ʿ ʿ g F3ʿ @ [[
B$C+3 ʿ ' HDC ʿ F3ʿ B - ED 3ʿ EH ʿ 3 N33D E2ʿ * F433 6 33 ʿ (ʿ @ 4N - J
&343EN3ʿ $ ʿ F3ʿ B$EDʿ ʿ ʿ ʿ [[
B3E($ J Eʿ H4ʿ B3ETH E ʿ F3ʿ @ [[
B344 3C ʿ F3ʿ @ [U [
B - J 3Eʿ 5 - D $N - Jʿ ʿ F3ʿ @ [[
BH4$N Nʿ N Dʿ gʿ g F3ʿ @ [[
BH4$ ʿ H4ʿ * EN$ ʿ T
' 3& E3Dʿ ʿ ʿ F3ʿ @ [[[
E43& E3Dʿ gʿ ʿ g F3ʿ @ [[
B4$T ʿ 9 HHDʿ ʿ ʿ F3ʿ * HE U [[

@$ J H J 3ʿ 6 H 343ʿ ʿ ʿ ʿ F3ʿ Q [[S
@$ J 1FH4ʿ T
' 3& E3Dʿ ʿ ʿ g F3ʿ @ U [[
h ʿ # E43& E3Dʿ ʿ ʿ F3ʿ @ [[
@$ J HHDʿ ʿ ʿ ʿ F3ʿ * HE [! [
@$E F$4 D3Cʿ ʿ ʿ ʿ ʿ F3ʿ Q [[
@$H - NFH - Nʿ ʿ ʿ ʿ 4 ʿ F3ʿ @ [X [
@$4D$ J H J Cʿ ʿ ʿ ʿ F3ʿ Q [[
@$4 J E3ʿ ʿ ʿ ʿ ʿ g ʿ F3ʿ HT [[Y
@$C H4ʿ F3ʿ Q [[Y
@F NH4O ʿ 4H$C 3Dʿ H4ʿ 24H - ED ʿ F3ʿ Q [[Y
@F E$ʿ ' HH ʿ ʿ ʿ gʿ g F3ʿ Q [[S
@ EEQ4 Cʿ , $ $ʿ ʿ ʿ g F3ʿ Q [[
@ 4$ ʿ H&ʿ > J 3ʿ ʿ ʿ g F3ʿ Q [[U
@ 4 Nʿ N Dʿ ʿ ʿ ʿ ʿ ʿ F3ʿ Q [[Y
@ H 3C ʿ J 1H4 3Dʿ &4H Jʿ $EOʿ B4 CFʿ I HCC3CC HE Eʿ C $ ʿ & N$
H4ʿ J 34 N$ʿ ʿ ʿ ʿ * : F3ʿ Q [U [
@HQ$ ʿ ʿ F3ʿ @ [[
@HNH$ʿ , - Cʿ ʿ ʿ ʿ ʿ F3ʿ Q [D Y
h ʿ F3ʿ I 4HD - N3ʿ H&ʿ $EDʿ J 1H4 3Dʿ &4H Jʿ $EOʿ B4 CF
I HCC3CC HE ʿ F3ʿ Q \ [U
8 - C+Cʿ $EDʿ ? F3 Cʿ ʿ F3ʿ Q [[
I $C 3ʿ F3ʿ I 4HD - N3ʿ H&ʿ $EDʿ J 1H4 3Dʿ &4H Jʿ $EO
B4 CFʿ I HCC3CC HEʿ F3ʿ Q [[
@H HNOE Fʿ ʿ ʿ ʿ ʿ F3ʿ Q [[U
^ - J QHʿ ' HH ʿ ʿ g F3ʿ Q [[U
@H J & Cʿ ʿ ʿ F3ʿ Q [[

UcK'S'M # > ; > P ' F ' @$1 Z

23 !1

B* @> ; ? G # *

W 1 &

@H1134' < 43' F3' I 4HD - N3' H&' $ED' J 1H4 3D' &4H J' $EO' B4 CF'
I HCC3CC HE' E' J 34 N$' ' ' ' ' F3' * HE X [[
@4$EQ344 3C' ' ' ' g' ' F3' M$ HE [[
@43$ J' H&' * $4 $4' ' ' ' ' ' F3' @ [B [
@ - Q3QC' ' ' ' ' ' ' F3' Q [\ Y
< $ 3C' ' ' ' K' g' g' F3' @ [[[
G4 - ' 8H' 1$4 N - $4 O' NF$423D' E' F C' H4' $EO' H F34' N
F 3 q [[[
; - 1FH4Q - J' ' g' ' ' ' F3' @ [[
M$ C' ' ' ' ' g' ' F3' @ [U [
M$ J QH23' ' ' F3' @ [[
M3E $E' ' ' ' ' ' ' F3' @ [[
M EC3E2' ' ' ' ' ' ' F3' @ [[
M4$E $' ' ' ' ' ' F3' Q [[U
M - J ' T7
1E$ ' @H1$ ' 4$Q N' ?3E32$ ' * 4$2$N$E F' ; $N' GO3'
?F3 $NO' N 4$ O' $ED' H F34' M E '(EH' H F34 C3' NF$423D
E' EC' N' ' ' ' ' Fb' @ [Y [
8 $ 4' T7
h @H ' < ' B - ' H4' ; +' 8 $ 4' ' ' F3' @ [[Y
8 3 3QH43' ' ' ' ' ' g' F3' Q [[
8 3 J 1' 4H - 2F' $ED' - ED43CC3D' H4' $EO' H F34' 323 $Q 3' ? - QC $EN3
H&' F3' , $ - 43' $ED' \ - $ O' H&' - ED43CC3D' 8 3 J 1' $ED' $11 N$Q 3'
H' F3' ?$ J 3' I - 41HC3C' ' ' F3' @ [[
8 HH&C' H&' @$ 3' ' ' ' &H4' 3 34O' [[' H&' F3' $ - 3 [[
5$ $1' ' ' ' g' ' FH Q [[[
53' ' ' ' ' ' ' g' g' F3' Q [$
E+' &H4' 14 E E2' ' ' ' ' F3' @ [[
5 - N3' H&' 3 J HEC' > J 3C' H4' < 4$E23C' ' ' F3' M$ HE [[[
> $N ' T
? N+' > $N' ' ' ' ' F3' @ [[
> $ J 1' B $N+' ' ' ' ' ' ' F3' @ [[
> $ 3E ' T
' B $N+' ' ' ' ' ' F3' @ [[
' ' P ' ?F$ 3E' ' ' ' ' ' F3' @ [Y [
> 3$ 3C' H&' ' HC3C' ' ' ' g' g' FH&& : 2 [U
> 3' @43$ - 43C' - C 4$ 3' H&' , $ - 4$' 8 C H4O' ' ' i 6433
P NN4HE' ' ' ' ' ' ' F3' Q [[U
P $FH2$EO_' T
J 1H4 3D' &4H J' $EO' B4 CF' I HCC3CC HE' F3' * HE' [[
' ' J 1H4 3D' &4H J' F3' B$O' H&' 8 HED - 4$C' E' $' B4 CF
?F 1' N 3$43D' H - ' &4H J' F3' I H4' H&' B3 T3' ' F3' * HE [[
P $E2$E3C3' < 43' ' ' ' ' > 3' * HE [[[
P EE' ' ' ' ' ' F3 Q [[S
P$? #4 ' ' ' ' F3' g [Y [
P 3 34C' ' ' ' ' [[
P HCC' T
' > NF3E' C $ED N - C' ' ' ' ' 3' Q [[
h' ' ' HN+' &H4' GO34 C' # C3' &' ' ' F3' * HE [! [
h h EH' H F34 C3' NF$423D' ' &H4' 3 34O' [[' H&' F3' $ - 3 ! [[
P - C+' ' ' ' ' F3' HT [[Y
P O44F' ' ' ' ' ' ' F3' @ [Y [

U4 K S7 M # > ; > P ' ' @$1 Z ZV

2 3 !1

' * @> ; ? G# * =

		&	1	&
, N$4$2-$' 9 HHD' '	F3' * HE	[		[
, - C' T				
hh ' @$CF3 ' , - C'	F3' @	[	[	[
I C $NF H' , - C'	F3' @	[	[	['
< $+ - J' ' ' '	F3' @	[	[	
< NF43' ' g'	F3' @	[		[
< ' T				
@$C H4' F3' I 4HD - N3' H&' $ED' J 1H4 3D' &4H J' $EO' B4 CF				
I HCC3CC HE' '	F3' @	[	U	Y
I 4E' ' ' ' '	F3' * - E	Z	Z	[
@F3 J N$ ' ; CC3E $ ' H4' I 34& - J 3D' T				
' ' ' H&' @44 $OC' ' '	F3' Q	[		[
' ' ' H&' @ H 3C	F3' Q	[		[
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' ' ' H&' P E	F3' Q	[		[
' ' ' H&' I 31134 J E	F3' Q	[		[
' ' ' H&' ?1 +3	F3' Q	[		[
' ' ' H&' $ ' H F34' ?H4 C	F3' Q	[		
< Q$E - J ' H4' 64$E+ EN3EC3' '	F3' @	[	Y	[
< 44 C' H4' 4 C' ' HH ' ' '	F3' @	[	[	[
< 43C' EH ' 1$4 N - $4 O' NF$423D' E' F C' H4' $EO H F34' N ' 3 N31				
* E' < 43' ' ' &H4' 3 340 [[' H&' F3 $ - 3		!	[	[
I $ E 34C' @H H - 4C' - E J $E - &$N - 43D' EH ' 1$4 N - $4 O' NF$423D' E				
F C' H4' $EO' H F34' N ' ' &H4' 3 340 [[' H&' F3' $ - 3		!	[	[
I E+' ' HH '	F3' Q	[	[	
I NF ' B - 42 - EDO' '	F3' @	[	Z	[
I H J 324E 3C' '	F3' [[[	[	!	[
h .h ' I 33 C' H&' i' '	F3' @	[		[
\ - N+C 34' '	F3' Q	[	[	
\ - EN3C	F3' [[[	[		[
' $D ' T				
@HE 4$034 $ i	F3' Q	[	[	U
13N$N - EF'	F3' Q	[		[
h h h' 413E $4 $	F3' Q	[	[	U
' 3D' 9 HHD' H4' M - E3$' 9 HHD %	F3' * HE	[	!	[
' F - Q$4Q' ' ' g	F3' Q	[		[
?$&MH 34' g' g' '	F3' @	[		[
?$2H' ' g'	F3' @	[		[
?$ ' T				
J J HE $'	F3' @	[		[
I 4 - E3 $' ' g'	F3' @	[		[
?$ 31' H4' ?$ H1' ' g'	F3' @	[		[
?$E2 - C' G4$NHE C' ' '	F3' @	[		[
?1E' 9 HHD' ' %	F3' * HE	[		[
?$4C$1$4 $' %	F3' Q	[	[	Y
?CC&4$C' ' g' ' g	3' @	[	U	[
?$ - ED34C' 9 F 3' H4' = 3 H	F3' @	[		[
' 3D' ' ' %	F3' * HE	[		[
?$ - C$23C' H4' I - DD E2C %	F3' Q	[	[	
?N$ J J HEO	F3' Q	[	U	Y

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$DC33D 4 ^F3@ [! [
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63EE3 ?33D 4 F3 @ [U [
h (3J1 ?33D i F3 \- 34 [[
hh >3 -N3 ?33 5 F3 \-$4 34 [[
*h 9H4J ?33D g F3 @ [U Y
?3EE$ F3 Q [[Y
?+EC T ?3$ E 3 EH $EE3D $ EH4 H
$EO 9 $O D43CC3D H& B4 CF $+E2 F3 GHT3E ?+EC [[
?J$ C F3 Q [[
?1D 34 E @$+3C F3 @ [U [
?1HE23 D3 Q [[Y
h F3 I4HD-N3 H& $ED J1H4 3D &4HJ $EO B4 CF IHCR
C3CC HE F3 Q G [
?XE C D4 3D D3 @ [Z [
EH D4 3D F3 @ [[
?$ 3C$N43 F3 @ [[
?33 -E 4H-2F 14 $C3D E $ED J1H4 3D &4HJ $ B4
IHCC3CC HE E C$ &4N$ H4 J34N$ F3 *HE [[
?HE3 T
P$4O3 E BHN+C g 6433
:J34O ?HE3C D3 *HE [[
?4$ &H41$ E2 g F3 @ [[[
?-NNE-J F3 Q [[Y

*$1 HN$ F3 @ [[
*$4 $4 N N D F3 Q [[
*33 F T)
h 4 ?3$ @H ?3$ 8 H E H4 ?3$ P H4C3 *33 F 3 @ [ ]
*344$ T
5$1HE N$ H4 @$ 3NF- F3 @ [[
h ?3EE$ 3 @ [[
#J F4$ 3 @ 4 [[
34D3 3 @ [[
*H4 H C3 CF3 -EJ $E-&$N -43D J 1H4 3D &4HJ $EO B4 CF IHCR
C3CC HE c F3 Q [[

$HE $ F3 @ [[
$E3 H3&3 3 Q [Y [
34 24 C F3 Q [[
34J N3 F3 Q [[U
34J HE 3 Q [[Y

9 H$D 3 @ [[
9 HHD & &H4 ?F 1 Q- D E2 J 1H4 3D &4HJ $EO B4 CF I HCC3CR
C HE 3 > J C H& 3 ; $C ED $ @HJ 1$EO C
@F$4 34 F3 >H$D H& ! [@-Q N 633 [[
J 1H4 3D &4HJ $EO H 34 I $N3 F E H C3 > J C
3 >H$D [[[

e$& 43 3 @ [[

MHHDC 9 $43C $ED P 34NF$ED T3 E3 Q3 E2 3 34 E 1$4 H4
FH O J$E-&$N -43D $ED E H F E 2 3E-J 34$ 3D H4 D3CN4 Q3D
EH4 H F34 C3 1$4 N- $4 O NF$423D F G- O E C H4 $EO
H F34 N &H4 3 34O << H& 3 $ -3

WWW ' ED' Q3' '&$4 F34' 3E$N 3D' * F$ ' F3' $DD HE$ ' G- O' H&' 'NG *%'
* F433 13EN3' 8 $ 3EEO' -1HE' F3' ?X-$43' =$4D' H&' P $E-&$N -43C' H&' > E3E' $ED' @H HE' H4' H&' > E3E' J 3D' F' @H HE' H4' F' 9 HH ' J 1HC3D' QO' F3' C$ D' $C J 3E HE3D' N ' -1HE' F3' J 1H4 $ HE' H&' C-NF' P $E-&$N -43C' &' F3' C$ J 3' Q3' 14 E 3D ' CF$ ' Q3' $ED' C-NF' G- O' C' F343QO' 4313$ 3D '

HE' 14 E 3D' ' > E3EC' $ED' @H HEC' 4313$ 3D

WWW ' ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' $ ' MHHDC' H&' 9 HH 3E' $ED' > E3E' J 3D ' F3' P $E-&$N -43' H&' F3' # E 3D' % E2DH J ' 3 1H4 3D' H' $EO' I H4 ' H4' I $N3' F E' F3' > J C' H&' F3' 8 1 ' $#& ' @H E1$EO C' @F$4 34' CF$ ' Q3' CH' 3 1H4 3D' G- O &433

@34 $ E' ; 1H4 C' H&' 9 HH 3E' $ED' > E3E' J 3D' H' Q3' G- OR &433

WWW ' ED' F343$C' E' $ED' QO' F3' C$ D' $C J 3E HE3D' N ' $ G- O' 1&' * 3E' ?F E2C' C' F' N34 $ E' ; N31 HEC' F343 E' C3 ' &H4 F ' NF$423D' -1HE' 3 340' 8 -ED43D' I H-EDC' H&' F3' $ -3' H&' " 1) ' P $E-R &$N -43C' 3 1H4 3D' &4H J ' F3' # E 3D' % E2DH J '($ED' ' C' 3 13D 3E ' H' 3 3 J 1 ' @H E' &4H J ' I $O J 3E ' H&' C-NF' G- O' ' Q3' ' F343&H43' 3E$N 3D * F$ ' @H E' CF$ ' Q3' 3 3 J 1 ' &4H J ' C-NF' G- O' E' $C' &- ' $ED' $ J 1 3' $' P $EE34' $C' &' ' 343' 3E- J 34$ 3D' $ J HE2' F3' C3 34$ ' 4 N 3C' C3 ' &H4 F' E' F3' C$ D' N ' $C' 4 N 3C' EH ' NF$423$Q 3' F' C-NF' G- O

@H E' 3 1H4 3D' 3 3 J 1 ' &4H J ' G- O

WWW W ' ED' F343$C' G4$ Q$N+C' H&' @-C H J C' $43' $ H 3D' HE' F3' ; (X(H4 $ HE' H&' N34 $ E' MHHDC' &4H J ' F3' # E 3D' % E2DH J ' $ED' ' C' 3 13D 3E ' H' D CNHE E-3' C-NF' G4$ Q$N+C' F' N34 $ E' ; N31 HEC' Q3' ' F343&H43' 3E$N 3D ' * F$ ' EH' G4$ Q$N+' H&' @-C H J C' CF$ ' Q3' $ H 3D' HE' MHHDC' 3 1H4 3D' &4H J ' F3' # E 3D' % E2DH J ' $& 34' F3' 1$CC E2' H&' F C' N ' 3 N31 ' -1HE' 9 E3 ' P $E-&$N -43C' H&' ? +' * HR Q$NNH' J $E-&$N -43D ' $ED' ' N3' H4' I $DDO

G4$ Q$N+C'

W> ' ED' F343$C' QO' $E' N ' 1$CC3D' E' F3' 6H4 O F 4D' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' !, (!' F3' * F 4D ' E - 3D' / #' / ' ' ,' !# 4%!')!' I, 11 ,#! 1' , ' 1' U!1 1' 7 ! 13 ' , ' M43$ ' B4 $ E' ,' ' ,# ' ' , ')!' * 3 ') 1!' , ')!' 2 3 !1' , ' * 1 (!' #&' " 3 (!' ` ' #!1' ' $C' 3E$N 3D ' F$ ' ' CFH- D' $ED' J 2F ' Q3' $ &- ' &H4' F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' * 43$C-40' &H4' F3' * J 3' Q3 E2 ' H4' $EO' * F433' H4' J H43' H&' F3 J ' H4' F3' > H4D' 8 2F' * 43$C-434' &H4' F3' * J 3' Q3 E2 ' HE' Q3F$ &' H&' 8 C' P $(3C O' 8 C' 8 3 4C' $ED' ?-NR N3CCH4C ' H' 43$ ' NHE 4$N ' $ED' $2433' F' F3' @F$EN3 H4' $ED' @H-EN ' H&' F3' G-NFO' H&' < #' 1 ! ' ,#' F3' B3F$ &' H&' 8 C' P $(3C O' $ED' F' F3' > 3CC33' H4' > 3CC33C' H&' F3' C$ D' G-NFO ' &H4' F3' $QCH - 3' I -4NF$C3' $ED' ?-443ED34' H&' F3' ; C $ 3' ' 2F ' * 3 ' $ED' E 343C ' H&' 8 C' P $R (3C O ' E' 4 2F ' H&' F C' C$ D' G-NFO ' $ED' H&' C-NF' > 3CC33' H4' > 3CC33C ' H&' $ED' E' F3' I 4 C$23' $EDB- 34$23' H&' 9 E3C' Q4H-2F ' E H' F3' I H4 ' H&' < 0! 5, ,% ' $ED' $& ' H F34' I H4 C ' 8$ 3EC ' @433+C ' ' 34C ' $ED' H F34' I $N3C' F E' F3' C$ D' @H-E O' I $ $ E3' H&' < #' 1 ! ' $ED' H&' $ ' F3' ' 2F C' I 4 323C' I 4H& C' $ED' H F34' D $E $23C' F$ CH3 34' F343R -E H' Q3 HE2 E2 ' &H4' C-NF' EE- O' H' Q3' NF$423D' -1HE' $ED' Q3' 1$O$Q 3' < - ' H&' F3' @HECH D$ 3D' 6 -ED ' $ ' C-NF' * J 3C' $ED' E' C-NF' P $EE34 ' $ED' -1HE' $ED' C-Q(3N ' H' C-NF' * 34 J C' $ED' @HED HEC' &H4' F3' ' 3R D3 J 1 HE' F343H& ' H4' H F34 C3' 43 $ E2' F343 H ' $C' F3' @F$EN3 H4' $ED' @H-EN ' H&' F3' C$ D' G-NFO' H&' < #' 1 ! ' $ED' F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' * 43$C-40' &H4' F3' * J 3' Q3 E2 ' H4' $EO' * F433' H4' J H43' H&' F3 J ' H4' F3' > H4D' 8 2F' * 43$C-434' &H4' F3' * J 3' Q3 E2 ' CF$ $2433

@HE& 4 J E2' F3' G- 3C' H&' I 4 C$23' $ED' B- 34$23' H&' 9 E3C' Q4H-2F ' E H' F3' @H-E O' I $ $ E3' H&' > ENC 34

23 1 $2433' -1HE ' 14H D3 ' D $ ' Eb' C-NF' @HE 4$N ' F NF' CF$ ' Q3' 3E 343D' E H' $C' $&H43C$ D' CF$ ' Q3' N$44 3D' E H' N ' -E 3CC' $ED' -E D' F3' C$J3' CF$ ' Q3' C$EN HE3D' $ED' NHE& 4J3D' QO' I$4 $J3E .' ED' F343$C' F3' @HJJ HE34C' H&' 8 C' 8 $(3C C' *43$C-40 ' HE' Q3F$ &' H&' 8 C' P$(3 O' F$ 3' $2433D' F' F3' @F$EN3 H4' $ED' @H JN ' H&' F3' G-NFO' H&' < #[' 1 ! ' HE' Q3F$ &' H&' 8 ?' P$(3C O' E' 4 2F ' H&' 8 C' C$ D' G-NFO ' $ED' F' F3' I o F ' 8HEH-4$Q 3' ?,% ' I) %!1' ;$4 ' H&' I% & ' >3CC33' H&' F3' C$ D' G- 3C' H&' I4 C$23' $ED' B- 34$23' F E' F3' C$ D' @H-E O' I$$ E3' -ED34' $ED' QO' 4 -3' H&' $' G3J C3' F343H&' E $D3' H' F J' QO' 8 C' $ 3' P 3C O' % E2' \!6 (!' F3' *F 4D' D-4 E2' F3' > 3C' H&' F J' F3' C$ D' ;$4 ' $ED' H&' F3' ' 2F ' 8HEH-4$Q 3' I) %!1' I!!O' I,5!' B$4 ' H&' < 0! 5, ,% ' &H4' F3' $QCH - 3' I -4NF$C3' $ED' ?-443ED34' H&' F3' ;C $ 3' ' 2F ' * 3 ' $ED' E 343C ' H&' 8 C' P 3C O' E' 4 2F ' H&' 8 C' C$ D' G-NFO ' $ED' H&' F3' C$ D' ;$4 ' $C' >3CC33' F343H& ' H&' $ED' E' F3' C$ D' G- 3C' H&' I4 C$23' $ED' B- 34$23' F E' F3' C$ D' @H-E O' I$$ E3' $ ' $ED' &H4' $' N34 $ E' O3$4 O' EE- O' H4' I$0 J3E ' H' Q3' NF$423D' HE' F3' @HECH D$ 3D' 6-ED ' H&' ; 2F ' Q-ED 3D' $ED' F433' IH-EDC ' H' Q3' 1$ D' H' F3' C$ D' ;$4 ' H&' I% !#&,#' F C' 83 4C ' ; 3N- H4C ' DJ E C ' 4$ H4C ' $ED' CC 2EC ' D-4 E2' F3' @HE E-$EN3' H&' F3' C$ D' >3$C3 ' $ED' & 1HJ' $ED' $& 34' J3' G3 34J E$ HE' H&' F3' C$ D' >3$C3' H' F3' ' 3N3 34' M3E34$ ' &H4' F3' * J3' Q3 E2' H&' F3' C$ D' G-NFO ' &H4' F3' #C3' H&' 8 C' P 3C (' 8 C' 83 4C' $ED' ?-NN3CCH4C ' E' 4 2F ' H&' 8 C' C$ D' G-NFO ' Q3' ' F343&H43' 3E$N 3D ' *F$ ' F3' C$ D' 2433J3E ' CF$ ' Q3' $ED' C' F343QO' E' $ ' 43C13N C' C$EN HE3D' $ED' NHE& 4J3D' ' $ED' F$ ' ' CF$ ' Q3' $ &- ' &H4' F3' >H4D' 8 2F' *43$C-434' H4' @HJJ CC HE34C' H&' F3' *43$C-40 ' H4' $EO' *F433' H&' F3J ' &H4' F3' * J3' QDE2 ' H' NF$423' -1HE' F3' @HECH ' ' D$ 3D' 6-ED' H&' F3' #E 3D' % E2DHJ' $E' EE- O' H&' ; 2F ' F-ED43D' $ED' F433' IH JDC ' 1$0$Q 3' E' 6H-4' 3X-$ ' \-$4 34 O' I$0J3E C ' H' Q3' 1$ D ' &H4' F3' I34 HD' D-4 E2' F NF' F3' C$ D' >3$C3' $C' 24$ 3D ' H' F3' C$ D' ;$4 ' H&' I% !#&,#' H' F J ' F C' 83 4C ' ; 3N- H4C ' DJ E C 4$ H4C ' $ED' CC 2EC ' $ED' C-QC3X-3E O' H' F3' *34J E$ HE' H&' F3' C$ D' I34 HD' H' F3' ' 3N3 34' M3E34$ ' H&' F3' C$ D' G-NFO' H&' < #' 1 ! ' &H4' F3' * J3' Q3 E2 ' &H4' F3' #C3' H&' 8 C' P$(3C O ' 8 C' 83 4C' $ED' ?-NN3CCH4C ' E' 4 2F ' H&' 8 C' C$ D' G-NFO ' F3' & 4C ' I$0J3E ' H' Q3' NHJ1- 3D' &4HJ' F3' G$O' H&' F3' ?-443ED34' H&' F3' C$ D' >3$C3' H' F3' E3 ' &H H E2' \-$4 34' G$O ' $ED' &4HJ' F3EN3' H' Q3' 1$ D' $ ' F3' 6H-4' JHC ' -C-$ ' \-$4 34 O' G$OC' H&' I$0J3E

!),31!' W> ' ED' F343$C' HE3' H F34' , ')!' C$ D' & 4C J3E HE3D' N C' $C' 1$CC3D' &H4' F3' $43FH-C E2' H&' MHHDC ' $ED' ' C' 3 13D 3E ' H' +H+&' @&B' $J3ED' F3' C$ D' N ' Q3' ' F343&H43' 3E$N 3D ' *F$ ' F E' <E3' PHE F' I(&I& <+E<' $& 34' $EO' @HNH$' CF$ ' F$ 3' Q33E' $43FH-C3D' ' CF$ ' $ED' J$O' Q3' L)#J) ' (' $ &- ' &H4' F3' J1H4 34' H4' I4H14 3 H4' H' QEDHE' $EO' I$4 ' F343H&' + #J ' !C7' G- O ' $ED' F3' \-$E O' H&' C-NF' @HNH$' EH ' CH' QEDHE3D ' Q3 E2' F343-1HE' $CN34 $ E3D ' CF$ ' Q3' D33J3D' H' Q3' F3' \-$E O' J1H4 3D.' I4H D3D' $ $OC ' F$ ' EH' Q$ 3J3E ' H&' G- O' CF$ ' Q3' J$D3' HE' $NNH-E ' H&' $EO' G$J$23' 43N3 3D' QO' $EO' @HNH$' D-4 E2' F3' HO$23

P I$N+$$3 ' -D' FN43$C' QO' F3' C$ D' $C J3E HE3D' N ' 9 E3' C H&' 9 E3' ' 134J 3D' H' Q3' D4$ E' H&&' E' F3' 9 $43FH-C3' E H' 431- 3D' \-$4 ' QH 3D' E' BH 3C' H4' 431- 3D' I E ' BH 3C ' $ED' C' 43X- 43D' H' Q3' 1$N+3D' E' 9 $43FH-C3' @$CNC' NHE $ E E2' EH ' 3CC' F$E' *F433' GHT3E' C-NF' \-$4 ' BH 3C 4313$ 3D '

7 ʻ K̓ Sʻ M#> ;>P ʻ ʻ @$1Z VS

H4ʻ ? ʻ GHT3Eʻ C-NFʻ I E ʻ BH 3Cʻ 3$NF ʻ &H4ʻ F3ʻ I - 1HC3ʻ HE Oʻ H&ʻ Q3 E2ʻ 3 1H4 3Dʻ &4HJʻ F3ʻ 9$43FH-C3ʻ $EDʻ ʻ Cʻ 3 13D 3E ʻ Hʻ 4313$ʻ F3ʻ C$Dʻ $C J3E HE3Dʻ ʻ 3C 4 N HEʻ $Cʻ Hʻ F3ʻ I$N+$23ʻ F343H&ʻ Q3ʻ ʻ ʻ F343&H43ʻ 3E$N 3Dʻ *F$ʻ &4HJʻ $EDʻ $& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ CHʻ J-NFʻ H&ʻ F3ʻ C$Dʻ 43N 3Dʻ N ʻ $Cʻ C< 43C 4 N Cʻ F3ʻ 5 ʻ 1H4 $ HEʻ H&ʻ 9 E3ʻ &4HJʻ F3ʻ 9$43FH-C3ʻ Eʻ @$C3Cʻ NHE $ E E2ʻ *F433ʻ GHT3Eʻ 431- 3Dʻ \-$4 ʻ BH 3Cʻ H4ʻ ? ʻ GHT3Eʻ 431- 3Dʻ I E ʻ BH 3Cʻ CF$ ʻ Q3ʻ $EDʻ F3ʻ C$J3ʻ Cʻ F343QOʻ 4313$ 3D

!),31!ʻ
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W> ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3Dʻ *F$ʻ ʻ CF$ ʻ $EDʻ J$Oʻ Q3ʻ $ &- ʻ Eʻ F3ʻ 9$43FH-C3ʻ Hʻ D4$ ʻ H&&ʻ $EOʻ 6H43 2Eʻ ?1 4 Cʻ E Hʻ 431- 3Dʻ \-$4 ʻ BH 3Cʻ &H4ʻ F3ʻ I-41HC3ʻ H&ʻ 43JH E2ʻ F3ʻ C$J3ʻ &4HJʻ C-NFʻ 9$43FH-C3ʻ &H4ʻ ; 1H4 $ HEʻ -ED34ʻ C-NFʻ ʻ 32- $ HECʻ $EDʻ ʻ 3C 4 N HECʻ $C F3ʻ @HJJ CC HE34Cʻ H&ʻ @-C HJCʻ CF$ ʻ &4HJʻ * J3ʻ Hʻ * J3ʻ 43X- 43ʻ $EDʻ D 43N

?1 4 C Eʻ F3ʻ
9$43FH-C3
#2ʻ
\-$4 ʻ BH 3Cʻ
&H4ʻ ; 1H4 $
HE

W> ʻ EDʻ F343$Cʻ ?1 4 Cʻ $43FH-C3Dʻ -ED34ʻ F3ʻ I4H C HECʻ H&ʻ F3ʻ C$Dʻ $C J3E HE3Dʻ N ʻ $43ʻ C-Q(3N ʻ Hʻ $ʻ G J E- HEʻ QH Fʻ $Cʻ Hʻ F3 4ʻ ? 43E2 Fʻ $EDʻ F3 4ʻ \-$E Oʻ &4HJʻ E$ - $ʻ @$-C3Cʻ D-4 E2ʻ F3 4ʻ @HE E-$EN3ʻ Eʻ F3ʻ 9$43FH-C3ʻ $EDʻ ʻ Cʻ 3 13D 3E ʻ F$ ʻ CHJ3ʻ H R $EN3ʻ H&ʻ G- Oʻ CFH- Dʻ Q3ʻ J$D3ʻ Eʻ 43C13N ʻ H&ʻ C-NFʻ G J E- HEʻ ʻ Q3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ *F$ʻ $Eʻ H $EN3ʻ H&ʻ G- Oʻ Eʻ 43C13N ʻ H&ʻ C-NFʻ G J E- HEʻ CF$ ʻ Q3ʻ J$D3ʻ &H4ʻ ?1 4 Cʻ F$ʻ F$ 3ʻ Q33Eʻ $43FH-C3Dʻ -ED34ʻ F3ʻ I4H C HECʻ H&ʻ F3ʻ C$Dʻ $C J3E HE3Dʻ N ʻ Eʻ 9$43FH-C3Cʻ H&ʻ C13N $ʻ ?3N-4 Oʻ -1HEʻ C-NFʻ ?1 4 Cʻ Q3 E2ʻ $+3Eʻ H- ʻ &H4ʻ 8HJ3ʻ @HEC-J1 ʻ $EDʻ F$ ʻ C-NFʻ H $EN3ʻ CF$ ʻ Q3ʻ F3ʻ $N -$ʻ G J E-R HEʻ Eʻ ? 43E2 Fʻ $EDʻ $CHʻ Eʻ \-$E Oʻ F$ʻ J$Oʻ F$ 3ʻ $+3Eʻ 1 $N3ʻ D-4 E2ʻ F3ʻ * J3ʻ F$ ʻ C-NFʻ ?1 4 Cʻ F$ 3ʻ NHE E-3Dʻ Eʻ F3ʻ 9$43FH-C3ʻ ʻ Q- ʻ F$ ʻ EHʻ H $EN3ʻ H&ʻ G- Oʻ QOʻ 4 -3ʻ H&ʻ F Cʻ N ʻ CF$ ʻ Q3ʻ J$D3ʻ Eʻ 43C13N ʻ H&ʻ $EOʻ G J E- HEʻ F NFʻ CF$ ʻ 3 N33Dʻ *3Eʻ 5! ʻ I!# 3 ʻ -ED34ʻ I4HH&

?1 4 C :
H $EN3ʻ
H&ʻ G- Oʻ &H4
G J E- HE
H&ʻ ? 43E2 F
$EDʻ \-$E O
&4HJʻ E$ -4$ʻ
@$-C3Cʻ F 3
Eʻ 9$43FH-C3ʻ
H&ʻ C13N $ʻ
?3N-4 O

W> ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3Dʻ *F$ʻ &H4ʻ $ ʻ ?1 4 Cʻ F$ʻ F$ 3ʻ Q33Eʻ $43FH-C3Dʻ Eʻ 9$43FH-C3C ʻ EH ʻ Q3 E2ʻ H&ʻ C13N $ʻ ?3N-4 Oʻ F$ʻ F$ 3ʻ Q33Eʻ $114H 3Dʻ &H4ʻ F3ʻ G31HC ʻ H&ʻ ?1 4 C ʻ $EDʻ D3N $43Dʻ Eʻ F3ʻ <4D34ʻ H&ʻ 114H $ʻ Hʻ Q3ʻ & ʻ C3N-43ʻ $EDʻ C-QC $E $ Oʻ Q- ʻ (3$4ʻ Hʻ F3ʻ -C-$ʻ I $N3Cʻ H&ʻ $ED E2ʻ $EDʻ CF 11 E2ʻ $EDʻ $114H 3Dʻ &H4ʻ $EDʻ N$1$Q 3ʻ H&ʻ $&&H4D E2ʻ 23E34$ʻ NNHJ J HD$ HEʻ F3ʻ &H H E2ʻ H R $EN3Cʻ CF$ ʻ Q3ʻ J$D3ʻ -1HEʻ F3 4ʻ Q3 E2ʻ 3E 343Dʻ &H4ʻ 8HJ3ʻ @HEC-J1R HEʻ ʻ E$J3 O

H $EN3C
p$ OHE
2E 343 &H4
8HJ3ʻ @3ER
C-J1 HEʻ

6H4ʻ 3 34Oʻ 8-ED43Dʻ M$ HECʻ 8OD4HJ3 34ʻ I4HH&ʻ @0 &!% ʻ!

- 6H4ʻ $EOʻ * J3ʻ EH ʻ 3 N33D E2ʻ ? ʻ PHE FC ʻ <E3ʻ M$ HEʻ.
- 6H4ʻ $EOʻ * J3ʻ 3 N33D E2ʻ ? ʻ PHE FCʻ $EDʻ EH ʻ 3 N33D E2ʻ * 3 3ʻ PHE FC ʻ * Hʻ M$ HECʻ.
- 6H4ʻ $EOʻ * J3ʻ 3 N33D E2ʻ * 3 3ʻ PHE FCʻ $EDʻ EH ʻ 3 N33D E2ʻ ; 2F 33Eʻ PHE FC ʻ *F433ʻ M$ HEC.
- 6H4ʻ $EOʻ * J3ʻ 3 N33D E2ʻ ; 2F 33Eʻ PHE FCʻ $EDʻ EH ʻ 3 N33D E2ʻ * Hʻ =3$4C ʻ 6H-4ʻ M$ HECʻ.
- 6H4ʻ $EOʻ * J3ʻ 3 N33D E2ʻ * Hʻ =3$4C ʻ 6 3ʻ M$ HEC ʻ ʻ

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W> ʻ I4H D3Dʻ $ $OC ʻ $EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3Dʻ *F$ ʻ EHʻ H ʻ ,Hʻ H R $EN3ʻ CF$ ʻ Q3ʻ J$D3ʻ QOʻ 4 -3ʻ H&ʻ F Cʻ N ʻ Eʻ 43C13N ʻ H&ʻ $EOʻ G3& N 3130ʻ &c 3$+$23ʻ Eʻ \-$E Oʻ Eʻ $EOʻ C-NFʻ $43FH-C3Dʻ ?1 4 Cʻ HNN$C HE3Dʻ 3 F34ʻ QOʻ H4ʻ <F34 NN D3E

Vʻ Iʻ >3$+$23ʻ

>3$+$23' H4' QO' $EO' $NN D3E $' @$-C3' H4' E' 43C13N ' H&' $EO' 243$ 34' G3& N 3ENO' F$E' F$C' $N -$ O' HNN-443D

PHD3' H&' NF$42 E2' F3' G- O' -1HE' ?-2$4' N 3$43D' &4H J' 9 $43R FH-C3' &H4' 8 H J 3' #C3

W> ' ED' Q3' '& 44 F34' 3E$N 3D' * F$ ' -1HE' F3' ; E 40' H&' $-O' ?-2$4' H' Q3' N 3$43D' &4H J' F3' 9 $43FH-C3' &H4' 8 H J 3' #C3' F3' G- O' 1OQ 3' -1HE' C-NF' ?-2$4' CF$ ' 3 N31 ' $C' F343 E $& 34' 14H D3D' Q3' NF$423D' -1HE' F3' 9 3 2F ' H&' F3' ?-2$4' $N -$ O' D3 343D' $ED' EH ' $NNH4D E2' H' F3' NNH-E ' H&' F3' \ -$E O' $+3E' $' F3' * J 3' H&' 3' $ED E2' H&' F3' C$ J 3' $EO' F E2' E' $EO' H F34' N ' H4' N C' H' F3' NHE 4$40' EH FC $ED E2'. I 4H D3D' $ $OC' F$' &' C-NF' ?-2$4' Q3' HD23D' E' 9 $43FH-C3C' EH ' Q3 E2' D3N $43D' H' Q3' H&' C13N $' ?3N-4 O' EH' 243$ 34' H $EN3' &H4' 9 $C 3' H4' G3N43 J 3E ' H&' F3' \ -$E O' $CN34 $ E3D' $' F3' * J 3' H&' $ED E2' CF$ ' Q3' J $D3' F$E' CF$ ' Q3' $& 34' F3' ' $ 3' H&' & 3' 5! ' I !# 3 ' H&' C-NF' \ -$E O' &H4' F3' & 4C ' * F433' PHE FC' $ED' * H' 5! ' I !# 3 ' J H43' &H4' 3 340' C-QC3X-3E ' PHE F' D-4 E2' F NF' C-NF' ?-2$4' CF$ ' F$ 3' 43 J $ E3D' E' C-NF' 9 $43FH-C3

H $EN3' &H4' 9 $C 3 H Q3' J $D3' E' ?-2$4' HD23D' E' 9 $43R FH-C3C' EH ' H&' C13N $' ?3N-4 O

MHHDC' 134 ' CF413D &4H J F3' 9 $43 ' FH-C3' G- O' &433$C?F 1 C' H43C'

W> ' ED' F343$C' ' C' 3 13D 3E ' H' 134 J ' 9 $43FH-C3D' MHHDC' D3 343D' E H' F3' @F$423' H&' F3' ?3$4NF34C' H' Q3' CF 113D' $C ? H43C' &H4' N34 $ E' ?F 1C' -1HE' N34 $ E' HO$23C' FH- ' ; E 40' H4' I $O J 3E ' H&' G- O' F3' ' 3E$N 3D' * F$ ' &4H J' $ED' $& 34' F3' 1$CC E2' ^51HDC' CF$ ' $ED' J $O' Q3' D3 343D' E H' F3' @F$423 ?3$4NF3(C' H' Q3' CF 113D' $C' ? H43C' FH- ' ; E 40' H4' I $O J 3E H&' $EO' G- O' &H4' $EO' ?F 1' H&' F3' B-4 F3E' H&' ?3 3E O' * HEC' $' 3$C ' QH-ED' -1HE' $' HO$23' H' 6H43 2E' I $4 C ' F3' 14HQ$Q 3' G-4$ HE' H&' F NF' <- ' $ED' 8 H J 3' &' EH ' Q3' 3CC' F$E' 6H4 O' G$O? .' I 4H D3D' $ $OC' F$ ' C-NF' MHHDC' CF$ ' Q3' CF 113D' E' C-NF' \ -$E 3C' $ED' C-Q(3N ' H' C-NF' G 43N HEC' $ED' ' 32- $ HEC' $C' F3' @H J J CC HE34C' H&' @-C H J C' CF$ ' D 43N ' $ED' $11H E

" ,3# !1

BH-E O' HE' @H4D$23' 43R 13$ 3D

W> W' ED' F343$C' QO' HE3' H F34' H&' F3' C$ D' N C' E - 3D' O' / ' ' ,' (# ' '! #' " ,3# !1' #&' / %%, F #' !1' , ' I 31 , 1' $' BH-E O' C' 24$E 3D' -1HE' F3' ; 1H4 $ HE' H&' @H4D$23' $ED' ?1-E' =$4E' $ED' ' C' 3 13D 3E ' H' D CNHE E-3' F3' C$ J 3' (Q3' ' F343&H43' 3E$N 3D' * F$ ' CH' J -NF' H&' F3' C$ D' N ' $C' 24$E C' $EO' BH-E O' <4 H $EN3' -1HE' F3' ; 1H4 $ HE' H&' @H4D$23' H4' H&' ?1-E' =$4E' CF$ ' E' 43C13N ' H&' $EO' @H4D$23' H4' ?1-E' =$4E' F NF' CF$ ' EH ' F$ 3' Q33E' CF 113D' &H ' ; R 1H4 $ HE' 14 H4' H' F3' 1$CC E2' H&' F C' N ' Q3' $ED' F3' C$ J 3' C' F343QO' 4313$ 3D

' 3C 4 N HEC' 4313$ 3D' $C' H F3' P$EE34' E' F NF' 9 E3' J $O' Q3' 3 1H4 3D' &4H J' M-34EC3O' KN

>' ED' F343$C' QO' $EH F34' N ' 1$CC3D' E' F3' C$ D' ? F' =3$ ' H&' 8 C' $ 3' P$(3C O C' ' 3 2E' E - 3D' / #' / ' ' ,' ! (3% !')!' 7 &!' , ')!' B4 CF' * ,11!11 ,#1' / 4 , &' B4$EDO' M3E3 $' H4' H F34' ?1 4 C' 3 N31 ' ' - J ' H&' F3' I $E $ HEC' $43' 14HF Q 3D' H' Q3' J 1H4 3D E H' H4' 3 1H4 3D' &4H J' F3' C $EDC' H&' 3! #1! ' ?! 1! ' / O! ! ' D4' +)' -E 3CC' E' @$C+C' H4' I $N+$23C' NHE $ E E2' $' 3$C ' 6H4 O' M$ HEC' $ED' $ CH' $EO' 9 E3' -E 3CC' E' @$C+C' NHE $ E E2' * 3E O' M$ HEC' H4' E' I $N+$23C' NHE $ E E2' $' 3$C ' * F433' GHT3E' 431- 3D' \ -$4 ' BH 3C' H4' ? ' GHT3E' 431- 3D' I E ' BH 3C' $ED' ' C' 3 13D 3E ' H' $ 34' F3' C$ J 3' F3' ' F343&H43' 3E$N 3D' * F$ ' CH' J NF' H&' F3' C$ D' 43N 3D' N ' $C' 43C 4 N C' F3' ; 1H4 $ HE' H&' 9 E3' &4H J' F3' C $EDC' H&' 3! #1! ' ?! 1! ' / %&! #! ' H4' + ' 3 N31 ' E' N34 $ E' \ -$E 3C' CF$ ' F3' $ED' F3' C$ J 3' C' F343QO' 4313$ 3D

> ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' ' CF$ ' $ED' J$O' Q3' $ &-' H' J1H4 ' E H' H4' 3 1H4 ' &4HJ' F3' C$ D' C $EDC' $EO' B4$EDO' M3E3 $' H4' H F34' ?1 4 C' E' BH 3C ' 14H D3D' F3' C$J3' Q3' J1H4 3D' H4' 3 1H4 3D' E' CX-$43 4 223D' 3CC3 C' H&' F3' B-4 F3E' H&' <E3' F-ED43D' *HEC' H4' -1 $4DC ?1 4 C' E BH 3C M-34ECN KN

> ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' $ ' G- 3C' J1HC3D' -1HE' F3' G- 'HE J1H4 $ HE' E H' $EO' H&' F3' " 1)' I HCC3CC HEC' E' / ! ' ' H&' G4-2C' MHHDC H4' H&' M-JC' H4' '3C EC' H4' H&' GO3' 9 HHD' H4' H&' @$Q E3' P$+34 C' /' HE 3C 9 HHD' H4' H&' *H4 H C3 CF3 ' H4' H&' 83J1' 6 $ ' H4' *H ' CF$ ' Q3' $ED' 4313$ 3D 3' C$J3' $43' F343QO' 4313$ 3D

> ' ED' F343$C' E' $ED' QO' F3' C$ D' $C J3E HE3D' N ' N34 $ E' 6433' I H4 C' I $N3C' E' F3' " 1)' I HCC3CC HEC' E' / ! ' ' $43' 3E-J34$ 3D' $ED' Q3' J$D3' D3N $43D' H' Q3' 6433' I H4 C' &H4' F3' I -41HC3C' H&' *4$D3' F' 6H43 2E' @H-E 4 3C' $ED' N34 $ E' I $N3C' E' F3' C$ D' I HCC3CC HEC' $43' $ CH' 3E-J3' 1k 1HC3$' 4$ 3D' $ED' D3N $43D' H' Q3' 6433' 9 $43FH-C E2' I H4 C' &H4' F3' I -41HC3' H&' $43FH-C E2' MHHDC' FH-' I $0J3E' H&' G- O' -1HE' F3' 6 4C' ; E 4O' F343H&.' ED' F343$C' 8 C' P$(3C O' C' 3J1H 343D' QO' F3' C$ D' N ' H' $11H E 'QO' <4D34' E' @H-EN ' H F34' I $N3C' H' Q3' 6433' I H4 C' $ED' 6433' 9 $43FH-C E2' I H4 C' 43C13N 3 O' $ED' $EO' I $N3C' CH' $11H E 3D' QO' 8 C' P$(3C O' Q3NHJ3' F343-1HE' 6433' I H4 C' $ED' 6433' 9 $43FH-C E2' I H4 C' 43C13N 3 O' E' $C' &- ' $ED' $J1 3' $' P$EE34' $C' &' F3' C$J3' F$D' Q33E' $11H E 3D' QO' F3' C$ D' N : ED' F343$C' F343' $43' E' F3' C$ D' I HCC3CR C HEC' J$EO' I $N3C' C -$ 3D' E' ' 34C' $ED' E' B$OC' $' F NF' ' J$O' Q3' E3N3CC$4O' H' 3C $Q CF' I H4 C' &H4' 1$4 N- $4' $ED' J 3D' I -41HC3C' HE O' (Q3' ' F343&H43' 3E$N 3D' *F$' ' CF$ ' Q3' $ &-' &H4' 8 C' P$(3C O' E' $EO' <4D34' E' @H-EN ' J$D3' &H4' F3' 11H E J3E' H&' $EO' 6433' I H4' H4' H&' $EO' 6433' 9 $43FH-C E2' I H4 ' H' J ' $ED' NHE& E3' C-NF' 11H E J3E C' 43C13N 3 O' H' $EO' $ED' C-NF' I -41HC3C' HE O' $C' CF$ ' Q3' 3 143CC3D' E' C-NF' <4D34

> ' ED' F343$C' QO' F3' C$ D' $C J3E HE3D' N ' ' C' 3E$N 3D' @H$ C' J$O' Q3' *F$' ' CF$ ' EH ' Q3' $ &-' &H4' $EO' I 34CHE' H' 43 3 1H4 ' &4HJ' $EO' H&' 8 C' P$(3C O C' I HCC3CC HEC' Q4H$D' H' $EO' 6H43 2E' I $N3' $EO' @H$ C' F3' Q*H$D' I 4HD-N3' H&' F3' #E 3D' % E2DHJ' ' Q3' '3E$N 3D' *F$' &4HJ' $ED' $& 34' -1HE' B$O' F3' 1$CC E2' H&' F C' N ' ' CF$ ' $ED' J$O' Q3' $ &-' &H4' $EO' I 34CHE' H' E$3E H&; ' 43 3 1H4 ' @H$ C' F3' I 4HD-N3' H&' F3' #E 3D' % E2DHJ ' E' +" 1)' ?F 1' ' &4HJ' $EO' " 1)' I HCC3CC HE' H' $EO' 6H43 2E' ? $ 3' -1HE' I $0J3E' H&' F3' G- O' H' F NF' C-NF' @H$ C' $43' $Q 3' -1HE' ; 1H4 $ HE' &4HJ' F3' #E 3D' % E2DHJ' H' C-NF' 6H43 2E' ? $ 3

> ' ED' F343$C' E' CHJ3' H&' 8 C' P$(3C O C' I HCC3CC HEC' Q4H$D' 'B4 CF' N34 $ E' G- 3C' H&' *H E$23' $43' QO' N C' H&' F3' HN$' >32 C $ H4C' H&' O bb3C' CF$' C-NF' I HCC3CC HEC' J$D3' 1OQ 3' E' 43C13N' H&' H4' $43' 3 3D' -1HE' 3X-$' G- 3C' " 1)' 3CC3 C' H' F NF' G- 3C' F3' +3' 3CC3 C' Q-D' F E' E' F3' @H H' C-NF' I HCC3CC HEC' H4' H E3D' QO' I 34CHEC' 43C D3E' F343' $43' EH' C-Q(3N ' E C' Q3' ' &-4 F34' 3E$N 3D' *F$' F343' CF$ ' Q3' 3 3D' $ED' 1$ D' $' F3' C3 34$' " 1)' I HCC3CC HEC' Q4H$D' -1HE' $ ' 3CC3 C' Q- ' E' $EO' C-NF' I HCC3CC HEC' H4' H E3D' QO' $EO' I 34CHE' H4' I 34CHEC' F343' 43C D3E ' H F34' F$E' @H$C E2' H4' G4H2-3 E2' 3CC3 C' 3J1 HO3D' E' NH$C E2' H4' D4H2-3 E2' $ ' C-NF' $ED' F3' +3' G- 3C' H&' DHEE$23' $ED' ?F 11 E2' G-3C' $C' $43' H4' CF$ ' Q3' 1OQ 3' E' $EO' C-NF' I HCC3CC HEC' -1HE' F3 +3

+3 " 1)' 3CC3 C Q- ' E H Fa1' I$4 C H&' 8 C P$(3C O C GH4$ E 1EC' H4 H E3D QO I34CHEC EH '43C D3E ' E C-NF I HCC3CC HEC

?1 4 C' Q3 14HD-N3 H& I HCC3CC HEC Q4H$D' E " 1H4 3D E H ,3 &H-EDR $ED &4H J' F3 #E 3D % E2R DH J ' NF$423D F G- O H& YD 134M$ HE HE

> >' ED F343$C QO F3 C$ D $C J 3E HE3D N ' ?1 4 C F3 I 4HD-N3 H&' $EO H&' F3 I HCC3CC HEC E +, &)' / ! ' ' H4 F3 !1 '$#& !1' J 1H4 3D E H E!F ,3#&% #&' &4H J' F3 #E 3D % E2DH J ' $43 NF$423$Q 3 F F3 G- O H& <E3 ?F E2 $ED ? 13EN3 5! ' M$ HE.' ED F343$C ' C 3 13D 3E ' H 3X-$ T3 F3 G- O HE C-NF ?1 4 C' F3 F34 J 1H4 3D &4H J' F3 #E 3D % E2DH J' H4 D 43N ' 4H J' F3 E ' I HCC3CC HEC E +,3)' / ! ' ', ' F3 !1 ' $#& !1-' Q3 ' F343&H43 3E$N 3D ' *F$ ' &4H J' $ED $& 34 F3 1$CC E2 H& F C N ' ?1 4 C F3 I 4HD-N3 H& F3 " 1)' I HCC3CC HEC E +,3)' / ! ' ' H4 F3 !1 ' $#& !1' J 1H4 3D E H E!F ,3#&% #& &4H J' F3 #E 3D % E2DH J ' CF$ ' Q3 NF423Q 3 J F $ G- O H& ? 13EN3 5! ' M$ HE E 3-' H& F3 G- O H& <E3 ?F E2 $ED ? 13EN3 5! ' M$ HE EH ' 1OQ 3

G 43N HEC H G C1HC$' H& C3 T3D MHHDC

> ' ED F343$C QO F3 C$ D $C J 3E HE3D N '$ ' *F E2C C3 T3D $C Q3 E2 $Q 3 H 6H4&3 -43 -ED34 F3 C$ D N ' $43 H Q3 D3 343D E H F3 @-C HDO H& F3 @H 3N H4 $ED @H J 1 4H 34 H& F3 @-C H J C $ ' F3 @-C H J' 8 H-C3 E3 ' H F3 I $N3 F343 F3 C$ E3 343 C3 T3D ' &H4 ?3N-4 O ' $ED $& 34 F3 @HED3 J E$ HE F343H& $43 H Q3 CH D QO I -Q N -N HE H F3 Q3C ' B DD34 ' $ED ' C 3 13D 3E ' H 3 3ED F3 C$ D N ' H MHHDC C3 T3D &H4 B43$NF H& $EO N ' J $D3 &H4 F3 I 43 3E HE H&' C J -22 E2 ' H4 43 $ E2 H F3 ' 3 3E-3 H& @-C H J C ' H4 H *4$D3 H4 , $ 2$ HE ' Q3 ' F343&H43 3E$N 3D ' *F$ ' &4H J' $ED $& 34 F3 1$CC E2 H& F C N '$ ' *F E2C C3 T3D E $EO H& F3 " 1 ' I HCC3CC HEC Q4H$D ' -ED34 $EO N ' J $D3 &H4 F3 I 43 3E HE H& C J -22 E2 ' H4 43 $ E2 H F3 ' 3 3E-3 H& @-C H J C H4 H *4$D3 H4 , $ 2$ HE ' CF$ ' Q3 $+3E &H4 F F $ED D3 343D E H F3 @-C HDO H& F3 @H 3N H4 $ED @H J 1 4H 34 H& F3 @-C H J C ' $ ' F3 @-C H J' 8 H-C3 E3 ' H F3 ' I $N3 F343 F3 C$ J 3 343 C3 T3D ' FH CQP ' C3N-43 F3 C$ J 3 QO C-NF P 3$EC $ED E C-NF P $EE34 $C $EO *F E2C H- D F$ 3 Q33E C3N-43D -ED34 F3 I 4H C HEC $ED G 43N HEC H& F3 $QH 3 43N 3D N ' $ED $& 34 @HED3 J E$ HE F343H& F3 @H 3N H4 $ED @H J 1 4H 34 CF$ ' N$-C3 $ ' C-NF *F E2C H Q3 CH D QO 1-Q N -N HE H F3 Q3C ' B DD34 ' I 4H D3D $ $OC ' F$ ' ' CF$ ' Q3 $ &-' &H4 F3 @H J J CC HE34C H& F3 @-C H J C H D 43N ' E F$ ' P $EE34 F3 I 4HD-N3 H& C-NF ?$ 3 CF$ ' Q3 $11 3D ' H4 ' E 3-' H& C-NF ?$ 3 ' H D 43N ' F$ ' $EO H& C-NF *F E2C CF$ ' Q3 D3C 4HO3D ' H4 CF$ ' Q3 43C34 3D &H4 F3 I -Q N ?34 N3 '

?3N-4 O H $Q D3 $E 113$' &4H J' G3N433 H& N3 DJ 4' 4$ O @H-4

> ' I 4H D3D $ $OC ' $ED Q3 '&-4 F34 3E$N 3D ' *F$ ' E $EO @$C3 E F NF I 4HN33D E2C CF$ ' F$ 3 Q33E H4 CF$ ' F343$&434 Q3 EC - 3D E $EO @H-4 ' H& N3 D J 4$ O H4 H F34 NH J 13 3E ' @H-4 ' E $EO H& 8 C P$(3C O C I HCC3CC HEC Q4H$D ' 2 EC ' $EO ?F 1' 3CC3 ' BH$ ' MHHDC ' H4 ; &&3N C ' &H4 F3 ' 3NH 34O H& $EO I 3E$ O ' H4 6H4&3 -43 -ED34 $EO N ' &H4 F3 I 43 3E HE H& C J -22 E2 ' H4 43 $ E2 H F3 ' 3 3E-3 H& @-C H J C ' H4 H F3 *4$D3 H4 , $ 2$ HE <& F3 #E 3D % E2DH J ' H4 H& $EO H& 8 C P 3C O C I HCC3CC HEC Q4H$D ' F3 ; 3N-R HE H& $EO ?3E 3EN3 H4 G3N433 43C H4 E2 C-NF ?F 1 3CC3 ' BH$ ' MHHDC ' H4 ' ; &&3N C H F3 @ $ J $E ' F343H& F NF CF$ ' Q3 14HEH-EN3D QO F3 C$ D N3 DJ 4$ O @H-4 ' E F NF C-NF I 4HN33D E2C CF$ ' F$ 3 Q33E

Q33E' F$D' CF$ ' EH ' Q3' C-C13ED3D' QO' 43$CHE' H&' $EO' 113$' F NF' =!%%*%% !#%
CF$ 'Q3' 14$O3D' $ED' $ H 3D' &4H J' C-NF' ?3E 3EN3' 14H D3D' F$' F3' , &'
I$4 O' H4' I$4 3C' 113 $ 3' CF$ '2 3' C-&& N 3E '?3N-4 O' H' Q3' $114H 3D'
H&' QO' F3' @H-4 ' H' 43ED34' $ED' D3 34' F3' ?F 1' 3CC3 ' BH$ ' MHHDC'
H4' ;&&3N C' NHEN34E E2' F NF' C-NF' ?3E 3EN3' H4' G3N433' CF$ ' Q3' 14HR
EH-EN3D' H4' F3' &- ' $ -3' F343H&' H' Q3' $CN34 $ E3D' 3 F34' QO' 2433R
J3E 'Q3 33E' F3' I$4 3C' H4' E' N$C3' F3' C$ D' I$4 3C' N$EEH' $2433'
F3E' QO' 114$ C3 J3E '-ED34' F3' - FH4 O' H&' F3' C$ D' @H-4 ' H' F3'
113 $E ' H4' 113 $E C' E' N$C3' F3' ?3E 3EN3' H4' G3N433' CH' 113 3D'
&4H J' CF$ ' Q3' 43 34C3D' $ED' C-NF' ?F 1' 3CC3 ' BH$ ' MHHDC' H4'
;& 3N C' Q3' - J$ 3 O' NHED3 J E3D

> W' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' $ ' 6 E3C' $ED' I3E$ 3C' "D,'
43NH 343D' E' $EO' C-NF' IHCC3CC HEC' -ED34' $EO' N ' H4' N C' J$D3' &H4'
F3' I43 3E HE' H&' C J -22 E2' H4' 43 $ E2' H' F3' '3 3E-3' H&' @-C HJC'
H4' H' *4$D3' H4' , $ 2$ HE' CF$ 'Q3' 1$ D' E H' F3' 8$EDC' H&' F3' @H R
3N H4' H4' @HJ1 5H 34' H&' F3' @H HEO' H4' I $N3' F343' F3' C$ J3' CF$ '
F$ 3' Q33E' 43NH 343D' H' Q3' D C 4 Q- 3D' QO' F3 J' $NNH4D E2' H' >$ '
$EO' F E2' E' $EO' N ' H4' N C' H' F3' NHE 4$4O' F343H&' EH FR
C $ED E2

>W' ED' Q3' '&-4 F34' 3E$N 3D' *F$' &' $EO' I34CHE' CF$ ' E' $EO' $'
H&' 8 C' P$(3C O C' IHCC3CC HEC' Q4H$D' NH-E 34&3 ' H4' &$ C &O' H4' &- O' &G
-C3' F3E' NH-E 34&3 3D' H4' &$ C & 3D' $EO' ;E 4O' 9 44E ' @HN+3
*4$EC 43' H4' H F34' GHN- J3E ' &H4' F3' -E $D E2' $D E2' 3E 34 E2'
431H4 E2' H4' N 3$4 E2' $EO' ?F 1' H4' 3CC3 ' H4' &H4' F3' $ED E2' CF 1R
1 E2' H4' 43 J H E2' H&' $EO' MHHDC' ? H43C' B$22$23' H4' 4 N 3' F$ R
3 34' H4' CF$ ' QO' $EO' &$ C3' ? $ 3 J3E ' 14HN-43' $EO' 9 4 E2' H4'
GHN- J3E ' H' Q3' J$D3' &H4' $EO' C-NF' I -41HC3C' H4' CF$ '&$ C3 O' J$+3'
$EO' <$ F' H4' && 4 J$ HE' 43X- 43D' QO' $EO' N ' &H4' 432- $ E2' F3'
*4$D3' H&' F3' " 1)' IHCC3CC HEC' Q4H$D' H4' CF$ ' &H423' H4' NH-E 34R
&3 ' $' @34 & N$ 3' H&' F3' C$ D' <$ F' H4' && 4 J$ HE' H4' CF$ ' 1-Q CF'
C-NF' @34 & N$ 3' +EH E2' F3' C$ J3' H' Q3' CH' &H42XD' H4' NH-E 34&3 3D'
3 34O' I34CHE' CH' H&&3ED E2' CF$ ' &H4' 3 34O' C-NF' <&&3EN3' &H4&3 ' F3'
?- J' H&' * H' F-ED43D' IH-EDC' $ED' C-NF' I3E$ O' CF$ ' $ED' J$O'
Q3' 14HC3N- 3D' C-3D' &H4' $ED' 43NH 343D' E' +3' P$EE34' $ED' QO' C-NF'
9 $OC' $ED' P3$EC' $C' $EO' I3E$ O' J$O' Q3' 14HC3N- 3D' C-3D' &H4' $ED'
43NH 343D' -ED34' F3' I4H C HEC' $ED' G 43N QEC' H&' F3' C$ D' $C '
J3E HE3D' N

>W ' ED' F343$C' QO' $EH F34' N ' 1$CC3D' E' F3' C$ D' ? F' =3$4' %.*' !+' $#
H&' 8 C' $ 3' P$(3C O' 3E - 3D' /#' / ' ' , ' !(3% #(')!' 7 &!' , ' YM 'N' !'
)!' C 3' H&' P$E' ' - J' H&' F3' " 1)' I $E $ HEC' C' 134 J 3D' H' Q3' ' J' JR
J 1H4 3D' E H' F3' C$ D' C $ED' QO' > N3EC3' H&' F3' @HJ J CC HE34C' H&' 1H4 3D' E H'
@-C HJC' $' $' G- O' H&' *F433' ?F E2C' 5! 'M$ HE' $ED' ' C' 3 13R F3' C 3' H&'
D 3E ' H' $ J3ED' F3' C$ J3' CH' F$' F3' G- O' CFH- D' Q3' 2H 34E3D' QO' P$E' H' Q3'
F3' G32433C' H&' ? 43E2 F' ' Q3' ' F343&H43' 3E$N 3D' *F$ '&4H J' $ED' NF$423D' F'
$& 34' F3' 1$CC E2' H&' F C' N ' ' - J' H&' F3' " 1)' I $E $ HEC' JR G- O' $NNH4DR
1H4 3D' E H' F3' $1%!' , ' #' -ED34' F3' > N3EC3' H&' F3' @HJ J CC HE34C' E2' H' C'
H&' @-C HJC' CF$ ' Q3' NF$423D' F' $' G- O' H&' *F433' ?F E2C' &H4' ? 43E2 F
3 34O' M$ HE' H&' C-NF' ' - J' H&' $EO' ? 43E2 F' EH '3 N33D E2' F3' ? 43E2 F'
H&' I4HH&' QO' + !1 1' 8OD4H J3 34' $ED' CH' E' 14H1H4 HE' &H4' $EO'
243$ 34' ? 43E2 F' F$E' F3' ? 43E2 F' H&' I4HH&' $ED' &H4' $EO' 243$ 34' H4'

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F*$; !$< * !VM S @ ! ' H' $11 O' H $ ' 6H43 2E' IH 343' $C' 3 ' $C' #E 3D' ? $ 3C' $ED' IH4 -2$

WW7 >' 4D ' 9F343$C' QO' E' N ' 1 ?C3D' ' F3' 6 & O E E F' =3$4' H&' F ' D2? F&' 8K' $ 3' P$(3C O' W E2' + !, (!' F3' *F 4D ' E C 3D' ?! ' ,' ' ' ,' ! !' ' ' I, ,!# ,#' , ' I, !#'!' ',#'%3&!&' 4! F!#' 1' U !1 ' #&')!' O# !&'+ !1' H J 34 N$(' #&' ' 7 ! ')')!' R F'!'L!(!#'H ID -2$ 'D 34C' I4H C HEC' 343' J$D3' 43C13N E2' F3' BF 3C'1OQ 3 ED' & 3' BQ$E 3C' $ED' H $E3&32' H' Q3' 24$E 3D' -1HE' F3' 1H4 $ DE' $ED' ; 1H4 $ HE' H&' MHHDC' 9 $43C' $ED' P 34NF$ED T3' E H' H4' &4HJ' F3' #E 3D' % E2DHJ ' E' 3CC3 C' H&' F3' #E 3D' ? $ 3C' $ED' E' IH4&32 3C3' 3CC3 C' $ED' 43C13N E2' F3' '31$O J 3E ' H' N34 $ E' MD 1 $ H4 ' BHD 3C' IH N' $ED' @H41H4$ 3' $ED' C-ED4O' H F34' I34R CHEC' H&' F3' JH-E ' H&' F3' ?-JC' H&' PHE3O' H&' F NF' F3O' H- D' Q? D314 3D' QO' J3$EC' H&' F3' C$ D' N ' ' $ED' ' $C' F343QO' 3F$@ 3D' F$ ' F3' ?$ D' N ' CFH- D' NHE E-3' E' &H4N3' CH' HE2' $C' F3' @HE 3E HE' F343 E' 43N 3D' Q3 33E' 8 C' C$ D' $ 3' P$(3C O' $ED' F3' #E 3D' ? $ 3C' H&' / ! ' '$ED' F3' *43$ O' F343 E' 43N 3D' Q3 33E' 8 C' C$ D' $ 3' P$(3C O' $ED' 8 C' 'HO$ ' 8 2FE3CC' F3' I4 EN3' '323E ' H&' *, 3(%' $ED' CH' HE2' $C' $EO' *43$ O' H' Q3' J$D3' F' $EO' 6H43 2E' IH 34' F' F3' C J $4' I4H C HE' F343 E Q3&H43' 43N 3D' CFH- D' 43' D1 N 3 O' NHE E-3' E' &H4N3' ' ED' F343$C' C-QC3X-3E O' H' F3' ;E$N ' &F DF' H&' F3' ?$ D' 43N 3D' N ' 8 C' P$(3C O' $ED' 8 C' 'HO$ ' I43D3N3CCH4C' F$ 3' J$D3' $ED' NHEN -D3D' F' D 34C' 6H43 2E' IH 34C' *43$ 3C' NHER $ E E2' I4H C HEC' C J $4' H' FHC3' 43N 3D' E' F3' C$ D' 43&N 3D' N ' $ED' 8 D-Q C' F$ 3' $4 C3E' F3 F34' $NNH4D E2' H' F3' 4-3' @HEC 4-N HE' F343R H&' F3' C$ D' N ' DH F' $11 O' $ED' 3 3ED' H' F3' *4$D3' $ED' ?F 1(FE2' H&' C-NF' H F34' 6H43 2E' IH 34C' $ED' ' C' 3 13D 3E ' F$ ' C-NF' GH-Q C' Q3' 43 J H 3D' ' Q3' ' F343&H43' $ED' ' C' F343QO' &-4 F34' 3E$N 3D' $ED' D3R N $43D' *F$ ' &4HJ' $ED' $& 34' F3' '$ & N$ HE' H&' $EO' *43$ O' F343 H&H43' J$D3' QO' 8 C' P$(3C O' <4 $EO' H&' 8 C' 'HO$ ' I43D3N3CCH4C' C-QC3X-3E O' H' F3' ;E$N J 3E ' H&' F3' C$ D' N ' H4' H&' $EO' *43$ O' F NF' J$O' F343$& 34' Q3' J$D3' QO' 8 C' P$(3C O ' 8 C' 8 3 4C' $ED' ?-NN3CCH4C' F' $ O' C-NF' 6H 3 2E' IH 34' E' 9 F NF' *43$ O' F$C' Q33E' H4' CF$ ' Q3' NHER $ E3D' I4H C HEC' C J $4' H' FHC3' 43N 3D' E' F3' C$ D' 43N 3D' N ' $ ' $ED' 3 34O' F3' I4$ C HEC' @ $-C3C' P$ 34C' $ED' *F E2C' E' F3' C$ D' 43N 3D' N ' NHE $ E3D' D D' $ED' CF$ ' $11 O' $ED' 3 3ED' H' F3' *4$D3' $ED' ?F 11 E2' H&' C-NF' 6H43 2E' IH 34C' 43C13N 3 O ' $C' &- O' $ED' 3 &3N -$ O ' H' $ ' E 3E C' $ED' I-41HC3C' $C' H' F3' *4$D3' $ED' ?F 11 E2' H&' F3' C$ D' #E 3D' ? $ 3C' $ED' H&' F3' C$ D' % E2DHJ' H&' *, 3(%

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C 4-3D ʻ $ED ʻ $11 3D ʻ $C ʻ H ʻ 2 3 ʻ &- ʻ $ED ʻ NHJ133 ʻ ;&&3N ʻ H ʻ C-NF ʻ 43C13N 3 ʻ *43$ 3C ʻ CH ʻ HE2 ʻ $C ʻ F3 ʻ C$J3 ʻ CF$ ʻ 43C13N 3 O ʻ 43J$E ʻ E ʻ &H4N3 ʻ $ED ʻ C ʻ H 14H D3 ʻ C-NF ʻ $ED ʻ HE O ʻ C-NF ʻ ED3JE O ʻ $C ʻ F343E ʻ J3E HE3D ʻ H ʻ C-NF ʻ BHD 3C ʻ I H N ʻ $ED ʻ @H41H4$ 3 ʻ $ED ʻ H F34 ʻ I34CHEC ʻ $C ʻ $43 ʻ F343E ʻ J3E HE3D ʻ &H4 ʻ C-NF ʻ >HCC3C ʻ $C ʻ F3O ʻ CF$ ʻ 43C13N 3 O ʻ C-C $E ʻ QO ʻ F3 ʻ ; 3N- HE ʻ HE ʻ F3 ʻ I$4 ʻ H& ʻ 8 C ʻ P$(3C O ʻ 8 C ʻ 8 3 4C ʻ $ED ʻ ?-NN3CCH4C ʻ H& ʻ C-NF ʻ 43C13N 3 ʻ *43$ 3C G (%

>W ʻ ED ʻ &H4 ʻ F3 ʻ I43 3E HE ʻ H& ʻ #EN34 $ E O ʻ F343 E ʻ Q3 ʻ ʻ &-4 F34 ʻ 3E$N 3D ʻ *F$ ʻ ʻ CF$ ʻ $ED ʻ J$O ʻ Q3 ʻ $ &- ʻ &H4 ʻ 8 C ʻ P$(3C O ʻ 8 C ʻ 8 3 4C ʻ $ED ʻ ?-NN3CCH4C ʻ QO ʻ $EO ʻ <4D34 ʻ H4 ʻ <4D34C ʻ H ʻ Q3 ʻ QO ʻ 8 J ʻ H4 ʻ *F3J ʻ J$D3 ʻ F ʻ F3 ʻ D N3 ʻ H& ʻ 8 C ʻ H4 ʻ *F3 4 ʻ I4 O ʻ @H-EN ʻ $ED ʻ 1-Q CF3D ʻ E ʻ F3 ʻ <,#&,# ʻ ! ! ʻ &4HJ ʻ * J3 ʻ H ʻ * J3 ʻ H ʻ D3N $43 ʻ F$ ʻ $43 ʻ F3 ʻ 6H43 2E ʻ IH 34C ʻ F ʻ F NF ʻ $EO ʻ C-NF ʻ *43$ O ʻ H4 ʻ *43$ 3C ʻ $C ʻ $&H43C$D ʻ C ʻ H4 ʻ $43 ʻ C-QC C E2 ʻ $ED ʻ F C ʻ 143C3E ʻ N ʻ $ED ʻ F3 ʻ C$D ʻ 43N 3D ʻ N ʻ CF$ ʻ $11 O ʻ $ED ʻ CF$ ʻ Q3 ʻ D33J3D ʻ &4HJ ʻ F3 ʻ * J3 ʻ H& ʻ F3 ʻ '$ &N$ HE ʻ H& ʻ $EO ʻ C-NF ʻ *43$ 3C ʻ H ʻ F$ 3 ʻ Q33E ʻ $11 N$Q 3 ʻ H ʻ F3 ʻ *4$D3 ʻ $ED ʻ ?F 11 E2 ʻ H& ʻ C-NF ʻ 6H43 2E ʻ @H-E 4 3C ʻ $C ʻ CF$ ʻ Q3 ʻ CH ʻ J3E HE3D ʻ E ʻ $EO ʻ C-NF ʻ <4D34 ʻ H4 ʻ <4D34C ʻ E ʻ @H-EN ʻ $C ʻ $&H43C$D ʻ CH ʻ HE2 ʻ $C ʻ $EO ʻ C-NF ʻ <4D34 ʻ H4 ʻ <4D34C ʻ CF$ ʻ NHE E-3 ʻ -E43 H+3D ʻ $ED ʻ EH ʻ HE234

8 C ʻ P$(3C O ʻ F ʻ D N3 ʻ H& ʻ I4 O ʻ @H-EN ʻ H ʻ D3N $43 ʻ F3 ʻ IH 34C ʻ F ʻ FHJ ʻ *43$ 3C ʻ $43 ʻ C-QC C E2

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> 8 ; ' ; ?ʻ $4 H-Cʻ 8H-C3Cʻ H&ʻ ED-C 4O ʻ E& 4 J $4 3C ʻ 8 HCR 1 $ C ʻ >-E$ Nʻ CO - J C ʻ G C13EC$4 3C ʻ$EDʻ H F34ʻ @F$4 $Q 3ʻ ; C $Q CF J 3E Cʻ Eʻ $!% #&ʻ $43ʻ C-11H4 3Dʻ Eʻ F3ʻ FH 3ʻ H4ʻ Eʻ 1$4 ʻ QOʻ M4$EDʻ 5-4Oʻ I 43C3E J 3E : EDʻ F343$Cʻ ʻ Cʻ 3 13D 3E ʻ Hʻ 14H D3ʻ &H4ʻ F3ʻ J H43ʻ 3&&3N -$ʻ ?-134 E 3ED3EN3ʻ $EDʻ EC13N HEʻ H&ʻ FHC3ʻ ; C $Q CF J 3E C ʻ $EDʻ &H4ʻ F3ʻ -D ʻ $EDʻ ; $ J E$ HEʻ H&ʻ F3 4ʻ NNH-E C: B3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ J HC ʻ ; N3 3E ʻ P $(3C O ʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3E ʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ʻ ʻ$EDʻ *3 J 1H4$ ʻ $EDʻ @H J J HEC ʻ Eʻ F Cʻ 143C3E ʻ I $4 $ J 3E ʻ $CC3 J Q 3Dʻ $EDʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$J 3ʻ *F$ʻ &4H Jʻ $ED $& 34ʻ F3ʻ @H J R J 3EN3 J 3E ʻ H&ʻ F Cʻ N ʻ ʻCF$ ʻ$EDʻ J $Oʻ Q3ʻ $ &-ʻ &H4ʻ F3ʻ M4$EDʻ 5-4Oʻ H&ʻ $EOʻ @H-E O ʻ @H-E Oʻ H&ʻ $ʻ @ O ʻ H4ʻ @H-E Oʻ H&ʻ $ʻ *H Eʻ Eʻ $!% #&ʻ C$ 3ʻ $EDʻ 3 N31 ʻ F3ʻ M4$EDʻ 5-4Oʻ H&ʻ F3ʻ @ Oʻ H&ʻ 2 34% # ʻ $EDʻ 3$NFʻ $EDʻ 3 34OʻC-NFʻ M4$EDʻ 5-4Oʻ Cʻ $EDʻ $43ʻ $- FH4 T3D ʻ 3 J 1H 343D ʻ $EDʻ 43X- 43D ʻ $ ʻ 3$NFʻ $EDʻ 3 34Oʻ H4ʻ $EOʻ CC T3Cʻ H4ʻ I 43C3E E2ʻ *34 J ʻ 43C13N 3 O ʻ Fʻ F3ʻ @HEC3E ʻ $EDʻ 114HQ$ HEʻ H&ʻ F3ʻ @H-4 ʻ H4ʻ 5-D23 ʻ Hʻ $11H E ʻ EH ʻ 3CCʻ F$Eʻ ; 2F ʻ H4ʻ J H43ʻ F$Eʻ * 3 3ʻ I 34CHEC ʻ <E3ʻ 8 $ &ʻ H&ʻ FH J ʻ $ F3ʻ 3$C ʻ CF$ ʻ Q3ʻ 5-C N3Cʻ H&ʻ F3ʻ I 3$N3ʻ &H4ʻ F3ʻ @H-E O ʻ @H-E Oʻ H&ʻ $ʻ @ O ʻ <4 @H-E Oʻ H&ʻ $ʻ *H Eʻ F343 Eʻ C-NFʻ 11H E J 3E ʻ CF$ ʻ $+3ʻ 1 $N3 ʻ Hʻ Q3ʻ $ʻ BH$4Dʻ H&ʻ ?-134 E 3ED$EN3ʻ H&ʻ 3$NFʻ $EDʻ 3 34Oʻ @F$4 $Q 3ʻ
Vʻ ' ʻ ; C $Q CF J 3E

M4$EDʻ 5-4 3Cʻ J $Oʻ $11H E ʻ BH$4DCʻ H&ʻ ?-134 ER 3ED3EN3ʻ H&ʻ Q3@F$4 $Q 3ʻ %C $Q CF ʻ J 3E Cʻ C-1 ʻ 1H4 3Dʻ QOʻ I 43C3E J 3E ʻ F E F3ʻ C3 34$ʻ @H-ER 3C ʻ KN ʻ H&ʻ 43 $ED

;C $Q CFJ3E ' C-11H4 3D' E' F3' FH 3' H4' E' 1$4 ' QO' M4$ED' 5-40'
I43C3E J3E ' F E' C-NF' @H-E O ' @H-E O' H&' $' @ O ' H4' @H-E O' H&' $'
*H E' 43C13N 3 O ' $ED' F$ ' 'CF$ ' $ED' J$O' Q3' $ &- ' &H4' F3' M4$ED'
5-40 ' $ ' $EO' C-QC3X-3E ' CC T3C' H4' I43C3E E2' *34 J ' &H4' $EO' C-NF'
@H-E O ' @H-E O' H&' $' @ O ' H4' @H-E O' H&' $' *H E ' H' $11H E ' $' E3 '
BH$4D' 1&' ?-134 E 3ED3EN3 ' H4' H' 43 J H 3' $EO' P 3 J Q34' H4' P 3 J Q34C' H&'
F3' 3 C E2' BH$4 ' $C' F3O' CF$ ' F E+' 14H134 ' $ED' $C' F3' @$C3' J$O'
43X- 43 ' Q- ' CH' F$ ' F343' CF$ ' EH ' Q3' $ ' $EO' <E3' * J 3' J H43' 4$E'
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BH$4D' H&' ?-134 E 3ED3EN3 ' <E3' H&' FH J' $ ' F3' 3$C ' CF$ ' Q3' $' 5-C N3'
H&' F3' I 3$N3 ' CF$ ' Q3' E' D ' @$C3C' NH J 13 3E ' H' DH' H4' 134&H4 J ' $EO'
P $ 34' H4' *F E2' F$ CH3 34' E' 3 3N- HE' H&' $EO' G - O' 43X - 43D' H'
Q3' DHE3' $ED' 134&H4$ 3D' QO' F3' FH 3' BH$4D' H&' ?-134 E 3ED3EN3' E'
4 -3' H&' $EO' I H 34C' 24$E 3D' H' F3 J ' QO' F C' N ' $ED' 3 34O' N '
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I 3$N3 ' CF$ ' Q3' $C' $ D' $1D' 3&&3N -$ ' H' $ ' E 3E C' $ED' I -41HC3C'
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G- 3C' H&' F3' BH$4DC' H&' ?-134 E 3ER D3EN3

' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' ' CF$ ' $ED' J$O' Q3' $ &- ' &H4'
C-NF' BH$4D' H&' ?-134 E 3ED3EN3' H' C ' $ED' EC13N ' 3$N(' $ED' 3 34O'
C-NF' NF$4 $Q 3' H4' 1-Q N' ;C $Q CFJ3E ' $C' $&H43C$ D ' &4H J ' * J 3' H'
* J 3' $C' F3O' CF$ ' F E+' & ' $ED' H' EX- 43' E H' $ED' 3 $ J E3' E H' F3'
P E23 J 3E ' $ED' G CN 1 E3' F343H&' $ED' E H' F3' P HD3' E' F NF' F3'
C3 34$ ' >$ C ' ' - 3C ' $ED' G 43N HEC' &H4' F3' ' 32- $ HE' H&' C-NF' @F$R
4 $Q 3' ;C $Q CFJ3E C' $43' N$44 3D' E H' 3&&3N ' $ED' H' F3' NNH-E C' H&'
' 3N3 1 C' $ED' ; 13ED -43' F3' 3ED$EN3' 2 3E' QO' F3' C3 34$ '
<&& N34C' $ED' 3ED$E C ' $E&' $ ' C-NF' H F34' P $ 34C' $ED' *F E2C' $C'
43 $ 3' F343 H ' $ED' $ CH' H' 3 $ J E3' E H' F3' ? $ 3' $ED' ' 31$ 4' H&' F3'
B- D E2C ' F3' @HED-N ' $ED' ? -$ HE' H&' F3' C3 34$ ' I$ 3 I C' $ED'
E J $ 3C ' $ED' H&' $ ' <&& N34C' H4' 3ED$E C ' $ED' H' $-D ' $ED' 3 $ J E3'

' 31H4 ' -1HF' 3$NF' ;C $QR CFJ3E ' H' Q3' J$D3' H' M4$ED' 5-40' $ ' CC T3C

F3' NNH-E C' $ED' H-NF34C' H&' C-NF' ;C $Q CFJ3E C ' $C' $&H43C$ D ' $ED'
C-NF' BH$4D' H&' ?-134 E 3ED3EN3' CF$ ' J $+3' $' ' 31H4 ' -1HE' 3$NF' C-NF'
;C $Q CFJ3E ' H' F3' M4$ED' 5-40' $ ' 3$NF' $ED' 3 3 O' CC T3C ' C-NF'
' 31H4 ' NHE $ E E2' $' ? $ 3 J 3E ' H&' ENH J 3' $ED' ; 13ED -43' H&' F3'
?$ $4 3C' 1$ D ' $ED' 3ED$EN3' 2 3E' QO' <&& N34C ' $ED' F3' , - J Q34' H&'
I $ 3E C' $D J 3D' $ED' D CNF$423D ' $ED' @H1 3C' H&' C-NF' ' 31H4 C' CF$#'
Q3' $EE-$ O' 14 E 3D' QO' C-NF' M4$ED' 5-40' F' F3' > C ' H&' I43C3E J3E C'
J $D3' $ ' 3$NF' CC T3C

I4H C HE' &H4' C3N-4 E2' F3' ' 2F C' H&' MH 34EH4C ' KN

' 14H D3D' $ $OC ' $ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' EH F E2' E'
F C' N ' NHE $ E3D' CF$ ' J ' H4' $Q4 D23' F3' 32$ ' I H 34C' $ED' - FH '
4 3C' H&' F3' C3 34$ ' G 43N H4C ' MH 34EH4C ' ?-QCN4 Q34C ' @H J J 33C ' H4'
P E234C ' QO' F$ 3 34' , $ J 3' F3O' J $O' Q3' N$ 3D ' H' FH J ' F3'
?-134 E 3ED3EN3' $ED' @HE 4H ' H&' F3 4' C3 34$ ' @F$4 $Q 3' ;C $Q CFR
J 3E C' C' E 4-C 3D

> < , G < , ' I4 E 3D' QO' # @ . ' / +' &++' $ED') * ++ , ' O1 . 223% , . . * '
I4 E 34C' H' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' ZSU

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M # > ; > P ' ' ' ; M ?

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' N ' H' $ J 3ED' $E' N ' H&' F3' 6H4 O & & F' =3$4' H&'
8 C' P $(3C O' % E2' ! ' F3' * F 4D ' 43 $ E2' H'
I HC ' ' H$DC' E' ' ISD' # ' ZSU m

8 ; ' ; ?' QO' $E' N ' 1$CC3D' E' F3' 6H4 O & & F' =3$4' H&'
F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' M3H423' F3' * F 4D ' E R
I - 3D' / #' / ' ' ,' !#&') !' < F1' , ' 5 ,0 # (' #&' ! ! 5 # (' 9.' : 9 '
#' ! 5 ') !' * , 1 ' L , &1' #' 43 $ED ' #&' , ' ! #& ! # (') !' I , #0 ! #' !'
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$ED' QO' $' N34 $ E' H F34' / ' ' 1$CC3D' E' F3' 6H4 O C F' =3$4' H&' F3'
' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' ! , (!' F3' * F 4D ' E - 3D' / #' / ' ' 9 : 9'
,'5 ,0 & !' , ') !' + ! ' 3 ' #&' 8 J5 ! & , #' , ') !' I , #0 ! #' !' , '< ! ! 1'
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6 & O F 4D' =3$4' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' ! , (!' F3' * F 4D '
E - 3D' / #' / ' ' ,' ! #&' # / ' ' & !' #') !' R , ') ' H ! ' , ' 1' . : H1 9 '
5 ! 1 ! # ' U ! 1 ' # 3% ! &' ' / #' / ' ' ,' ! #&') !' < F1' , ' 5 ,0 # ('
7 #&' ! ! 5 # (' #' ! 5 ') !' * , 1 ' L , &1' #' 43 $ED ' #&' , ' ! #& ! # ('
7) !' I , #0 ! #' !' , '< ! ! 1' 4 ' 1' U ! 1 1' * , 1 ' 6 ' !' , !' 1 ! ' 3 !'
7 #&' ! J5 ! & , 31 ' I 4H C HE' $C' J $D3' &H4' F3' ' 31$ 4' $ED' J 14H 3R
J 3E ' H&' F3' C3 34$ ' > E3C' H&' I HC ' ' H$DC' F4H - 2FH - ' $! % #& ' $ED '
$ J HE2C ' H F34' * F E2C ' 8 C' P $(3C O C' I HC J $C 34' M3E34$ ' &H4' $! % #&'
$C' $ - FH4 T3D' $ED' 43X - 43D' H' N$ - C3' N34 $ E' ? - 4 3OC ' ; C J $ 3C ' $ED'
P $1C' H&' C - NF' > E3C' H&' ' H$D ' $ED' $ ' $D $E $23H - C' J 14H 3 J 3E C' H&'
F3' C$ J 3 ' QO' N - E2' H&&' E2 3C' H4' &H4 J E2' E3 ' > E3C ' $ED' D3E E2
V' ? H

H' $EO' B43$D F' EH ' 3CC' F$E' 6H4 O H' 633 ' E<4' J H43' F$E' 6 & O' 633 ' C-NF' I$4 C' H&' $EO' ' H$D' $C' J 2F ' 43X- 43' D3E E2' ' ED' F343$C' QO' $E' N ' 1$CC3D' E' F3' 6 4C ' =3$4' H&' F3' ' 3 2E' H&' 8 C' 143C3E ' P$(3C O'
9 ' 'N' , E - 3D' / ' ' , ' !# 4% #(' 1' U!1 ' ,' 55, #' ' ' * ,1 1 ! ' !#! % , ' !' O# !&' #(&, ' , 'M43$ ' B4 $ E' #&' 43 $ED ' ' $C' $ J HE2C ' < F34' *F E2C' 3E$N 3D ' F$ ' ' CFH- D' Q3' $ &-' &H4' 8 C' P$(3C O ' 8 C' 8 3 4C' $ED' ?-NN3CCH4C ' H' $11H E ' $EO' < E3' I 34CHE' H' Q3' I HC J $C 34' M3E34$ ' &H4' F3' #E 3D' % E2DH J ' H&' ! ' " #' $ED' $!% #& ' QO' F3' , $ J 3' $ED' ? O 3' H&' 8 C' P$(3C O C' I HC J $C 34' M3E3R 4$ ' $ED' $ ' F3' I H 34C ' - FH4 3C ' J J -E 3C ' ' 2F C ' $ED' I 4 R 323C' F343 H&H43' Q3 HE2 E2' H4' $1134 $ E E2' H' F3' I HC $ $C 34' M3E34$ ' &H4' $!% #&' C&343' QO' F3' C$ D' $C 43N 3D' N ' H23 F34' F' H F34' I H 34C$ED' - FH4 3C ' 4$EC&3443D' H' $ED' 3C 3D' E' F3' I 34CHE' CH' H' Q3' $11H E 3D' I HC J $C 34' M3E34$ ' &H4' F3' #E 3D' % E2DH J ' H&' ! ' " #' $ED' $!% #& ' $ED' H F34' 8 C' P$(3C O C' GH J E HEC.' ED' F343$C' $ ' F3' I H 34C ' G- 3C ' $ED' - FH4 3C' QO' F3' Q3&H43 ' 43N 3D' N C' H&' F3' 6H4 O & & F ' 6H4 O C F ' $ED' 6 & O F 4D' =3$4C' H&' F3' ' 3 2E' H&' 8 C' $ 3' P$(3C O' % E2' ! , (!' F3' *F 4D ' E' 43C13N ' H&' F3' 14HN-4 E2' ?-4 3OC ' P$1C ' I $EC ' $ED' ;C J $ 3C' H&' I HC ' ' H$DC' E' $!% #& ' $ED' $ ' J 14H 3 J 3E C' H&' F3' C$ J 3' H' Q3' J $D3 ' 343' 4$ECR &3443D' H' $ED' 3C 3D' E' F3' @H J J CC HE34C' &H4' F3' 6(3N- HE' H&' $E'

KU9 ' ' N' SS N ' 1$CC3D' E' F3' $C ' ?3CC HE' H&' I $4 $ J 3E ' E - 3D' / #' / ' ' , ')!' 8J !#1 ,# #&' * , , ,#' V ' *34% '' , 1' #' 43 $ED.' ED' F343$C' ' C' D33 J 3D' 3 13D 3E ' H' 3 3ED' F3' I 4H C HEC' H&' F3' C$ D' N C' H&' F3' 6H4 O & & F ' 6H4 O C F ' $ED' 6 & O F 4D' =3$4C' H&' F3' ' 3 2E' H&' 8 C' C$ D' $ 3' P$(3C O' % E2' ! , (!' F3' *F 4D' ,' ' H$DC' H&' $' B43$D F' EH ' 3CC' F$E' *F 4 O H' 633 ' Q3' ' F343&H43' 3E$N 3D' QO' F 3' % E2 C' J HC ' ; N3 3E ' P$(3C O ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$ ' $ED' *3 J 1H4$ ' $ED' @H J J HEC ' E' F C' 143C3E ' I $4 $R J 3E ' $CC3 J Q 3D ' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3 ' *F$ ' $ ' $ED' C E2- $4' F3' I H 34C ' - FH4 3C ' J J -E 3C ' ' 2F C ' $ED' I 4 323C' 3C 3D' E' F3' I HC J $C 34' M3E34$ ' H4' E' F3' C$ D' @H J J CC HE34C' &H4' F3' ; 3N- HE' H&' F3' C$ D' N ' &H4' I -Q N' 9 H4+C' O ' $!% #& ' $C' $ Q3' C-4 3O E2 ' J $+ E2 ' &H4 J E2 ' 24$ 3 E2 ' &3EN E2 ' D3E E2 ' $ED' 431$ 4 E2' H&' ' H$DC' E' $!% #&' H&' $' 9 D F' EH ' 3CC' F$E' 6H4 O H' H4' J H43' F$E' 6 & O' 633 ' CF$ ' 3 3ED' H' ' H$DC' H&' $' 9 D F' EH ' 3CC' F$E' *F 4 O H' 633 ' EH4' J H43' 6 & O' 633 ' $ED' $ ' ?-4 3OC ' P$1C ' I $EC ' $ED' ;C J $ 3C' J $D3' H4' H' Q3' J $D3' H&' C-NF' $C J 3E HE3D' ' H$DC' CF$ ' Q3' D33 J 3D' $ED' $+3E' H' Q3' , '% !' ; && N$NO' $ED' - FH4 O' E' $ ' 43C13N C ' $ED' D3$ ' F' $ED' $N 3D' -1HE' E' +3' P$EE34 ' $C' ?-4 3OC ' P$1C ' I $EC ' $ED' ;C J $ 3C' J $D3' H&' $EO' ' H$D' E' $!% #&' H&' $' 9 D F' EH ' 3CC' F$E' 6H4 O H' 633 ' H4' J H43' F$E' 6 & O' 633 ' $ED' $ ' $ED' C E2- $4' H F34' F3' I H 34C' $ED' I 4H C HEC' NHE $ E3D' E' F3' C$ D' 43N 3D' N C' H4' $EO' H&' F3 J ' 43 $ E2' H' ' H$DC' H&' 3' 9 D F' H&' 6H4 O H' 633 ' CF$ ' 3 3ED' $ED' F3' C$ J 3' $43' F343QO' 3 3ED3D' H' ' X$DC' J $D3' H4' H' Q3' J $D3' E' 1-4C-$EN3' H&' F C' N ' $C' &- O' $ED' 3&&3N -$ O' $C' &' C-NF' I H 34C' $ED' I 4H C HEC' 343' 4313$ 3D' $ED' 43R 3E$N 3D' E' F C' N ' CH' &$4' $C' C-NF' I H 34C' $ED' I 4H C HEC' $43' $11 ' N$Q 3' H' $ED' $43' EH ' 4313$ 3D' H4' $ 343D' QO' F C' N

IH 34C' H&' 43N 3D' N C' 3 3ED3D' H' ' H$DC' H&' $ N34 $ E' DF

9 D F' H&' ' H$D' F343' P$ ' D4$ E' ' I 4H D3D' $ $OC ' $ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' E' N$C3' 8 C' P$(3C O C' P$ ' CF$ ' Q3' N$44 3D' Q3 33E' $EO' * H' I $N3C ' E' $ P$ h 4

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J $+3ʻ $EOʻ ' H$Dʻ -ED34ʻ F3ʻ I 4H C HECʻ H&ʻ F3ʻ C$ Dʻ 43N 3Dʻ N Cʻ H&ʻ $ʻ
9 D Fʻ EH ʻ 3CCʻ F$Eʻ * 3E O &H-4ʻ 633 ʻ EH4ʻ J H43ʻ F$Eʻ 6 & Oʻ 633 ʻ
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F$ 3ʼ &4H Jʼ * J 3ʼ Hʼ * J 3ʼ Q33Eʼ J $D3ʼ Eʼ 43C13N ʼ H&ʼ C-NFʼ ' 32 C 34ʼ <&& N3ʼ
$EDʼ 1$4 N- $4 Oʼ QOʼ $Eʼ N ʼ H&ʼ F3ʼ , E Fʼ =3$4ʼ H&ʼ F3ʼ ' 3 2Eʼ H&ʼ 8 Cʼ $ 3ʼ
P $(3C Oʼ #(ʼ ! , (!ʼ F3ʼ 6H-4 F ʼ E - 3Dʼ / #ʼ / ' ʼ ,ʼ5 ,0 &!ʼ , ʼ) !ʼ VMʼ ʼN ! ʼ
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@H J J CC HE34Cʼ H&ʼ 8 Cʼ P $(3C O Cʼ *43$C-40 ʼ -ED34ʼ F3ʼ - FH4 Oʼ H&ʼ
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?3% ʼ Eʼ F3ʼ =3$4ʼ <E3ʼ FH-C$EDʼ 3 2F ʼ F-ED43Dʼ $EDʼ F 4 Oʼ $11H E 3Dʼ
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$EDʼ N34 $ Eʼ H F34ʼ 11H E J 3E Cʼ Eʼ F3ʼ C$ Dʼ <&& N3ʼ 343ʼ F3Eʼ $ CHʼ
J $D3.ʼ EDʼ F343$Cʼ GH-Q Cʼ F$ 3ʼ $4 C3Eʼ $Cʼ Hʼ F3ʼ @HEC 4-N HEʼ H&ʼ
N34 $ Eʼ H&ʼ F3ʼ I 4H C HECʼ J $D3ʼ QOʼ F3ʼ C$ Dʼ N Cʼ Eʼ 43C13N ʼ Hʼ F3ʼ C$ Dʼ
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, E F =3$4 H&' 8 C $ 3' P$(3C O' % E2' !, (!' F3' 6H-4 F' F$ 3' 33E &H-ED' ENHE 3E 3E ' $ED' H F34C' H' HN3$C H#' $E' -E43$CHE$Q 3' ; 13EN3' 3' I$4 3C' 43CH4 E2' &H4' E&H4J$ HE' H' F3' C$D' '32C 34' <&& N3' $ED' F3' 43J$E E2' I4H C HEC' H' 43X- 43' 34$ HEC' $ED' J3EDJ3E C' H' Q3' J$D3' F343 E'.' 6H4' '3J3DO F343H&' ' C' 43X-C 3' F$' F3' ?$D' $C J3E HE3D' N'CFH- D' Q3' 4313$ 3D'Q-' FH-' E $ D$ E2' F3' $&H43C$ D' 11H E J3E C' $ED' $ CH' F$' H F34' I4H C HEC'CFH- D' Q3' J$D3' &H4' F3' &- -43' '32- $ HE' H&' F3' C$ D' '32C 34' <? N3' B3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' JHC' ; N3 3E' P$(3C d ' QO' $ED' F' F3' D N3' $ED' @HEC3E' H&' F3' >H4DC' ?1 4 -$' $ED' *3J1H4$' $ED' @HJJHEC' E' F C' 143C3E' I$4 $J3E' $CC3JQ 3D' $ED' QO' F3' - FH4 O' H&' F3' C$J3' *F$' F3' C$ D' 43N 3D' N'H&' F3' , E F' =3$4' H&' F3' 5 2E' H&' 8 C' $ 3' P$(3C O' % E2' !, (!' F3' 6H-4 F' CF$ 'Q3' &4HJ' F3' *F 4 O' & 4C' G$O' H&' 2!'! 4!' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O H' $ED' F3' ?$J3' C' F343QO' &4HJ' F$' G$O' 4313$ 3D' $ED' $ CH' F '*F433' C3 34$' *43$C-40' P E- 3C' &H-ED3D' -1HE' F3' C$ D' N' $ED' D$ 3D' 43C13NR 3 0' * H' H&' F3J' F3' * 3E O C3 3E F' G$O' H&' J D' F3' H F34' F3' ?3 3E 33E F' G$O' H&' 2!'! 4! ' E' F3' =3$4' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O' $ED' F NF' P E- 3C' 9343' $ 'H&' F3J' $ D' Q3&H43' I$4 $JJ 'HE' F3' * 3E O F 4D' G$O' H&' F3' C$ D' PHED', '2!!!# !' Q3' 43CN ED3D' I4H D3D' $ $OC' F$' EH' 11H E J3E' J$D3' <4 ?3N-4 O' 2 3E' -ED34' F3' C$ D' N' CF$ 'QO' C-NF' '313$' Q3' N 3D' H4' 43ED343D' E $ D' Q-' 3 340' C-NF' 11H E J3E' $ED' ?3N-4 O' CF$' Q3' $ED' NHE E-3' $' 2HHD' $ED' $ D' 11H E J3E' $ED' ?3N-4 O' C-Q(3N' FH 3 34' H' F3' I4H C HEC' H&' F C' N'

83N 3D' N' VM 'N' !' 4313$ 3D' - $ED' N34 $ E' *43$C-40' P E- 3C' 43R CN ED3D

11H E R J3E C' E1' H' &33' N 3D' QO' F3' '313$' H&' F$' N

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' F3' ; C $Q CF J3E H&' F3' C$ D' '32C 34' <&& N3' CF$' NHEC C' H&' $' '32C 4$4' * H' CC C $E' '32C 4$4C' $' 6 4C' @ 34+' $ED' * H' H F34' @ 34+C' $C' E$J3D' $ED' F' F3' O3$4 O' ?$ $4 3C' J3E HE3D' E' F3' ?NF3D- 3' J$4+3D' ^ _' H' F C' N $EE3 3D' $ED' H&' C-NF' $' , - JQ34' H&' $DD HE$' @ 34+C' $ D' H F34' I34CHEC' $C' F3' ?34 N3' H&' F3' <&& N3' CF$ '43X- 43' $ED' $' F343$& 34' -1HE' F3' F$113E E2' <&' $EO' NENO' C-NF' '32C 4$4' J D' CC C $E' '32C 4$4C' $ED' $ CH' F3' C$ D' 6 4C' @ 34+' $ED' * H' H F34' @ 34+C' CF$' Q3' $11H E 3D' QO' F3' >H4D' 8 2F' *43$C-434' H4' @HJJ CC HE34C' H&' 8 C' P$(3C O C' *43$C-40' H4' $EO' *F433' H4' JH43' H&' F3J' ' $ED.' F$' F3' C$ D' '32C 4$4' $ED' CC C $E' '32C 4$4C' CF$' 143 H-C O' H' F3 4' 3E 34 E2' -1HE' F3' G- 3C' H&' F3 '43C13N 3' <&& N3C' 3$NF' 3E 34' E H' $' '3NH2E T$EN3' E' F3' P$EE34' 143CN4 Q3D' QO' F3' C$ D' N' H&' F3' ? F' =3$4' H&' F3' '3 2E' H&' 834' P$(3C O' \ -33E' /##!' (H E O' 9 F' <E3' H4' * H' ?-43 3C' ' $ED' C-NF' '3NH2E T$EN3' E' 4 13N' H&' 3 340' &- -43' '32C 4$4' CF$' Q3' E' F3' ?- J' H&' *3E' FH-C$ED' I H-EDC' NHER D HE3D' &H4' F3' 4-3' $ED' &$ F&-' ; 3N- HE' H&' F3' G- 3C' H&' F C' <&& N3' $ED' F' 432$4D' H' 3$NF' H&' F3' CC C $E' '32C 4$4C' E' * H' FH-C$ED' I H-EDC' F' $' +3' @HED HE' $ED' F' $' &-4 F34' @HER D HE' H' ED3J E &O' F3' '32C 4$4' 2 EP.' $EO' GHCC' H' Q3' C-C $ E3D' QO' F J' F4H-2F' F3' G3&$- ' H4' , 32 23EN3' H&' C-NF' CC C $E' '32CR 4$4C' E' F3' ; 3N- HE' H&' F3 4' G- 3C' H4' H&' F3' <4D34C' H4' G 43N HEC' 2 3E' QO' F3' '32C 4$4' H' F3J' 43C13N 3 0' $ED' C-NF' '3NH2E T$EN3' E' *3E' FH-C$ED' I H-EDC' CF$ '$' $ED' &4HJ' F3' E3 ' NENO Q3' E' 1 $N3' $ED' EC 3$D' H&' F3' '3NH2E T$EN3' F343 H&H43' 43X- 43D' H&' F3' '32C 4$4' ' '

'32C 34' <&& N3' H' NHEC C' H&' N34 $ E' <&& R N34C

6 E2' -1' NEN 3C' E' F3' C$ D' <&& N3

' ED' F343$C' ' C' 4 2F' F$' F3' G 43N HEC' H&' F3' C$ D' ' 32 C 34' <&& N3' CFH- D' Q3' NHE& D3D' H' F3' ' 32 C 4$4' Q3' ' F343&H43' 3E$N 3D' *F$' F3' G 43N HE' P$E$23 J 3E ' $ED' ?-134 E 3ED3EN3' H&' $ ' G31$4 J 3E C' E' F3' <&& N3' CF$ ' D3 H 3' $C' F C' G- O' -1HE' F3' C$ D' ' 32 C 4$4'. I4H D3D' $ $OC' F$' E' H4D34' H' &$N $ 3' F3' B-C E3CC' H&' F3' C$ D' ' 32 C 34' <&& N3' Q- ' E3 34 F3 3CC' FH- ' E' $EO C3' D J E CF E2' F3' ' 3C1HEC Q O' H&' F3' ' 32 C 4$4' &H4' $EO' N ' H' Q3' DHE3' $C' E3 ' F343 E $& 34' J 3F HE3D' F$' F3' CC C $E ' ' 32 CR 4$4C' 43C13N 3 O' Q3' $ED' 3$NF' CC C $E ' ' 32 C 4$4' C' F343QO' 3 JR 1H 343D' &H4' $ED' HE' Q3F$ &' H&' F3' ' 32 C 4$4' H' $+3' && D$ C' C 2E' H&& N $' GHN- J 3E C' $ED' DH' $ ' H&& N $' N C' E3N3CC$4O' E' F3' ; 3N-R HE' H&' F3' G- 3C' H&' F3' <&& N3' F NF' I H 34' CF$ ' NHE E-3' $& 34' $' NENO' CF$ ' F$113E' E' F3' <&& N3' H&' ' 32 C 4$4' -E ' F3' C$ D' <&& N3' CF$ ' Q3' 2 E' & 3D' -1' E' $C' &- ' $ED' $ J 1 3' $' P$EE34' $C' &' EH' NENO' F$D' HNN-443D' $ED' F$' F3' C$ D' ' 32 C 4$4' CF$ ' $ ' F C' I 3$C-43' 43 J H 3' $EO' H4' 3 F34' H&' F3' *F433' @ 34+C' H4' H F34' @ 34+C' H4' I 34CHEC' 3 J 1 HO3D' HE' F3' ; C $Q CF J 3E ' $ED' $ CH' F$' F3' CF$ ' 43 $ E' $ED' 3 J 1 HO' C-NF' $' , - J Q34' H&' $DD HE$' @ 34+C' $ED' H F34' I 34CHEC' $C' &4H J' * J 3' H' * J 3' J $O' Q3' E3N3CC$4O' &H4' F3' D-3' $ED' 1-EN -$' G CNF$423' H&' F3' G- 3C' H&' F3' C$ D' <&& N3' $ED' 1$O' F3 J' 33+ O' $NNH4D E2' H' F3' 9 H4+' DHE3' QO' F3 J' 43C13N 3 O' $ED' $ CH' J $+3' H' $EO' H&' C-NF' C-134E- J 34$4O' @ 34+C' $ED' H F34' I 34CHEC' C-NF' &-4 F34' HNN$C HE$' H4' 3 J 1H4$4O' H $EN3C' E' P HE3O' $C' F3' >H4D' 8 2F' *43$C-434' H4' $EO' *F433' H&' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' *43$C-4O' H&' F3' #E 3D' % E2DH J' H&' ! ' " #' $ED' $!% #&' QO' $EO' *43$C-4O' P E- 3' J $D3' E' 43C13N' H&' $' 1$4 N- $4' @$C3' H4' &H4' F3' I -41HC3' H&' NHEC - E2' $' 23E34$' ?N$ 3' H&' H $EN3' $11 N$Q 3' H' $ ' @$C3C' F$' J $O' HNN-4' E' F3' C$ D' ' 32 C 34' <&& N3' CF$ ' E' F$' B3F$ &' &4H J' * J 3' H' * J 3' H4D34' H4' D 43N ' $ED' F3' C$ D' CC C $E ' ' 32 C 4$4C' $ED' $ ' F3' @ 34+C' $ED' H F34' I 34CHEC' 3 JR 1 HO3D' CF$ ' HQ3O' F3' <4D34C' $ED' G 43N HEC' H&' F3' ' 32 C 4$4' $C' 3 ' F' 43C13N' H' 3ED$EN3' $C' H' F3' G- 3C' F NF' F3O' 43C13NR 3 O' J $O' Q3' 43X- 43D' H' 134&H4 J' $ED' F3' ' 32 C 4$4' $ED' $ ' I 34R CHEC' 3 J 1 HO3D' E' F3' C$ D' ' 32 C 34' <&& N3' CF$ ' 134&H4 J' F3' G- 3C' H&' F3 4' 43C13N 3' <&& N3C' E' I 34CHE' ' $ED' F3' CC C $E ' ' 32 C 4$4C' $ED' @ 34+C' CF$ ' EH ' Q3' $QC3E ' &4H J' F3' C$ D' <&& N3' FH- ' I 34 J CR C HE' H&' F3' ' 32 C 4$4 ' 32 C 4$4' H' F$ 3' F3' G 43N HE' H&' F3' <&& N3 CC C $E ' ' 32 C 4$4C' H' $+3 && D$O C' $ED' C 2E' GHN- J 3E C

' ED' Q3' ' 3E$N 3D' *F$' NNH-E C' CF$ ' Q3' +31' H&' $ ' ?- J C' H&' P HE3O' 43N3 3D' $ED' 1$ D' E' F3' C$ D' <&& N3' ($ED' F$' &4H J' $ED' $& 34' F3' *F O & 4C' G$O' H&' 2 ! ' ! 4! ' E3 ' 3EC- E2' F3' 1$CC E2' H& F C' N ' F343' CF$ ' Q3' +31' E' F3' C$ D' ' 32 C 4O' <&& N3' $' BHH+' H4' BHH+C' F343 E' $ ' 633C' $ED' ?- J C' H&' P HE3O' F$ CH3 34' F NF' CF$F' Q3' 43N3 3D' E' F3' C$ D' <&& N3' CF$ ' &4H J' * J 3' H' * J 3' Q3' 4- O' 3E 343D' $C' $ED' F3E' F3' C$ J 3' CF$ ' Q3' 43N3 3D' F NF' BHH+' H4' BHH+C' CF$ ' Q3' 14HD-N3D' QO' F3' ' 32 C 4$ ' H4' QO' CH J 3' I 34CHE' HE' F3' ; C $Q CF J 3E ' H&' F3' <&& N3' F3E3 34' F3' C$ J 3' CF$ ' Q3' 43X- 43D' QO' $EO' I 34CHE' E 343C 3D' E' D3 J $ED E2' C-NF' I 4HD-N HE' H4' QO' $EO' <4D34' H&' $EO' H&' 8 C' P$(3C O C' @H-4 C' H4' $EO' 5-D23' H&' 3 F34' H&' C-NF' @H-4 C' H4' H&' F3' C$ D' >H4D' 8 2F' *43$C-434' H4' @H J J CC HE34C' H&' 8 C' P$(3C O C' *43$C-4O' ' $ED' F3' ; E 4 3C' F343 E' H4' $EO' 1$4 N- $4' ; E 4O' CF$ ' &' 43X- 43D' QO' $EO' C-NF' <4D34' Q3' 34 & 3D' -1HE' <$ F' $ED' $ CH' F$' F3' C$ D' ' 32 C 4$4' CF$ ' +331' $' 432- $4' NNH-E ' H& NNH-E ' H' Q3' +31' H&'

U' K'S/' < # > J > P ' ' @$1 Z

$ ' ?- JC' H&' PHE3O' DCQ-4C3D' E' I$OJ3E' H&' F3' ?$$4 3C' QO' F C' N '$- FH4 T3D' H' Q3' 1$ D' $ED' H&' $ ' H F34' F3' E3N3CC$4O' ; 13EN3C' $ED' I$OJ3E C' F$ CH3 34' EN D3E ' H' F3' ; 3N- HE' H&' F3' C$ D' <& ?N3' NF' NNH-E C' CF$ ' Q3' J$D3' -1' 3 34O' *F433' @$ 3ED$4' PHE FC' $ED' Q3' C 2E3D' QO' F3' C$ D' ; 32 C 4$4' $ED' QO' <E3' H4' QH F' H&' F3' CC C $E' '32 C 4$4C' $ED' JH43H 34' F3' C$ D' '32 C 4$4' CF$ ' F E' *F 4 O'G$OC' E3 '$& 34' F3' ; 1 4$ HE' H&' 3 34O' \-$4 34' H&' $ =3$4' 4 3 4' #4-3' @H1 3C' H&' C-NF' NNH-E C' H' F3' N3' *43$C-434' H&' $!% #&' $ED' CF$ ' $' F3' C$J3' * J3' 1$O' E H' F3' B$E+' H&' $! ' % #&' H' F3' \43D ' H&' F3' @HECH D$ 3D' 6-ED' F3' B$ $EN3' -1HE' H4' G &&343EN3' Q3 33E' C-NF' NNH-E C' F3E' 43J$ E E2' E' F3' 8$EDC' H&' F3' C$ D' '32 C 4$4' C-Q(3N' FH 3 34' H' F3'G 43N HE' E' 43C13N' H&' F3' 11 N$ HE' H&' C-NF' B$ $EN3' H4' ?J 1 -C' F343 E$& 34' NHER $ E3D

, H' 633C' H' Q3' $+3E' Q- ' F$ '$43' C13N & 3D' E' ?NF3D- 3' ^B_' H' Q3' 1$ D

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' &4HJ' $ED' $& 34' F3' C$ D' *F 4 O & 4C 'G$O' H&' 2!'!#&N! '<E3' FJ(C$ED' 3 2F ' F-ED43D' $ED' 4 O ' H' F343' CF$ 'Q3' 1$ D' $ED' 1$O$Q 3' E' F3' C$ D' <&& N3' F3' C3 34$' 633C' HE O' F NF' $43' C13N & 3D' E' F3' ?NF3D- 3' J$4+3D' ^B_' H' F C' N '$EE3 3D' $ED' EH' H F34' 633' H4' 633C' F$ CH3 34' $ED' &' $EO' I34CHE' HE' F3' ; C $Q CF J3E' H&' F3' C$ D' <&& N3' H4' 3 #1 HO3D' E' F3' C$ D' <&& N3' CF$ 'D3J$ED' H4' 43N3 3' H4' N$-C3' H' Q3' D3J$ED3D' H4' 43N3 3D' $EO' 243$ 34' H4' H F34' 633C' $ED' F3' C$J3' CF$ ' F3' 14H 3D' 2 EC' F J ' F3 CF$ ' &H4 F ' Q3' D CNF$423D' &4HJ' F C' I $N3' H4' ; J1 HOJ3E' E' F3' C$ D' <&& N3.' I4H D3D' $ $OC' F$ ' ' CF$ ' Q3' $ &-' &H4' F3' '32 C 4$4' 1&' F3' C$ D' <&& N3' H' 43X- 43' E' $ '@$C3C' F343' F3' CF$F' F E+' ' 14H134' CH' H' DH' F$ ' F3' C$ D' 633C' H4' $ 43CHEQ 3' ?- J' HE' $NNH-E ' F343H&' CF$ ' Q3' 1$ D' H4' D31HC 3D' E' $D $EN3' H23 F34' F' F3' JH-E ' H&' F3' ? $J1C' F3E' ? $J1C' CF$ 'Q3' 43X- 43D' H' Q3' -C3D

8H-4C' H&' B-C E3CC' E' F3' C$ D' <&& N3

' ED' Q3' ' &-4 F34 '3E$N 3D' *F$ ' $& 34' F3' C$ D' *F 4 O & 4C ' G$O' H&' 2!'! 4! '<E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' F3' C$ D' '32 C 34' <&& N3' CF$ 'Q3' +31 ' H13E' &H4' B-C E3CC' &4HJ' F3' 8H-4' H&' *3E' E' F3' 6H43EHHE' -E ' F3' 8H-4' H&' 6H-4' E' F3' & 34EHHE' H&' 3 34O' G$O' E' F3' =3$4' 3 N31 E2' HE O' +3#& 1' I) 1 1' 2 ' $ED' , ,&' R & ' $ED' G$OC' H&' I-Q N' 6$C 'H4' *F$E+C2 E2

' I34CHEC' J$O' C3$4NF' BHH+C' $ED' ED3 3C '$ED' $+3' , H 3C' F343H&' -1DE' 1$O E2' G$ O' 633

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' $& 34' F3' *F 4 O & 4C ' G$O' H&' 2!'! 4! 'D-4 E2' F3' C$ D' 8H-4C' &H4' B-C E3CC' $ ' I34CHEC' E 34R 3C 3D' E' J$+ E2' ?3$4NF3C' E' F3' C$ D' '32 C 34' <&& N3' CF$ ' F$ 3' &- ' > Q34 O' H' C3$4NF' $ED' 3 $J E3' F3' ED3 ' QC 4$N ' $ED' *4$EC I 1 ' BHH+C' F343H&' $ED' H' $+3' QC 4$N C' H4' H F34' CFH4 ' , H 3C' H&' $EO' H&' F3' P$ 34C' E' C-NF' BHH+C' $ED' $ CH' H' EC13N ' E' F3' I43C3EN3' H&' CHJ3' I34CHE' Q3 HE2 E2' H' F3' C$ D' <&& N3' $EO' H4 2 E$' P3J H4 $' H' F NF' '3&343EN3' CF$ 'Q3' HQ $ E3D' E' C-NF' ?3$4NF3C' -1HE' 3 34O' C-NF' I34CHE' 1$O E2' D$ O' F3' 633' &H4' C3$4NF E2' E' F3' (C ' <&& N3' $ED' $ CH' F343' C-NF' EC13N HE' CF$ 'Q3' F$D ' F3' EC13N E2' 633' QO' F C' N '$11H E 3D' $ED' EH' JH43

83$D' @ 34+ C' H4' @HJ JHE' ?3$4NF' 43' 3D

' ED' F343$C' F343 H&H43' $' G3CN4 1 HE' H&' ?3$4NF' $C' J$D3' (F3 C$ D' '32 C 34' <&& N3' N$ 3D' $' 83$D' @ 34+ C' H4' @HJ JHE' ?3$4NF' $ED' ' C' D3C 4$Q 3' F$ ' F C' 6H4J' H&' C3$4NF E2' CFH- D' Q3' 4 3 3DQ3

U7 KS M#> ;>P ' ' @$1Z ' Z S

' F343&H43' 3E$N 3D' *F$ ' &4HJ' $ED' $& 34' F3' C$D' *F 4 0 & 4C ' G$O' H&' 2!'! 4! ' -1HE' $' '3X-3C ' E' 9 4 E2' QO' $EO' I34CHE' D3C 4H-C' H&' F3' C$J3' Q3 E2' 3& ' E' F3' C$D' '32 C 34' <&& N3' $' 83$D' @ 34+ C' H4' @HJ JHE' ?3$4NF' CF$ ' Q3' J$D3' $ED' $' @H1O' H&' F3' QC 4$N ' H&' 3 34O' P3JH4 $ ' &H-ED' H' NHJ3' F E' F3' *34JC' H&' F3' C$D' '3X-3C ' CF$ ' Q3' 4$ECN4 Q3D' -1HE' I$134 ' $ED' CF$ ' Q3' C 2E3D' QO' <E3' H&' F3' @ 34+C' -1HE' F3' ;C $Q CFJ3E ' H&' F3' C$D' <&& N3' F' F C' , $J3 ' $ED' $ CH' QO' <E3' H&' F3' CC C $E ' '32 C 4$4C' F' F3' E $ ' >3 34C' H&' F C' , $J3 ' $ED' F' $ ' NHE 3E 3E ' ; 13D HE' F3' C$J3' CF$ ' Q3' D3 343D' H' F3' I$4 O' J$+ E2' F3' '3X-3C ' I4H D3D' $ $OC ' F$ ' ' CF$ ' Q3' $ &- ' &H4' F3' I34CHE' J$+ E2' C-NF' '3X-3C ' H' 3 N31 ' F343H- ' $EO' $ED' 3 34O' EC 4-J3E ' H&' F NF' F3' CF$ ' C13N &O' F3' G$ 3 ' G3CN4 1 ' HE' H&' EC 4-J3E ' $ED' I$4 3C' , $J3C ' E' $' > C ' $ ' F3' 6HH ' H&' C-NF' '3X-3C

W ' ED' F343$C' ' C' D3C 4$Q 3' F$ ' CHJ3' @F$E23' CFH- D' Q3' J$D3' I43C3E 6H4J' E' F3' P3 FHD' 43X- 43D' QO' >$ ' &H4' +331 E2' F3' ED3 3C' H&' I$4 3C' \(2 3C H , $J3C' $ED' >$EDC' E' F3' C$D' <&& N3' Q3' ' F343&H43' 3E$N 3D' *F$ ' N3$ 3HE' F3' F3' 6H4J ' $ED' P$EE34' H&' +331 E2' C-NF' ED3 3C' EH ' E' -C3' CF$ ' Q3' S C H&' G3 ' NHE E-3D' H' Q3' &H H 3D' -1' H' $ED' EN -D E2' F3' C$D' *F 4 0 & 4C ' N3JQ34' ZSU ' G$O' H&' 2!'! 4! ' $ED' EH' HE234 ' H' F NF' * J3' F3' ;E 4 3C' $ED' '32 C 4O' H&' $ ' P3JH4 $ C' F3E' $ 43$DO' Q4H-2F ' E H' F3' <&& N3' CF$ Q3' NHJ1 3 3D' $C' CHHE' $& 34' F$ ' G$O' $C' J$O' Q3' ' $ED' $ ' BHH+C' F343R H&H43' $ ' $EO' * J3' -C3D' H4' +31 ' E' F3' C$D' '32 C 4O' <&& N3' NHER $ E E2' *4$ECN4 1 C' H&' P3JH4 $ C' QC 4$N C' H&' F3' @HE 3E C' H&' P3JH4 $ C ' H4' ED3 3C' H' P3JH4 $ C' 432 C 343D' E' F3' C$D' <&& N3' CF$ ' Q3' 1-Q N' I4H134 O ' $ED' Q3' 143C34 3D' E' F3' C$D' <&& N3 ' $ED' EH ' Q3' 43JH 3D' F343&4HJ

W ' ED' F343$C' ' C' D3C 4$Q 3' F$ ' $' D &&343E ' ?OC 3J ' H&' J$+ E2' , -JQ34 E2' $ED' +331 E2' ED3 3C' H' F3' P3JH4 $ C' CFH- D' F3EN3&H4 F' Q3' $DH1 3D' P3JH4 $ C ' $ED' &H H 3D ' $ED' E' H4D34' F343 H ' F$ ' EC 3$D' H&' NHE E- E2' H' E-JQ34' F3' P3JH4 $ C' E' <E3' NHE E-3D' ?34 3C' &4HJ ' F3' 3C $Q CF E2 H&' F3' C$D' '32 C 34' <&& N3 ' $' D &&343E ' PHD3' CFH- D' Q3' E 4HD-N3D' ' Q3' ' F343&H43' 3E$N 3D' *F$ ' 'HJ ' $ED' $& 34' F3' C$D' *F 4 0 & 4C ' G$O' H&' 2!'! 4! ' $ ' F3' P3JH4 $ C' F$ ' CF$ ' Q3' 432 C 343D' E' F3' C$D' <&& N3' CF$ ' Q3' E-JQ343D' E' D &&343E ' ?34 3C' H&' EH ' JH43' F$E' *F433' F-ED 3 & P3JH4 $ C' E' $EO' <E3' ?34 3C

W ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' &4HJ' $ED' $& 34' F3' C$D' P$EE34' H&' *F 4 0 & 4C ' G$O' H&' 2!'! 4! ' F343' CF$ ' Q3' +31 ' E' F3' C$D' <&& N3' $' +331 E2' F3' BHH+' H' Q3' N$ 3D' F3' ` G$O' BHH+ c' E' F NF' BHH+' F3' & 4C ' ; E 4O' G$O' BHH+ ' H&' 3 34O' P3JH4 $ ' 43N3 3D' E H' F3' C$D' <&& N3' CF$ ' Q3' J$D3 ' $ED' E' $ED' E-JQ34R F3' C$J3' <4D34' E' F NF' F3' P3JH4 $ ' CF$ ' Q3' 43N3 3D' E' F3' <&& N3' ' E2' $ED' & E2' $ED' C-NF' ; E 4 3C' CF$ ' Q3' E' F3' 6H4J ' H4' H' F3' ; &&3N ' H&' F3' PHD3 ' P3JH4 $ C H&' C-NF' $' BHH+' C3 ' &H4 F' E' F3' ?NF3D- 3' J$4+3D' ^@_ ' H' F C' N ' $EE3 3D ' $ED' F3' , -JQ34' H&' 3 34O' C-NF' & 4C ' ; E 4O' CF$ ' Q3' F3' , -JQ34' H&' F3' P3JH4 $ ' $ED' C-NF' , -JQ34' CF$ ' $ CH' &H4 F F' Q3' J$4+3D' -1HE' F3' P3JH4 $ ' C3 & ' $ED' CF$ ' 3 34' $& 34 ' E' $CCHN $ HE' F' F3' =3$4' $ED' F3' H -J3' E' F NF' F3' P3JH4 $ ' CF$ ' Q3' 4$ER CN4 Q3D ' 43J$ E' F3' , -JQ34' H&' F$ ' P3JH4 $ ' $ED' JH43H 34 ' F$ ' $C' CHHE' $C' *F433' F-ED43D' P3JH4 $ C' CF$ ' F$ 3' Q33E' 43N3 3D ' F$ ' , -JQ34' H&' P3JH4 $ C' CF$ ' &H4J ' F3' 6 4C ' ?34 3C' H&' P3JH4 $ C' H&' F3'

N-443E '=3$4' $ED' CF$ ' Q3' J$D3' -1' E H' <E3' 6 3' HE' F NF' 6 3' F343' CF$ 'Q3' EDH4C3D' E' 340' 3 P 3' @F4N 34C' F3' =3$4' E' F NF' F3' P3J<4PC' F343 E' NHE $ E3D' 343' 43N3 3D' $ED' $ CH' F3' , - J Q34' H&' F3' H - J 3' E' F NF' F3' *4$ECN4 1 C' H&' F3' C$ J 3' P 3 J J D$ C' ' Q3' 3E 343D' $ED' F3' 6 3C' H&' $ ' F3' P 3 J H4 $ C' 43N3 3D' E' 3$NF' =3$4' CF$ ' Q3' D31HC 3D' $ED' +31 ' E' $' C31$4$ 3' I 43CC' H4' ?F3 &' HE' F NF' I 43CC' H4' ?F3 &' F3' =3$4' CF$ ' Q3' D C EN O' J $4+3D' $FD' &-4 F34' F$ ' CH' CHHE' $C' HE3' ?34 3C' H&' *F433' F-ED43D' P 3 J H4 $ C' CF$ ' F$ 3' Q33E' 43N3 3D' $EH F34' ?34 3C' H' NHFC C 'H&' $' +3' , - J Q34' $ED' H' Q3' E- J R Q343D' E' +3' P $EE34' &4H J ' <E3' H' *F433' F-ED43D' CF$ ' Q3' Q32-EO' $ E D 'HE' E' $ ' * J 3' H' N3 E3O 3 N31 ' F3' $C '?34 3C' H&' 3$NF' =3$4' F NF' CF$ ' 34 J E$ 3' F' F$ 3 34' , - J Q34' F3' $C ' P 3 J H4 $ ' 43R N3 3D' HE' F3' $C ' <&& N3' G$O' E' F3' =3$4' J $O' Q3$4' $ED' F3' & 4C ' P 3 J H4 $ ' 43N3 3D' E' 3 3 ' E3 ' =3$4' ?F$ ' Q3' J $4+3D' $ED' 3E 343D' $C' , - J Q34' <E3' H&' F3' 6 4C ' ?34 3C' H&' P 3 J H4 $ C' F NF' CF$ ' Q3' 43N3 3D' ' F$ ' = 3&N

P$EE34' H&' +331 E2' F3' QC 4$N ' BHH+

W ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' &4H J ' $ED' $& 34' F3' C$ D' *F 4 O & 4C ' G$O' H&' 2 ! ' ! 4! ' 14H243CC 3 O' $C' F3' C$ D' P 3 J H4 $ C' CF$ ' Q3' 43N3 3D' E' &F3' C$ D' <&& N3 ' F343' CF$ ' Q3' J $D3' $ED' 3E 343D' E H' $' I $4NF J 3E ' BHH+ ' H' Q3' N$ 3D' F3' `' QC 4$N ' BHH+ c' $E' QC 4$N ' H4' CFH4 '? $ 3 J 3E ' H&' F3' ; &&3N ' H&' F3' EC 4- J 3E ' C3 ' &H4 F' E' 3 340' C-NF' P 3 J H4 $ ' F NF' QC 4$N ' CF$ ' NHE $ E' F3' =3$4' $ED' G$O' H&' 432 C 34 E2 ' F3' H - J 3' $ED' , - J Q34' H&' F3' P 3 J H4 $ ' F3' , $ J 3' H&' F3' EC 4- J 3E ' F3' G$ 3' H&' F3' EC 4- J 3E ' $C' @E' E' F3' P 3 J H4 $ ' F3' , $ J 3C' $ED' G3CN4 1 HEC' H&' $ ' F3' M4$E H4C' $ED' H&' <E3' H4' J H43' H&' F3' M4$E 33C' D 3' MHEC D34$4 HE ' F3' * 34 J ' F3' ' 3E ' F3' ' 3E3 $ ' 6 E3C ' F3' , $ J 3' $ED' G3CN4 1 HE' H&' F3' I 43 J C3C ' $ED' F3' @H-E O' $ED' B$4HEO' $ED' I $4 CF' F343 E' F3' I 43 J C3C' $43' C -$ 3D ' F3' , $ -43' H&' F3' EC 4- J 3E ' F$ ' C' H' C$O' F3 F34' $' * 4-C ' P $4R 4 $23' ?3 3 J 3E ' P H4 2$23 ' H4' $QCH - 3' H4' H F34' @HE 3O$EN3 ' H4' C-NF' $ED' CH' J $EO' H&' F3' &H432H E2' I $4 N- $4C' $C' $43' NHE $ E3D' E' F3' P 3 J H4 $ ' H&' C-NF' EC 4- J 3E ' $ED' F3' QC 4$N ' CF$ ' Q3' 3E 343D' E' F3' QC 4$N ' BHH+' E' F3' 6H4 J ' ^"' H') ! ' ' & 3N ' H&' F3' P HD3 ' NHER $ E3D' E' F3' ?NF3D- 3' D C E2- CF3D' QO' F3' >3 34' ^G _' H' F C' N ' $EE3 3D ' $ED' F3' C$ D' QC 4$N C' C E& ' Q3' 3E 343D' E' F3' C$ D' QC 4$N ' BHH+' E' F3' C$ J 3' <4D34' F$ ' F3' & 4C ' ; E 4 3C' H&' F3' P 3 J H4 $ C' H' F NF' F3O' 43 $ 3' 343' J $D3' E' F3' G$O' BHH+ ' $ED' 3$NF' QC 4$N ' CF$ ' F$ 3' 143& 3D' H' ' F3' 340' C$ J 3' , - J Q34' $C' F3' P 3 J H4 $ ' $ED' $C' F3' G$O' BHH+' ; E 4O' H&' F3' ' 32 C 4$ HE' H&' F3' P 3 J H4 $ ' H&' F NF' ' C' $E' QC 4$N ' CF$ ' F$ 3' F$D' 1- ' -1H4' F3 J ' ' $ED' F3' QC 4$N ' BHH+C' H&' 3$NF' =3$4' CF$ ' Q3' +31 ' C31$4$ 3' $ED' C-NF' BHH+C' CF$ ' Q3' D D3D' E H' I $4 C' <' NH443C1HED' F' F3' 6 3C' $ED' H - J 3C' *4$ECN4 1 C' H&' C-NF' =3$4' $ED' F343' CF$ ' Q3' <E3' $ ' 3$C ' G-1 N$ 3' @H1O' H&' C-NF' QC 4$N ' BHH+' J $D3' F343 E' F3' BF 4 3C' CF$ ' F3' 3HE F-$ O' +31 ' -1

; 340' P 3 J HR 4 $' H' Q3' 4$ECN4 Q3D' $ED' F3' G$O' $ED' 8H-4' H&' ' 32 C 4O' EC34 3D' E' F3' P$42 E

W ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' $C' CHHE' $C' F3' ?$ D' QC 4$N C' CF$ ' F$ 3' Q33E' J $D3' F3' P 3 J H4 $ C' CF$ ' &H4 F F' Q3' &$ F&- O' $ED' 32 Q O' 4$ECN4 Q3D' -1HE' 4NF J 3 ' E' 3' C$ J 3' <4D34' E' F NF' F3' P 3 J H4 $ C' CF$ ' F$ 3' Q33E' E- J Q343D' E' F3' G$O' BHH+' ' $ED' E' F3' P $42 E' H&' 3 340' *4 J CN4 1 ' F343' CF$ ' Q3' EC34 3D' $' P 3 J J $E ' D- J ' H&' F3' 8H-4' $ED' G$O' H ' F NF' F3' P 3 J H4 $ ' H&' F NF' ' C' $

U KS`M#> ;>P ʻ ʻ @$1Z Z !

@H1O' $C' 432 C 343D' $ED' $ CH' F3' , - J Q34' H&' F3' P 3 J H4 $ ' $ED' F3' *4$ECN4 1 C' H&' 3 34O' *F433' F-ED43D' P 3 J H4 $ C' CF$ ' Q3' QH-ED' H23 F34' $ED' &H4 J' <E3' H - J 3' F' F3' ; N31 HE' H&' $EO' , - J Q34' 3CC' F$E' *F433' F-ED43D' $' F3' ; ED' H&' F3' =3$4' F NF' CF$ ' J $+3' F3' $C' H - J 3' H&' F$' =3$4' $ED' HE' 3 34O' H - J 3' H&' *4$ECN4 1 C' F343' CF$ ' Q3' EDH4C3D' F3' =3$4' E' F NF' F3' P 3 J H4 $ C' 4$ECN4 Q3D' E H' ' 343' 43N3 3D' $ED' $ CH' F3' 14H134' , - J Q34' H&' F$' H - J 3' E' F3' ?34 3C' H&' H - J 3C' H&' *4$ECN4 1 C' E' F$' =3$4' $ED' &-4 F34' F$' ; 34O' P 3 J H' 3 34O' P 3 J H4 $' 43N3 3D' H' Q3' 432 C 343D' E' F3' C$ D' <&& N3' CF$ ' Q3' $' H' Q3' &- O' $ED' NH J 1 3 3 O' 4$ECN4 Q3D' $C' $&H43C$ D' F E' F3' ?1$N3' H&' &$ECN4 Q3D ? O' G$OC' E3 ' $& 34' F3' G$O' HE' F NF' F3' C$ J 3' CF$ ' Q3' CH' 43N3 3D

W ʻ ED' F343$C' ' C' 3 13D 3E ' F$' J H43' $D3X-$ 3' I 4H C HE' 1F$Q3 N$' F$E' F$C' F343 H&H43' Q33E' J $D3' QO' >$ ' CFH- D' Q3' J $D3' &H4' F3' I 431$4$ HE' $ED' ' 3D-N HE' H&' 3 NH J 1 3D' $ED' C-&& N 3E' 1F$' >J D/ Q3 N$' ED3 3C' H&' F3' I 34CHEC' $ED' >$EDC' $&&3N 3D' QO' F3' P 3 J H4 $ C' $&&3N 3D' QO' 432 C 343D' F343 E' ' &H4' ' 3 J 3DO' F343H&' Q3' ' &-4 F34' 3E$N 3D' *F$' Q3' P 3 J H' 1430 H-C O' H' F3' C$ D' *F 4 0 & 4C' G$O' H&' 2 ! ' ! 4! ' F343' CF$ ' Q3' 14H D3D' E' F3' C$ D' ' 32 C 34' <&& N3' $' ?34 3C' H&' I $4NF J 3E' BHH+C' H&' J $D3 C-&& N 3E' ? T3' F NF' ?34 3C' H&' BHH+C' CF$ ' Q3' N$ 3D' F3' `' ED3 ' H&' , $ J 3C ' $ED' <E3' BHH+' H&' F3' ?34 3C' CF$ ' Q3' $114H14 $ 3D' H' F3' >3 34' ^ _' $EH F34' BHH+' H' F3' >3 34' ^B _' $ED' CH' HE' F4H-2F' Q3' 1F$Q3 ' 14H D3D' F$' $EO' <E3' C-NF' BHH+' J $O' F$ 3' $' ?3NHED' H4' 3 3E' $' *F 4D' -E&43X-3E O' -C3D' >3 34' $CC 2E3D' H' ' $' F3' G C ' N43 HE' H&' F3' ' 32 C 4$4 ' $ED' -1HE' F3' I $23C' H&' 3 34O' BHH+' E' C-NF' ?34 3C' F343' CF$ ' Q3&H43' F3' =3$4' E' F NF' ' C' H' Q3' -C3D' Q32 EC' Q3' D C 4 Q- 3D' $E' 1F$Q3 ' F' F3' >3 34C' H&' $' ?3NHED' 1F$Q3 ' H' 3$NF' >3 34' E' F3' &H H E2' P $EE34' ' ^ F$' C' H' C$O _' F3' >3 34C' ' ' $' F3' 8 3$D' H&' $' I $23' $' F3' B32 EE E2' H&' F3' BHH+' ' ' $' F3' 8 3$D' H&' $' I $23' E3 ' H' H4' EH ' J H43' F$E' $' &3 ' I $23C' C-QC3X-3E ' H' F3' I $23' E' F NF' F3' * H' &H4 J 34' >3 34C' 343' EC34 3D' $ED' CH' HE' F4H-2FH-' $' FH 3' 1F$Q3 ' 143N3D3D' QO' F3' >3 34' ^ _' F3E' B' 1' $ED' H' F3' ; ED' H&' $' ?3NHED' 1F$Q3 ' F3E' @' ' $ED' &H H E2' F3' +3' @H-4C3' -E ' 3 34O' >3 34' H&' F3' 1F$Q3 ' F-C' 4313$ 3D' F' $' NHEC3N- 3' >3 34' H&' $' ?3NHED' 1F$Q3 ' CF$ ' F$ 3' Q33E' EC34 3D' 3$NF' $C' F3' 8 3$D' H&' $' C31$4$ 3' I $23' H&' F3' BHH+' ' 14H D3D' F$' $EO' <E3' H4' J H43' H&' C-NF' @H J Q E$ HEC' H&' >3 34C' H&' F NF' EH' ; $ J 1 3' H&' $' , $ J 3' Q32 EE E2' F' C-NF' >3 34C' F$D' HNN-443D' E' F3' C$ D' ' 32 C 34' <&& N3' J $O' $' F3' G CN43 HE' H&' F3' ' 32 C 4$4 ' Q3' H J 3D' E H' F NF' BHH+' F343' CF$ ' Q3' 3E 343D' QO' $ED' -ED34' F3' * H' & 4C' >3 34C' H&' F3' , $ J 3' F3' ?-4E$ J 3' $ED' &' 3EEHQ 3D' F3' * 3' H&' 8 HEH-4' H&' F3' M4$E H4' E' 3 34O' P 3 J H4 $' 432 C 343D' E' F3' <&& N3' $ED' H' F3' C$ D' ?-4E$ J 3' H&' F3' M4$E H4' F343' CF$ ' Q3' C-QR (H E3D' F3' @F4 C $E' , $ J 3' H&' C-NF' M4$E H4' $ED' $ CH' F3' ?-4E$ J 3' $ED' F3' @F4 C $E' , $ J 3' H&' F3' M4$E 33' &H H 3D' F343' F343' CF$ ' Q3' J H43' F$E' <E3' M4$E 33' QO' F3' 9 H4DC' ` $ED' $EH F34 c' H4' F3' 9 H4DC' `' $ED' H F34C c' $C' F3' @$C3' J $O' Q3' $ED' $ CH' F3' & 4C' G 3EHR J E$ HE' H&' F3' >$EDC' $ED' F3' , $ J 3C' H&' F3' @H-E O' $ED' B$4HEO' H4' H&' F3' @ O' H4' *H E' Q3 E2' $' @H-E O' H&' C3 &' $ED' I $4 CF' F343 E' F3' >$EDC' $&&3N 3D' QO' F3' EC 4- J 3E' H&' F NF' F3' P 3 J H4 $' C' 432 C 343D' C' C -$ 3D' $ED' F3' =3$4' H&' ' 32 C 4$ HE' (F3' 43C13N 3' , - J Q34C' H&' F3' QC 4$N' $ED' *4$ECN4 1' BHH+C' E' F NF' F3' P 3 J H4 $' CF$ ' F$ 3 Q33E

Q33E' 3E 343D ' $ED' F3' , - J Q34' $ED' 6 3' H&' F3' P 3 J H4 $ ' ($ED' F343' F343' CF$ ' Q3' J H43' F$E' < E3' M4$E H4' F343' CF$ ' Q3' C-Q(H E3D' H' F3' , $ J 3' H&' F3' 6 4C ' M4$E H4' F3' 9 H4DC' `' $ED' $EH F34 c' H4 ' $C' F3' @$C3' J $O' Q3 ' F3' 9 H4DC' ` $ED' H F34C c' $ED' F3' , $ J 3' H&' F3' ?3NHED' M4$E H4' CF$ ' &H4 J ' $' ?3N4E D' 8 3$D' H &' ; E O' E' F3' C$ D' ED3 ' $ED' Q3' &H H 3D' QO' +3' 9 H4DC' ' $ED' C-NF' $C J 3E HE3D' ; E 4O' CF$ ' Q3' $NNH J 1$E 3D' F' F3' +3' I $4 N- $4C' $C' $C ' $&H43C$ D ' $ED' F343' F343' CF$ ' Q3' $' * F 4D' M4$E H4 ' H4' $EO' 243$ 34' , - J Q34' H&' M4$E H4C ' F3E' E' 3 F34' H&' F3' C$ D' @$C3C' F343' CF$ ' CH' Q3' $' &-4 F34' +3'' ; E 4O' -ED34' F3' , $ J 3' H&' C-NF' * F 4D' $ED' 3 34O' H F34' M4$E H4 ' $ED' $ ' C-NF' ; E 4 3C' CF$ ' Q3' J $D3' $ED' NH J 1 3 3D' Q3&H43' F3' * J 3' H&' H13E E2' F3' < && N3' &H4' B-C E3CC' HE' F3' P H4E E2' E3 ' Q- ' * H' $& 34' F3' G$O' HE' F NF' C-NF' P 3 J H4 $ ' CF$ ' F$ 3' Q33E' D3 343D' E H' F3' < && N3' &H4' ' 32 C 4O' ' $ED' F3' ?34 3C' H&' BHH+C' $C ' $&H43C$ D' CF$ ' Q3' NHE E-3D' * F433' =3$4C ' $ED' F3' ; E 4 3C' E' F$ ' ?34 3C' CF$ ' F3E' Q3' N HC3D ' $ED' $' E3 ' ?34 3C' E' $' E3 ' ?3 ' H&' BHH+C' CF$ ' Q3' Q32-E' ' $ED' F C' ?3NHED' ?34 3C' H&' BHH+C' CF$ ' Q3' NHE E-3D' 6H-4' =3$4C ' $ED' F3' ; E 4 3C' E' F$ ' ?34 3C' CF$ ' F3E' Q3' N HC3D ' $ED' $' E3 ' ?34 3C' E' $' E3 ' ?3 ' H&' BHH+C' CF$ ' Q3' Q32-E' E' +3' P $EE34' ' n F$ ' C' H' C$O _ F3' 6 4C ' H4' * 4 3EE $ ' ?34 3C' H&' N-443E ' ED3 3C' CF$ ' NHE E-3' H' F3' ; ED' H&' F3' * F 4 O & 4C ' G$O' H&' 2 ! ' ! 4! ' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O & 3 ' $ED' F3' ?3NHED' H4' \ -$D43EE $ ' ?34 3C' CF$ ' NH J R J 3EN3' F' F3' 6 4C ' G$O' H &'? 3 ' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O C ' $ED' CF$ ' 3ED' F' F3' * F 4 O & 4C ' G$O' H&' 2 ! ' ! 4! ' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O E E3' ' $ED' F3' E3 ' H4' \ - ER X-3EE $ ' ?34 3C' CF$ ' Q32 E' F' F3' 6 4C ' G$O' H&' ? #3 ' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' &H4 O ' $ED' CF$ ' NHE E-3' H' F3' ; ED' H&' F3' * F 4 O & 4C ' G$O' H&' 2 ! ' ! 4! ' < E3' FH %$ED' 3 2F ' F-ED43D' $ED' &H4 O &H-4 ' $ED' CH' E' +3' P $EE34' CF$ ' 3$NF' C-QC3X-3E ' ?34 3C' NHE $ E' 6 3' =3$4C' $ED' EH' J H43

* F3' $&H43C$ D' ?34 3C' H&' BHH+C' H' B3 ' OHE EE3D' ' H4' * F433' . =3$4C ' $ED' F3E' $' E3 ' ' ?34 3C' H' Q3' Q32-E ' $ED' $& 34 $4DC' H' Q3' X- EX-3ER E $ ' .

$ED' H Q3'

W ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' $C' CHHE' $C' F3' ?3NHED' ?34 3C' H&' C-NF' ED3 3C' CF$ ' Q3' N HC3D' F3' 6 4C ' $ED' ?3NHED' H&' C-NF' E ' & 3C' CF$ ' &H4 F F' Q3' NHECH D$ 3D' E H' < E3' ED3 ' E' $ 1F$Q3 N$ ' < 4D34 ' -ED34' < E3' 1F$Q3 ' $ED' $ CH' < E3' H4' J H43' G-(N$ 3C' H&' C-NF' ED3 ' CF$ ' Q3' &H4 F F' J $D3' ' $ED' $C' CHHE' $C' $' 6H-4 F' ?34 3C' CF$ ' Q3' N HC3D ' F3' * F 4D' $ED' 6H-4 F' ?34 3C' CF$ ' Q3' NHECH D$ 3D' E H' < E3' G3N3EE $ ' ED3 ' $ED' < E3' H4' J H43' G-1 N$ 3C' Q3' J $D3' F343H&' ' $ED' E' +3' P $EE34' E' $ ' * J 3' H' NH J 3' 3 34O' * H' \ - ER X-3EE $ ' N-443E ' ED3 3C' CF$ ' Q3' 43D-N3D' E H' $' G3N3EE $ ' ED3 ' F' < E3' H4' J H43' G-1 N$ 3C' F343H&

ED3 3C' F' G-1 N$ 3C'

W ' ED' F343$C' ' C' J $ 34 $ ' F$ ' EH' G3 $O' H4' J 13D J 3E F$ CH3 34' F$ ' N$E' Q3' $ H D3D' CFH- D' Q3' C-&&343D' QO' I 34C#EC' D3C 4H-C' H&' NHEC- E2' F3' $&H43C$ D' ED3 ' $ED' $ ' F3' C$ J 3' * J 3' ' C' 34O' E3N3CC$4O' F$ ' F3' @ 34+C' $ED' H F34' I 34CHEC' 3 J 1 HO3D' E' F3' C$ D' < && N3' CFH- D' F$ 3' * J 3' $ED' &$ 4' < 11H4 -E O' H' 4 3' -1' C-NF' ED3 ' QH F' H&' F NF' < Q(3N C' J $O' E' $' &$4' 243$ 34' G32433' Q3' HQ $ E3D' QO' F$O E2' $' G-1 N$ 3' @H1O' H&' C-NF' ED3 ' J $D3 ' Q3' ' F343&H43' &-4 F34' 3E$N 3D ' * F$ ' &4H J ' F3' C$ D' * F 4 O & 4C ' G$O' H&' 2 ! ' ! 4! ' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' F343' CF$ ' Q3' E' $ ' 43C13N C' < E3' $ ' F3' 3$C ' NH J 1 3 3' G-1 N$ 3' @H1O' H&' F3' C$ D' ED3 ' H&' , $ J 3C' J $D3' E' F3' C$ D' < && N3' F3' ; E 4 3C' F343 E CF$

G-1 N$ 3' @H1O' H&' F3' ED3 ' H&' , $ J 3C' H Q3 J $D3' &H -43' ' F3' < && N3'

CF$ ' Q3' NHE E-$ O' +31 ' -1 ' $ED' Q3' E' $ ' 43C13N C' F3' C$ J3' $C' F3'
; E 4 3C' E' F3' C$ D' H4 2 E$ ' ED3

W ' ED' F3' '&-4 F34' 3E$N 3D ' * F$ ' 143 H-C O' H' F3' C$ D' * F 4 O' ED3 ' H&'
&+C ' G$O' H&' 2!'! 4! ' F343' CF$ ' Q3' 14H D3D' E' F3' C$ D' <&& N3' >$EDC' H' Q3'
$EH F34' ?34 3C' H&' C-&& N 3E O' $423' I $4NF J 3E ' BHH+C ' H' Q3' N$ 3D' 14H D3D
F3' `' ED3 ' H&' > $ E D C $ E D ' < E3' BHH+' H&' C-NF' ?34 3C' CF$ ' Q3'
$114H1 $ 3D' H' 3$NF' @H-E O ' $ED' < E3' H' 3$NF' @ O' Q3 E2' $' @H-E O'
H&' C3 &' $ED' < E3' BHH+' H' 3 34O' C-NF' , - J Q34' H&' * H EC ' Q3 E2'
@H-E 3C' H&' F3 J C3 3C ' $C' F343 H&H43' ' F$C' Q33E' N-C H J $4O' H' ED3 '
H23 F34 ' $ED' < E3' BHH+' H' 3 34O' C-NF' , - J Q34' H&' H F34' * H EC' $C'
F343 H&H43' ' F$C' Q33E' N-C H J $4O' H' ED3 ' $1$4 ' &4H J ' F3' @H-E 3C'
E' F NF' F3O' $43' C -$ 3D ' $ED' 3 34O' BHH+' $114H14 $ 3D' H' $
@H-E O' CF$ ' Q3' D D3D' E H' B$4HE 3C ' $ED' 3 34O' BHH+' $114H14 $ 3D'
H' $' @ O ' Q3 E2' $' @H-E O' H&' C3 & ' H4' H' $' , - J Q34' H&' * H EC ' CF$ '
Q3' D D3D' E H' I $4 CF3C' H4' ? 433 C ' $ED' 3$NF' C-NF' BHH+' &H4'
@H-E 3C' CF$ ' NHE $ E' C31$4$ 3' G C HEC' -ED34' F3' 8 3$DC' H&'
B$4HE 3C ' $ED' &H4' @ 3C' H4' * H EC' -ED34' F3' 8 3$DC' H&' I $4 CF3C' H4'
? 433 C ' 44E23D' $ 1F$Q3 N$ O' F' $ 1F$Q3 N$ ' ?-QD C HEC' &H4'
G3EH J E$ HE' H&' > $EDC ' E H' F NF' BHH+C' F343' CF$ ' Q3' 3E 343D '
QO' F3' E $ ' > 3 34' H&' 3$NF' , $ J 3 ' F3' , $ J 3C' H&' $ ' > $EDC '
* 3E3 J 3E C ' $ED' 8 343D $ J 3E C' C13N & 3D' E' 3 34O' P 3 J H4 $ ' 43R
2 C 343D' E' F3' <&& N3 ' $ED' H' F3' , $ J 3' H&' F3' > $ED ' * 3E3 J 3E '
H4' 8 343D $ J 3E ' F343' CF$ ' Q3' C-Q(H E3D' F3' , $ J 3' H&' F3' I $4 CF' H4'
F3' I $N3' 43C13N 3 O' E' F NF' F3' C$ J 3' CF$ ' Q3' D3CN4 Q3D' H' Q3'
C -$ 3D ' $ED' $ CH' F3' =3$4' H&' ' 32 C 4O ' $ED' F3' I $23' H&' F3' G$O'
BHH+ ' $ED' F3' , - J Q34' $ED' H - J 3' 43C13N 3 O' H&' F3' QC 4$N ' $ED'
* 4$ECN4 1 ' BHH+C ' $ED' F3' , - J Q34' $ED' 6 3' H&' F3' P 3 J H4 $ ' 43 $ E2'
F343 H ' $ED' $ ' C-NF' ; E 4 3C' $ CH' CF$ ' Q3' J $D3' $ED' NH J 1 3 3D'
Q3&H43' F3' * J 3' H&' H13E E2' F3' <&& N3' &H4' B -C E3CC' HE' F3' P H4E E2'
H&' F3' ?3 3E F' G$O' $& 34' F3' G$O' HE' F NF' C-NF' P 3 J H4 $ ' CF$ '
F$ 3' Q33E' D3 343D' E H' F3' <&& N3' &H4' ' 32 C 4$ HE' ' $ED' &-4 F34 ' * F3' N-443E '
F$ ' C-NF' $C J 3E HE3D' ?34 3C' H&' BHH+C' CF$ ' NHENH J $E O' F' ED3 3C' H'
F3' ED3 ' H&' , $ J 3C' F343 E Q3&H43' J 3E HE3D ' Q3' NHE E-3D' * F433' Q3' E' I 34 HDC'
=3$4C ' $ED' F3' ; E 4 3C' E' F$ ' ?34 3C' CF$ ' F3E' Q3' N HC3D ' $ED' $' E3 ' H&' 6 3'
?34 3C' E' $ E3 ' ?3 ' H&' BHH+C' CF$ ' Q3' Q32-E' ' $ED' F3' ?34 3C' H&' BHH+C' =3$4C
$C ' $&H43C$ D' CF$ ' 34 J E$ 3' ' F3' ; ED' H&' F3' 6H-4 F' =3$4' $ED'
F343-1HE' E' +3' P $EE34' $' E3 ' ?34 3C ' E' $ E3 ' ?3 ' H&' C-NF' BHH+C '
CF$ g' Q3' Q32-E' $ED' Q3' NHE E-3D' D-4 E2' $' I 34 HD' H&' 6 3' =3$4C ' $ED'
$' C J $4' 44$E23 J 3E ' CF$ ' Q3' J $D3' $ ' F3' ; ED' H&' 3 34O' C-QC3X-3E '
I 34 HD' H&' 6 3' =3$4C' ' $ED' $ ' F3' ; ED' H&' ?3 3E' =3$4C' F343' CF$ ' Q3'
J $D3' $' NHECH D$ 3D' ED3 ' H&' F3' * H' & 4C ' I 34 HDC ' $ED' C-QC3 ' $ED' H' Q3'
X-3E O ' $ ' F3' ; ED' H&' 3 34O' C3NHED' I 34 HD' H&' 6 3' =3$4C ' $' G3N3E ' NHECH D$ 3D'
E $ +3' @HECH D$ HE' H&' C-NF' ED3 3C' H&' > $EDC ' $ED' &H4' F3' C$ J 3' 7D3N3EE $ O '
* J 3C' $C' C' F343 E Q3&H43' 14H D3D' &H4' F3' ED3 3C' H&' , $ J 3C ' CF$ '
Q3' J $D3' ' $ED' H11HC 3' H' 3 34O' C-NF' ; E 4O' H&' > $EDC' F343' CF$ ' $ CH'
Q3' 3E 343D' F3' ?-4E$ J 3' $ED' @F4 C $E' , $ J 3' H&' F3' M4$E H4 ' $ED'
$ CH' F3' ?-4E$ J 3' $ED' @F4 C $E' , $ J 3' H&' F3' M4$E 33 ' Q ' F343'
F343' CF$ ' Q3' J H43' F$E' < E3' M4$E H4' F3' , $ J 3' H&' F3' & 4C ' M4$E H4'
HE O' CF$ ' Q3' CH' 3E 343D ' D F F3' 9 H4D' ` $EH F34 c' H4' ` H F34C c' $ED'
F343' J H43' F$E' < E3' M4$E 33' E' +3' P $EE34' F3' , $ J 3' H&' F3' & 4C '
M4$E 33' HE O ' F' F3' 9 H4D' `' H F34 c' H4' `' H F34C.c' I 4H D3D'
$ $OC ' F$ ' F3E3 34' $ED' CH' H& 3E' $C' ' CF$ ' F$113E' H' Q3' J 14$N '

Z Zʼ UčKʼSčM # > ; > P ʼ ʼ @$1ʼZ

N$Q 3ʼ Hʼ J$+3ʼ$EDʼ NH J 1 3 3ʼ$ ʼC$ Dʼ ; E 4 3Cʼ F Eʼ F3ʼ * J 3ʼ $&H43R C$ Dʼ F3ʼ ' 32 C 4$4ʼ CF$ ʼN$-C3ʼ$ʼ 1-Q Nʼ , H N3ʼ Hʼ Q3ʼ 1HC 3Dʼ ʼ CH J 3ʼ NHEC1 N-H-Cʼ I$4 ʼ H&ʼ C$ Dʼ <&& N3ʼ Hʼ Q3ʼ $CC 2E3Dʼ &H4ʼ F3ʼ I-41HC3ʼ H&ʼ C-NFʼ , H N3Cʼ QOʼ F3ʼ ' 32 C 4$4ʼ C $ E2ʼ Hʼ F$ ʼG$Oʼ C NFʼ ; E 4 3Cʼ $43ʼ F3Eʼ J$D3ʼ $EDʼ NH J 1 3 3D

G-1 N$ 3ʼ @H1 3C H&ʼ F3ʼ >$EDCʼ Hʼ Q3ʼ 1431$43Dʼ

W ʼ EDʼ Q3ʼ ʼ&-4 F34ʼ 3E$N 3D ʼ * F$ ʼ$ ʼ F3ʼ 3$C ʼ<E3ʼG-1 N$ 3ʼ @H1Oʼ H&ʼ F3ʼ C$ Dʼ ED3 ʼH&ʼ >$EDCʼ CF$ ʼQ3ʼ 1431$43D ʼ $EDʼ -C3Dʼ Eʼ +3ʼ P$EE34ʼ $Cʼ E3$4 Oʼ $Cʼ J$Oʼ Q3 ʼ $Cʼ F3ʼ G-1 N$ 3ʼ @H1Oʼ H&ʼ F3ʼ ED3 ʼH&ʼ , $ J 3Cʼ F343 E Q3&H43ʼ J 3E HE3D

, Hʼ BHH+Cʼ NHE $ E E2ʼ ; E 4 3Cʼ H&ʼ PH4 2$23Cʼ Hʼ Q3ʼ +31

W W ʼ EDʼ Q3ʼ ʼ$ CHʼ 3E$N 3D ʼ * F$ ʼEHʼ BHH+ʼ F$ CH3 34 ʼH F34ʼ F$Eʼ F3ʼ NH J J HEʼ BHH+Cʼ H&ʼ F3ʼ <&& N3ʼ NHE $ E E2ʼ ; E 4 3Cʼ H4ʼ QC 4$N Cʼ H&ʼ 432 C 343Dʼ PH4 2$23Cʼ H4ʼ EE- Oʼ G33DC ʼ CF$ ʼ Q3ʼ +31 ʼ Eʼ F3ʼ C$ Dʼ ' 32 C 34ʼ <&& N3 ʼ &H4ʼ F3ʼ 14 $ 3ʼ # C3ʼ H4ʼ B3E3& ʼ H4ʼ EC13N HEʼ H&ʼ $EOʼ B$E+34C ʼ P34NF$E C ʼ H4ʼ H F34ʼ I34CHEC

ʼ EE3ʼN ʼUʼ ^) _

WW ʼ EDʼ F343$Cʼ QOʼʼ F3ʼ * 3E Fʼ ?3N HEʼ H&ʼ F3ʼ $&H43C$ Dʼ N ʼ H&ʼ F3ʼ ? Fʼ =3$4ʼ H&ʼ F3ʼ ' 3 2Eʼ H&ʼ 8 34ʼ P$(3C Oʼ \ -33Eʼ / ##!ʼ I4H C HEʼ $Cʼ J$D3ʼ F$ ʼ F3ʼ ' 32 C 4$4ʼ H4ʼ F Cʼ G31- Oʼ CFH- D ʼ $Cʼ H& 3Eʼ $Cʼ 43X- 43D ʼ J$+3ʼ ?3$4NF3Cʼ NHEN34E E2ʼ $ ʼ P3 J H4 $ Cʼ 432 C 343Dʼ Eʼ F3ʼ C$ Dʼ <&& N3 ʼ $EDʼ 2 3ʼ @34 & N$ 3Cʼ NHEN34E E2ʼ F3ʼ C$ J 3ʼ ʼ $EDʼ $ʼ GH-Q ʼ F$ E2ʼ $4 C3Eʼ F3 F34ʼ F343-ED34ʼ F3ʼ ' 32 C 4$4ʼ $Cʼ HQ 23Dʼ Hʼ 2 3ʼ , 32$ 3ʼ @34 & N$ 3Cʼ Eʼ @$C3Cʼ F343ʼ F3ʼ ' 3C- ʼ H&ʼ F3ʼ ?3$4NFʼ $Cʼ F$ ʼEHʼ P3 J H4 $ ʼ $Cʼ &H-EDʼ Hʼ F$ 3ʼ Q33Eʼ 432 C 343D ʼ ʼ $Cʼ QOʼ F3ʼ ?3NHEDʼ ?3N HEʼ H&ʼ $Eʼ N ʼ J$D3ʼ Eʼ F3ʼ I$4 $ J 3E ʼH&ʼ$!% #&ʼ Eʼ F3ʼ ; 2F Fʼ =3$4ʼ H&ʼ F3ʼ ' 3 2Eʼ H&ʼ 8 Cʼ P$(3C Oʼ % E2ʼ ! , (!ʼ F3ʼ 6 4C ʼ 3E$N 3D ʼ F$ ʼ -1HEʼ $ʼ ' 3X- C HEʼ N$ 3Dʼ $ʼ , H 3ʼ Q3 E2ʼ 3& ʼ Fʼ F3ʼ ' 32 C 4$4ʼ H4ʼ F Cʼ G31- Oʼ Eʼ F3ʼ 6H4 Jʼ $EDʼ P$EE34ʼ F343 Eʼ J 3E HE3Dʼ F3ʼ C$ Dʼ ' 32 C 4$4ʼ CFH- Dʼ 2 3ʼ , 32$ 3ʼ @34 & N$ 3C ʼ F NFʼ N ʼ $Cʼ Eʼ 1$4 ʼ4313$ 3D ʼ $EDʼ $EH F34ʼ 6H4 Jʼ H&ʼ , H 3ʼ C-QC - 3D ʼ QOʼ $Eʼ N ʼ J$D3ʼ Eʼ F3ʼ I$4 $ J 3E ʼH&ʼ$!% #&ʼ Eʼ F3ʼ * 3E O & & Fʼ =3$4ʼ H&ʼ 8 Cʼ $ 3ʼ P$(3C Oʼ % E2ʼ ! , (!ʼ F3ʼ * F 4D.ʼ EDʼ F343$Cʼ$ʼ &-4 F34ʼ GH-Q ʼ F$Cʼ $4 C3E ʼ F3 F34ʼ F3ʼ I34CHEʼ 43X- 4 E2ʼ C-NFʼ $ʼ @34 & N$ 3ʼ J$Oʼ Eʼ F3ʼ C$ Dʼ , H 3ʼ 3 N -D3ʼ QOʼ , $ J 3ʼ &4H Jʼ F3ʼ ?3$4NFʼ F343QOʼ 43X- 43Dʼ Hʼ Q3ʼ J$D3ʼ $EOʼ EC 4- J 3E ʼ H&ʼ F NFʼ F3ʼ Cʼ $ 43$DOʼ $ $43 ʼ H4ʼ $EOʼ EC 4- J 3E ʼ Eʼ 43C13N ʼ H&ʼ F NFʼ F3ʼ Cʼ Eʼ $E ʼ H&ʼ EHʼ &-4 F34ʼ E&H4R J$ HE ʼ $EDʼ $ ʼ F3ʼ C$ J 3ʼ * J 3ʼ 43 $ Eʼ $ʼ ' 2F ʼ Hʼ F3ʼ ' 3 J 3DOʼ 2 EC ʼ F3ʼ ' 32 C 4$4ʼ $EDʼ F Cʼ G31- Oʼ 14H D3Dʼ QOʼ F$ ʼ N ʼ $EDʼ ʼ Cʼ 4 2F ʼ F$ ʼC-NFʼ $C J 3E HE3Dʼ GH-Q ʼ CFH- Dʼ +3 C3ʼ Q3ʼ 43 J H 3D ʼ Q3ʼ ʼ F343&H43ʼ 3E$N 3D ʼ * F$ ʼ CHʼ J -NFʼ H&ʼ F3ʼ C$ Dʼ N ʼ H&ʼ F3ʼ * 3E O & & Fʼ =3$4ʼ H&ʼ 8 Cʼ P$(3C Oʼ % E2ʼ ! , (!ʼ F3ʼ * F 4Dʼ $Cʼ 43 $ 3Cʼ Hʼ F3ʼ 6H4 Jʼ H&ʼ $ʼ ' 3X- C HEʼ &H4ʼ $ʼ ?3$4NFʼ $EDʼ , 32$ 3ʼ @34 & N$ 3 ʼ $EDʼ Hʼ F3ʼ & E2ʼ H&ʼ F3ʼ @34 & N$ 3 ʼ $EDʼ Hʼ F3ʼ 6H4 Jʼ H&ʼ C-NFʼ ?3$4NF ʼ $EDʼ F3ʼ E3CC E2ʼ F3ʼ C$ J 3 ʼ Q3ʼ $EDʼ F3ʼ C$ J 3ʼ Cʼ F343QOʼ 4313$ 3D

ZM @ʼ ! ^ _

' 3N 3Dʼ N ʼ U!ʼM ʼS ʼ^ ʼ - Eʼ 1$4 ʼ 43R 13$ 3D

' 3X- C HEʼ &H4ʼ ?3$4NFʼ $EDʼ @34 & R N$ 3

WW ʼ EDʼ Q3ʼ ʼ$ CHʼ 3E$N 3D ʼ * F$ ʼ&4H J ʼ $EDʼ $& 34ʼ F3ʼ C$ Dʼ * F 4 O ʼ & 4C ʼG$Oʼ H&ʼ 2 ! ' ! 4! ʼ 3 34Oʼ I34CHEʼ FHʼ CF$ ʼ 43X- 43ʼ C-NFʼ ?3$4NFʼ $EDʼ @34 & N$ 3ʼ Hʼ Q3ʼ J$D3ʼ $Cʼ $&H43C$ Dʼ CF$ ʼ D3 34ʼ -E Hʼ H4ʼ 3$ 3ʼ Fʼ F3ʼ ' 32 C 4$4ʼ H4ʼ <E3ʼ H&ʼ F3ʼ CC C $E ʼ ' 32 C 4$4Cʼ H&ʼ F3ʼ C$ Dʼ <&& N3ʼ $ʼ , H 3ʼ H4ʼ ' 3X- C HE ʼ &$ 4 Oʼ 4 3Eʼ HEʼ I$4NF J 3E ʼ Eʼ F3ʼ 9 H4DCʼ H4ʼ Hʼ F3ʼ ; &&3N ʼ&H H E2 ʼ ^ F$ ʼ Cʼ Hʼ C$O _

7 (G;? ' ; H F$ 3 $E QC 4$N H& 3 340 P3JH4 $ 43 C 343D F3 6H4J H&
7 <&& N3 &H4 432 C 34 E2 G33DC @HE 30$EN3C $ED 9 C E $!% #& '3X- C HE
7 H& F3 N C H&b) ! ! #1!) ! E ! ,) ! * ! 1,# a $&&3N E2 b) ! !
7 #1!) ! 2 !#, # ,# ,) ! #, 1 < #&1 7!#! !# 1 , ! !
& !# 1a E F3 @H-E O H& HE $ED &4H J F3
7 G$O H& -1 H F3 * J 3 H& J $+ E2 @34 & N$ 3 -1HE
7 F C '3X- C HE ; N31 H& F3 P3JH4 $ H& F3 &H H E2 E ; N31 HE
7 C 4- J3E b? ! ! #1!) ! E ! #& 2 ! ,) ! $#1 3 !# #&) !
7 E ! ,) ! * , 7 ! 1 , a G$ 3D $ F3
7 G$O H& <E3 FH-C$ED 3 2F F-ED43D
7 $ED

7 ^? 2E3D_ / " b) ! * ! 1,# #( ) ! L !V3 1 ,# a>

WW I4H D3D $ $OC $ED Q3 &-4 F34 3E$N 3D * F$ F3 I34CHE I34CHEC J$+ E2 C-NF '3X- C HE J$O J H4 3 3ED F3 ?3$4NF $ED @34 J$+ E2 '3 & N$ 3 H <E3 H4 C3 34$, $ J 3C H& I34CHEC $ED H $ 23E34$ I34 HD HE O H4 H $EO 1$4 N- $4 I34 HD E 43C13N H& 3$NF , $ J 3 $ED H *34$*H F3 <E3 H4 C3 34$ G3EH J E$ HEC H& >$ED $ED &H4 $ 23E34$ I34 HD C$J3 H4 &H4 C31$4$ 3 I34 HDC E 43C13N H& 3$NF G3EH J E$ HE H4 H QH F $, $ J 3 H4 , $ J 3C $ED $ G3EH J E$ HE H4 G3EH J E$ HEC $C F3 H4 CF3 CF$ F E+ & $ED J $O $ CH $4O F3 *34 J C H& C-NF '3X- R C HE $ED ; N31 HE H4 3 F34 H& F3 J H C- $EO , - J Q34 $ED $4 3 O H& EC 4- J3E C G$ 3C I$4 3C , $ J 3C G3EH J E$ HEC H& >$ED @H-E 3C B$4HE 3C $ED I$4 CF3C $ED E 1 $N3 H& 43X- 4 E2 $E QC 4$N H& 3 340 432 C 343D P3JH4 $ J $O 43X- 43 $ &- @H1O H& $ 1$4 N- $4 P3JH4 $ H4 H& $EO , - J Q34 H& 1$4 N- $4 P3JH4 $ C H4 H& 3 340 P3JH4 $ F E $EO I34 HD H4 I34 HDC $ED HE O $E QC 4$N H& 3 340 H F34 P3JH4 $ NH J E2 F E F3 *34 J C H& C-NF '3X- C HE $ED &-4 F34 J $O J $+3 $ED HD23 C-NF '3X- C HE QO $EO H4E3O H4 ?H N H4 H& <E3 H& F3 C-134 H4 @H-4 C E $!% #& Q- E F$ @$C3 C-NF H4E3O H4 ?H N H4 CF$ C 2E F3 '3X- C HE F F C H E , $ J 3 $C H4E3O &H4 C-NF I34CHE

WW ED Q3 &-4 F34 3E$N 3D * F$ F3 '32 C 4$4 H4 CC C $E '3X- C HEC '32 C 4$4 CF$ -1HE F3 G3 340 H& C-NF '3X- C HE & 3 F3 C$ J 3 & 3D E F3 <4D34 E F NF CF$ Q3 43N3 3D $ED CF$ F $ G 23EN3 2 3 H F3 I34CHE J $+ E2 C-NF '3X- C HE $ @34 & N$ 3 E F3 9 H4DC H4 H F3 ; &&3N &H H E2 ^ F$ C H C$O _

7 6 * ; ' ' D 23E ?3$4NF J $D3 E F3 <&& N3 &H4 432 C 34 E2 G33DC IH4 J E&
@HE 30$EN3C $ED 9 C E $!% #& -1HE $ '3X- C HE H& ,32$ 3
F NF F3 &H H E2 C $ @H1O b% ! ! #1!) ! 0,) ,%! L !V3 1 ,# b7 &N$3
#& 8 J ' ! 5 ,# a N34 &O * F$ F343 C EH $EO P3JH4 $ 432 C
3&3D E F3 C$ D <&& N3 F NF NH J 3C F E F3 *34 J C H& F3 C$ D
'3X- C HE F343H& $E QC 4$N C EH E F C @34 & N$ 3 4- O
C3 &H4 F G$ 3D F3 G$O H&
<E3 FH-C$ED 3 2F F-ED43D $ED
7 ^? 2E3D_ '32 C 4$4
7 b, $ CC C $E '32 C 4$4 m

WW I4H D3D $ $OC $ED Q3 3E$N 3D * F$ E 3 340 @$C3 @34 & N$ 3
F343 E F3 '3X- C HE $&H43C$ D CF$ -ED34 F3 I4H C HE $C $ CH H Q3
F343 E

F343 E Q3&H43' NHE $ E3D' Q3' $4 3D' F$' F3' ?$D' @34 &N$ 3' $ CH' CF$ '
Q3' $4 3D' H' J33' F3' *34JC H&' F3' '3X- J HE

6H4J' H&'
P3JH4$

WW ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' F3' QC 4$N' H&' 3$NF'
P3JH4$' ECN4 Q3D' E' C-NF' @34 &N$ 3' CF$ 'Q3' E' H4' H' F3' ; &&3N 'H&' F3'
6H4J' H&' QC 4$N' 2 3E' E' F3' ?NF3D- 3' J$4+3D' ^@_' H' F C' N'
$EE3 3D' $ED' CF$ ' C3' &H4 F' $C' &$4' $C' J 'Q3' DH& 3' &4HJ' F3' P3'
JH4$' F3' I$4 N- $4C' J3E HE3D' E' F$' 6H4J

@34 &N$ 3'
D3EN3 $34GC'
F3' '32 C 4$4'

WW ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' C-NF' @34 &N$ 3' CF$ '
NNH4D E2' H' F3' @HE 3E C' F343H&' Q3' ; D3EN3' 2 EC' F3' '32 C 4(- '
$ED' F3' CC C $E' '32 C 4$4' C 2E E2' F3' C$J3' $C' 3' H&' F3' ; 3E'
$ED' ,$ -43' H&' F3' '3X- C HE' $C' H&' F3' ; 3N- HE' H&' F3' ?3$4NF'
$ED' F3' '32 C 4$4' F3 F34' F3' CF$ ' 134CHE$ O' F$ 3' C 2E3D' C-NF'
@34 &N$ 3' H4' EH '$ED' $ CH' F3' CC C $E' '32 C 4$4' FH' J$O' F$ 3'
C 2E3D' C-NF' @34 &N$ 3' CF$ '3$NF' H&' F3J' Q3' $Q 3' E' G$J$23C' $ED'
&- '@HC C' H' F3' I$4 O' $224 3 3D' H4' E(-43D' QO' $EO' 64$-D' @H -C HE'
H4' ,32 3N' E' J$+ E2' C-NF' ?3$4NF' $ED' @34 &N$ 3

3EDH4' H'
&-4E C 'HE O'
$' ,32$ 3'
?3$4NF' F'
$E' QC 4$N'
H&' 3 34O' P3R
JH4$' EH'
3 N31 3D

WW ' ED' Q3' '$ CH' 3E$N 3D' *F$' F343' $EO' I-4NF$C34' H4' I$4 O'
$NX- 4 E2' $E' E 343C' E' $EO' P$EH4C' >$EDC' *3E3J3E C' H4' 8343R
D $J3E C' CF$ 'Q3' 3E 3D' H' 43X- 43' H&' $' 3EDH4' H4 I$4 O' 4 E2'
F' C-NF' E 343C '$' ,32$ 3' ?3$4NF' F3' $ 34' CF$ 'HE O' Q3' HQ 23D'
H' 14H D3' $ED' &-4E CF' H' F3' &1 J34$' ,32$ 3' @34 &N$ 3' H&' ?3$4NF'
F' $E' QC 4$N' E' H4' H' F3' ; &&3N 'H&' F3' 6H4J' 2 3E' E' F3' ?NF3D- 3'
J$4+3D' ^@_' F343-E H' $EE3 3D' H4' $C' E3$4' F343-E H' $C' J$O' Q3' H&' 3 34O'
P3JH4$' 432 C 343D' E' F3' C$D' <&& N3' F E' F3' I34 HD' NHJ 14 C3D' E'
C-NF' ?3$4NF' : I4H D3D' $ $OC' F$' E' 3 34O' C-NF' @$C3' F3' '3X- C HE'
&H4' C-NF' ?3$4NF' CF$ 'NHE $ E' EH' ; N31 HE' -E 3CC' F3' I-4NF$C34' H4'
I$4 O' $NX- 4 E2' C-NF' E 343C 'H4' F C' F34' H4' F3 4' H4E3O' CF$ '
F$ 3' $2433D' E' 9 4 E2' F$' $E' ; N31 HE' H&' $' 1$4 N- $4' P3JH4$' H4'
P3JH4$ C' CF$ 'Q3' J$D3' E' C-NF' '3X- C HE

?-J J$4O'
PHD3' H&'
F3$4 E2'
@HJ1$E C'
2 EC' <&& R
N34C

WW ' ED' F343$C' ' C' 3 13D 3E' F$' $' C-J J$4O' PHD3' H&'
F3$4 E2' $EO' @HJ1$E '2 EC '$EO' I34CHE' E' F3' C$D' '32 C 34' <&& N3'
CFH- D' Q3' 14H D3D' Q3' ' F343&H43' 3E$N 3D' *F$' -1HE' $EO' @HJR
1$E' J$D3' HE' <$ F' Q3&H43' $EO' H&' 8 C' P$(3C O C' C-134 H4' @H-4 C' H&'
>$ 'H4' ; X- O' E' 234% #' H&' $EO' ,32 3N' G3&$- 'H4' P CNHED-N 'H&'
F3' '32 C 4$4' H4' $EO' CC C $E' '32 C 4$4' H4' @ 34+' 3J1 HO3D' E' F3'
C$D' '32 C 34' <&& N3' 'CF$ 'Q3' $ &-' &H4' C-NF' @H-4 'H4' $EO' H&' F3'
5-D23C' H4' $' 5-D23' F343H&' $ED' F3' C$D' @H-4 '5-D23C' H4' 5-D23'
$43' F343QO' 43X- 43D' E' H13E' @H-4' H' F3$4' $ED' D3 34J E3' C-NF' @HJ "
1$E' E' $' C-J J$4O' P$EE34' $ED' F3' C$D' @H-4 '5-D23C' H4' 5-D23'
&' F3O' H4' F3' CF$ ' F E+' 14H134' J$O' 3 $J E3' -1HE' <$ F' F3'
I$4 O' NHJ1$E E2' $ED' F3' I$4 O' NHJ1$E3D' 2 EC ' $ED' D CJ CC'
F3' @HJ1$E ' F' 43$CHE$Q 3' @HC C' &' F3' @HJ1$E' CF$ '$113$4'
&4 HH-C' H4' 3 $ H-C' H4' $ $4D' @HJ13EC$ HE' H' F3' @HJ1EE '
H4' J1HC3' $' 13N-E $4O' I3E$ O' H4' 6 E3' -1HE' F3' I$4 O' NHJ1$E3D'
2 EC' H' $EO' JH-E' EH' 3 N33D E2' F3' ?-J' H&' <E3' F-ED43D'
IH-EDC' H4' $D(-D23' F3' I$4 O' NHJ1$E3D' H&' H' Q3' $JH 3D' &4HJ'
F C' I $N3' E' F3' C$D' <&& N3' $C' F3' @$C3' J$O' 43X- 43' $ED' CF$ '
&H4 F F' N$-C3' $' @H1O' H&' F3' 5-D2J3E' 14HEH-EN3D' -1HE' C NF'
@HJ1$E' H' Q3' $D' Q3&H43' F3' >H4D' > 3- 3E$E' H4' H F34' @F 3&

MH 34EH4

MH 34EH4' H4' MH 34EH4C' H&' $!% #& ' $ED' F343-1HE' ' CF$ ' Q3' $ &- '
&H4' F3' C$ D' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C'
H&' $!% #&' H' H 34' F3' I 34CHE' -1HE' F3' @H J 1 $ E ' 2 EC ' FH J'
C-NF' 5-D2 J 3E ' $C' 2 3E' H' 1$O' C-NF' I 3E$ O ' 6 E3 ' H4@HE(13EC$ HE '
H4' H' Q3' 43 J H 3D' &4H J ' F C' <&& N3' H4' ; J 1 HO J 3E ' E' F3' C$ D' ' 32 C 34'
<&& N3 ' H4' H' H4D34' F3' C$ D' ' 32 C 4$4 ' H - ' H&' $EO' ?$ $4O' F$ ' J $O' Q3'
D 3' H4' F$ ' CF$ ' $NN4-3' H' F3' I HHE' 2 EC ' FH J ' C-NF' 5ED2 J 3E '
CF$ ' F$ 3' Q33E' 2 3E ' H' 1$O' $ED' 'D CNF$423' C-NF' I 3E$ O ' 6 E3 ' H4'
@H J 13EC$ HE' $&H43C$ D ' $ED' F343' C-NF' I 3E$ O' H4' 6 E3' CF$ ' Q3'
J 1HC3D ' F3' J H-E ' H&' C-NF' I 3E$ O ' CF$ ' Q3' 1$ D' E H' F3' C$ D'
' 32 C 34' <&& N3 ' $ED' CF$ ' Q3' $11 3D' $C' &' F3' C$ J 3' F$D' $NN4-3D' &4H J'
633C' 1$ D' E' F3' ?$ D' <&& N3 ' $ED' E' 3$C3' H&' , HE1$O J 3E ' H&' F3'
G$ J $23C' $&H43C$ D ' F3' I 34CHE' H' FH J ' C-NF' @H J 13EC$ HE' CF$ ' Q3'
H4D343D' H' Q3' 1$ D' J $O' C-3' &H4' F3' C$ J 3' E' $E' N HE' H&' G 3Q ' E'
$EO' @H-4 ' H&' ' 3NH4D' E' F3' @ O' H&' 2 34% #

WW W' ED' F343$C' 243$ ' G && N- 3C' F$ 3' HNN$C HE$ O' Q33E' 3 13 ' P 3 J H4 $' H
4 3EN3D' E' F3' C$ D' ' 32 C 34' <&& N3' &4H J ' $' 9 $E ' H&' $' C-&& N 3E O'
&- ' G3CN4 1 HE' Q3 E2' EC34 3D' E' F3' P 3 J H4 $ ' H&' F3' I $N3' E'
F NF' F3' >$EDC' $43' C -$ 3D ' $ED' ' C' & E2' F$ ' E' &- -43' P 3 J H ' F343C' O' $43
4 $ C' C-NF' < J CC HEC' CFH- D' EH ' Q3' 3& ' -EC-11 3D ' Q3' ' F343&H43' C -$ 3'
3E$N 3D ' * F$ ' &4H J ' F3' C$ D ' * F 4 O & 4C ' G$O' H&' GNN J 34 ' E' 3 34O'
P 3 J H4 $ ' H&' $EO' G33D' H4' EC 4- J 3E ' D$ 3D' $& 34' F3' * F 4 O & 4C '
G$O' H&' 2 ! ' ! 4! ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H '
Q4H-2F ' E H' F3' C$ D' <&& N3' H' Q3' 432 C 343D ' F343' CF$ ' Q3'
C13N & 3D' F3' @H-E O' $ED' B$4HEO ' H4' F3' * H E' H4' @H-E O' H&' $' @ O '
$ED' I $4 CF ' H4' F3' * H E' $ED' I $4 CF ' E' F NF' F3' >$EDC' $ED' 3 34O'
H&' F3 J ' H' Q3' $&&3N 3D' QO' 432 C 34 E2' C-NF' P 3 J H4 $ ' $43' QO' C-NF'
G33D' H4' EC 4- J 3E ' C $ 3D' H' Q3' C -$ 3D' ($ED' F343' F3' >$EDC' 3'
E' * H' H4' J H43' @H-E 3?(H4' B$4HE 3C' H4' I $4 CF3C' H4' ? 433 C ' H4'
1$4 O' E' <E3' B$4HEO ' I $4 CF ' H4' ? 433 ' $ED' 1$4 O' E' $EH F34 ' F3'
?$ J 3' CF$ ' Q3' D C EN O' C $ 3D' E' F3' P 3 J H4 $ ' &4H J ' F3' G33D' ($ED'
&-4 F34 ' F$ ' F343' F3' EC 4- J 3E ' H' F NF ' F3' P 3 J H4 $ ' 43 $ 3C'
CF$ ' NHE $ E' $' I $E' H&' F3' >$EDC' <4 H&' $EO' I $4 ' F343H& ' F343' J $O '
&' ' Q3' F3' I 3$C-43' H&' F3' I $4 O' 43X- 4 E2' F3' ' 32 C 4$ HE' H&'
F3' P 3 J H4 $ ' Q3' EC34 3D' E' H4' Q3' $EE3 3D' HE' I $4NF J 3E ' H' F3'
P 3 J H4 $ ' H&' C-NF' EC 4- J 3E ' H' Q3' 432 C 343D' $' @H1O' H&' C-NF' I $E' (
$ED' J H43H 34 ' F$ ' 3 34O' P 3 J H4 $ ' Q4H-2F ' E H' F3' C$ D' <&& N3' H'
Q3' 432 C 343D' CF$ ' Q3' F343' NH J 1$43D' F' F3' EC 4- J 3E ' H&' F NF'
' 1-41H4 C' H' Q3' $' P 3 J H4 $ ' $ED' &' F3' C3 34$ ' I $4 N- $4C' 43X- 43D'
QO' >$ ' H' Q3' E' F3' P 3 J H4 $ ' CF$ ' Q3' NHE $ E3D' F343 E ' H4' C-NF' H&'
F3' I $4 N- $4C' QO' F C' N ' 43X- 43D' H' Q3' C3 ' &H4 F' E' F3' QC 4$N '
BHH+' F343 E Q3&H43' J 3E HE3D' $C' CF$ ' Q3' NHE $ E3D' F343 E' CF$ '
Q3' &H-ED' H' Q3' 4- O' C $ 3D' &4H J ' F3' EC 4- J 3E ' F3E' F3' P 3 J H4 $ '
CF$ ' Q3' 432 C 343D ' Q- ' EH ' H F34 C3

WWW ' I 4H D3D' $ $OC ' $ED' Q3' ' 3E$N 3D ' * F$ ' F343' $' P 3 J H ' E' N$C3' F3'
4 $ ' CF$ ' Q3' 43X- 43D' H' Q3' 432 C 343D' H&' $EO' EC 4- J 3E ' F$ CH3 34 ' b L- OH-D
H F34' F$E' $' 9 ' F NF' EC 4- J 3E ' CF ' Q3$4' G$ 3' HE' H4' Q3&H43' Q4H J 3D'
F3' * F 4 O & 4C ' G$O' H&' 2 ! ' ! 4! ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED'
F 4 O H ' H4' $' P 3 J H4 $ ' H&' $EO' 9 ' H&' $EO' G$ 3' F$ CH3 34 '
E' F NF' EC 4- J 3E ' <4 9 ' F3' B$4HEO' H4' I $4 CF' E' F NF' F3'
>$ED' C' C -$ 3D' C EH ' J 3E HE3D ' F3E' $ED' E' F$ ' @$C3' -1HE'
V' =' F3

F3' 6$N ' Q3 E2' C $ 3D' $ED' 34 & 3D' E' F3' && D$ ' H&' F3' ; 3N- HE' H&' C-NF' P 3 J H4 $ ' E' F$ ' B$4HEO' H4' I $4 CF' $EO' P $EH4C' >$EDC(*3E3 J 3E C' H4' 8343D $ J 3E C' NH J 14 C3D' E' C-NF' EC 4- J 3E ' D4' 9 ' Q- ' H&' F NF' F3' B$4HEO' H4' I $4 CF' F$C' Q33E' H J 3D' H' Q3' J 3E HE3D' $43' C -$ 3D' C-NF' P 3 J H4 $ ' CF$ ' E' +3' P $EE34 ' Q3' 432 C 343D ' $ED' $ ' F3' +3' ; E 4 3C' CF$ ' Q3' J $D3' E' F3' C$ D' ' 32 C 34' <&& N3 ' &4H J ' C-NF' && D$ ' E' 43C13N ' H&' F3' H J 3D' B$4HEO' H4' I $4 CF ' $C' &' C-NF' B$4HEO' H4' I $4 CF' F$D' Q33E' C $ 3D' 1' F3' EC 4- J 3E ' H4' 9 ' $ED' E' F3' P 3 J H4 $ ' F343H&

, - J Q34' H&' 6H HC' H' Q3' EDH4C3D' HE' 3$NF' P 3 J HR 4 $ WWW ' ED' Q3' ' &-4 F34' 3E$N 3D' ' *F$ ' -1HE' 3 340' P 3 J H4 $ ' Q4H-2F ' E H' F3' C$ D' <&& N3' H' Q3' 432 C 343D' F343' CF$ ' Q3' EDH4C3D' F3' , - J Q34' H&' M4$E H4C ' F3' , - J Q 34' H&' G3EH J E$ HEC' H&' >$ED ' $ED' $ CH' F3' , - J Q34' H&' 6H HC ' 3$NF' H&' ?3 3E O H' 9 H4DC ' NHER $ E3D' E' C-NF' P 3 J H4 $ ' F NF' EDH4C3 J 3E ' CF$ ' Q3' C 2E3D' QO' F3' I 34CHE' Q4 E2 E2' C-NF' P 3 J H4 $ ' H' Q3' 432 C 343D ' $ED' &' C-NF' E ' ' DH4C3 J 3E ' CF$ ' Q3' -E 4-3 ' F3' I 34CHE' C-QCN4 Q E2' F3' C$ J 3' CF$ ' &H4&3 ' 6 3' I H-EDC ' H' Q3' 43NH 343D ' QO' @ ' B ' QO' $EO' <&& N34' E' 5(3' C$ D' ' 32 C 40' <&& N3' FH' ' C-3' &H4' F3' C$ J 3

<&& N3' @H1 3C' H&' P 3 J H4 $ C' E' ; D3EN3' (' ' WWW ' ED' F343$C' ' C' NHE 3E 3E ' F$ ' <&& N3' @H1 3C' H&' F3' P 3 J H4 $ C' 432 C 343D' E' F3' C$ D' ' 32 C 34' <&& N3' CFH- D' -ED34' N34 $ E' J $ HEC' Q3' 43N3 3D' E' ; D3EN3' ' Q3' ' F343&H43' 3E$N 3D' ' *F$ ' E' $ ' I 4HN33D E2C' Q3&H43' $EO' @H-4 ' H&' 5-C N3' &H4' $ ' I -41HC3C' F$ R CH3 34' $E' <&& N3' @H1O' H&' $EO' P 3 J H4 $ ' 432 C 343D' E' F3' C$ D' <&& N3' CF$ (' -1HE' C-NF' <&& N3' @H1O' Q3 E2' 14H 3D' E' +3' P $EE34' $C' $E' ' @H1O' H&' $EO' H F34' ' 3NH4D ' Q3' 43N3 3D' $ED' $+3E' $C' ; D3EN3 H&' F1' @HE 3E C' H&' F3' P 3 J H4 $ ' H&' F NF' ' 1-41H4 C' H' Q3' $E' <&& N3' @H1O ' 7 FH- ' F3' I 4HD-N HE' H&' F3' H4 2 E$ ' P 3 J H4 $ ' I 4H D3D' $ $OC ' F$ ' F3' I $4 O' 14HD-N E2' C-NF' <&& N3' @H1O' CF$ ' &' H- ' H&' 234% # ' *3E' G$OC ' $ED' &' E' 234% # ' ; 2F ' G$OC' Q3&H43' 14HD-N E2 ' F3' C$ J 3 ' 2 3' , H N3' E' 9 4 E2' H' F3' $D 34C3' I $4 O' F343H& ' $ED' 14H D3D' $ CH ' F$ ' C-NF' $D 34C3' I $4 O' CF$ ' EH ' F E' 6H-4' G$OC' $& 34' 43N3 E2' C-NF' , H N3' D3 J $ED' QO' $ NH-E 34' , H N3' F$ ' F3' H4 2 E$ ' P 3 J H4 $ ' CF$ ' Q3' 14HD-N3D' ' $ED' E' 3 340' @$C3 E' F NF' C-NF' NH-E 34' , H N3' CF$ ' Q3' 2 3E ' F3' @HC C' H&' 14HD-N E2' F3' H4 2 E$ ' P 3 J H4 $ ' CF$ ' Q3' 1$ D' QO' 3 F34' I $4 O ' $C' F3' @H-4 ' E' F NF' F3' ' I 4HN33D E2' CF$ ' $+3' 1 $N3 ' H4' F3' * $ E2' <&& N34' H&' C-NF' @H-4 ' J $O' D3 34 J E3

ED3 3C' H Q3' 1431$43D' WWW ' ED' F343$C' F3' ED3 3C' H4' @$ 3ED$4C' H&' F3' C$ D' ' 32 C 34' <&& N3' E' &H4 J 34' =3$4C' $43' J $EO' H&' F3 J ' E' $ D $1 D$ 3D' ? $ 3 ' $ED' CH J 3' H&' F3' ED3 3C' F$ 3' Q33E' NH J 1 3D' -1HE' $E' E3 2 Q 3' I $E ' $ED ' &H4' F3' B3E3& ' H&' $ ' I 34CHEC' 43X- 4 E2' H' J $+3' ?3$4NF3C' E' F3' C$ D' <&& N3' E' F3' =3$4C' F F34 H' 3 $1C3D ' ' C' 340' D3C 4$Q 3' F$ ' Q3 34' $ED' J H43' NH J 1 3 3' ED3 3C' $ED' F$ ' QC 4$N ' BHH+C' CFH- D' Q3' 1431$43D' H&' $ ' P 3 J H4 $ C' 432 C 343D' E' F3' C$ D' <&& N3 ' $ED' H' Q3' 432 C 343D' F343 E ' -1' H' $ED' EN -D E2' F3' C$ D' *F 4 O & 4C ' G$O' H&' 2! '! 4! ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H ' Q3' ' F343&H43' 3E$N 3D' ' *F$ ' +3' ED3 3C ' $ED' $ CH' QC 4$N ' BHH+C ' $C' $ED' F3E' F3' 6-EDC' H&' F3' <&& N3' ' 134 J ' F3' C$ J 3 ' QC 4$N ' BHH+C' $ CH' E' 43C13N ' H&' C-NF' $C J 3E HE3D' P 3 J H4 $ C' $C' QO' F C' N ' $43' 3X- 43D' F' 432$4D' H' $ ' P 3 J H4 $ C' H' Q3' 432 C 343D' $& 34 ' F3

F3' C$ D' *F 4 0 & 4C ' G$0' H&' 2 ! ' ! 4! ' CF$ ' $C' &$4' $C' F3.' C$ J 3' J $0' Q3' 14$N N$Q 3 ' Q 3 'NHEC 4-N 3D' $ED' F3' C$ J 3' CF$ ' Q3' 44E23D' E' C-NF' I 34 HDC' $C' H' F3' ' 32 C 4$4' CF$ ' C33 J' J HC ' NHE 3E 3E ' $ED' 3 2 Q 3 '$ED' E' C-NF' &$E E 34' F$ ' F3E' F3' C$ J 3' CF$ ' Q3' NH J 1 3 3D' F3' FH 3' CF$ ' F' F3' QC 4$N ' BHH+C' $ED' ED3 3C' H&' P 3 J H4 $ C' 432 C 343D' $& 34' F3' C$ D' *F 4 0 & 4C ' G$0' H&' &H4 J' 3E 43 $ED' NHEC3N- 3' ?3 C' H&' QC 4$N C' $ED' ED3 3C' H' $ ' P 3 J H4 $ C' E' F3' C$ D' <&& N3' F$ E2' 3$NF' ?3 ' C3C13N 3 O' NHEC 4-N 3D' F4H-2FH-' -1HE' F3' C$ J 3' I $E

WWW ' ED' &H4' F3' J H43' 3 13D H-C O' &H4 J E2' H&' C-NF' QC 4$N C' $ED' ED3 3C' H&' $ ' P 3 J H4 $ C' F NF' $43' $ED' CF$ ' Q3' 432 C 343D' E' F3' C$ D' <&& N3' -1' H' $ED' EF -D E2' F3' C$ D' *F 4 0 & 4C ' G$0' H&' 2 ! ' ! 4! ' Q3' '&-4 F34' 3E$N 3D' *F$ ' ' CF$ ' Q3' $ &-' &H4' F3' >H4D 8 2 ' *43$C-434' H4' @H J J CC HE34 ' H&' 8 C P 3C O C' *43$C- O' H4' $EO' *F433' H4' J H43' H&' F3 J ' &4H J' * J 3' H' * J 3' H' H4D34' H4' D 43N ' $E' 114H14 $ HE' H&' F3' 9 FH 3' H4' '$EO' I $4 ' H4' I $4 C' H&' $ ' F3' C-4R 1 -C' ' 3N3 1 C' H&' F3' C$ D' ' 32 C 34' <&& N3' F NF' $ ' F3' * J 3' H&' 1$CC E2' F C' N ' CF$ ' F$ 3' Q33E' 1$ D' E H' F3' B$E+' H&' $!% #&' , ' F3' @43D ' H&' F3' @HECH D$ 3D' 6-ED' F NF' CF$ ' Q3' E3N3CC$4O' &H4' D3&4$O E2' F3' ; 13EN3C' H&' NH J 1 ' 4$ECN4 Q E2' HE' I $4NF J 3E ' $ED' NH J 1 3 E2' C-NF' QC 4$N C' $ED' ED3 3C' $C' $C ' $&H43C$ D' ($ED' J H43H 34' F$ ' F3' C$ D' >H4D' 8 2F' *43$C-434' H4' @H J J CC HE34C' H&' F3' *43$C-4O' $&H43C$ D' CF$ ' $ CH' Q3' $ ' Q34 O' H' H4D34' $ED' D 43N ' F3' 114H14 $ HE' H-' H&' F3' B$ $EN3C' HE' F3' NNH-E C' H&' F3' C$ D' ' 32 C 4$4' E' 43C13N ' H&' F3' C$ D' ' 32 C 34' <&& N3' $ED' Q3&H43.' C-NF' B$ $EN3C' CF$ ' Q3' 1$ D' H 34' $C' F3 H E Q3&H43' D 43N 3D' H&' C NF' &-4 F34' ?- J' $ED' ?- J C' H&' P HE3O' $C' J $0' $113$4' H' F J' H4' F3 J' H' Q3' 43X- C 3' &H4' 3&&3N E2' F3' $&H43C$ D' I -41HC3

@H J J CC HER 34C' H&' F3' *43$C-4O' J $O' $D $EN3' P HE3O' &H4 # $ ' 2 % F3' :8 $ J$+ E2' ER D3 3C

WWW ' ED' F343$C' ' C' H&' J 1H4 $EN3' H' F3' I -Q N' F$ ' F3' B-C E3CC' H&' F3' C$ D' ' 32 C 34' <&& N3' CFH- D' Q3' N$44 3D' HE' F' $ ' 1HCC Q 3' <4D34' I -EN -$ O' $ED' G C1$ NF' $ED' $ CH' F$ ' EH' 243$ 34' 633C' CFH- D' Q3' NF$423D' E' F3' C$ D' <&& N3' F$E' ' $ J H-E ' $EE-$ O' H' $' ?- J' H&' P HE3O' C-&& N 3E ' H' D CNF$423' F3' N-443E ' ; 13EN3C' H&' F3' ; C $Q CF J 3E ' F3E' 3&& N 3E O' $11H E 3D' $ED' H' 3$ 3' $ N34 $ E' ; N3CC' H' Q3' $11 3D' H' F3' 1$4 N- $4' I -41HC3C' F343 ER Q3&H43' $- FH4 T3D' $ED' F3' Q3 34' H' EC-43' F$ ' F3C3' I -41HC3C' CF$ ' Q3' 3&&3N 3D' ' C' 3 13D 3E ' F$ ' F3' C$ D' ' 32 C 34' <&& N3' CFH- D' Q3' 1 $N3D' -ED34' F3' @HE 4H-' E3 ' F343 E $& 34' 14H D3D' (Q3' ' F343&H43' 3E$N 3D' *F$ ' ' CF$ ' Q3' $ &-' &H4' F3' C$ D' >H4D' 8 2F' *43$C-434' H4' @H J J CC HE34C' H&' 8 C' P $(3C O C' *43$C-4O' H4' $EO' *F433' H4' J H43' H&' F3 J ' &4H J' * J 3' H' * J ' $C' H' F J' H4' F3 J' CF$ ' $113$4' E33D&- ' H4' NHED-N 3' H' 1-Q N' @HE 3E 3EN3' H' 432- $ 3' F3' C$ D' ' 32 C 34' <&& N3' $ED' $C' 3 ' H' D3 34 J E3' F$ ' , - J Q34' H&' I 34CHEC' CF$ ' Q3' 3 J 1 HO3D' E' D CNF$42 E2' F3' G- 3C' H' Q3' 134&H4 J 3D' F343 E ' $? F$ ' F3' G- O' H' Q3' 134&H4 J 3D' QO' 3$NF' ED D-$ ' CH' 3 J 1 HO3D' CF$ ' Q3 ' $ED' +3 C3' H' & ' F3' 43C13N 3' J H-E ' H&' ?$ $4O' H' Q3' 1$ D' H' 3$NF' ED D-$ ' &H4' F C' ?34 N3C' E' F3' C$ D' <&& N3' $ED ' &-4 F34 ' H' D C13EC3' F' F3' ?34 N3C' H&' $ ' H4' $EO' <E3' H&' F3' ED D-$ C' EH ' $11H E 3D' H4' 3 J 1 HO3D' H4' F343$& 34' H' Q3' 3 J 1 HO3D' E' F3' C$ D' ' 32 C 34' <&& N3 ' H4' $EO' I $4 ' H&' C-NF' ?34 N3C ' H4' H' 43D-N3' F3' ?$ $4O' H&' $EO' C-NF' ED D-$ ' $ED' E $EO

32 C 34' <&& N3' H' Q3' 1 $N3D' -ED34' F3' @HE 4H-' H&' F3' @H J R J CC HE34C' H&' F3' *43$C-4O

$EO' H&' F3' C$ D' @$C3C' H' J $+3' $' 43$CHE$Q 3' @H J 13EC$ HE' H4' $EE -$ ' H $EN3' H' C-NF' ED D-$ ' H4' ED D-$ C ' $C' F3' C$ D' >H4D' 8 2F' *43$C-434' H4' @H J J CC HE34C' CF$ ' D33 J ' 14H134 ' $ED' H' D 43N ' F3' I $O J 3E ' F343H&' H- ' H&' F3' 633C' H&' F3' C$ D' <&& N3 ' H4' H' $- FH4 T3' F3' ' 32 C 4$4 ' E' @$C3C' $114H 3D' H&' $ED' J 3D' QO' F3' C$ D' >H4D' 8 2F' *43$C-434' H4' @H J J CC HE34C ' H' J $+3' C-NF' D $EN3C ' $ED ' J H43H 34 ' H' H4D34' $ED' ' D 43N ' $ ' H4' $EO' I $4 ' H&' $EO' ? -41 -C' H&' F3' 633C' $ED' P HE 3C' 43N3 3D' QO' F3' ' 32 C 4$4' H&' F3' C$ D' <&& N3' H' Q3' $ D' H- ' H4' 3 13ED3D' E' 43ED34 E2' F3' C$ D' ' 32 C 34' <&& N3' J H43' -C3&- ' $ED' NHE 3E 3E ' H' F3' I -Q N ' $ED' H' 43D-N3 ' $ 34 ' H4' $4O' $EO' H&' F3' 633C ' ' 32- $ HEC ' <4D34C ' H4' G 43N HEC' 3C $Q CF3D' H4' $ ' $EO' * J 3' F343$& 34' H' Q3' 3C $Q CF3D' E' F3' C$ D' ' 32 C 34' <&& N3 ' $ED' H' 3C $Q CF' $EO' H F34' 633C ' ' 32- $ HEC ' <4D34C ' H4' G 43N HEC: I 4H D3D' $ $OC ' F$ ' 3 34O' ' 32- $ HE ' <4D34 ' H4' G 43N HE' CH' J $D3' H4' 2 3E' QO' F3' C$ D' >H4D' 8 2F' *43$C-434' H4' @H J R J CC HE34C' $&H43C$ D' -ED34' F C' N ' CF$ ' Q3' &H4 F F' $ D' Q3&H43' QH F' 8H-C3C' H&' I $4 $J 3E ' &' I $4 $J 3E ' CF$ ' F3E' Q3' C E2 ' $ED' &' I $4 $J 3E ' CF$ ' EH ' F3E' Q3' C E2 ' E' F$ ' @$C3' F E' 6H-4 33E' G$OC' $& 34' F3' E3 ' P 33 E2' H&' I $4 $J 3E ' $ED' F$ ' F3' C$ J 3' CF$ ' EH ' Q3' 3$4E3D' E H' 3&&3N ' H4' Q3NH J 3' $ED' Q3' Q ED E2' $ED' NHEN -C 3' -E ' $& 34' F3' ; ED' H&' F3' ?3CC HE' E' F NF' F3' C$ J 3' CF$ ' Q3' CH' $ D' Q3&H43' QH F' 8H-C3C' H&' I $4 $J 3E ' $ED' $ CH' 14H D3D' F$ ' EH F E2' ' F343 E' NHE $ E3D' CF$ ' Q3' NHEC 4-3D' H' $- FH4 T3' $EO' ' 3D-N HE' H&' F3' ?$ $4O' H&' F3' 143C3E ' ' 32 C 4$4 ' H4' H' $ 34' F3' *3E-43' QO' F NF' F3' C$ D' 143C3E ' ' 32 C 4$4' FH DC' F C' <&& N3

' 32 C 4$4' EH ' WWW ' ED' Q3' ' D3N $43D' $ED' 3E$N 3D ' * F$ ' EH' I 34CHE' FH D E2' H' C ' E' F3' C$ D' <&& N3' H&' ' 32 C 4$4' H&' G33DC' E' $!% #&' CF$ ' Q3' N1Q 3' H&' I & 4F$E 3E ' 3 3N 3D' $' P 3 J Q34' H&' H4' H&' C E2' H4' H E2' E' I $4 $J 3E

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ED $ CH C-NF , - J Q34 H& H F34 @ 34+C H F3 1$ D $NNH4D E2 H F3 9 H4+ DHE3 $C F3 ' 32 C 4$4 CF$ &4H J * J 3 H * J 3 F E+ E3N3CC$4O H 3 J 1 HO

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9 F343 C-NF P 3 J H4 $ C& $ NHE $ E EH J H43 F$E ?3 3E 6H HC 3$NF H& ?3 3E O H 9 H4DC	[	Z	[
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; E 34 E2 F3 G CCH - HE H& $E $EHEO J H - C I $4 E34CF 1

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64H J ' 3 340 I 34CHE J $+ E2 ?3$4NF3C E & 3 < && N3 ' EN - D E2 ' F3 > Q34 O H& $+ E2 , H 3C H4 QC 4$N C ' 3$NF G $O [U Y

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6H4 @H J J HE ?3$4NF3C J $D3 QO F3 <&& N3 - ED34 $ ' 3X - C HE ' - 1HE , $ J 3C ' &H4 $EO I 34 HD EH ' 3 N33D E2 * 3E = 3$4C ' &H4 3$NF D &&343E ' ? - 4E$ J 3 g [U Y
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9 F3E QH F , $ J 3C $ED > $EDC 1, ! ? $ 3D E $ ' 3X - C HE ' F3 I $4 O D3C 4 E2 F3 ?3$4NF J $O D&& 3N ' + H Q3 NHE& E3D H 3 F34 F3 > $EDC H4 , $ J 3C

6H4 3 34d ' @H1O H& $E QC 4$N ' H& $ P 3 J H4 $ ' F3 F34 NHE $ E3D E $ @34 & N$ 3 H& ?3$4NF H4 H F34 C3 g g [[

P $+ E2 N34 & 3D H4 E32$ 3 ?3$4NF - 1HE $ ' 3X - C HE ' - 1HE , $ J 3C ' &H4 $EO I 34 HD EH ' 3 N33D E2 * 3E = 3$4C ' &H4 3$NF D &&343E ' ? - 4E$ J 3 43X - 43D g g
6H4 3 340 $DD HE$ ' = 3$4 Q3OHED * 3E = 3$4C
ED - 1HE > $EDC ' F3 + 3 633C &H4 3$NF G3EH J E$ HE H4 $ $C G3EH J E$ HE H& > $ED NH J J 3EN E2 F $ D &&343E ' E $ ' > 3 34

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ED &H4 3 340 $DD HE$ ' 6H H H4 I $4 ' H& $ 6H H Q3OHED * F433 6H HC g g [[Y

3ED E2 H 14HD - N3 $EO P 3 J H4 $ ' H4 P 3 J H4 $ C E G - Q E ' 3$NF G $O ' &H4 3$NF @$ - C3

* F3 + 3 ' H - ' H& G - Q E g [S
ED &H4 3 340 G $O Q3OHED $?3NHED G $O g g [S
ED &H4 F3 ; 13EN3C H& 4$ 3 E2 H $ED &4H J ' $EO I $N3 $ ' F NF ' C - NF 3ED$EN3 CF$ ' Q3 43X - 43D ' &H4 3 340 P 3

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H J $EO H& 8 C P $(3C O C ? - Q(3N C E ! #&0) > F$ 3 EH ʻ
F343 H&H43 3E(HO3D F3 ?$ J 3 ʻ $ED H EN43$C3 F3 , - J Q34 H&
' 3143C3E $ 3C &H4 N34 $ E @ 3C $ED BH4H - 2FC E F$ ʻ I $4 ʻ H& F3
#E 3D % E2DH J ʻ $ED H D J E CF F3 ; 13EN3C H& ; 3N HEC F343 E ʻ
Q3 ʻ F343&H43 3E$N 3D QO F3 % E2 C J HC ʻ ; N3 3E ʻ P $(3C O ʻ QO $ED
F F3 D N3 $ED @HEC3E ʻ H& F3 >H4DC ?1 4 - $ ʻ $ED * 3 J 1H4$ ʻ $ED
@H J J HEC ʻ E F C 143C3E ʻ I $4 $ J 3E ʻ $CC3 J Q 3D ʻ $ED QO F3 - FH4 O
H& F3 C$ J 3 ʻ * F$ ʻ E $DD HE H F3 I 34CHEC EH ʻ QO >$ ʻ X - $ & 3D H ' 2F ʻ H&
H 3 $ ʻ F3 ; 3N HE H& %E 2F C H& F3 ?F 43 &H4 F3 C3 34$ ʻ @H - E 3C H E2 E
E $!% #& ʻ 3 34O P $ 3 I 34CHE H& & - ʻ 23 ʻ $ED EH ʻ C - Q(3N ʻ H $EO
32$ ʻ EN1N O ʻ FH CF$ ʻ Q3 3E 3D ʻ 3 F34 $C >3CC33 H4 CC 2E33 ʻ 3E D3D H
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* 3E - 43 F$ 3 34 ʻ &H4 F3 - E3 1 43D ' 3C D - 3 ʻ F$ 3 34 ʻ J $O Q3 ʻ FH D34C ʻ
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=3$4C ʻ F3 F34 D3 34EC E$Q 3 HE $ > &3 H4 > 3C H4 EH ʻ $ED F$ E2 $
Q3E3& N $ ʻ E 343C ʻ F343 E H& F3 N 3$4 O3$4 O $ - 3 H& EH ʻ 3CC F$E
* 3E I H - EDC H 34 $ED $QH 3 $ ʻ ' 3E ʻ $ED @F$423C ʻ H4 &H4 F3 - E3 1 43D
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I 34 HD H& EH ʻ 3CC F$E 6H - 4 33E =3$4C ʻ F3 F34 D3 34 J E$Q 3 HE $
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* 3E =3$4C $ED F$ E2 $ Q3E3& N $ E 343C F343 E H& E3 N 3$4 O3$4 O $ -3 H& EH 3CC F$E *3E 6H-EDC H 34 $ED $QH 3 $ ' 3E $ED @F$423C CF$ Q3 3E 3D H H 3 E F3 ; 3N HE H& $ % 2F H4 %E 2F C H& F3 ?F 43 &H4 F3 @H-E O - F 3F C-NF >$- &3 *3E3R J3E C CF$ 43C13N 3 O Q3 C -$ 3 I4H D3D $ $OC F$ EH I34CHE Q3 E2 C-NF >3CC33 H4 CC 2E33 H& C-q *3 H * 3E O =3$4C $ED EH I34CHE Q3 E2 HE O $?-Q 3CC33 H4 F3 CC 2E33 H& $EO #ED34 3$C3 CF$ F$ 3 $ ' 2F H H 3 E 43C13N H& $EO C-NF *34 J H& ? O =3$4C #4 6H-4 33E H4 * 3E O =3$4C $C $&H43C$ D -E 3CC F3 CF$ Q3 1 F3 $N -$ <NN-1$ HE H& F3 I43 J C3C $ED 14H D3D $ CH F$ $EO '3E3 $ H4 E3 >3$C3 H& F3 C$ J3 I43 J C3C &H4 F3 C$ J3 '3E $ED &H4 $ *34 J EH 3CC F$E C-NF H4 2 E$ *34 J CF$ &H4 F3 I-41HC3C H& F C N Q3 D33 J 3D H Q3 $ @HE F J J(N3 H& F3 C$ J3 \-$ & N$ HE $C $&H43C$ D

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ED Q3 3E$N 3D *F$ 3 34O P $ 3 I34CHE H& &- 23 $ED EH C-Q(3N H $EO 32$ EN1N O FH CF$ Q3 C3 C3D $ >$ H4 E ; X- O H& $EO >$EDC H4 *3E3 J 3E C H& @H1OFH D *3E-43 &H4 F C > &3 H4 &H4 F3 > &3 , $EH F34 H4 &H4 $EO > 3C F$ CH3 34 H4 &H4 $EO $4234 ; C $ 3 H& F3 N 3$4 O3$4 O $ -3 H& EH 3 F$E *3E I H-EDC H 34 $ED $QH 3 $ ' 3E C $ED @F$423C 1OQ 3 H- H& H4 E 43C13N H& F3 C$ J3 CF$ Q3 3E 3D H H 3 E F3 ; 3N HE H& $ %E 2F H4 %E 2F C H& F3 ?F 43 H C34 3 E $EO &- -43 I$4 $ J 3E &H4 F3 @H-E O E F NF C-NF >$EDC H4 *3E3 J 3E C CF$ F3 43C13N 3 O C -$ 3

, H H $&&3N 143C3E H 34C E @H-E 3C

ED Q3 3E$N 3D *F$ EH F E2 E F C N NHE $ E3D CF$ $+3 $ $O H4 E $EO P $EE34 $&&3N F3 ' 2F C H& H E2 &H4 %E 2F C H& F3 ?F 43 $ 143C3E 3E(HO3D Q H4 F NF J $O F343$& $NN4-3 H $EO I34CHE QO 4 -3 H& $EO >$ EH E &H4N3 3 N31 CH &$4 $C F343 E C13N $ O 14H D3D

, H H 3 H- H& *3E3R J3E C E $ @H-E O F NF 2 3 $ ' 2F H H 3 E $ @ O *H E H4 BH4H-2F

ED Q3 3E$N 3D *F$ EH FC $ED E2 $EO F E2 F343 E NHER $ E3D EH I34CHE CF$ Q3 3E 3D H H 3 E F3 ; 3N HE H& $ %E 2Q H4 %E 2F C H& F3 ?F 43 H C34 3 E $EO &- -43 I$4 $ J 3E E 43C13N H& Q C ; C $ 3 H4 E 343C E $EO 8H-C3 9 $43FH-C3 @H-1 E2 FH-C3 H4 ?FH1 HNN-1 3D QO F J C3 & H4 E $EO >$ED HNN-1 3D QO F J C3 & H23 F34 F $EO 8H-C3 9 $43FH-C3 @H-E E2 FH-C3 H4 ?FH1 C-NF 8H-C3 9 $43FH-C3 @H-E E2 FH-C3 H4 ?FH1 Q3 E2 3 F34 C31$4$ 3 O H4 (H E O F F3 >$ED CH HNN-1 3D F343 F H& C-NF $ -3 $C H- D $NNH4D E2 H F3 I4H C HEC F343 E $& 34 NHE $ E3D NHE&34 HE F J F3 ' 2F H& H E2 &H4 $EO @ O *H E H4 BH4H-2F F3 F34 F3 CF$ H4 CF$ EH F$ 3 $N -$ O $NX- 43D F3 ' 2F H H 3 &H4 C-NF @ O *H E H4 BH4H-2F E 43C13N F343H&

' 2F H& < #) *) +G %' $ED @H-E 3C H& *H EC. <e 6433R FH D34C

ED Q3 3E$N 3D *F$ E 3 34O @ O H4 *H E Q3 E2 $ @H-1 O H& $ @ O H4 @H-E O H& $ *H E QO C3 & $ED F NF CF$ 43 -4E $ P C F34 H4 P 3 J Q34C H C34 3 E $EO &- -43 I$4 $ J 31 E $DD HE H F3 I34CHEC EH QO >$ X-$ & 3D H H 3 $ F3 ; 3N HE H& C-NF P 3 J Q34 H4 P 3 J Q34C 3 34O P $ 3 I34CHE H& &- 23 $ED EH C-Q(3N H $EO 32$ EN1N O FH CF$ Q3 C3 C3D $ >$ H4 E ; X- O H& $EO 6433FH D ; C $ 3 E $EO >$EDC H4 *3E3 J 3E C F E C-NF @ O H4 *H E $ED CF$ Q3 E F3 $N -$ <NN-1$ HE F343H& $ED FH CF$

F$ 3 $ Q3E3& N $ E 343C F343 E H& F3 N 3$4 O3$4 O $ - H& *3E 2< >3$C3
I H-EDC $ F3 3$C $QH 3 $ 3E $ED @F$423C 1OQ 3 H- H& F3 FH D34C
C$ J H(H4 FH CF$ FH D $C >3CC33 H4 CC 2E33 $EO >$EDC H4 *3F3 J 3 E C
F E C-NF @ O H4 *H E &H4 C-NF *34 J H& C-NF -3 $ED C-Q(3N
H C-NF I 4H C HEC $C H- D -ED34 F C N & C#NF >$#DC H4 *3E&3 #
J 3E C 343 C -$ 3 E $ @H-E O $ $423 FH- F3 > J C H& C-NF
@ O H4 *H E 3E 3 C-NF I 34CHE H 432 C 34 F C H 3 &H4 C-NF
@H-E O H4 FH CF$ FH D $ED HNN-1O F E C-NF @ O H4 *H E <& 8H-C3R
$C *3E$E H4 < E34 $EO 8H-C3 9 $43FH-C3 @H-E E2 FH-C3 H4 FH D34C
?FH1 F NF 3 F34 C31$4$ 3 O H4 (H E O FF $EO >$ED F E C-NF
@ O H4 *H E HNN-1 3D F343 F QO F J $C *3E$E -ED34 F3 C$ J 3
>$ED H4D H4 HNN-1 3D F343 F QO F J $C < E34 CF$ Q3 4,#&
? &! H& F3 N 3$4 O3$4 O $ -3 H& EH 3CC F$E *3E I H-EDC CF$ &
D- O 432 C 343D $NNH4D E2 H F3 I 4H C HEC H& F C N Q3 3E 3D
H H 3 E F3 ; 3N HE H& $ P 3 J Q34 H4 P 3 J Q34C H C34 3 E $EO
&- -43 I $4 $ J 3E &H4 C-NF @ O H4 *H E : I 4H D3D $ $OC F$ EH
C-NF <NN-1 34 $C $C $QH 3 J 3E HE3D CF$ Q3 $D J 3D H Q3 432 CR
343D -ED34 F C N -E 3CC F3 CF$ F$ 3 HNN-1 3D C-NF I 43 J C3C $C
$&H43C$ D &H4 ? @$ 3ED$4 P HE FC E3 143 H-C H F3 * J 3 H& F C
32 C 4O EH4 -E 3CC C-NF <NN-1 34 CF$ F$ 3 1$ D H4 D CNF$423D $
C-NF M4$ED 5-4O $ED P -E N 1$ @3CC3C $ 3C $ED *$ 3C & $EO
$C CF$ F$ 3 Q3NH J 3 32$ O D-3 $ED 1$O$Q 3 5(O F J E 43C13N H&
C-NF I 43 J C3C H 34 $ED $QH 3 $ED 3 N31 <E3 8 $ & =3$4 C J H-E
H& C-NF @3CC3C $ 3C $ED *$ 3C $&H43C$ D

ED Q3 3E$N 3D *F$ &4H J $ED $& 34 F3 @H J J 3EN3 J 3E , H 6433FH D
H& F C N EH I 34CHE C$ 3 $C F343 E C 14H D3D CF$ Q3 432 C 343D H& 3CC F$E
H4 $D J 3D H H 3 $C $ 6433FH D34 $ $EO ; 3N HE H& $EO P 3 J Q34 [O3$4 O
H4 P 3 J Q34C H C34 3 E $EO &- -43 I $4 $ J 3E &H4 $EO @H-E O H& $ $ -3 H 2 3
@ O H4 @H-E O H& $ *H E E $!% #& -E 3CC C-NF I 34CHE CF$ F$ 3 $ H 3 E $
$E ; C $ 3 H& 6433FH D E >$EDC *3E3 J 3E C H4 8343D $ J 3E C E @ O H4
C-NF @H-E O H& $ @ O H4 @H-E O H& $ *H E H& F3 N 3$4 O3$4 O *H E
$ -3 H& *3E I H-EDC $ F3 3$C $QH 3 $ @F$423C $EO >$ H4
? $ - 3 H F3 NHE 4$4O EH FC $ED E2 : I 4H D3D $ $OC F$ C$ E2 H& 43R
EH F E2 E F C N NHE $ E3D CF$ 143 3E $EO I 34CHE EH Q3 E2 2 C 343D [C
$ 6H4 O CF E2 6433FH D34 3E 3D H 432 C 34 $C C-NF &4H J 43R 6433FH D34C
$ E E2 ^CH HE2 $C F3 CF$ @HE E-3 H Q3 C3 C3D H& F3 C$ J 3 EH 3E 3D
>$EDC H4 *3E3 J 3E C_ F3 2F H& H E2 E C-NF ; 3N HE E H H 3
43C13N F343H& & D- O 432 C 343D $NNH4D E2 H F3 I 4H C HEC H&
F C N

ED Q3 3E$N 3D *F$ $ $; 3N HEC H& $ P 3 J Q34 H4 2F H&
P 3 J Q34C H C34 3 E $EO &- -43 I $4 $ J 3F &H4 $EO @ O *H E H4
BH4H-2F E $!% #& EH Q3 E2 $ @H-E O E C3 & 3 34O P $ 3 I 34CHE Q43 (HO3D
H& &- 23 $ED EH C-Q(3N H $EO 32$ EN1N O $ED D- O 43 QO <NN-1 34C
2 C 343D $NNH4D E2 H F3 I 4H C HEC H& F C N FH CF$ FH D $ED H& 8H-C3C
<NN-1O F E C-NF @ O *H E H4 BH4H-2F $C *3E$E H4 < E34
$EO 8H-C3 9 $43FH-C3 @H-E E2 FH-C3 H4 ?FH1 F NF 3 F34
C31$4$ 3 O H4 (H E O F $EO >$ED F E C-NF @ O *H E H4 BHR
4H-2F HNN-1 3D F343 F QO F J $C *3E$E -ED34 F3 C$ J 3 >$ED H4D
H4 HNN-1 3D F343 F QO F J $C < E34 CF$ Q3 4,#& ? &! H& F3
N 3$4 O3$4 O $ -3 H& EH 3CC F$E *3E I H-EDC CF$ Q3 3E 3D H
H 3 E F3 @FH N3 H& $ P 3 J Q34 H4 P 3 J Q34C H C34 3 E $EO &- -43
I$4 $J3E

I$4 $J3Eʻ &H4ʻC-NFʻ@ Oʻ *H Eʻ H4ʻ BH4H-2Fʻ 14H D3Dʻ$ $OCʻ F$ʻ EHʻ C-NFʻ <NN-1 34ʻ$Cʻ $Cʻ$&H43C$ Dʻ CF$ ʻQ3ʻ$D J 3Dʻ Hʻ Q3ʻ 432 C 343Dʻ -ED34ʻ F Cʻ N ʻ -E 3CCʻ F3ʻ CF$ʻ F$ 3ʻ HNN 1 3Dʻ C-NFʻ I43 J C3Cʻ $Cʻ $&H43C$ Dʻ &H4ʻ ? ʻ @$ 3ED$4ʻ P HE FCʻ E3 ʻ 143 H-Cʻ Hʻ F3ʻ * J 3ʻ H&ʻ ʻ32 C 40ʻ EH4ʻ -E 3CCʻ C-NFʻ <NN-1 34ʻ CF$ ʻF$ 3ʻ 1$ Dʻ H4ʻ D CNF$423Dʻ$ ʻ C-NFʻ M4$EDʻ5-40ʻ$EDʻ P -E N 1$ʻ @3CC3Cʻ ʻ$ 3Cʻ$EDʻ *$ 3Cʻ &ʻ$EOʻ $Cʻ CF$ʻ F$ 3ʻ Q3NH J 3ʻ 32$ Oʻ D-3ʻ$EDʻ 1$O$Q 3ʻ QOʻ F Jʻ Eʻ 43C13Nʻ H&ʻ C-NFʻ I43 J C3Cʻ H 34ʻ$EDʻ$QH 3ʻ $EDʻ 3 N31ʻ <E3ʻ 8$ &ʻ=3$4 Cʻ J H-Eʻ H&ʻ C-NFʻ @3CC3Cʻ ʻ$ 3Cʻ $EDʻ *$ 3Cʻ $&H43C$ D

Eʻ F$ʻ @$C3ʻ
bʻ
Hʻ $-3 Cʻ
H2 3$ H 3ʻ

ʻ I4H D3Dʻ E3 34 F3 3CCʻ $EDʻ Q3ʻ ʻ 3E$N 3Dʻ *F$ʻ EH Fʻ C $ED E2ʻ $EOʻ F E2ʻ F343 EQ3&H43ʻ NHE $ E3Dʻ EHʻ I34CHEʻ CF$ʻ Q3ʻ / 3Dʻ Hʻ H 3ʻ Eʻ F3ʻ ; 3N HEʻ H&ʻ$ʻ P3 J Q34ʻ H4ʻ P3 J Q34Cʻ Hʻ C34 3ʻ Eʻ$EOʻ&- -43ʻ I$4 $J3E ʻ&H4ʻ $EOʻ @ Oʻ H4ʻ *H Eʻ H4ʻ @H-E Oʻ H&ʻ$ʻ @ Oʻ H4ʻ *H Eʻ Eʻ 43C13Nʻ H&ʻ $EOʻ ; C $ 3ʻ H4ʻ E 343Cʻ Eʻ$EOʻ 6433FH Dʻ -ED34ʻ F3ʻ O3$4 Oʻ $ -3ʻ H&ʻ *3Eʻ IH-EDCʻ F NFʻ CF$ ʻF$ 3ʻ Q33Eʻ $NX- 43Dʻ QOʻ C-NFʻ I34CHEʻ C EN3ʻ F3ʻ 6 4Cʻ G$Oʻ H&ʻ ʻ 60 Zʻ FH-C$EDʻ 3 2Fʻ F-ED43Dʻ $EDʻ F 4 O HE3ʻ -E 3CCʻ F3ʻ C$ J 3ʻ CF ʻF$ 3ʻ NH J 3ʻ Hʻ H4ʻ Q33Eʻ $NX- 43Dʻ QOʻʻC-NFʻ I34CHEʻ C EN3ʻ F$ʻ G$Oʻ $EDʻ 143 H-C Oʻ Hʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ QOʻ G3CN3E ʻ ?-NN3CC HEʻ P$44 $23ʻ P$44 $23ʻ ?3 3 J 3E ʻG3 C3ʻ H4ʻ I4H J H HEʻ Hʻ $EOʻ B3 3& N3ʻ Eʻ $ʻ @F-4NFʻ H4ʻ oʻ I4H J H HEʻ Hʻ $EOʻ <&& N3

?$ E2 &H4
bb5/bʻ L/ʻ
H 3ʻ F 3ʻ
43C D3Eʻ

Wʻ I4H D3Dʻ $ $OCʻ $EDʻ Q3ʻ ʻ3E$N 3Dʻ *F$ʻ $ ʻ6433 J 3Eʻ 6433ʻ FH D34Cʻ $EDʻ I34CHECʻ FHʻ QOʻ 43$CHEʻ H&ʻ $EOʻ @H41H4$ 3ʻ H4ʻ H F34ʻ ʻ 2Fʻ ʻ 3E 3Dʻ Hʻ H 3ʻ $ʻ F3ʻ ; 3N HEʻ H&ʻ $ʻ P3 J Q34ʻ H4 P3 J Q34Cʻ Hʻ C34 3ʻ Eʻ I$4 $J3Eʻ &H4ʻ $EOʻ @ Oʻ *H Eʻ H4ʻ BH4H-2Fʻ $EDʻ $ ʻ I34CHECʻ FHʻ QOʻ 43$CHEʻ H&ʻ B 4 Fʻ P$44 $23ʻ H4ʻ ?34 N3ʻ H4ʻ H&ʻ $EOʻ ? $ - 3ʻ EH ʻ Eʻ &H4N3ʻ CF$ ʻQ3ʻ $ʻ $EOʻ * J 3ʻ F343$& 34ʻ $DR J 3Dʻ Hʻ F3 4ʻ 6433DH Jʻ Eʻ $EOʻ @ Oʻ *H Eʻ H4ʻ BH4H-2Fʻ C3ED E2ʻ $ʻ P3 J Q34ʻ H4ʻ P3 J Q34Cʻ Hʻ I$4 $J3E ʻ CF$ ʻ $& 34ʻ C-NFʻ ʻ32 CR 4$ HEʻ $Cʻ Cʻ D 43N 3Dʻ QOʻ F Cʻ N ʻ Q-ʻ CHʻ HE2ʻ HE Oʻ $Cʻ F3Oʻ CF$ʻ 43C D3ʻ F Eʻ F3ʻ C$ Dʻ @ Oʻ *H Eʻ H4ʻ BH4H-2Fʻ H4ʻ F Eʻ ?3 3Eʻ ? $ - 3ʻ P 3Cʻ H&ʻ F3ʻ -C-$ʻ I $N3ʻ H&ʻ ; 3N HEʻ F343 Eʻ F$ 3ʻ$EDʻ 3E(HOʻ C-NFʻ ʻ 2Fʻ H&ʻ H E2ʻ $Cʻ &- Oʻ $EDʻ Eʻ +3ʻ P$EE34ʻ $Cʻ &ʻ F Cʻ N ʻ $Dʻ EH ʻQ33Eʻ 1$CC3D.ʻ I4H D3Dʻ &-4 F34ʻ F$ʻ EHʻ I34CHECʻ FHʻ C EN3ʻ F3ʻ *F 4 3 Fʻ G$Oʻ H&ʻ ʻ)ʻ Eʻ F3ʻ =3$4ʻ <E3ʻ FH-C$EDʻ 3 2Fʻ F-ED43Dʻ $EDʻ F 4 O HE3ʻ F$ 3ʻ Q33Eʻ H4ʻ F343$& 34ʻ CF$ʻ Q3ʻ $D J 3Dʻ $Cʻ 8HEH4$4Oʻ 6433 J 3Eʻ CF$ ʻQ3ʻ 3E 3Dʻ QOʻ 4 -3ʻ H&ʻ C-NFʻ D J CC HEʻ Hʻ H 3ʻ H4ʻ 432 C 34ʻ $Cʻ 6433 J 3Eʻ -ED34ʻ F Cʻ N

*$ 3Cʻ $EDʻ
8$ 3Cʻ EHʻ H
Q3ʻ D33 J 3Dʻ $
@F$423ʻ 1$OR
$Q 3ʻ H-ʻH&ʻ
$Eʻ ; C $ 3

Wʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ʻ EHʻ I-Q Nʻ H4ʻ I$4 $J3E $4Oʻ *$ ʻ@H-E Oʻ @F-4NFʻ H4ʻ I$4 CFʻ @3CCʻ H4ʻ ʻ$ 3ʻ H4ʻ $EOʻ @3CCʻ H4ʻ ʻ$ 3ʻ -1HEʻ $EOʻ *H E $EDʻ H4ʻ G CHEʻ H&ʻ $EOʻ I$4 CFʻ B$4HEOʻ H4ʻ 8$ &ʻ B$4HEOʻ CF$ ʻQ3ʻ D33 J 3Dʻ $ʻ @F$423ʻ 1OQ 3ʻ H-ʻ H&ʻ $EOʻ ; C $ 3ʻ H4ʻ *3E3R J 3Eʻ F Eʻ F3ʻ P3$E E2ʻ H&ʻ F Cʻ N

DD HE$
P3 J Q34C

Wʻ EDʻ Q3ʻ ʻ 3E$N 3Dʻ *F$ʻ F3ʻ @ Oʻ , ʻ< ! ʻ ʻ F3ʻ @ Oʻ H&ʻ ! , &ʻ F3ʻ BH4H-2Fʻ H&ʻ "!% 1 ʻ F3ʻ @H-1 Oʻ H&ʻ F3ʻ *H Eʻ H&ʻ %F ʻ $EDʻ F3ʻ #E 34C Oʻ H&ʻ 234% #ʻ CF$ ʻ3$NFʻ 43C13N 3 Oʻ 43 -4Eʻ <E3ʻ P3 J Q34ʻ Hʻ C34 3ʻ Eʻ 3$NFʻ &- - 3ʻ I$4 $J3Eʻ Eʻ $DD HEʻ Hʻ F3ʻ P3 J Q34ʻ F NFʻ 3$NFʻ H&ʻ F3ʻ C$ Dʻ I $N3Cʻ Cʻ EH ʻ QOʻ >$ ʻ3E 3Dʻ Eʻ 43 -4E

W ʻ ED

W ' ED' Q3' ' 3E$N 3D' * F$ ' 3$NF' H&' F3' @ 3C' * H EC' $ED' BH4H-2FC' 43 -4E E2' $' P3JQ34' H4' P3JQ34C' H' C34 3' E' I$4 $J ' CF$ ' &H4' F3' I-41HC3C' H&' F C' N ' EN-D3' F3' I $N3' H4' I $N3C' 43C13N 3 O' F NF' CF$ ' Q3' NHJ143F3ED3D' F E' F3' BH-ED$4 3C' H&' 3$NF' H&' F3' C$ D' @ 3C' * H EC' $ED' BH4H-2FC' 43C13N 3 O' $C' C-NF' BH-ED$4 3C' CF$ ' Q3' C3 3D' QO' $E' N ' H' Q3' 1$CC3D' &H4' 4 $' I-41HC3' E' F C' 143C3E' I$4 $J3E ' F NF' N ' F3E' 1$CC3D' CF$ ' Q3' D33J3D' $ED' $+3E' H' Q3' I$4 ' H&' F C' N ' $C' &- O' $ED' 3&&3N -$ O' $C' &' F3' C$J3' 343' ENH41H4$ 3D' F343 F.' I4H D3D' $ $OC' F$ ' -E ' F3' 1$CC E2' H&' C$ D' $C J3E HE3D' N ' $ ' C-NF' @ 3C' * H EC' $ED' BH4H-2FC' CF$ ' &H4' F3' I-41HC3C' H&' F C' N ' Q3' D33J3D' $ED' $+3E' H' Q3' NHJ143F3ED3D' F E' F3' C$J3' > J C' $ED' BH-ED$4 3C' $C' Q3&H43' F3' 1$CC E2' H&' F C' N

BH-ED$4 3C' 1&' @ 3C' D3& E3D' '

W ' ED' Q3' ' 3E$N 3D' * F$ ' EH' I34CHE' CF$ ' Q3' $DJ 3D' H H3 $ ' $EO' ; 3N HE' H&' $' P3JQ34' H4' P3JQ34C' H' C34 3' E' $EO' &- -43' I$4 $J3E ' &H4' $EO' @H-E O' @ O' * H E' H4' BH4H-2F' E' $!% #&' F3' #E 34C O' H&' 234% #' 3 N31 3D' -E 3CC' C-NF' I34CHE' CF$ ' F$ 3' Q33E' X-$ & 3D' $C' $&H43C$ D' $ED' D- O' 432 C 343D' -ED34' F C' N ' $ED' F$ ' EH' I34CHE' CF$ ' Q3' CH' 432 C 343D' E' 43C13N ' H&' $EO' >$EDC' * 3E3R J3E C' H4' 8 343D $J3E C' -E 3CC' F3' CF$ ' F$ 3' Q33E' E' F3' $N -$ ' I HCC3CC HE' F343H&' H4' E' ' 3N3 1 ' H&' F3' ' 3E C' C?-3C' H4' I4H& C' F343H&' &H4' F C' H E' #C3 ' $C' F3' @$C3' J$O' 43X- 43' &H4' ? ' @$ 3ED$4' PHE FC' E3 ' 143 H-C' H' F C' ' 32 C 40' -ED34' F C' N .' I4H D3D' $ $OC' F$ ' F3E' $EO' >$EDC' * 3E3J3E C' H4' 8 343D $J3E C' F NF' H- D' H F34 C3' 3E 3' F3' < E34' 8 H D34' H4' I HCC3CCH4' F343H&' H' H 3' E' $EO' C-NF' ; 3N HE' CF$ ' NHJ3' H' $EO' I34CHE' $' $EO' * J3' F E' ? ' PHE FC' E3 ' Q3&H43' C-NF' ' 32 C 40' QO' G3CN3E ' ?-NN3CC HE' P$44 $23' ?3 3J3E ' G3 C3' H4' I4HJH HE' H' $EO' B3E3R & N3' H4' <&& N3' C-NF' I34CHE' CF$ ' Q3' 3E 3D' E' 43C13N ' F343H&' H' Q3' 432 C 343D' $C' $' H 34' $' F3' ' 32 C 40' &H4' C-NF' @H-E O' @ O' * H E' $ED' BH4H-2F' 43C13N 3 O' F3E' E3 ' H' Q3' F$D' QO' 4 -3' H&' F C' N ' &'

, H' -E432 C ' 343D' I34CHE' H' H3

? ' PHE FC' I HCC3CC HE' 43X- 43D' Q3R &H43' ' 32 C 40

; N31 HE' $C' H' I4H134 O' NHJ E2' QO' ' G3CN3E ' KN

W ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' $& 34' F3' @HJ J3EN3J3E ' H&' F C' N ' $' ?13N $' ?3CC HE' &H4' F3' I-41HC3' H&' 432 C 34 E2' H 3C' &H4' 3$NF' @H-E O' @ O' * H E' $ED' BH4H-2F' E' $!% #&' F$ E2' F3' ' 2F ' H' ?3ED' $' P3JQ34' H4' P3JQ34C' H' I$4 $J3E ' ^ F3' BH4H-2F' H&' F3' #E 34C O' H&' G 9 J' HE O' 3 N31 3D_' CF$ ' Q3' FH D3E' E' 3$NF' C-NF' @H-E O' QO' $ED' Q3&H43' F3' CC C $E ' B$44 C 34' H4' @F$ 4J$E' H&' C-NF' @H-E O' $ED' E' 3$NF' C-NF' @ O' * H E' $ED' BH4H-2F' 43C13N 3 O' QO' $ED' Q3&H43' F3' CC C $E ' B$44 C 34C' E' F3' ?NF3D- 3' ^ _' F343-E H' $EE3 3D' J3E HE3D' HE' C-NF' G$O' H4' G C' $ED' $ ' C-NF' I $N3C' 43C13NR 3 O' $C' F3' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' M4H 3JH4' H4' MH 34EH4C' H&' $!% #&' CF$ ' $11H E ' $ED' F3' @ 34+' H&' F3' I 3$N3' E' $4 D' &H4' 3$NF' C-NF' @H-E O' @ O' * H E' $ED' BH4H-2F' <4 F C' G31- O' CF$ ' * F 4 O' G$OC' $' F3' 3$C' Q3&H43' F3' G$O' 43C13N 3 O' CH' $11H E 3D' N$-C3' H' Q3' 1HC 3D' E' NHEC1 N-H-C' I $N3C' F E' 3$NF' C-NF' @H-E O' @ O' * H E' $ED' BH4H-2F' 43C13N 3 O' , H N3C' F$ ' C-NF' ?3CC HE' &H4' F3' I-41HC3C' H&' 432 C 34 E2' F3' , $J3C' H&' H 34C' -ED34' F C' N ' &H4' C-NF' @H-E O' @ O' * H E' H4' BH4H-2F' ' Q3' F3 D' HE' F3' G$OC' $ED' $ ' F3' I $N3C' CH' $11H E 3D' $ED' F$ ' 11 N$ HEC' &H4' F$ ' I-41HC3' ' Q3' F3E' $ED' F343' $+3E' E H' NHEC ^&H4$ HE

' ?13N $' ?3CR C HE' &H4' 432 CR 34 E2' H 34C' H' Q3' FH D3E' &H4' 3$NF' @H-E O' @ O' * H E' $ED' BH4H-2F' $' C-NFG$OC$ED' I $N3C' $C' F3' >H4D' > 3- 3R E$E ' CF$ ' $1R 1H E

, H N3' F343R H&' QO' @ 34+' H&' F3' I 3$N3

W ' E ' Q3 ' 3E$N 3D' *F$' 3 340' I34CH ' E 3ED E2' $11 O' $'

K(W+)(!;' C-NF' ?3CC H-' D' Q3' 432 C 343D' $C' $' H 34' &H4' $EO' @H- OO@ O *H 9 E'

H&' F3' I3$N3' BH4H-2F' C P ' * 3\ 0 $ ' 5 $OZ' $' F3' 3$C ' & 4C

H ' 32C 34c' G$O' $11H E 3D' &H4' FH D E2 C @Q' ?3C$HEC' 43C13N 3 0 ' 2 3' H4' N$<CH' H' Q3' 2 3E' $' , H N3' E' 9 4 E2' H&' C-NF' F C' E 3E HE' H' F3' @ 34+' H&' F3' I3$N3' H4' F C' G31- O' $N E2' &H4' C-NF' @H-E O' @ O' *H$4E(' H4' BH4H-2F' H4' H' F3' 8 2F' @HEC $Q 3' H&' F3' B$4HEO' F &' F NF' F3' I4H134 O' H' Q3' 432 C 343D' C' C -$ 3' ' $ED' F3' 8 2F' @HEC $Q 3' CF$ ' FH- ' G3 $O' 4$EC ' $ ' , H N3C' CH' 2 3E' H' F J' H' BF3' @ 34+' ^4&' F3' I3$N3' ' $ED' C-NF' I34CHE' CH' E 3ED E2 ' H' 43E 34' CF$ ' E' C-NF' , H N3' C $ 3' F ?' , $ J 3' $ED' ' 3C D3EN3 ' F3' ' 2F ' E' 43C13N ' H&' F NF' F3' E 3EDC' H' $11 O' $ED' F3' , $ -43' H&' F3' \ -$ & N$ HE' 43 3D' -1HE' QO' F J' $C' 3E E2' F J' H' Q3' CH' 432 C 343Dd' $ED' C-NF' M 34+' H&' F3' I3$N3' H4' F ?' G31- O' CF$ ' F343-1HE' 3E 34' $ ' C-NF' , H N3C' $NR NH4D E2' H' F3' <4D34' E' F NF' F3' CF$ ' 43N3 3' F3 J ' $ED' C $ ' ' *3E' G$OC' $' 3$C ' Q3&H43' F3' G$O' $11H E 3D' &H4' FH D E2' C-NF' B3CC HE ' N$-C3' $ 1F$Q3 N$' > C C' H&' C-NF(H 34C' H' Q3' 14 E 3D' $ED' @ 4N- $ 3D' $ED' H' Q3' 1HC 3D' E' NHEC1 N-H-C' I $N3C' F4H-2FH- ' C-NF' @H-E O' @ O' *H E' H4' BH4H-2F ' $ED' EH' C-NF' > C ' CF$ ' Q3' $Q 3' H' $EO' ? $J 1' G- O' '

I4HN33D E2C' ?3CC HE&cc ' W ' ED' Q3' ' 3E$N 3D' *F$' $' C-NF' 33 $ ' ?3CC HE' F3' @ 34+' H&' F3' I3$N3' H4' F C' G31- O' CF$ ' N$ ' F3' , $ J 3C' H&' F3' I34CHEC' NHE ' $ E3D' E' C-NF' > C ' E' $ 1F$Q3 N$' <4D34' $ED' CF$ ' 2 E' * N3' $' F3' 3$C ' D-4 E2' C-NF' ?3CC HEC' N$ ' H 34' F3' , $ J 3C' H&' $ ' C-NF' I34R CHEC' $C' D D' EH ' $113$4' -1HE' C-NF' & 4C' @$ E2' $ED' F$ ' 3$NF' \ $ J $E C' @$C3' CF$ ' Q3' F3$4D' E' F3' <4D34' N &' F C' 113$&$EN3 ' $ED' 3$NF' I34CHE' CH' N$ 3D' CF$ ' 14HD-N3' E' H ('@ -4 ' F3' G33D ' > 3$ ' `J' EC 4- J 3E ' &' $EO' D- O' C $ J 13D' QO' 4 -3' H&' F NF' F3' CF$ ' N $ J' $' ' 2F ' H' Q3' 432 C 343D ' H4' CF$ ' QO' F C' H E' <$ F' H4' H F34 C3' $C' F3' CC C $E ' B$44 C 34' CF$ ' 43X - 43' C-&& N 3E O' $NNH-E ' &H4' F3' , HER 14HD-N HE' F343H&' H4 7 &' F3' CF$ ' H ' N $ J' QO' 4 -3' H&' $' G33D ' >3$C3 ' H4' EC 4- J 3E ' H4' C' ^D C$Q 3D' &4H J' 14HD-N E2' C-NF' G33D ' >3$C3 ' H4' EC 4- J 3E ' F3E' C-NF' I34CHE' CF$ ' H F34 C3' 3C $Q CF' F C' ' 2F ' H' Q3' 432 C 343D' $C' C-NF' H 34 ' 1-4C-$E ' H' F C' C$ D' , H N3' $NNH4D E2' H' F3' I4H C HEC' H&' F C' N ' $ED' C-NF' I34CHE ' &' N $ J E2' $C' $' 6433FH D34' H4' >3$C3FH D34' H4' 8 H-C3FH D34' CF$ ' $ CH' J $+3' ' $113$4' F$ ' F3' I4H134 O' E' 43C13N ' H&' F NF' F3' C33+C' H' Q3' ?H 432 CR 343D' C' H&' F3' $ -3' $ED' , $ -43' QO' F C' N ' 143CN4 Q3D ' $ED' F$ ' Q3' C' H F34 C3' D- O' X-$ & 3D' H' Q3' 432 C 343D' $NNH4D E2' H' F ' I4H C HEC' H&' F C' N : I4H D3D' $ $OC' F$ ' EH' I34CHE' CF$ ' Q3' QH-ED' H' 14HR D-N3' F3' * 3' G33DC' H&' $EO' >$ED H4D' -ED34' FH J ' F3' J $O' FH D' H4' D34 3' H4' J $+3' I4HH&' H&' C-NF' * 3' $ED' F$ ' IHCC3CC HE' $ED' I34N31R HE' H&' ' 3E ' CF$ ' Q3' D33 J 3D' 5 &' ' ! ' ; D3EN3' H&' C-NF' >$ED H4D C' * 3

CC C $E ' B$44 C 34' H E 3C 2$ 3' @ $ JC' H' 43R 2 C 34 W ' ED' Q3' ' 3E$N 3D' *F$ ' F3' CC C $E ' B$44 C 3 4' H4' @F$ 4 J $E' CF$ ' EC13N ' $ED' 3 $ J E3' 3 340' G33D ' >3 C3 ' H4' EC 4- 3E ' CH' 14HR D-N3D' $ED' CF$ ' E 3C 2$ 3' F3' @ $ J' J $D3' F343-ED34' H4' H F34 C3' H' Q3' 432 C 343D' $ED' CF$ ' D3 34 J E3' -1HE' F3' $ D O' H4' E $ D O' H&' C-NF' @ $ J ' $ED' CF$ ' $ED' J $O' 3 $ J E3' $ED' EX- 43' $C' 3&' QO' F3' <$ FC' H&' F3' @ $ J $E C' $C' QO' $EO' H F34' ; D3EN3' H&&343D' E' C-11H4 ' H&' H4' E' H11HC HE' H' C-NF' @ $ J ' F3 F3&' C-NF' @ $ J $E ' ' C

U K' SĉM # > ; > P ' ' ' M$1' ZZ

C' H4' C' EH ' H' Q3' 432 C 343D' $C' $' H 34' &H4' Q3' @H#E O '@ O' *H E' H4' BH4H-2F' H' F NF' F C' @ $ J' CF$ ' 43 $ 3' $ED' E' N$C3' H &' $EO' < $FE' ' E' 43C13N ' H&' F3' 6433FH D' >3$C3FH D' H4' ' 8 H-C3FH D' I 4H134 O' F3 F34' F3' C$J3' Q3' H&' F3' $ -3' $ED' , $ -43' 43C13N 3 O' F343QO' 143CN4 Q3D' D' 43X- 43D' $ED' CF$ ' $ CH' EX- 43' QO' $EO' H&' F3' P 3$EC' $&H43C$ D $C' F3' CF$ ' F E+' & ' E H' F3' *4- F' H&' F3' C3 34$' I $4 ' N-&$? 43X- 43D' QO' F3' I 4H C HEC' H&' F C' N ' H4' 3X- 43D' H' Q3' C $ 3D' E' $EO' < $ F' QO' C-NF' @ $ J $E ' F343 E $& 34 ' 143CN4 Q3D' H' Q3' $+3E' &H4' C-NF' ' ' 32 C 4O

' W ' I 4H D3D' $ $OC ' $ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' EH' I 34CHE' CF$ ' Q3' 43N3 3D' $C' F3' < 11HC34' H&' $EO' @ $ J $E ' H' 432 C 34' $ ' C-NF' ?3CC HEC' FH' CF$ ' EH ' Q3' F J C3 &' 3 F34' $' 432 C 343D' H 34' &H4' C-NF' @H-E O ' @ O' *H E' H4' BH4H-2F' H4' $' I 34CHE' FH' F$C' C34 3D' $, H N3' H' 432 C 34' $C' $' H 34' $ ' F3' C$J3' ?3CC HEC ' H4' CH J3' @H-EC3 ' H4E3O ' H ' 23E ' D- O' $- FH4 T3D' QO' C-NF' H 34' H4' @ $ J $E ' H' $113$4' &H4' F J' H4' HE' F C' B3F$ &

9 FH' J$O' ' !(*)A#(!

' W W' ED' Q3' ' 3E$N 3D' * F$ ' & ' C-NF' CC C $E ' B$44 C 34' H4' @F$ 4 J $E' CF$ ' D33 J' C-NF' @ $ J $E ' H' Q3' 3E 3D' -ED34' F C' N ' H' Q3' 432 C 343D' $C' $' H 34' &H4' F3' @H-E O ' @ O' *H E' H4' BH4H-2F' H' F NF' F C' @ $ J' CF$ ' 43 $ 3' $ED' EH ' Q3' C-Q(3N ' H' $EO' 32$ ' G CR X-$ & N$ HE ' CEXF' B$ * C 3 4' H4' @F$ 4 J $E' CF$ ' CH' D3N $43' $ED' $D(-D23 ' $ED' F3' I 34CHE' CH' D3N $43D' 3E 3D' CF$ ' 34 &O' F C' * 3' QO' && R D$ ' $ED' CF$ ' $+3' $ED' C-QCN4 Q3' ^$C' F3' @$C3' J $O' Q3_ F3' < $ F' C $ 3D' E' F3' ?NF3D- 3' ^@_' H' F C' N ' $EE3 3D' EC 3$D' H&' $EO' < $ F' H4' < $ FC' F NF' QO' F3' >$ ' EH ' E' Q3 E2' F3' H- D' Q3' $Q 3' H' $+3' H4' C-QCN4 Q3

&' F3' CC CR $E ' B$44 C 34 $ &(-D23' F3' @ $ J $E ' 3ER 3D' F3' CF$ ' $+3' F3' < $ F' H4' && 4R J$ HE' F343QO' 143R CN4 Q3D

WW' ED' Q3' ' 3E$N 3D' * F$ ' 3 34O' C-NF' && D$ ' CF$ ' Q3' C 2E3D' QO' F3' B$44 C 34' H4' @F$ 4 J $E' Q3&H43' FH J F3' C$J3' CF$ ' Q3' $+3E ' $ED' CF$ ' Q3' QO' F J' D3 343D' H' F3' @ 3&+' H&' F3' I 3$N3' H4' F C' G31- O' $C' F3' @$C3' J $O' Q3' H' Q3' & 3D' $ED' +31 ' $ J HE2C ' F3' ' 3NH4DC' H&' F3' @H-E O ' @ O' *H E' H4' BH4H-2F' ' $ED' ?-NF' B$44 C 34' C' F343QO' 43X- 43D' H' $+3' @$43' F$ ' C-NF' < $ FC' CF$ ' Q3' 2433Q 3' H' F3' 6H4 J' F343QO' 143CN4 Q3D' H4' $C' E3$4' F343 H' $C' J $O' Q3' ' $ED' EH' < Q(3N HE' E' 1H E ' H&' 6H4 J' CF$ ' $ ' $EO' * J 3' F343$& 34' Q3' $ H 3D' H' $EO' C-NF' < $ F' F3E' C 2E3D

&& D$ ' H&' ' 32 C 4O' H' Q3' C 2E3D' QO' F3' CC C $E ' B$44 C 34' $ED' HQ3& 3D' H&' ' 3NH4D

WW ' ED' Q3' ' 3E$N 3D' * F$ ' E' N$C3' ' CF$ ' $113$4' H' C-NF' B$44 C 34' H4' @F$ 4 J $E' F$ ' $EO' I 34CHE' N $ J E2' H' Q3' 32 C 343D' $C' $' H 34' &H4' $EO' @H-E O ' @ O' *H E' H4' BH4H-2F' C' EH ' 3E 3D' CH' H' Q3' 432 C 343D' C-NF' B$E C 34' H4' @F$ 4 J $E' CF$ ' 43&-C3' H' 134 J ' C-NF' I 34CHE' H' Q3' 432 C 343D' $ED' CF$ ' J $+3' $E' < 4D34' $NNH4D E2 O' $ED' F3E' C-NF' ' 3&-C$ ' CF$ ' Q3' HE' F3' M4H-ED' H&' EC-&& N 3ENO' H&' $ -3' F3' < 4D34' H&' ; 3&-C$ ' CF$ ' C $ 3' C-NF' EC-&& N 3ENO' $C' F3' M4H-ED' H&' C-NF' < 4D34' H4' H F34 C3 ' CF$ ' C $ 3' F3' < Q(3N HE' QO 43$CHE' F343H&' F3' @ $ J $E ' F$C' Q33E' $D(-D23D' EH ' H' Q3' 3E 3D' H' Q3' 432 C 343D: I 4H D3D' $ $OC ' F$ ' C-NF' < 4D34' CF$ ' Q3' FH- ' I 43(-D N3' H' $EO' &- -43' 11 N$ HE' H' Q3' 432 C 343D' F NF' F3' I 34CHE' CH' 423N 3D' CF$ ' F EC' & ' H' J $+3' $ ' $EO' C-QC3X-3E ' M3E34$ ' \ -$4 34' ?3CC HEC' H&' F3' I 3$N3

&' N$ J$E' EH ' 3E 3D' CC?$E ' B$44 C ' CF$ ' CH' $D ' (-D23' $ED'

I4HD-N HE' H&' @34 & N$ 3' H&' ' 32 C 40' -ED34' 3 C R E2' >$ ' H 3 3@ $ 4$' $E' H' @34 R & N$ 3' -ED34' F C' N ' FH- ' <$ F' H4' &-4 F34' ; D3EN3

WW ' I4H D3D' $ $OC ' $ED Q3' ' 3E$N 3D ' * F$ ' $' @34 & N$ 3' H&' ' 32 C 40' J$D3' 1-4C-$E ' H' 3' >$ C' E' &H4N3' E' $!% #&' 143 H-C' H' F3' 1$CC E2' H&' F C' N ' CF$ ' Q3' D33 J 3D' $ED' $+3E' H' Q3' ((4 D' ' !' ; D3EN3' H&' F3' ' 2F ' H' Q3' 432 C 343D ' $ED' F$ ' $EO' I 34CHE ' F$ E2' 2 3E' , H N3' H&' F C' E 3E HE' H' 432 C 34' $C' QO' F C' N ' 43X- 43D ' CF$ ' -1HE' 14HD-N E2' H4' N$-C E2' H ' Q3' 14HD-N3D' C-NF' @34 & N$ 3' $ ' F3' ?3CC HE' &H4' F$ ' I -41HC3' H' Q3' F3 D ' Q3' 3E 3D' $ED' $D J 3D' H43 C 34' F C' H 3' $ED' HQ $ E' F C' @34 & N$ 3' -ED34' F C' N ' FH- ' &-4 F34' I 4HH&' H4' <$ F ' -E 3CC' @$-C3' H' FH' NHE 4$40' CF$ ' $113$4' $ED' FH- ' $EO' 633' H4' @F$423 ' $ED' E' @$C3C' F343' $' @34 & N$ 3' H&' ' 32 C 40' CF$ ' EH ' Q3' 14HD-N3D ' H4' E' N$C3' ' CF$ ' $113$4' 3 13D 3E ' ' CF$ ' Q3' $ &- ' &H4' F3' CC C $E ' B$44 C 34' H4' @F$ 4 J $E' 143C D E2' $ ' F3' ?3CC HEC' H' Q3' FH D3E' &H4' F3' I -41HC3' H&' 432 C 34 E2' H 3C' -ED34' F C' N ' H' 43&34' H' $EO' H4 2 E$ ' && D$ ' H4' && 4 J $ HE ' H4' * 4$ECN4 1 ' H4' ' 3NH4D' F343H&' H4' $EO' ; E 40' F343H&' E' F3' BHH+' H4' BHH+C' F NF' QO' 4 -3' H&' F3' >$ C' EH ' I' &H4N3' E' $!% #&' F3' @ 34+C' H&' F3' I 3$N3' H4' * H E' @ 34+C' F4H-2FH- '$!% #&' $43' $- FH4 T3D' H4' 43X- 43D' H' J $+3' H4' +331 ' $ED' E' N$C3' F3' C$ D' CC C $E ' B$44 C 34' H4' @F$ 4 J $E' CF$ ' Q3' C$ C& 3D ' HE' EC13N HE' F343H&' F$ ' C-NF' && 4 J $ HEC' H4' && D$ C' H4' ; E 4 3C' $43' NH443N ' ' CF$ ' EH ' Q3' E3N3CC$ O' &H4' F J ' &$4 F34' H' EX- 43' E H' F3' ' 2F ' H&' H E2' N $ J 3D' F343-ED34 ' Q- ' F3' CF$ ' $$D' J $O' D 43N ' $ED' $ H ' F3' C$ J 3' H' Q3' 432 C 343D ' $ED' F3' @ $ J $E ' H' F$ 3' F C' @34 & N$ 3' -ED34' F C' N ' FH- ' <$ F' H4' &-4 F34' I 4HH& ' -E 3CC' @$-C3' H' F3' NHE 4$40' CF$ ' $113$4 ' $ED' FH- ' $EO' 633' H4' @F$423

D<C' $ED' ? ' 8 H-C3FH DR 34C' H 2 3' I 4HH&' H&' \ -$ & N$ HE' &' 43X- 43D

WW ' I 4H D3D' $ $OC ' $ED' Q3' '&-4 F34' 3E$N 3D ' * F$ ' $ ' 6H4 O' CF E2' 6433FH D34C' $ED' 6 3 1H-ED' 8 H-C3FH D34C' 3 $ J E2$' ' 2F ' H' Q3' 432 C 343D' -ED34' F C' N 'CF$ ' $113$4' E' 134CHE' Q3&H43' F3' CC C $E ' B$44 C 34' $ ' F3' ?3CC HEC ' H' Q3' 3 $ J E3D' HE' <$ F' QO' C-NF' B$44 C 34' H-NF E2' C-NF' F3 4' @ $ J ' H' Q3' 432 C 343D ' $ED' F3O' CF$ ' &' 43X- 43D' QO' C-NF' B$44 C 34 ' J $+3' I 4HH&' H&' F3' , $ -43' $ED' ? -&& N 3ENO' H&' F3 4' \ -$ & N$ HE' H' Q3' CH' 432 C 343D ' $ED' CF$ ' -1HE' C-NF' I 4HH&' Q3 E2' J $D3 ' $ED' $ CH' I 4HH&' H&' D3E O ' Q3' $D J 3D' H4' 43(3N 3D' $NNH4D E2 O

9 F343' DR (-D N$ HE' 2 EC ' @ $ J$E ' C' &H-ED3D' HE' EC-&& N 3ENO' H&' $ -3' @ $ J$E ' J$O' 113' H' 5-D23C' H&' CC T3 ' $ED' F$ 3' F3' \ -3C HE' 4 3D' QO' $ 5-40

WW ' ED' Q3' ' 3E$N 3D ' * F$ ' &' $EO' I 34CHE' 2 EC ' FHC3' @ $ J' $EO' C-NF' <4D34' CF$ ' Q3' J $D3' HE' F3' M4H-ED' H&' EC-&& N 3ENO' H&' $ -3' CF$ ' D33 J ' F J C3 &' $224 3 3D' F343QO ' ' CF$ ' Q3' $ &- ' &H4' C-NF' I 34CHE' H' 113 ' F343&4H J ' H' F3' 5-D23C' H&' CC T3' $ ' F3' E3 ' CC T3C' &H4' F3' @H-E O ' @ O ' * H E ' H4' I $N3' F E' F F' F3' I 4H134 O' E' 4 2F ' F343H&' C-NF' I 34CHE' N $ J C' H' 432 C 34' C-NF' H 3' CF$ ' Q3' C -$ 3' ($ED' C-NF' 5-D23C' <&' CC T3 ' H4' <E3' H&' F3 J ' $43' $ED' C' F343QO' 3 J 1H 343D' $ED' 43X- 43D' H' 40' $ED' EX- 43' QO' F3' 34D N ' H&' $' 5-40' F3 F34' C-NF' I 4H134 O' C' H&' F3' $EE-$ ' $ -3' F E' F3' P 3$E E2' H&' F C' N ' $ ' F NF' F3' @ $ J $E ' C33+C' H' 432 C 34' C-NF' H 3 ' $ED' C-NF' 5-40' CF$ ' Q3' 43 -4E3D' QO' F3' C$ J 3' <&& N34' $ED' E' F3' C$ J 3' P $EE34' E' F NF' 5-4 3C' $43' EH 3 -4E3D' E' @$C3C' H&' 113$ ' &4H J ' F3' G3N433C' H&' CC C $E ' B$44 C 34C' HE' @ ' B C ' $ED' &' C-NF' 5-40' CF$ ' 2 3' $' 34D N ' E' &$ H-4' H&' F3' @ $ J ' H' 432 C 34' $ED' F3' 5-D23' Q3&H43' FH J ' F3' C$ J 3' CF$ ' Q3' 4 3D' CF$ ' NHEC D34' C-NF' @ $ J ' H' Q3' E' H F34' 43C13N C' 3 ' &H-ED3D ' F3' <4D34' CH' NH J 1 $ E3D' H&' CF$ ' Q3' F343-1HE' 43 34C3D ' $ED' F3' @ $ J $E ' Q3' D3N $43D' $ED' $D(-D23D' 3E 3D' H' Q3' 432 C 343D' $C' $' H 34' -ED34 F C

F C N ' $ D C-NF D(-D N$ HE CF$ 'F$ 3 F3 C$J3 ; &&3N ' H $ '
E 3E C $ED I -41HC3C $C &' F3 C$J3 F$D Q33E J$D3 QO C-NF CC C $E '
B$44 C 34 H4 @F$ 4 J$E $ ' F3 ?3CC HEC $&H43C$ D

WW ' ED Q3 ' 3E$N 3D ' *F$ ' F343 $EO I 34CHE ' 2 EC ' FHC3 9F3$ 'N2 C '
@ $ J ' H 432 C 34 $C $ H 34 $ ' ; 3N HEC &H4 $EO @H-E O ' @ O ' ' b 43&-C3D
H4 *H E H4 I $N3 ' $EO <4D34 CF$ ' Q3 J$D3 QO F3 CC C $E '
B$44 C 34 H4 @F$ 4 J$E HE $EO H F34 M4H-ED F$E EC-&& N 3ENO H& @$ - '
$ -3 ' CF$ ' NHEC D34 F J C3 & $224 3 3D QO C-NF <4D34 ' ' CF$ ' Q3 E $($113$ ' '
$ &- ' &H4 C-NF I 34CHE H 113 ' &4H J ' C-NF <4D34 H F3 5-D23C H& '5 $2 C H&
CC T3 $ ' F3 E3 ' CC T3C H Q3 FH D3E &H4 F3 C$J3 @H-E O ' @ O
*H E ' H4 I $N3 ' $ED C-NF 5-D23C H& CC T3 ' H4 <E3 H& F3 J ' CF$ '
F$ 3 I H 34 ' HE P H HE ' H 43 3 'C-NF <4D34 ' $ED 3 F34 H $&& 4 J ' H4
43 34C3 F3 C$J3 ' $C CF$ ' Q3 & ' $ED F343-1HE H $D(-D N$ 3 ' $ED
F NF D(-D N$ HE CF$ ' F$ 3 F3 C$J3 ; &&3N ' H $ ' E 3E C $ED
I -41HC3C ' $C &' F3 C$ D D(-D N$ HE F$D Q33E J$D3 QO C-NF CC CR
$E ' B$44 C 34 H4 @F$ 4 J$E $ ' F3 ?3CC HEC $&H43C$ D

WW ' ED Q3 ' 3E$N 3D ' *F$ ' E 3 34O @$C3 E F NF $E <4D34 I 4HN33D E2C
H& $E CC C $E ' B$44 C 34 H4 @F$ 4 J$E CF$ ' -1HE 113$ ' Q3 43 ' '
34C3D ' F3 5-D23 Q3&H43 FH J ' F3 C$J3 CF$ ' F$ 3 Q33E F3$4D CF$ ' H4D34 ' L
F343-1HE N$-C3 C-NF <$ F H Q3 $+3E $ED C-QCN4 Q3D ' $ED C-NF @34 R
& N$ 3 H Q3 2 3E ' $ED CF$ ' C 2E F3 C$J3 43C13N 3 O ' E +3
P $EE34 $C F3 CC C $E ' B$44 C 34 C F343 E Q3&H43 43X- 43D H DH
$ED CF$ ' N$-C3 C-NF N C H Q3 134&H4 J 3D QO F3 @ 34+ H& F3 I 3$N3
H4 F C G31- O ' $ED C-NF I 4HN33D E2C H Q3 F$D ' $C F343 E Q3&H43
D 43N 3D $ED 43X- 43D F3E $EO H 34 C 432 C 343D $ ' $ O ?3CC HEC
Q3&H43 F3 CC C $E ' B$44 C 3 ' H4 @F$ 4 J$E ' $ED C-NF <$ F $ED M34 '
& N$ 3 ' $ED C-NF N C $ED I 4HN33D E2C ' C $ ' Q3 H& F3 +3 ; &&3N ' $C
& F3O F$D Q33E $+3E ' C-QCN4 Q3D ' 2 3E ' 134&H4 J 3D ' $ED Q$D Q3&H43
F3 CC C $E ' B$44 C 34 H4 @F$ 4 J$E

WW ' ED Q3 ' 3E$N 3D ' *F$ ' $& 34 F3 G3 34 J E$ HE H& F3 '& 34 F3
?3CC HE F343QO D 43N 3D H Q3 & 4C ' FH D3E &H4 F3 ' 32 C 4O H& H 34C ?13N $ ' ?3CR
&H4 @H-E 3C ' @ 3C ' *H EC ' $ED BH4H-2FC ' ' CF$ ' Q3 $ &- ' &H4 $EO C HEC F343QO
I 34CHE N $ J E2 $ ' 2F ' CH H Q3 432 C 343D H $11 O &H4 F$ ' I -4R D 43N 3D
1HC3 $ ' $EO ?3CC HEC H& F3 I 3$N3 H4 D(H-4E J 3E ' F343H& H Q3 F3 D H 34C J$O
QO $ED Q3&H43 F3 CC C $E ' B$44 C 34 H4 @F$ 4 J$E H& F3 14H134 Q3 432 C 343D
@H-E O ' $ED QO $ED Q3&H43 F3 CC C $E ' B$44 C 34 H4 @F$ 4 J$E QO $ ' \ -$4 34
F3 C$ D ?NF3D- 3 ^ ' H F C N ' $EE3 3D $- FH4 T3D H 432 C 34 ?3CC HEC
H 34C &H4 C-NF @ O ' *H E ' H4 BH4H-2F ' -1HE 2 E2 H F3 @ 34+
H& F3 I 3$N3 $, H N3 H& F C E 3E HE CH H DH ' E F3 6H4 J ' F343 E
14H D3D ' * 3E O N 3$4 G$OC $ ' F3 3$C ' Q3&H43 F3 G$O $11H E 3D
&H4 F3 FH D E2 H& C-NF M3E34$ ' H4 \ -$4 34 ?3CC HE ' $ED & F E $
@H-E O $ ' $423 ' E F3 G C HE F E F NF F3 6433FH D H4 >3$C3R
FH D E 343C ' E 3ED3D H Q3 432 C 343D CF$ ' Q3 C -$ 3 ' $ED F3
@ 34+ H& F3 I 3$N3 H4 F C G31- O CF$ ' E C-NF @$C3 14HN33D E $ '
43C13N C E F3 C$J3 P $EE34 $C F343 E Q3&H43 143CN4 Q3D F 43 $ HE
H 11 N$ HEC &H4 432 C 34 E2 H 34C $ ' F3 & 4C ' ?3CC HE &H4 F$ '
I -41HC3 ' F343QO D 43N 3D ' $ED F3 CC C $E ' B$44 C 34 H& C-NF @H-E O '
H4 @F$ 4 J$E ' C F343QO $- FH4 T3D $ED 43X- 43D H F3$4 $ED D3 34 J E3
C-NF 11 N$ HEC $ ' C-NF M3E34$ ' H4 \ -$4 34 ?3CC HEC ' $ED $ ' F3
@H J J 3EN3 J 3E ' H& C-NF ?3CC DEC ' $ED Q3&H43 $EO H F34 B-C E3CC '
G @ ' @

U7 K S `M # > ; > P ʻ ʻ @$1 ZZ

@ ʻH4ʻ @4 J E$ ʻ Eʻ F3ʻ C$J3ʻ P$ J34ʻ Eʻ $ ʻ 43C13N Cʻ $Cʻ Cʻ F343 ER
Q3&H43ʻ 14H D3Dʻ Fʻ 43C13N ʻ Hʻ 11 N$ HECʻ Hʻ 432 C 34ʻ $ ʻ F3ʻ ?3CC HECʻ
&H4ʻ F$ ʻ I -41HC3ʻ Hʻ Q3ʻ F4C ʻ FH D3Eʻ -ED34ʻ F Cʻ N ʻ $FDʻ F343 -1HEʻ F3ʻ
C$J3ʻ I 4HN33D E2Cʻ CF$ ʻ $EDʻ J Oʻ &$3ʻ F$D ʻ F3ʻ +3ʻ < 4D34Cʻ J$D3 ʻ F3ʻ
+3ʻ < $ FCʻ $+3E ʻ F3ʻ +3ʻ @34 & N$ 3Cʻ 24$E 3D ʻ F3ʻ +3ʻ ' 2F Cʻ $EDʻ
I H 34Cʻ H&ʻ 113 ʻ 3E(HO3Dʻ $EDʻ 3 34N C3D ʻ $EDʻ F3ʻ +3ʻ ' - 3Cʻ $EDʻ
' 32 - $ HEC ʻ ; E$N J3E Cʻ $EDʻ * F E2C ʻ HQC34 3D ʻ 134&H4 J 3D ʻ $EDʻ
&H H 3D ʻ $Cʻ &ʻ C -NFʻ 11 N$ HEʻ F$Dʻ Q33Eʻ J $D3ʻ $ ʻ F3ʻ & 4C ʻ ?3CC HEʻ &H4ʻ
432 C 34 E2ʻ H 3CʻD 43N 3Dʻ Hʻ Q3ʻ F3 Dʻ -ED34ʻ F Cʻ N ʻ: I 4H D3Dʻ $ $OC ʻ
F$ ʻ $ʻ @34 FN$ 3ʻ H&ʻ $ʻ &H4 J 34ʻ ' 32 C 40ʻ -ED34ʻ F Cʻ N ʻ CF$ ʻ Q3ʻ D33 J 3Dʻ
$EDʻ $+3Eʻ Hʻ Q3ʻ &ʻ ' !ʻ %W 0 / !#' !ʻ H&ʻ F3ʻ ' 2F ʻ H&ʻ H E2ʻ ! $EDʻ
F$ ʻ $EOʻ I 34CHE ʻ F$ E2ʻ 2 3Eʻ , H N3ʻ H&ʻ F Cʻ E 3E HEʻ Hʻ 432 C 34ʻ
$E3 ʻ -ED34ʻ F Cʻ N ʻ CF$ ʻ #1HEʻ 14HD -N E2ʻ H4ʻ N$ -C E2ʻ Hʻ Q3ʻ 14HR
D -N3Dʻ C -NFʻ J J 34ʻ @34 & N$ 3ʻ $ ʻ F3ʻ ?3C? 1ECʻ &H4ʻ F$ ʻ 41HC3ʻ Hʻ Q3ʻ
F3 D ʻ Q3ʻ 3E 3Dʻ $EDʻ $D J 3Dʻ Hʻ 432 C 34ʻ F Cʻ H 3 ʻ $EDʻ Hʻ HQ $ Eʻ $ʻ
E3 ʻ @34 & N$ 3ʻ -ED34ʻ F Cʻ N ʻ FH - ʻ & -4 F34ʻ I 4HH&ʻ H4ʻ < $ F ʻ - - 3CCʻ
@$ -C3ʻ Hʻ F3ʻ NHE 4$40ʻ CF$ ʻ $113$4 ʻ $EDʻ CF$ ʻ QOʻ 4 -3ʻ H&ʻ C -NFʻ E3 ʻ
@34 & N$ 3ʻ Q3ʻ 3E 3Dʻ Hʻ H 3ʻ $ ʻ $EOʻ ; 3N HEʻ H 4 ; 3N HE$ʻ Hʻ
Q3ʻ F3 Dʻ F Eʻ ; 2F ʻ = 3$4Cʻ 3 ʻ $& 34ʻ F3ʻ HQ $ E E2ʻ H&ʻ C -NFʻ E3 ʻ
@34 & N$ 3 ʻ ʻ

@34 & N$ 3ʻ H& ' 32 C 40ʻ H Q3ʻ 2 3E H 3$NFʻ 432 C ʻ 343Dʻ H 34

WW ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ * F$ ʻ -1HEʻ $EOʻ I 34CHEʻ Q3 E2ʻ -ED34ʻ
F Cʻ N ʻ D3N $43Dʻ 3E 3Dʻ - Q3ʻ 432 C 343Dʻ $Cʻ $ʻ 34 AF3ʻ @&H4 Nʻ H& F3ʻ
I 3$N3ʻ H4ʻ F Cʻ G31 - ʻ CF$ ʻ -1HEʻ I $0 J 3E ʻ Hʻ F Jʻ H&ʻ F3ʻ ? - J ʻ H&ʻ < E3ʻ
?F E2 ʻ 2 3ʻ Hʻ F3ʻ I 34CHEʻ CHʻ D3N $43Dʻ 3E 3Dʻ $ʻ @34 & N$ 3ʻ HEʻ
I $4NF J 3E ʻ C 2E3Dʻ QOʻ C -NFʻ @ 34+ʻ H&ʻ F3ʻ I 3$N3ʻ H4ʻ F Cʻ @31 - O ʻ $Cʻ $ CHʻ
QOʻ F3ʻ B$44 C 34 ʻ @F$ 4 J $E ʻ H4ʻ 5 -D23 ʻ D3N $4 E2ʻ C -NFʻ ' 2F ʻ F$ ʻ C -NFʻ
I 34CHEʻ F$Cʻ Q33Eʻ 432 C 343Dʻ $?ʻ $ʻ H 34ʻ &H4ʻ C -NFʻ @H -E O ʻ @ O ʻ * H E ʻ
H4ʻ BH4H -2F ʻ $EDʻ F3ʻ @F$4$N 34ʻ $EDʻ ' 2F ʻ Eʻ F NFʻ F3ʻ F$Cʻ Q33Eʻ CHʻ
432 C 343D ʻ $EDʻ F3ʻ G$ 3ʻ H&ʻ C -NFʻ ' 32 C 40ʻ $Cʻ $&H43C$ D ʻ $EDʻ CF$ ʻ
F3Eʻ $EDʻ F343ʻ J $+3ʻ $Eʻ ; E 40ʻ H&ʻ C -NFʻ @34 & N$ 3ʻ $ ʻ F3ʻ 6HH ʻ H&ʻ F3ʻ
H 34 Cʻ && D$ ʻ H&ʻ ' 32 C 40 ʻ $EDʻ C 2Eʻ F Cʻ , $ J 3ʻ Hʻ C -NFʻ ; E 40 ʻ $EDʻ
F NFʻ @34 & N$ 3ʻ CF$ ʻ Q3ʻ F3ʻ 14H134ʻ ; D3EN3ʻ H&ʻ F3ʻ ' 2F ʻ H&ʻ F3ʻ
I 34CHEʻ E$ J 3Dʻ F343 Eʻ Hʻ H 3ʻ: I 4H D3Dʻ $ $OC ʻ F$ ʻ Eʻ & 3ʻ QC3EN3ʻ
H&ʻ C -NFʻ @34 & N$ 3 ʻ F3ʻ H 34ʻ CF$ ʻ Q3ʻ 3E 3Dʻ Hʻ 43&34ʻ Hʻ F Cʻ H4 2 E$ ʻ
&& D$ ʻ H&ʻ ' 32 C 40 ʻ Fʻ F3ʻ ; E 40ʻ F343HE ʻ Eʻ F3ʻ 8 $EDCʻ H&ʻ F3ʻ
G31 - Oʻ @ 34+ʻ H&ʻ F3ʻ I 3$N3 ʻ $EDʻ F NFʻ H4 2 E$ ʻ && D$ ʻ C -NFʻ G31 - Oʻ
Cʻ 43X - 43Dʻ J J 3D $ 3 Oʻ Hʻ 14HD -N3ʻ Hʻ F3ʻ ' 3 -4E E2ʻ < && N34ʻ 14 ʻ F Cʻ
G31 - O

H 34Cʻ 432 C ʻ 34 E2ʻ $ ʻ & 4C ʻ ?3CC HECʻ Hʻ Q3ʻ 3E 3Dʻ H H 3ʻ J J3 ʻ D $ 3 O H Q34C $& 34ʻ ? ʻ PHE FC

WW W ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ * F$ ʻ 3 34Oʻ I 34CHEʻ FHʻ CF - ʻ D - Oʻ
432 C 34ʻ $Cʻ $ʻ H 34ʻ F Eʻ F Cʻ N ʻ $ ʻ F3ʻ & 4C ʻ ?3CC HEʻ &H4ʻ 432 C 34 E2ʻ
F Cʻ H 3ʻ F Eʻ F Cʻ N ʻ CF$ ʻ Q3ʻ F343 -1HEʻ &H4 F Fʻ 3E 3Dʻ Hʻ H 3ʻ
$ ʻ $EOʻ ; 3N HEʻ Hʻ Q3ʻ F3 Dʻ Eʻ $EDʻ &H4ʻ F3ʻ @H -E O ʻ @ O ʻ * H E ʻ H4ʻ
BH4H -2Fʻ &H4ʻ F NFʻ C -NFʻ H 34ʻ CF$ ʻ Q3ʻ 432 C 343Dʻ (ʻ $EDʻ F$ ʻʻ $EOʻ
I 34CHEʻ FHʻ CF$ ʻ $ ʻ $EOʻ * J 3ʻ $& 34ʻ C -NFʻ & 4C ʻ B3C < Eʻ D - Oʻ 432 C 34ʻ
F Cʻ H 3ʻ $NNH4D E2ʻ Hʻ F3ʻ I 4H C HECʻ H&ʻ F Cʻ N ʻ CF$ ʻ Q3ʻ 3E 3Dʻ Hʻ
H 3ʻ $ ʻ $EOʻ ; 3N HEʻ Hʻ Q3ʻ F3 Dʻ QOʻ 4 -3ʻ H&ʻ $EOʻ 9 4 ʻ 3C 3D ʻ ? ʻ
@$ 3ED$4ʻ PHE FCʻ $ ʻ 3$C ʻ $& 34ʻ C -NFʻ ' 32 C 40

@ 34+ʻ H&ʻ F3ʻ I 3$N3ʻ Hʻ $11H E ʻ $ G31 - Oʻ H Q3

WWW ʻ EDʻ Q3ʻ ʻ & -4 F34ʻ 3E$N 3D ʻ * F$ ʻ F3ʻ @ 34+ʻ H&ʻ F3ʻ I 3$N3 ʻ $ ʻ
3 34Oʻ ; 3N HEʻ H&ʻ $ʻ P 3 J Q34ʻ Hʻ C34 3ʻ Eʻ I $4 $ J 3E ʻ &H4ʻ $EOʻ @H -E O ʻ
@ O ʻ * H E ʻ H4ʻ BH4H -2F ʻ CF$ ʻ $11H E ʻ H4ʻ Eʻ &$ -43ʻ F343H&ʻ F3
' 3 -4E E2

' 3 -4E E2 <&& N34 H4 <&& N34C CF$ ' $11H E ' $ G31- O @ 34+ H& F3 143C3E '$'
I 3$N3 ' $ED +3 C3 $E CC C $E ' H C-NF G31- O ' H Q3 143C3E ' E IH E2
3$NF BHH F H4 I $N3 H& 1H E2 ' FH CF$ ' $+3 F F J ' E H C-NF
I $N3 H& 1H E2 $ ' F3 H4 2 E$ ' && D$ C $ED && 4 J $ HEC F NF
F$ 3 Q33E J $D3 QO F3 I 34CHEC N$1$Q 3 H& H E2 E C-NF I $N3 ' H&
1H E2 43C13N 3 O ' $EO N ' H F3 NHE 4$4O EH FC $ED E2 ' ' F NF
&& D$ C H4 && 4 J $ HEC F3 @ 34+ H& F3 I 3$N3 C F343QO 43X- 43D
H F$ 3 44E23D $ 1F$Q3 N$ O E 'C31$4$ 3 I $4N3 C ' ^< E3 H4 J H43
&H4 3$NF >3 34 H& F3 1F$Q3 _ $ED EDH4C3D F F3 , $ J 3C H&
F3 I 34CHEC QO FH J ' F3 C$ J 3 343 43C13N 3 O J $D3 ' $ED $ CH
F F3 , - J Q34 H& F3 ; E 4O H& && D$ ' H4 && 4 J $ HE E F3
' 32 C 4O BHH+ ' $ED F$ ' E FHC3 @$C3C F343 E $ @34 & N$ 3 H&
' 32 C 4O CF$ ' EH ' Q3 14HD-N3D QO F3 I 34CHE 3ED34 E2 F C H 3 H&
H&&34 E2 H 1H ' C-NF G31- O CF$ ' HE F3 G3 J $ED H& F3 I 34CHE
H&&34 E2 H 1H ' 14HD-N3 F3 H4 2 E$ ' && D$ ' H4 && 4 J $ HE H& F3
' 32 C 4O H& C-NF I 34CHE ' $ED F$ ' C-NF G31- O @ 34+ H& F3 I 3$N3
CF$ ' Q3 3E 3D H 43N3 3 F3 ?- J ' H& * 3E ?F E2C ' $ED EH J H43 '
&H4 3$NF G$O H& F C 3ED$EN3 ' $EO N ' H F3 NHE 4$4O EH FR
C $ED E2 ' ' $ED C-NF CC C $E ' H C-NF G31- O CF$ ' Q3 3E 3D H
43N3 3 F3 ?- J ' H& 6 3 ?F E2C &H4 3$NF G$O H& ' F C 3ED$EN3 '
$ED F$ ' & C-NF G31- O ' H4 C-NF CC C $E ' H C-N8 _31- O ' CF$ '
$ 34 ' D3&$N3 ' D3C 4HO ' H4 HC3 $EO && D$ ' H4 && 4 J $DH ' H& ' 32 C 4O
NH J J 3D H F C @$43 ' F3 CF$ ' & $4&3 ' F3 ?- J ' H& * H1 I H-EDC ' &H4
3 34O C-NF <&&3EN3 H $EO I 34CHE C- E2 &H4 F3 C$ J 3 ' QO N HE H&
G3Q ' $ ' $EO M3E34$ ' \ -$4 34 ?3CC HEC H& F3 I 3$N3

WWW ' ED Q3 ' 3E$N 3D ' * F$ ' EH I 34CHE CF$ ' Q3 $D J 3D H , H I 34CHE H
H 3 $ ' $EO ; 3N HE H& $ P 3 J Q34 H4 P 3 J Q34C < C34 3 E $EO H 3 - 3CC
&- -43 I $4 $ J 3E ' QO 4 -3 H& $EO ' 32 C 4O -ED34 F C N ' -E 3CC 32C1 43D
F3 CF$ ' F$ 3 432 C 343D F E ; 2F ' =3$4C E3 ' Q3&H43 C-NF =3 4/ '
; 3N HE

E ' ED Q3 ' 3E$N 3D ' * F$ ' EH ' 32 C 4O F343$& 34 H Q3 (*)&#!B H+ %
J $D3, CF$ ' Q3 $ D -E 3CC J $D3 NHE&H4 J $Q O H F3 I 4H C HEC H& N ' E $ D H #J)A
F C N

WWW ' ED Q3 ' 3E$N 3D ' * F$ ' E N$C3 $EO ; 23ENO CF$ ' 43ED34 CC C $E '
' E3N3CC$4O &H4 $EO CC C $E ' B$44 C 34 H4 @F$ 4 J $E H $D(H-4E $EO '$44 C 34C
?3CC HE &H4 F3 ' 32 C 4O H& H 3C CH $11H E 3D H Q3 FH N 3E ' H4 E 23CC HEC *&/
N$C3 F3 CF$ ' Q3 CH D 43N 3D QO F3 >H4D > 3- 3E$E ' ' CF$ ' Q3 E3N3CC$4 '
$ &- ' &H4 F J ' H $D(H-4E $ED NHE E -3 F3 C$ J 3 ' $C @ 4N- J C $EN3C
J $O 43X- 43 ' 3 F34 H F3 C$ J 3 I $N3 ' H4 H C-NF H F34 I $N3 H4 I $N3C
$C F3 >H4D > 3- 3E$E ' CF$ ' D 43N

WWW ' ED Q3 ' 3E$N 3D ' * F$ ' $EO I 34CHE 432 C 34 E2 -ED34 I 34CHEC 43R
F C N ' CF$ ' Q3 3 3 J 1 3D &4HE ' F3 I $O J 3E ' H& $EO 633 F$ 3 34 &H4 2 C 34 E2
& E2 F3 @34 & N$ 3 H4 H F34 G- O E 43C13N ' H& C-NF ' 32 C 4O ' C$ 3 H Q3 3 3 J 1 '
HE O C-NF 633 H& < E3 ?F E2 H F3 @ 34+ H& F3 I 3$N3 $C QO F C &4H J 633C '
N ' C 14H D3D Q- ' C H
@ 34+ H&
I 3$N3

WWW ' ED Q3 ' &-4 F34 3E$N 3D ' * F$ ' F3 @ 34+ H& F3 B3$N3 @ 34+ H& F3
&H4 3$NF @H-E O ' @ O ' * H E ' $ED BH4H-2F 43 -4E E2 $ P 3 J Q34 H4 I 3$N3 O3$4 O
P 3 J Q34C H I $4 $ J 3E ' CF$ ' -ED34 F3 G 43N HE $ED F F3 H J$+3 H- '
D N3 $ 1F$Q3 N$

> C 'H&
H 34C

D N3 H& F3 @F$ 4 J $E H4 B$44 C 34 ' $C F3 @$C3 J $O Q3 ' HE H4 Q3&H43 F3 6 4C ' G$O H& R!4 3 E 3$NF $ED 3 34O =3$4 ' 3 $ J E3 NH443N ' $ED J $+3 H- ' @H J 1 3 3 $ 1F$Q3 N$ ' > C C H& F3 432 C 343D H 34C E 3$NF @F- E O ' @ O ' *H E ' $ED BH4H-2F E F NF F3 F$C $N 3D E J $+ E2 C-NF ' 32 C 4O $C $&H43C$ D ' F F3 G$ 3C H& F3 4 ' 32 C 4 3C 43C13N 3 O $EE3 3D ' $ED CF$ ' $ ' F3 ; 13EN3 H& C-NF @H- E O ' @ O ' *H E ' $ED BH4H-2F 43C13N 3 O ' HE H4 Q3&H43 F3 C$ D 6 4C ' G$O H& E 3$NF =3$4 ' N$-C3 C-NF > C C H Q3 14 E 3D $ED 1HC 3D E CH J 3 NHEC1 N-H-C I $N3C E F3 @H- E 3C ' @ 3C ' *H EC ' $ED BH4H-2FC H F NF C-NF > C C 43C13N 3 O 43 $ 3 ' $ED CF$ ' $ CH D3 34 H $EO I 34CHE $11 O E2 &F4 F3 C$ J 3 $ @H1O H& 3$NF C-NF 14 E 3D > C ' -1HE Q3 E2 1$ D < E3 ?F E2 &H4 3$NF C-NF @H1O

; 13EN3C H&
14 E E2 > C C '
$ED H& 1HC R
E2 $ED I -QR
N$ HE ' H Q3
D3&4$O3D QO
F3 @H- E O '
KN

WWW ' ED Q3 ' 3E$N 3D ' *F$ ' F3 ; 13EN3C H& 14 E E2 F3 , H N3C $ED I HC E2C F343QO D 43N 3D CF$ ' Q3 D3&4$O3D QO F3 @ 34+ H& F3 I 3$N3 E C-NF @H- E O ' @ O ' $ED *H E 43C1 3 O ' $ED F3 M4$ED 5-4O H& 3$NF C-NF @H- E O ' @ O ' $ED *H E ' $C F3 @$C3 J $O Q3 ' $43 F343QO 43X- 43D ' $ ' F3 E3 ' CC T3C H4 I 43C3E E2 * 34 J ' $& 34 C-NF , H N3C $ED I HC E2C ' H 143C3E ' H Q3 3 3D H&& F3 4 43C13N 3 @H- E 3C ' E F3 C$ J 3 P $EE34 $C H F34 ?- J C $43 $- FH4 T3D H Q3 143C3E 3D QO C-NF M4$ED 5-4 3C ' $ ' C-NF ?- J C $C CF$ ' F$ 3 Q33E E3N3CC$4 O D CQ-4C3D QO C-NF @ 34+C H& F3 I 3$N3 43C13N 3 O ' F NF ?- J C CF$ ' Q3 1$ D H C-NF @ 34+C H& F3 I 3$N3

E F$ ' @$ 3
2 3

WWW ' ED Q3 ' 3E$N 3D ' *F$ ' EH B$44 C 34 H4 @F$ 4 J $E CF$ ' 3 2 Q 3 H C34 3 E I $4 $ J 3E ' &H4 $EO @H- E O ' @ O ' *H E ' H4 BH4H-2F C3ED E2 $ P 3 J Q34 H4 P 3 J Q34C H I $4 $ J 3E ' E F NF F3 CF$ ' F$ 3 3 34N C3D 5-4 CD N HE -ED34 F C N ' $C ?-NF B$44 C 34 H4 @F$ 4 J $E ' &H4 ?3 3E =3$4C $& 34 F3 CF$ ' F$ 3 3 34N C3D C-NF 5-4 CD N HE

@H4+ ' D E2C
D33 J 3D
@H- E 3C '

WWW ' ED Q3 ' 3E$N 3D ' *F$ ' 3$NF ' D E2 E F3 @H- E O H& I , ' CF$ ' Q3 D33 J 3D H Q3 $ @H- E O &H4 F3 I -41HC3 H& ' 32 C 4O -ED34 F C N

I 34CHEC 43 '
&-C E2 H 2 3
Q3 C-Q3N *H
$% 4 ' f

WWW W ' ED Q3 ' 3E$N 3D ' *F$ ' &' $EO I 34CHE CF$ ' 43&-C3 H Q3 C H4E H4 H 2 3 ; D3EN3 Q3&H43 $EO 5-D23 ' B$44 C 34 ' @F$ 4 J $E ' H4 E 3C 2$ HE H& $EO @ $ J ' H 432 C 34 -ED34 F $ N $&H43C$ D ' FH- ' C-&& N 3E ' $ K ' ; N-C3 H Q3 $ H 3D QO C#NF 5-D23 ' B$44 C 34 ' H4 @F$ 4 J $E ' ' CF$ ' Q3 $ &- ' &H4 C-NF 5-D23 ' @F$ 4 J $E ' H4 B$44 C 34 H H4D34 C-NF I 34CHE H 1$O $ 6 E3 EH ' 3 R N33D E2 * 3E IH-EDC ' H Q3 $11 3D H F3 #C3 H& F3 E& 4 J $4O H& F3 @H- E O ' @ O ' H4 *H E 43C13N 3 O ' H4 C-NF NF$4 $Q 3 EC - HE $C F3 5-D23 ' @F$ 4 J $E ' H4 B$44 C 34 CF$ ' F E+ & ' H4 E D3&$- ' F343H& H NH J J ' C-NF I 34CHE H F3 M$H ' H& F3 C$ D H- E O /' @ O ' H4 *H E 43C13N 3 O &H4 $EO f 34 J ' EH ' 3 N33D E2 * H @$ 3ED$4 P HE FC

6H4234C H&
@34 & N$ 3 H4
<$ F H Q3
1-E CF$Q 3
QO *4$EC

W> ' ED Q3 ' 3E$N 3D ' *F$ ' &' $EO I 34CHE CF$ ' &H423 H4 NH- E 34 &3 ' F3 ? 2E$ -43 H& $EO 5-D23 ' @F$ 4 J $E ' B$44 C 34 ' H4 @ 34+ H& I 3$N3 H $EO < 4D34 ' @34 & N$ 3 ' H4 EC 4- J 3E ' E 9 4 E2 1-4R 1H4 E2 H Q3 $E < 4D34 H4 @34 & N$ 3 F E F C N ' H4 F3 ? 2E$ -43 H&

H&' $EO' I 34CHE' H' $EO' <$ F' H4' && 4 J $ HE' F E' F C' N ' H4' CF$ ' '+!#&#)+ '
+EH E2 O' - 34' H4' 1-Q CF' $C' 4-3' $ED' 23E- E3' $EO' C-NF' &H423D' H4'
NH-E 34&3 3D' <4D34' @34 & N$ 3' EC 4- J 3E ' 9 4 E2' <$ F' H4' && 4'
J $ HE' 3 34O' I 34CHE' CH' H&&3ED E2' CF$ ' Q3' D33 J 3D' 2- O' H&' 63 HEO')(# ?+!'
$ED' CF$ ' Q3' $Q 3' $' F3' G CN43 HE' H&' F3' @H-4' Q3&H43' F NF' F3' J!((' (&!A1'
CF$ ' Q3' 4 3D' H' Q3' 4$EC1H4 3D' Q3OHED' F3' ?3$C' &H4' F3' *34 J' H&'
?3 3E' =3$4C' H4' H' Q3' J 14 CHE3D' F' H4' FH-' F$4D' >$QH-4' &H4'
$EO' *34 J' EH' 3 N33D E2' *F433' =3$4C

W> ' ED' Q3' ' 3E$N 3D' *F$ ' E' 3 34O' @$C3' F343' $E' <$ F' C' Q (' VG&; (!A' +!'
F C' N' 43X- 43D' H' Q3' $+3E' 3 34O' I 34CHE' Q3 E2' $' P H4$ $E' H4' +!&2)& A'
\ -$+34' J $O' J $+3' && 4 J $ HE' E' F3' 6H4 J' 143CN4 Q3D' F343QO' &H4' 3$NF' $&& 4 J'
C-NF' <$ F' 43C13N 3 O' $ED' F$ ' $' I 4H C HEC' F343 E' NHE $ E3D'
43 $ 3' H' $EO' <$ F' CF$ ' 43C13N 3 O' 3 3ED' $ED' $11 O' H' 3 34O'
C-NF' && 4 J $ HE'

W> ' ED' Q3' ' 3E$N 3D' *F$ ' &' $FO' I 34CHE' CF$ ' E' $EO' <$ F' 14' *$+ E2' <$ F'
&& 4 J $ HE' H' Q3' $+3E' -ED34' F C' 1 ' &- O' $ED' NH4 J O' C 3$4' && 4 J $'
H4' $&& 4 J' &$ C3 O' C-NF' I 34CHE' CF$ ' Q3' D33 J 3D' 2- O' H&' I 34(-4O' $ED' Q3I34&-4 O
Q3' $Q 3' H' F3' C$ J 3' I $ EC' I 3E$ 3C' $ED' I -E CF J 3E C' $C' $EO' I 34CHE'
C' EH ' $Q 3' H' &H4' &-' $ED' NH44-1' I 3 (-4O

W> ' ED' Q3' ' 3E$N 3D' *F$ ' F3' ?F34 &&' H&' 3$NF' @H-E O' @ O' ??)H(!A'
$ED' *H E' E' $!% #&' H4' F C' #ED34' ?F34 && ' $ED' $ CH' F3' @ 34+' H&' F3' &##(<'
I 3$N3' H4' F C' G31- O' $ED' *H E' @ 34+C' &H4' 3$NF' C-NF' @H-E O' @ O' '2
*H E' H4' BH4H-2F' H4' F C' G31- O' $ED' F3' 8 2F' @HEC $Q 3' H&' F3'
B$4HEO' E' F NF' 3$NF' $ED' 3 34O' C-NF' @H-4' H&' ?3CC HEC' EC' QO' F C'
N' C' D 43N 3D' CF$ ' Q3' F3 D' $ED' C-NF' , - J Q34' H&' H F34' @HEC $Q 3C'
$C' F3' CC C $E' B$44 C 34' H4' @F$ 4 J $E' CF$ ' D33 J' C- B?N 3E' CF$ '
$ 3ED' F3' @H-4' &4H J' G$O' H' G$O' D-4 E2' F3' @HE E-$EN3' H&' C-NF'
?3CC HEC' ' $ED' 3 34O' @ 34+' H&' F3' I 3$N3' $ED' *H E' @ 34+' H4' G31- O'
$C' F3' @$C3' J $O' Q3' $ 3ED E2' $EO' C-NF' ?3CC HEC' CF$ ' $+3' F'
F J' $ED' &4H J' G$O' H' G$O' $ 3ED' F' C-NF' H4 2 E$' && D$ C' H4'
&& 4 J $ HEC' $ED' $' $ED' 3 34O' C-NF' BHH+' $ED' ' 32 C 4O' $C' -ED34'
$ED' QO' 4 -3' H&' F3' >$ C' EH ' E' &H4N3' #' $!% #&' H4' -ED34' F C' N '
C-NF' @ 34+' H&' F3' I 3$N3' H4' *H E' @ 34+' H4' F C' G31- O' C' 43X- 43D'
H' +331' H4' H' $ 3 D' F' $ED' 14HD-N3' $' $EO' ; 3N HE' H4' I $N3' H&'
1H E2' E' $!% #&

W> ' ED' Q3' ' 3E$N 3D' *F$ ' E' F3' @H-E O' H&' 234% #' $ ' (*)A#!B' H&'
H 34C' H' Q3' 432 C 343D' -ED34' F C' N' CF$ ' Q3' 432 C 343D' Q3&H43' F3' H&'
@F$ 4 J $E' H&' F3' ?3CC HEC' H&' F$ ' @H-E O' $ED' E' F3' @ O' H&' 234% #' <-Q? &$ED'
Q3&H43' F3' C$ D' @F$ 4 J $E' FH' CF$ ' &H4' C-NF' I -41HC3' FH D' $' ?3CC HE' E' F3'N O' H&'
6H-4' * J 3C' E' 3$NF' =3$4' $' C-NF' * J 3C' $ED' I $N3C' $C' F3' >H4D' > 3-' $G I) 1'
3E$E' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&' $!% #&' CF$ ' $11H E '
$ED' F$ ' C-NF' ' 32 C 4O' CF$ ' Q3' NHED-N 3D' E' F3' C$ J 3' P $EE34' E' $ '
43C13N C' $C' Q3&H43' F3' CC C $E' B$44 C 34' E' $EO' H F34' @H-E O' @ O'
H4' *H E' ' $ED' C-NF' @F$ 4 J $E' CF$ ' F$ 3' 3 34N C3' 134&H4 J' $ED' D CR
NF$423' 3 34O' I H 34' 5-4 CD N HE' ' 2F ' - FH4 O' G- O' $ED' 6 -ENR
HE' F343QO' 3C 3D' E' H4' 2 3E' H' $EO' C-NF' CC C $E' B$44 C 34' $ED' E'
$EO' @$C3' F343' $E' 113$' C' F343QO' $ H 3D' &4H J' F3' <4D34' H&' $E'
CC C $E' B$44 C 34' H' F3' 5-D23' H&' CC T3' F3' +3' I H 34' H&' 113$'
&4H J' $EO' <4D34' H&' C-NF' @F$ 4 J $E' CF$ ' $ED' J $O' E' F3' @$C3' H&' $EO'
H 34' E' F3' @H-E O' H&' 234% #' $ED' @ O' H&' 234% #' 43C13N 3 O' Q3'

U K'S'M#> ;>P' ' @$1 B?

3E(HO3D' $ED' F$D' H' $' 5-D23' H&' $EO' H&' 8 C' P$(3C O ? C-134 H4' >$ ' @H-4 C' H&' '3NH4D' E' 234% #' $' , C' I4 -C' $' F3' ? E2C' &H4' F3' @ O' H&' 234% #' E3 '$& 34' C-NF' <4D34' J$D3 '$ED' F3' 5-D23' H' F NF' $EO' C-NF' 113$' CF$ 'Q3' J$D3' CF$ ' 14HN33D' F' 43C13N ' F343 H' E' F3' C$J3' P$EE34' $C' $EO' 5-D23' H&' CC U 3' C' F343QO' $- FH4 T3D' H4' 43X- 43D' H' 14HN33D

IH 34' H' F3' B$44 C 34 KN' H & E3' @34+' H&' I3$N3' KN' &H4' B43$NF' H&' G- O

W> ' ED' Q3' '3E$N 3D'*F$'3 340' ?3C$HE' H' Q3' F3 D' &H4' 432 CR 34 E2' H 34C' F E' F C' N 'CF$ 'Q3' D33 J 3D' $' @H-4 ' H&' '3NH4D ' $ED' F$' 'CF$ 'Q3' $ & D' &H4' B$44 C 34' H4' @F$ 4 J$E' Q3&H43' FH J C-NF' @H-4 'CF$ 'Q3' F3 D' &4H J' * J 3' H' * J 3' $C' F343' CF$ 'Q3' <NN$C HE' H' & E3' F3' @ 34+' H&' F3' I3$N3' <4 F C' G31- O' F3' *H E' @ 34+' H4' F C' G31- O' H4' F3' ?-Q ?F34 && H&' F3' @H-E O' @ O' H4' *H E' &H4' F NF' F3' C$ D' @H-4 ' CF$ ' Q3' F3 D' $ED' $EO' 8 2F' H4' H F34' @HEC $Q 3' FH' CF$ '43C13N 3 O' Q3' 2- O' H&' $EO' B43$NF' H&' G- O' E' F3' ; 3N- HE' H&' F C' N ' E' $EO' ?- J' EH '3 N33D E2' 6 3' I H-EDC' $ED' $' F C' G CN43R HE' H' & E3' E' $EO' ?- J' EH '3 N33D E2' 6H4 O' ?F E2C' H4' H' NH J J ' H' I4 CHE' &H4' $EO' * J 3' EH '3 N33D E2' $' 6H4 E 2F ' $EO' I 34CHE' F$ CHR 3 34' FH' CF$ 'D C -4Q' F3' @H-4 'CH' H' Q3' F3 D' QO' F J' &H4' 432 C 34 E2' H 34C' $C' $&H43C$ D' H4' FH' CF$ 'Q3' 2- O' H&' $EO' H F34' @HE 3 J 1 ' H&' F3' C$ D' @H-4 '

6433FH DC' H&' F3' $EE-$' $ -3' H&' EH ' 3CC' F$E' 1M6' J$O' Q3' 432 CR 343D' $' F3' ?13N $' H4' M3E34$' \-$4 34' ?3CR C HEC' H' Q3' FH D3E' -ED34' F C' N

W> ' I4H D3D' $ $OC' $ED' Q3' '&-4 F34' 3E$N 3D'*F$' ' CF$ ' Q3' $ &-'&H4' $EO' 6433FH D34' FH' J $O' Q3' 3E 3D' QO' >$ ' 1' 432 C 34' $' 6433FH D' E' $EO' @H-E O' @H-E O' H&' $' @ O' H4 @H-E O' <&' $' *H E' E' $!% #&' H&' F3' $EE-$' $ -3' H&' EH ' 3CC' F$E' 6 & O' I H-EDC' $ED' &H4' 3 340' @ 3420 J $E' FH' N $ J C' H' H 3' $C' $' 6433R FH D34' E' 4 2F' H&' F C' B3E3& N3' H' 432 C 34' C-NF' 6433FH D' 3 F34' $' F3' ?13N $' H4' $EO' M3E34$' $4 34' ?3CC HEC' H' Q3' FH D3E' -ED34' F C' N ' H4' H' 432 C 34' C-NF' 6433FH D' QO' $+ E2' $ED' C-QCN4 Q E2' F3' 14H134' <$ F' QO' F3' ?NF3D- 3' H' F C' N ' $EE3 3D' 143CN4 Q3D' E' $EO' H&' F3' C-134 H4' @H-4 C' H&' '3NH4D' E' 234% #' H4' Q3&H43' $ 5-D23' $' F3' CC T3C' E' F3' P$EE34' EH ' QO' >$ ' $- FH4 T3D' $ED' F3' C$ D' <$ F' CF$ ' Q3' C-QCN4 Q3D' QO' <E3' H&' F3' 5-D23C' H&' F3' @H-4 ' Q3&H43' FH J' F3' C$J3' 9$C' $+3E' $ED' Q3 E2' D3 343D' H' F3' @ 34+' H&' F3' I3$N3' CF$ ' Q3' C 2E3D' QO' F J' $ED' +31' $ J HE2C' F3' '3NH4DC' H&' F3' 14H134' @H-E O' $ED' 3$NF' C-NF' 6433FH D34' CF$ ' Q3' F343-1HE' 3E 3D' -1HE' I$O J 3E' H&' F3' 633' H&' <E3' ?F E2' H' 43N3 3' $' $EO' \-$4 34' ?3CC HEC' H&' F3' I3$N3' &H4' F3' G C HE' H&' F3' @H-E O' E' F NF' F C' 6433FH D' CF$ ' Q3' C -$ 3' $' @34 & N 3' H&' F C' '32 C 4O' $C' $' H 34' &H4' C-NF' @H-E O' @ O' H4' *H E' 43C13N 3 O' F NF' @34 & N$ 3' CF$ ' Q3' E' F3' 6H4 J' QO' F C' N ' 143CN4 Q3D' $ED' CF$ 'Q3' C 2E3D' QO' F3' CC C $E ' B$44 C 34' $ED' @ 34+' H&' F3' I3$N3' H4' F C' G31- O' $ED' CF$ ' Q3' H&' 3X-$' $ D O' F' $EO' @34 & N$ 3' H' Q3' 24$E 3D' -ED34' F C' N '$ED' C-Q(3N ' H' F3' C$J3' I4H C HEC

I4H C HE' $C' H' *4-C 33C' $ED' P H4 R 2$233C

W> ' ED' Q3' '3E$N 3D'*F$' EH' I 34CHE' CF$ 'Q3' $ H 3D' H' F$ 3' $EO' H 3' $' $EO' ; 3N HE' H&' $' P 3 J Q34' H4' P 3 J Q34C' H' C34 3' E' I$4 $J 3E' &H4' H4' QO' 43$CHE' H&' $EO' *4-C ' ;C $ 3' H4' P H4 2$23' -E 3CC' C-NF' *4-C 33' H4' P H4 2$233' Q3' E' $N -$' '3N3 1' H&' F3' '3E C' $ED' I4H& C' H&' F3' C$J3' ;C $ 3' Q- ' F$' F3' @3C - X-3' *4-C ' H4' P H4 2$2H4' E' 1HCC3CC HE' CF$ ' $ED' J$O' 432 C 34' $ED' H 3' &H4' F3' C$J3' ;C $ 3' EH FC $ED E2' C-NF' *4-C ' H4' P H4 2$23

W> #>' ED

W> ED Q3 3E$N 3D * F$ $& 34 F3 ; ED H& F3 143C3E I $4R $ J 3E $ BHH FC 343N 3D &H4 F3 @HE 3E 3EN3 H& $+ E2 I H C CF$ Q3 343N 3D $ F3 (H E $ED 3X-$; 13EN3 H& F3 C3 34$ @$ED D$ 3C $ED F3 C$ J 3 CF$ Q3 343N 3D QO @H 4$N F F3 @$ED D$ 3C & F3O CF$ F E+ & H J $+3 C-NF @HE 4$N H4 & F3O CF$ EH J $+3 C-NF @HE 4$N F3E F3 C$ J 3 CF$ Q3 343N 3D QO F3 ?F34 && H4 H F34 ' 3 -4E E2 <&& N34 H4 <&& N34C $ F3 ; 13EN3 H& F3 C3 34$ @$ED D$ 3C $C $&H43C$ D $ED F3 G31- 3C $11H E 3D QO F3 C$ D ?F34 && H4 H F34 ' 3 -4E E2 <&& N34 H4 <&& N34C CF$ Q3 1$ D 3$NF * H M- E3$C QO F3 G$O $ED F3 @ 34+C 3 J 1 HO3D E $+ E2 F3 I H C CF$ Q3 1$ D 3$NF <E3 M- E3$ QO F3 G$O $ F3 ; 13EN3 H& F3 @$ER D D$ 3C $ C-NF ; 3N HE : I 4H D3D $ $OC F$ & $EO I 34CHE CF$ Q3 14H1HC3D FH- F C @HEC3E F3E F$ F3 I 34CHE CH 14H1HC E2 F J CF$ D31HC H4 2 3 ?3N-4 O E $ C-&& N 3E ?- J H D3&4$O F C ?F$43 H& F3 C$ D ; 13EN3C E +3 P $EE34 $C & F3 F$D Q33E $ @$ED D$ 3

@J D D$ 3 H4 I 34CHE 14H1HC E2 @$ED D$ 3C FH- Q C @HEC3E H Q3 $ F3 ; 13EN3 H& BHH FC $ED I H @ 34+C

W> W ED Q3 3E$N 3D * F$ F3 ?F34 && H4 H F34 ' 3 -4E E2 <&& N34 CF$ Q3&H43 F3 G$O & 3D &H4 F3 ; 3N HE N$-C3 H Q3 J $D3 H&34C HLQ3 &H4 F3 # C3 H& 3$NF BHH F $ C-NF ; 3N HE $ 4-3 @H1O H& F3 $D3 &H4 ' 32 C 34 H& H 34C $ED CF$ -ED34 F C 8 $ED N34 &O 3 34O C-NF 3$NF BHH F @H1O H Q3 4-3

> ED Q3 3E$N 3D * F$ 3 34O G31- O H& $?F34 && H4 H F34 H 34C H& ' 3 -4E E2 <&& N34 CF$ F$ 3 F3 C$ J 3 I H 34 H& $D J E C 34 E2 F3 <$ FC $ED && 4 J $ HEC 43X- 43D QO >$ $C F3 ?F34 && H4 H F34 H&& N34C L ' 3 -4E E2 <&& N34 F$C QO 4 -3 H& F C H4 $EO H F34 N $ED C-Q(3N H F3 C$ J 3 ' 32- $ HEC $ED I 4H C HEC E 3 34O 43C13N $C C-NF ?F34 && H4 H F34 ' 3 -4E E2 <&& N34 $ED F$ C-NF <$ FC CF$ Q3 2433Q 3 H F3 6H4 J C QO >$ 43X- 43D H4 $C E3$4 F343 H $C J $O Q3

> ED Q3 &-4 F34 3E$N 3D * F$ F3E3 34 E $EO <E3 * H H4 J H43 B$4HEO H4 8 $ & B$4HEO H& F3 @H-E O H4 E $EO @H-E O H& $ @ O H4 @H-E O H& $ * H E H4 E $EO BH4H-2F F3 , - J Q34 H& 432 C 343D F343 H 34C $113$4 E2 QO F3 BHH+C H& F3 @ 34+ H& F3 I 3$N3 N$1$Q 3 H& F343 CF$ H E2 $ $EO ; 3N HE &H4 F3 C$ J 3 CF$ 3 N33D ? F-ED43D H 34C 3 N33D ? CF$ $ED J $O Q3 $ &- &H4 F3 ' 3 -4E E2 <&& N34 H4 <&& N34C F-ED43D H 34C $ED F3 $ED F3O $43 F343QO 43X- 43D H 14H D3 * H H4 J H43 I H E2 I $N3C &H4 C-NF B$4HEO H4 8 $ & B$4HEO H4 &H4 C-NF @H-E O H& $ @ O H4 @H-E O H& $ * H E H4 BH4H-2F $ED H J $+3 C-NF $ G C HE H4 G C HEC H& F3 H 34C $NNH4D E2 H F3 & 4C >3 34C H& F3 4 , $ J 3C F$ CF$ EH Q3 E3N3CC$4O &H4 J H43 F$E ? F-ED43D H 34C H 1H E $EO <E3 I $N3 H& 1H E2 Q- CH $C EH H D D3 F3 , $ J 3C Q32 EE E2 F F3 C$ J 3 >3 34 H& F3 1F$Q3 $ED F$ CF$ $ED J $O Q3 $ &- &H4 F3 ' 3 -4E E2 <&& N34 H4 <&& N34C $ED F3 $ED F3O $43 F343QO 43X- 43D H 14H D3 $C J $EO E3 I $N3C H& 1H E2 $C J $O Q3 E3N3CC$4O &H4 F3 I -41HC3 $ED H $11H E $C J $EO $DD HE$ G31- 3C $ED I H @ 34+C $C CF$ Q3 E3N3CC$4O H $+3 F3 I H E C-NF $DD HE$ I $N3C H& 1H E2 EH 3 N33D E2 <E3 G31- O $ED <E3 I H @ 34+ &H4 3$NF C-NF I $N3 H& 1H E2 $ED 14H D3D $ $OC F$ E N$C3 F3 , - J Q34 H& H 34C E $EO * H H4 J H43 B$4HE 3C H4 8 $ & B$4HE 3C E $EO @H-E O CF$ EH 3 N33D F3 , - J Q34

,-JQ34'H&'? 'F-ED43D' H 34C' 'CF$ ' Q3' $ &-'&-4' F3'(' 3 E E2' <&& N34' H4' <&& N34C' $ED' F3' $ED' F30' $43' F343QO' 43X- 43D' H' 14H D3' F$' F3' IH ' &H4' C-NF' B$4HE 3C' $ED' 8 $ &' B$4XE 3C' CF$ ' Q3' $+3E' E' <E3' I $N3' H&' 1H E2' HE O' 7

IH ' H' NHE ' E3EN3' HE' F3' G$O' F3' C$J3' CF$#Q3' D3J$ED3D

> >' ED' Q3' '&-4 F34' 3E$N 3D' *F$ '&4HJ' $ED' $& 34' F3' 1$CC E2' H&' F C' N' 3 34O' IH ' F NF' CF$ ' Q3' D3J$ED3D' $' $EO' & 3N HE' H&' "' P3JQ34' H4' P3JQ34C' H' C34 3' F' I$4 $J3E '&H4' $EO' @H-E O' < O' *H E' H4' BH4H-2F' E' $!% #&' CF$ ' NHJ J3EN3' HE' F3' G$O' -1HE' F NF' F3' C$J3' CF$ ' Q3' D3J$ED3D' H4' -1HE' F3' E3 ' G$O' $& 34' ^-E 3CC' C-NF' G$O' CF$ ' F$113E' H' Q3' $' +3#& ' I) 1 1' 2 ' H4' ,,&' R & ' $ED' E' C-NF' @$C3' HE' F3' G$O' E3 ' $& 34_' $ED' CF$ ' Q3' D- O' $ED' 432- $4 O' 14HN33D3D' E' &4HJ' G$O' H' G$O' &H4' CH' J$EO' 8H-4C' H&' 3$NF' IH E2' G$O' $C' F3' '3 -4E E2' <&& N34' H4' <&& N34C' $43' EH ' QO' >$ ' D 43N 3D' H' +331' Q3' I D' H13E' E' @H-E 3C' $' $423' @ +3#& ' I) 1 1' 2 ' $ED' ,,&' R & '3 N31 3D_' -E ' F3' C$J3' CF$ ' Q3' & E CF3D' Q- 'CH' F$' EH' IH#' CF$D' NHE E-3' JH43' F$E' 6 3' G$OC' $' F3' JHC' G+3#& ' I) 1# 1' 2 ' $ED' ,,&' R & ' $ $OC' 3 N31 3D_' ' $ED' &' C-NF' IH ' CF$ ' @HE J 3' -E ' F3' 6 & F' G$O' F3E' F3' C$J3' CF$ ' Q3' & E$ O' N HC3D' $' H4' Q3&H43' F3' 8H-4' H&' 6 3' H @ HN+' E' F3' & 34EHHE' H&' F3' C$J3' G$O' ' $ED' F3' '3 -4E E2' <&& N34' CF$ ' J J3D $ 3 O' $& 34' F3' & E$' @ HC3' H&' F3' IH ' D3N $43' F3' ,$J3' H4' ,$J3C' H&' F3' I34CHE' H4' I34CHEC' F$ E2' F3' P$(H4 O' ? H 3C' E' C-NF' IH ' $ED' CF$ ' &H4 F F' J$+3' $' '3 -4E' H&' C-NF' I34CHE' H4' I34CHEC

IH ' H' N HC3' F3E' EH' * 3E ' I34' CHEC' F$ 3 ' 1H 3D' D-4 E2' F3' G$O'

> ' I4H D3D' $ $OC' $ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' 'CF$ ' $ED J$OQ3' $ &-' &H4' F3' '3 -4E E2' <&& N34' $' $EO' C-NF' ; 3N HE' $ED' F343QO' 43X- 43D' HE' $EO' G$O' D-4 E2' C-NF' ; 3N HE' $& 34' F3 6 4C' G$O' H&' 1H E2' H' N HC3' & E$ O' F3' IH#' E' $EO' BHH F' H4' I $N3' H&' 1H E2' E' F NF' EH' JH43' F$E' * 3E O' I34CHEC' F$ 3' 1H 3D' D-4 E2' F$' G$O' I4H D3D' $ $OC' F$' E' N$C3' ' CF$ ' $113$4' H' F3' '3 J E E2' <&& N34' -1HE' F3' ; D3EN3' H&' * H' H4' JH43' N43D Q 3' I34CHEC' $+3E' -1HE' <$ F' $ED' F NF' <$ F' F3' '3 -4E E2' <&& N34' C' F343QO' 3J1H 343D' H' $DJ E C 34' F$' $EO' I34CHEC' E 3ED E2' H' H&&34' F3JC3 3C' H' 1H ' E' C-NF' BHH F' H4' I $N3' H&' 1H E2' F$ 3' Q33E' 143R 3E 3D' QO' 6H4N3' H4' H 3EN3' &4HJ' NHJ E2' H' F3' C$J3' &H4' F3' I-4R 1HC3' H&' 1H E2' HE' F$' G$O' F$' F3E' $ED' E' C-NF' @$C3' ' CQ$ ' Q3' $ &-' H' $ED' &H4' F3' '3 -4E E2' <&& N34' H' +331' C-NF' BHH F' H4' I $N3' H&' 1H E2' H13E' &H4' $EH F34' G$O' $ED' CH' HE' &4HJ' G$O' H' G$O' &' C-NF' 6H4N3' H4' H 3EN3' Q3' 4313$ 3D' $ED' Q3' &H-ED' H' F$ 3' $+3E' 1 $N3' -1HE' C-NF' ; D3EN3' $C' $&H43C$D' H' F3' ?$ C&$N HE' H&' F3' '3R -4E E2' <&& N34' $ED' &H4' C-NF' I-41HC3' H' D3 $O' F3' & E$' @ HC3' H&' F3' IH ' $ED' F3' '3 -4E' CH' HE2' $C' J$O' Q3' E3N3CC$4O

@34 & N$ 3' H Q3' NHEN -C 3' H&' '2F' H&' H E2' $ED' EH' EX- 4O' $' IH ' C$ 3' QO' && D$ ' E' ?NF3D- 3&B_

> ' ED' Q3' '3E$N 3D' *F$ ' F3' @34 & N$ 3' QO' F C' N' D 43N 3D' H4' E' D3&$- ' H&' C' I4HD-N HE' F3' H4 2 E$' && D$ ' H&' '3 C 4O' CF$ ' Q3' NHEN -C 3' H&' F3' ' 2F' H&' H E2' H&' F3' I34CHE' E$J3D' F343 E' $ED' F$' F3' '3 -4E E2' <&& N34' H4' & CG31- O' -1HE' F3' I4HR D-N HE' H&' C-NF' @34 & N$ 3' ! && D$ ' QO' C-NF I34' CHE' $ED' -1HE' F C' $+ E2' F3' <$ FC' F343 E $& 34' J3E HE3D' &' 43X- 43D' CH' H' DH' CF$ ' $DJ 'C-NF' I34CHE' H' H 3' FH-' $EO' H F34' <$ F' H4' ; $J E$ HE' $ED' CF$ ' EDH4C3' F3' E $C' H&' F C' ,$J3' F343HE' F' F3' G$O $ED

U ʾ Kʿ SČM # > ; > P ʿ ʿ < $1 ZZʿ Z !

$EDʹ =3$4ʹ F3Eʹ F3ʹ C$J3ʹ $Cʹ 14HD-N3D ʿ $EDʹ F$ ʿ EHʹ X -40ʹ
F$ 3 34ʹ $Cʹ Hʹ F3ʹ ' 2F ʿ H&ʹ H E2ʹ H&ʹ C-NFʹ I34CHEʹ CF$ ʿ Q3ʹ 134E- 3Dʹ
Hʹ Q3ʹ J$D3 ʿ EH4ʹ CF$ ʿ $EOʹ ?N4- EOʹ Q3ʹ $ H 3Dʹ (C$ 3ʹ HE Oʹ F$ ʿ F3ʹ
?F34 && ʿ ' 3 -4E E2ʹ <&& N34 ʿ H4ʹ F Cʹ G31- O ʿ CF$ ʿ &ʹ 43X- 43Dʹ QOʹ $EOʹ
@$ED D$ 3ʹ H4ʹ F Cʹ 23E ʿ $EDʹ F3ʹ Cʹ F343QOʹ $- FH4 T3Dʹ CHʹ Hʹ DH ʿ J J 3D R
$ 3 Oʹ Q3&H43ʹ F3ʹ 1H E2ʹ H&ʹ $EOʹ H 34 ʿ $D J E C 34ʹ Hʹ C-NFʹ H 34ʹ F3ʹ
<$ Fʹ Eʹ F3ʹ ?NF3D- 3ʹ ^B _ʹ Hʹ F Cʹ N ʿ $EE3 3D ʿ $EDʹ 14H D3Dʹ $ CH ʿ
F$ ʿ F3ʹ <$ Fʹ 2 EC ʿ B4 Q340ʹ J $Oʹ Q3ʹ $D J E C 343D ʿ $ ʿ F3ʹ G3C 43ʹ H&ʹ
$EOʹ @$ED D$ 3 ʿ Hʹ $EOʹ I34CHEʹ 3ED34 E2ʹ Q Cʹ H 3 ʿ Eʹ +3ʹ P $EE34ʹ $Cʹ
F3ʹ C$J 3ʹ J 2F ʿ Q3ʹ $D J E C 343Dʹ Q3&H43ʹ F3ʹ 1$CC E2ʹ H&ʹ F Cʹ N ʿ $ Dʹ
14H D3Dʹ $ $OC ʿ F$ ʿ &ʹ C-NFʹ I34CHEʹ CHʹ 3ED34 E2ʹ F Cʹ H 3ʹ CF$ ʿ
$113$4ʹ QOʹ C-NFʹ @34 & N$ 3ʹ Hʹ F$ 3ʹ Q3&H43ʹ H 3Dʹ $ ʿ C-NFʹ ; 3N HE ʿ
H4ʹ CF$ ʿ 43&-C3ʹ Hʹ $+3ʹ F3ʹ C$ Dʹ <$ FCʹ H4ʹ 3 F34ʹ H&ʹ F3 J ʿ F3Eʹ 43X- 43Dʹ
CHʹ Hʹ DH ʿ F3ʹ ?F34 && ʿ ' 3 -4E E2ʹ <&& N34 ʿ H4ʹ F Cʹ G31- Oʹ CF$ ʿ 43(3N ʿ
C-NFʹ H 3 ʿ

> ʿ EDʹ Q3ʹ ʿ 3E$N 3D ʿ * F$ ʿ $ ʿ >$ C ʿ ? $ - 3C ʿ $EDʹ # C$23Cʹ EH ʿ ʿ ; 3N HEʹ
Eʹ &H4N3ʹ 43C13N E2ʹ ; 3N HECʹ H&ʹ P 3 J Q34Cʹ Hʹ C34 3ʹ Eʹ I $4 $ J 3E ʿ &H4ʹ
$EOʹ @H-E O ʿ @ O ʿ * H E ʿ H4ʹ BH4H-2Fʹ Eʹ CF$ ʿ C$ 3ʹ CHʹ &$4ʹ $$
F3Oʹ $43ʹ 43C13N 3 Oʹ 4313$ 3Dʹ H4ʹ $ 343Dʹ QOʹ F Cʹ N ʿ 43 J $ Eʹ $EDʹ F3Eʹ $ 343Dʹ
F3Oʹ $43ʹ F343QOʹ 43 3E$N 3Dʹ $EDʹ D3N $43Dʹ Hʹ Q3ʹ Eʹ &- ʿ 6H4N3ʹ ʿ $EDʹ QOʹ F Cʹ N ʿ
F$ ʿ $ ʿ ; 3N HECʹ &H4ʹ $EOʹ P 3 J Q34ʹ H4ʹ P 3 J Q34Cʹ <ʹ C34 3ʹ Eʹ F Cʹ
143C3E ʿ I $4 $ J 3E ʿ Hʹ Q3ʹ F343$& 34ʹ F$D ʿ CF$ ʿ Q3ʹ F3 Dʹ $EDʹ J $D3ʹ $Cʹ
&ʹ F Cʹ N ʿ F$Dʹ EH ʿ Q33Eʹ 1$CC3D

> ʿ I4H D3Dʹ $ $OC ʿ $EDʹ Q3ʹ ʿ &-4 F34ʹ 3E$N 3D ʿ * F$ ʿ &ʹ $ʹ G CR Eʹ N$C3ʹ H&ʹ
CH - HEʹ H&ʹ F Cʹ 143C3E ʿ I $4 $ J 3E ʿ CF$ ʿ $+3ʹ 1 $N3ʹ $& 34ʹ F3ʹ 1$CC E2ʹ G CCH - HEʹ
H&ʹ F Cʹ N ʿ $EDʹ Q3&H43ʹ F3ʹ * 34 J E$ HEʹ H&ʹ F3ʹ ?13N $ ʿ ?3CC HECʹ &H4ʹ H&ʹ I $4 $ J 3E ʿ
$EOʹ @H-E O ʿ @ O ʿ H4ʹ * H Eʹ Hʹ Q3ʹ & 4C ʿ FH D3Eʹ -ED34ʹ F3ʹ I 4H C HECʹ Q3&H4aʹ ' 32 CR
H&ʹ F Cʹ N ʿ Eʹ C-NFʹ @$C3ʹ C-NFʹ I34CHECʹ HE Oʹ CF$ ʿ Q3ʹ 3E 3Dʹ Hʹ 40 ʿ F3ʹ E3 ʿ
H 3ʹ $ ʿ F3ʹ ; 3N HEʹ H&ʹ P 3 J Q34Cʹ Hʹ C34 3ʹ Eʹ $ʹ E3 ʿ I $4 $ J 3E ʿ &H4ʹ ' 2F ʿ H&ʹ ʿ
C-NFʹ @H-E O ʿ @ O ʿ H4ʹ * H Eʹ $Cʹ H- Dʹ F$ 3ʹ Q33Eʹ 3E 3Dʹ Hʹ 432 C 34ʹ H E2ʹ CF$ ʿ
F3 4ʹ H 3Cʹ -ED34ʹ F Cʹ N ʿ &ʹ F3ʹ G$Oʹ H&ʹ ; 3N HEʹ F$Dʹ Q33Eʹ F3ʹ $+3ʹ 3 &3N ʿ
G$Oʹ &H4ʹ C-NFʹ ' 32 C 40 ʿ $EDʹ C-NFʹ I34CHEʹ CF$ ʿ Q3ʹ 3E 3Dʹ Hʹ H 3ʹ FH- ʿ
Eʹ C-NFʹ ; 3N HEʹ $ FH-2Fʹ F3Oʹ J $Oʹ EH ʿ Q3ʹ 432 C 343Dʹ $NNH4D E2ʹ ' 32 C 4$ HE
Hʹ F3ʹ I 4H C HEʹ H&ʹ F Cʹ N ʿ $EOʹ F E2ʹ F343 Eʹ NHE $ E3Dʹ EH FR
C $ED E2 ʿ

> ʿ EDʹ Q3ʹ ʿ 3E$N 3D ʿ * F$ ʿ &ʹ $EOʹ ?F34 && ʿ @ 34+ʹ H&ʹ F3ʹ I 3$N3 ʿ I3E$ 3Cʹ HEʹ
* H Eʹ @ 34+ ʿ ' 3 -4E E2ʹ <&& N34 ʿ H4ʹ H F34ʹ I34CHEʹ CF$ ʿ &- Oʹ NHE ʿ <&& N34Cʹ &H4ʹ
4$ 3E3ʹ H4ʹ D CHQ3Oʹ $EOʹ I 4H C HECʹ H&ʹ F Cʹ N ʿ F3ʹ CF$ ʿ &H4ʹ 3$NFʹ C-N&&ʹ ʿ
<&&3EN3ʹ Q3ʹ $Q 3ʹ Hʹ Q3ʹ C-3Dʹ &H4ʹ F3ʹ ?- J ʿ H&ʹ <E3ʹ F-ED43Dʹ I H-EDC ʿ
Hʹ Q3ʹ 43NH 343Dʹ QOʹ $Eʹ N HEʹ H&ʹ G3Q ʿ H4ʹ E&H4 J $ HE ʿ Eʹ F3ʹ , $ J 3ʹ
H&ʹ 8 Cʹ P $(3C O Cʹ H4E3Oʹ M3E34$ ʿ H4ʹ $EOʹ H F34ʹ I34CHE ʿ Eʹ $EOʹ H&ʹ
8 Cʹ P $(3C O Cʹ C-134 H4ʹ @H-4 Cʹ H&ʹ ' 3NH4Dʹ $ ʿ 2 34% #ʹ Uʹ $EDʹ F3ʹ 5-40ʹ
J $Oʹ Eʹ $EOʹ C-NFʹ N HEʹ & EDʹ $ʹ 34D N ʿ &H4ʹ F3ʹ ?- J ʿ H&ʹ <E3ʹ F-ED43Dʹ
I H-EDC ʿ H4ʹ &H4ʹ $EOʹ ?- J ʿ EH ʿ 3CCʹ F$Eʹ * 3Eʹ I H-EDC ʿ $Cʹ F3Oʹ CF$ ʿ
F E+ʹ (-C ʿ $EDʹ F3ʹ G3&3ED$E ʿ 2 EC ʿ FH J ʿ C-NFʹ 34D N ʿ CF$ ʿ Q3ʹ
&H-EDʹ CF$ ʿ 1$Oʹ F3ʹ J H-E ʿ F343H& ʿ Fʹ &- ʿ @HC Cʹ H& ʿ ?- ʿ Hʹ F3ʹ
C3ʹ H&ʹ 8 Cʹ P $(3C Oʹ H4ʹ H&ʹ F3ʹ I34CHEʹ C- E2

> ʿ EDʹ Q3ʹ ʿ 3E$N 3D ʿ * F$ ʿ EH F E2ʹ F343 Eʹ NHE $ E3Dʹ CF$ ʿ
Eʹ $EO C3ʹ 143(-D N3ʹ H4ʹ $&&3N ʿ F3ʹ ' 2F ʿ H&ʹ $EOʹ I $4 Oʹ 24 3 3Dʹ QOʹ N HEʹ
[ʿ ; ʿ $EO

U KS`M#> ;>P ' ' @$1

2 EC <&& N34C

$EO' C-NF' P CNHED-N' H&' $EO' ?F34 && '3 -4E E2' <&& N34' H4' H F34' I34CHE' H' 43NH 34' E' $E' N HE' HE' F3' @$C3' &H4' $' &$ C3' '3 -4E' H4' C-NF' H F34' N HE' $C' C-NF' I34CHE' J$O' QO' >$ ' Q3' F3E' 3E 3D' H' J$E $E'

GCX-$ &3D' I34CHEC' H E2' H Q3' C-Q(3N' H I3E$ 3C' $ED' $Q 3' H @HC C' HE' I3 HE' H 8H-C3' H&' DH E J HEC'

> W' ED' Q3' '3E$N 3D' *F$' &' $EO' I34CHE' $' F3' * J3' H&' $EO' ; 3N HE' Q3 E2' E' F3' ;E(HO J3E' H&' $EO' <&& N3' D CX-$ &O E2' F J' &4H J' H E2' $' C-NF' ; 3N HE' H4' Q3 E2' H F34 C3' D CX-$ &3D' H4' F$ E2' N3$C3D' H' Q3' X-$ &3D' CF$ 'EH FC $ED E2' 143C-J3' H' H 3' $' C-NF' ; 3N HE' C-NF' I34CHE' CF$ ' &H4&3 ' H' 8 C' P$(3C O' $' ?-J' H&' <E3' F-ED43D' IH-EDC' $ED' CF$ ' Q3' $Q 3' H' $' I3E$ 3C' 6H4R &3 -43C' $ED' I4H C HEC' H' F NF' F3' H-D' F$ 3' Q33E' C-Q(3N' &H4' C-NF' <&&3EN3' QO' $EO' >$ ' E' &H4N3' $' F3' J3' H&' NH J J E2' F3' C$J3' $ED' E' N$C3' H&' $' I3 HE' H' F3' 8H-C3' H&' @H J J HEC' &H4' $ 34 E2' F3' '3 -4E' H4' C3 E2' $C D3' F3' ; 3N HE' $' F NF' C-NF' I34CHE' CF$ ' F$ 3' H 3D' F C' H 3' CF$ ' Q3' C 4-N+' '&&* QO' F3' @H JR J 33' F' C-NF' @HC C' $C' H' F3J' CF$ ' C33J' J33 ' H' Q3' 1$ D' QO' F J' H' F3' I3 HE34'

' 2F' H&' H E2' E' F3' #E 34C O' H&' G-Q E' NHER E-3D' H $' 63 H C' $ED' ?NFH $4C' CH' HE2' $C' F3 4' ,$J3C' $43' +31' E' F3' BHH+C' H&' F3' #E 34C O

>W' ED' Q3' '3E$N 3D' *F$' E' $DD HE' H' F3' I34CHEC' EH ' X-$ &3D' H' H 3' $' F3' ; 3N HE' H&' $' P3J Q34' H' C34 3' -' I$4 $J3E' &H4' F3' #E 34C O' H&' 234% #' 3 34O' I34CHE' Q3 E2' H&' F3' 23' H&' * 3E O HE3' =3$4C' FH' F$C' HQ $ E3D' H4' F343$& 34' CF$ ' HQ $ E' F3' G32433' H&' P$C 34' H&' 4 C' H4' $EO' F 2F34' G32433' H4' $' ?NFH $4CF 1' H4' 63 H CF 1' E' F3' C$ D' #E 34C O' $ED' FHC3' 8H J3' CF$ ' Q3' -1HE' F3' BHH+C' H&' F3' C$ D' #E 34C O' CF$ ' Q3' 3E 3D' H' H 3' $' $EO' ; 3N HE' H&' $' P3J Q34' H4' P3J Q34C' H' C34 3' 1' $EO' &- -43' I$4 $J3E' &H4' F3' C$ D' #E 34C O' CH' HE2' $C' F3' ,$J3' H&' C-NF' I34CHE' CF$ ' Q3' +31' $ED' NHE E-3' H' Q3' +31' HE' F3' BHH+C' H&' F3' C$ D' #E 34C O' $C' $' P3J Q34' F343H&' C-Q(3N' QH 3 34' $ED' $NNH4D E2' H' F3' '- 3C' $ED' ?$ - 3C' H&' F3' C$ D' #E 34C O' 14H D3D' $ $OC' F$' EH' I34CHE' CF$ ' Q3' 3E 3D' H' H 3' $' $EO' ; 3N HE' H&' $' P3J Q34' H4' P3J Q34C' H' C34 3' E' $EO' &- -43' I$4 $J3E' &H4' F3' C$ D' #E 34C O' QO' 43$CHE' <&' $EO' G32433' H&' $' 1-43 O' FHEH4$4O' ,$ -43

?NFH $4C' $ED' 63 H C' FH' F$ 3' 43J H 3D' F3 4' ,$J3C' J$O' 431 $N3' F3J' HE' F3' BHH+C' H&' F3' #E 34C O

>W' ED' Q3' '&-4 F34' 3E$N 3D' *F$' 3 34O' I34CHE' FH' EH ' C' $' P$C 34' H4' B$NF3 H4' H&' 4 C' H4' H&' $EO' F 2F34' G32433' H4' FH' F$C' Q33E' $' ?NFH $4' H4' 63 H ' H&' F3' C$ D' #E 34C O' $ED' FH' CF$ ' F$ 3' H -E $4 O' 43J H 3D' F C' ,$J3' &4H J' F3' BHH+C' H&' F3' C$ D' #E 34C O' CF$ ' Q3' 3E 3D' F E' ? ' PHE FC' $& 34' F3' 1$CC E2' H&' F C' N ' $ED' EH' $& 34' H' 431 $N3' F3' C$J3' F343HE' -1HE' I$O J3E' H&' F3' ?-J' H&' * H' IH-EDC' $ED' F$' 3 34O' I34CHE' FHC3' ,$J3' CF$ ' Q3' NHE E-3D' -1HE' F3' C$ D' BHH+C' &H4' F3' I-41HC3' H&' 3E E2' F J' H' H 3' $' F3' ; 3N HE' H&' P3J Q34C' H' C34 3' E' I$4 $J3E' &H4' F3' C$ D' #E 34C O' CF$ ' Q3' $Q 3' H' 1$O' H' F3' C$ D' @H 323' $E' $EE-$' ?-J' H&' <E3' IH-ED' $ED' EH' J H43' $ED' F$' -1HE' F3' '3&-C$' H&' $EO' C-NF' I34R CHE' H' 1$O' F3' $EE-$' ?-J' H&' <E3' IH-ED' F E' <E3' PHE F' $& 34' F3' C$J3' CF$ ' F$ 3' Q33E' D3J$ED3D' F C' ,$J3' CF$ ' Q3' 43J H 3D' &4H J' C$ D' BHH+C' $ED' CF$ ' EH' Q3' 2 E' 431 $N3D' F343HE

; 1 E HE' H&' *34 J C' -C3D

>W ' ED' Q3' '3E$N 3D' *F$' F3' 9H4DC' `' @ O' *H E' H4' BH4H-2F' c' -C3D' E' F C' N ' CF$ ' Q3' NHEC 4-3D' H' EN -D3' $ ' I $N3C' F3 F34' NH41H4$ 3' H4' H F34 C3' 3E 3D' H' C3ED' $' P3J Q34' H4

U ' K' S ĉ M # > ; > P ' ' @$1 ZZ' Z

P3JQ34C' H' I$4 $J3E ' $ED' F$' F3' 9 H4DC' `' ' 3 -4E E2' <&& N34' c' -C3D' E' F C' N ' CF$ ' Q3' NHEC 4-3D' H' EN -D3' 3 340' I34CH-' QO' F C' <&& N3' 3E 3D' H' 143C D3' $' F3' ; 3N HE' H&' $' P3JQ3 ' H4' P3JQ34C' H' C34 3' E' I$4 $J3E ' $ED' H' EN -D3' C3 34$' I34CHEC' CH' 3E 3D

>W ' ED' Q3' ' 3E$N 3D' * F$ ' EH' @ 3420 J $E' CF$ ' Q3' 134 J 3D' @ 3420 J 3E ' H' H 3' $C' C-NF' $' $EO' ; 3N HE' H&' $' P3JQ34' H4' P3JQ34C' H' C34 3' 432 C 34' $C' E' $EO' &- -43' I$4 $J3E ' -E 3CC' F C' , $J3' CF$ ' F$ 3' Q33E' D- O' 6&33FH D34C ' 432 C 343D' $C' $' 6433FH D34' -ED34' F C' N

>W ' ED' Q3' ' D3N $43D' $ED' 3E$N 3D' * F$ ' 3 340' I34CH-' 3E 3D' ?31$4$ 3' H' * H' H4' J H43' 6433FH D' ; C $ 3C' H4' E 343C C' E' $EO' @H-E O' @H-E O' 6433FH DC' H' H&' $' @ O' H4' @H-E O' H&' $' * H E' E' $!% #&' F3' $EE-$' $ -3' F343H&' 32 $ HE H&' CF$ ' E' F3' 22432$ 3' $J H-E ' H' * 3E' I H-EDC' $NNH4D E2' H' F3' P HD3' $ -3' $C <E3' H&' $ - E2' 6433FH DC' QO' F C' N ' 143CN4 Q3D' &H4' F3' \ -$ & N$ HE' H&' 6433FH D' ; 3N H4C ' $ED' FH' CF$ ' E' $ ' H F34' 43C13N C' Q3' D- O' X-$ & 3D' CF$ ' Q3' $D J 3D' H' 432 C 34' $ED' H 3' $NNH4D E2' H' F3' I4H C HEC' H&' F C' N ' $C' &' C$ D' C31$4$ 3' 6433FH D' 343' <E3' 6433FH D' $ FH-2F' EH' <E3' H&' C-NF' 6433FH D' ; C $ 3C' J $O' Q3' H&' C-NF' $EE-$' $ -3' H&' * 3E' I H-EDC' $NNH4D E2' H' C-NF' P HD3' H&' $ -$ HE

>W ' ED' F343$C' QO' $E' N 1$CC3 ' E' F3' 6 4C ' =3$4' H&' 8 C ' QH HE' H&' $ 3' P$(3C O C' ' 3 2E ' E - 3D' / #' / ' ' , ')!' 4! ! ' L!(3% ,#' , ' N$- HE$4O' L,%%1' #&' , ' #(' 3) ! ' * ,0 1 , ' ,3') #(')!' 8%!' ,#' , ' H 344' ! 4! 1' ,' 1! 0!' #' * % !#' , ' $!% & ' ' C' 3E$N 3D' F$ ' &' 3' / ' N' ' $EO' I34CHE' CF$ ' H 3' $' $EO' ; 3N HE' QO' 4 -3' H&' F3' ' 32 C 40' H&' $E' $ 323D' 6433FH D' -ED34' $' >3$C3' H&' >$EDC' $ED' * 3E3 J 3E C' &H4' $' > &3' H4' > 3C' J$D3' QO' F3' >3CCH4' FH' F$D' EH ' $' F3' * J 3' H&' J$+ E2' F3' C$J 3' $' 6433FH D' ; C $ 3' F343 E ' H4' -ED34' $' >3$C3' H&' >$EDC' H4' * 3E3 J 3E C' &H4' $' > &3' H4' > 3C ' F NF' >3$C3' C' H' 3ED' $1D' D3 34 J E3' HE' CH J 3' C-NF' @H 3E$E ' H4' @HED HE' F$ ' $' 6433FH D' ; C $ 3' F$C' EH ' Q33E' D3 J C3D' QO' F3' C$J 3' H4' -ED34' $' >3$C3' H&' >$EDC' H4' * 3E3 J 3E C' &H4' $' > &3' H4' > 3C ' H4' $' N34 $ E' , - J Q34' H&' =3$4C ' F NF' > &3' H4' > 3C' C' H4' $43' D3$D' H4' -ED34' $' >3$C3' H&' >$EDC' H4' * 3E3 J 3E C' &H4' $' > &3' H4' > 3C ' F NF' >3$C3' F$C' 3 1 43D' H4' Q33E' C-4 ' 43ED3 3D' $& 34' D-3' , H N3' EH ' H' H 3' QO' 4 -3' H&' $EO' C-NF' ' 32 C 40' CF$ ' F$ 3' Q33E' 2 3E' H' C-NF' I34CHE' ' QO' $EO' @$ED D$ 3' <4' QO' $EO' EC13N H4' H&' $EO' @$ED D$ 3' $ED' F NF' , H N3' 3 340' @$ED D$ 3' $ED' EC13N H4' C' F343QO' $- FH4 T3D' $ED' 3 J 1H 343D' H' 2 3' C-NF' I34CHE' $' $EO' * J 3' Q3&H43' H4' D-4 E2' C-NF' ; 3N HE ' H4' E' F3' I $N3' H&' 1H E2' C-NF' I34CHE ' HE' Q3 E2' NHE N 3D' F343H&' CF$ ' &H4&3 ' H' $EO' I34CHE' FH' CF$ ' C-3' &H4' F3' ?- J' H&' * 3E O' I H-EDC ' H' Q3' 43NH 343D' QO' F J' H4' F3 J ' F' * 43Q 3' @HC C' H&' ?- ' QO' N HE' H&' G3Q ' $' $EO' M3E34$' \ -$4 34' ?3CC HEC' H&' F3' I 3$N3 ' H4' $' $EO' CC T3C' F$ ' J $O' Q3' F3 D' &H4' F3' @H-E O' E' F NF' C-NF' ; 3N HE' CF$ ' F$ 3' $+3E' 1 $N3.' ED' F343$C' QO' $E' N ' 1$CC3D' E' F3' 6H-4 F' =3$4' H&' 8 C' $ 3' P$(3C O C' ' 3 2E ' E - 3D' / ' ' ,' ' ,#1,% & !' #&' !#&')!' M' ' N ! ! ' 1!0! %' / ' 1')!#' #' , ' ! ' 1,' ' 1')!' 1 !' !% !' ,')!' 8%!' ,#' ' #&' L! 3 #' , ' ! 4! 1' ,' 1! 0!' #' * % !#' , ' I ,3# !1' , ' I !1' #&' I ,3# !1' , ' 7,F#1' #' 43 $ED' $' C J $4' I4H C HE' C' J $D3' F' 43&343EN3' H' C-NF' @H-E 3C' H&' @ 3C' $ED' @H-E 3C' H&' * H EC. ED' F343$C' F3' 2 E2' H&' C-NF' N$- HE$4O' , H N3C' QO' @$ED D$ 3C' $ED' EC13N H4C ' $' $ED' D-4 E2' 3' * J 3' H&' $E' ; 3N HE ' $ED' E' F3 I $N3

I $N3' H&' 1H E2' F$C' Q33E' 14HD-N 3' E' J$EO' M$C3C' H&' 3 $ H-C' G3 $OC' $ED' ENHE 3E 3EN3' H' H 34C' $ED' C' E3 13D 3E '$ED' -EE3N3CR C$4O' ' Q3' ' F343&H43' 3E$N 3D' *F$' &4H J' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' CH' J -NF' H&' F3' C$ D' 43N 3D' N C' H&' F3' 6 4C' $ED' H&' F3' 6H- DF' =3$4' H&' 8 C' $ 3' P$(3C O C' ' 3 2E' $C' $- FH4 T3C' $ED' 3 J 1H 34C' 3 34O' @$ED D$ 3' $ED' EC13N H4' H' 2 3' C-NF' N$- HE$4O' , H N3C' H' H 34C' $ '$EO' * J 3' Q3&H43' H4' D-4 E2' F3' ; 3N HEC' E'] !%' &' H4' E' F3' I $N3' H&' 1H E2' $ ' C-NF' ; 3N HEC' $ED' $C' 43ED34C' ' E3N3CC$ O' F$' C-NF' , H N3C' CF$ ' F$ 3' Q33E' CH' 2 3E' H' $EO' I 34CHE' H E2' QO' 4 -3' H&' F3' ' 32 C 4O' H&' F3' C$ D' F343 E' 43N 3D' $8323D' 6433FH DC' E' H4D34' H' C-NF' I 34CHE' Q3 E2' H4' Q3NH J E2' C-Q(3N ' H' $ED' EN-44 E2' F3' I 3E$ 3C' F343QO' J 1HC3D' CF$ ' Q3' $ED' $43' F343QO' 4313$ 3D'. I 4H D3D' $ $OC' F$ ' EH F E2' F343 E' NHE $ E3D' CF$ ' 3 3 J 1 ' H4' Q3' NHEC 4-3D' H' 3 3 J 1 ' &4H J' C-NF' I 3E$ 3C' $EO' I 34CHE' FH' $ ' F3' ; 3N HE' H&' $EO' P 3 J Q34' H4' P 3 J Q34C' H' C34 3' E' I $4 $ J 3E ' &H4' $EO' @H-E O ' H4' @H-E O' H&' $' @ O ' ' @H-E O' H&' $' *H E' E' $!% #&' CF$ ' H 3' QO' 4 -3' H&' F3' ' 32 C 4O' H&' C-NF' $ 323D' 6433FH D' $C' $&H43C$ D' ' Q- ' C-NF' I $4CHE ' HE' Q3 E2' NHE N 3D' F343H&' EH FC $ED E2' F3' 9 $E ' H&' C-NF' , H N3' QO' $EO' @$ED D$ 3' H4' EC13N H4 ' CF$ ' & 4&3 ' E' $EO' I 34CHE' H4' I 34CHEC' FH' CF$ ' C-3' &H4' F3' C$ J 3' F3' C$ D' ?- J' H&' * 3E O' I H-EDC /' H' Q3' 43NH 343D' QO' F J' H4' F3 J ' F' *43Q 3' @HC C' H&' ?- ' QO' I 4HN33D 4 2' E' F3' , $ -43' H&' @ ' B ' $ ' $EO' M3E34$ ' \ -$4 34' ?3CC HEC' H&' F3' I 3$N3' F$ ' J $O' Q3' F3 D' &H4' F3' @H-E O ' H4' @H-E O' H&' F3' @ O ' H4' @H-E O' H&' F3' *H E' E' F NF' CHN&' ; 3N HE' CF$ ' F$ 3' $+3E' 1 $N3 ' H4' QO' N HE' H&' G3Q ' ' $EO' H&' 8 C' P $(3C O C' @H-4 C' ^4&' ' 3NH4D' ' $!% #&

>H4D' > 3- 3R E$E ' J$O' D31- 3' G- O' H&' 143C D E2' $ ' _3' ?13N $' ?3CC HEC' H' Q3' & 4C' F3 D' -ED34' F C' N ' H' B$4R 4 C 34C' H&' EH ' 3CC' F$E' ? ' =3$4C' ? $EDR E2

>W ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' F3' >H4D' 3- 3E$E ' H4' H F34' @F 3&'MH 34E' H4' H4' MH 34EH4C' H&' $!% #&' CF$ ' Q3' $ED' $43' F343QO' $- FH4 T3D' QO' 9 44E ' -ED34' F C' H4' F3 4' 8 $ED' H' $11 J E ' &H4' F3' G- O' H&' 143C D E2' $ ' F3' ?13N $ ' ?3CC HEC' H' Q3' & 4C' F3 D' &H4' 432 CR 34 E2' H 34C' -ED34' F C' N ' E' $EO' @H-E O ' @ O ' *H E' H4' BH4H-2FC' H4' E $EO' * H' H4' J H43' H&' C-NF' @H-E 3C ' @ 3C ' *H EC ' H4' BH4H- C ' $EO' B$44 C 34' H4' B$44 C 34C' H&' EH ' 3CC' F$E' ? ' =3$4C' ? $ED E2' $ ' F3' $ 1) ' B$4' H' Q3' CC C $E ' H' H4' G31- 3C' H&' F3' CC C $E ' B$44 C 34' H4' @F$ 4 J $E' ' $ED' F3E' * H' H4' J H43' B$44 C 34C' CF$ ' Q3' $11H E 3D' &H4' F3' C$ J 3' @H-E O ' ' D E2' @ O ' *H E' H4' BH4H-2F ' F3O' CF$ ' $ 3ED' $ ' F3' C$ J 3' I $N3' H23 F34' Q- ' CF$ ' C ' $1$4 ' &4H J' 3$NF' H F34' $ED' FH D' C31$4$ 3' @H-4 C' $ ' F3' C$ J 3' * J 3' &H4' F3' G C1$ NF' H&' B-C E3CC ' $ED' F$ ' $ ' F3' I H 34C' G- 3C' ' 2F C' $ED' I 4 323C' 2 3E' H4' J 1HC3D' QO' F C' N ' H' H4' -1HE' $EO' CC C $E ' B$44 C 34' H4' @F$ 4 J $E' $43' $ED' CF$ ' Q3' QO' -3' H&' C-NF' 9 44E ' 2 3E' H' $ED' J 1HC3D' -1HE' C-NF' CC C $E C' H4' G31- 3C' $ED' F$ ' $ ' N C' H' Q3' DHE3' QO' C-NF' G31- 3C' H4' CC C $E C' CF$ ' Q3' H&' F3' C$ J 3' ; && N$NO' E' >$ ' $C' &' DHE3' QO' F3' CC C $E ' B$44 C 34' H4' @F$ 4 J $E' -1HE' FH J' C-NF' G- 3C' H- D' F$ 3' H F34 C3' D3 H 3D' -ED34' F C' N

@H J 13EC$R HE' H CC C $E '

>W >' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' 3 34O' B& 44 C 34' $11H E 3D' H' 143C D3' $ ' $EO' ?13N $ ' ?3CC HEC' J D34' F C' N ' ^C-NF' B$44 C 34' EH ' 4! #(' # CC C $E ' B$44 C 34' H4' I) #A' CF$&' Q3' 1$ D $ ' F3' ' $ 3' , 'R 0!' M- E3$C' &H4' 3 34O' G$O') ') !' CF$ ' Q3' CH' 3 J 1 HO3D' H 34' #&' 4 , 0!') 1' 0!%% #(' #&= ,) ! ' ; 13EN3C(' $ED' 3 34O' C-NF' B$44 C 34' $& 34' F3' *34 J E$ HE' H&' F C' $C ' ? E2' CF$ ' $O']4' N$-C3 H

! ' ' ' Z

H' Q3' $ D' Q3&H43' F3' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' , '$!% #&' $' ? $ 3J3E ' H&' F3' , -JQ34' H&' G$OC' D-4 E2 F NF' F3' CF$ ' F$ 3'Q33E' 3J1 HO3D ' $ED' $E' NNH-E ' H&' F3' 4$ 3 E2 $ED' H F34' ; 13EN3C' EN-443D' QO' F J' E' 43C13N ' H&' C-NF' ; J1 HOJ3E $ED' C-NF' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C CF$ ' J$+3' $E' <4D34' &H4' F3' JH-E ' H' Q3' 1$ D' H' C-NF' B$44 C 34' H- H&' F3' @HECH D$ 3D' 6-ED ' $ED' E' H4D34' H' 14H D3' $' ' 3J-E34$ HE &H4' F3' CC C $E ' B$44 C 34C' H4' @F$ 4J$E' &H4' F3' $DD HE$ ' >$QH-4 J1HC3D' HE' F3J' QO' F C' N ' ' CF$ ' $ED' J$O' Q3' $ &- ' &H4' F3' C$ D >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H' D 43N F$ ' F3' C$ D' CC C $E ' B$44 C 34C' $ED' @F$ 4J$E' CF$ ' Q3' 1$ D ' E $DD HE' H' F3' ?$ $4 3C' EH ' QO' F3J' 43N3 $Q 3 ' C-NF' O3$4 O' ?-J EH ' 3 N33D E2' E' $EO' @$C3' F3' ?-J' H&' <E3' F-ED43D' IH-EDC ' $ ' F3 G CN43 HE' H&' F3' C$ D' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C ' $C' F3' H4' F3O' CF$ ' QO' 9$44$E ' -ED34' F C' H4' F3 4' 8$ED' D 43N ' C-NF' $DD HE$ ' ?$ $4 3C' H' Q3' 1$O$Q 3 ' $ ' F3' C$J3' * J 3' $ED' E' F3' C$J3' P$EE34' $C' F3' ?$ $4 3C' H&' F3' C$ D' CC C $E ' B$44 C 34C' $43' EH ' 1$O$Q 3

C' d

' >W ' I4H D3D' $ 1$OC' $ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' E' E' F$ '@$C3C H4D34' H' 3E$Q 3' F3' @F$ 4J$E' H&' F3' ?3CC HEC' &H4' F3' @H-E O' H&' @F$ 4J$E' 234% #' H' 7D CNF$423' F3' G- 3C' J1HC3D' HE' F J' QO' F C' N ' F' J$O' 134&H4J' 432$4D' H' F3' 7' 32 C 4O' H&' H 34C' E' $ED' &H4' F3' @ O' H&' 234% #' $ ' C-NF' ?3CC HEC' $C' $43' H' Q3' FH D3E' &H4' F$ ' I-41HC3' $& 34' F3' 6 4C ' H4' ?13N $ ' ?3CC HEC' &H4' 432 C 34 E2' H 34C ' ' CF$ ' $ED' J$O' Q3' $ &- ' &H4' F3' @F$ 4J$E' H&' F3' ?3CC HEC' H&' F3' @H-E O' H&' 234% #' H' D CNF$423' F3' G- 3C' H&' C-NF' C-QC3X-3E ' ' 32 C 4 3C' E' $ED' &H4' F3' @ O' H&' 234% #' QO' $ C-&& N 3E ' G31- O ' H' Q3' $11H E 3D' QO' C-NF' @F$ 4J$E' &H4' F$ ' I-41HC3 ' $ED' F NF' G31- O' CF$ ' Q3' $' B$44 C 34' H&' ? ' =3$4C' ? $ED E2' $ ' F3' 3$C ' $ ' F3' $ 1)' B$4 ' $ED' CF$ ' Q3' $114H 3D' H&' QO' F3' >H4D' > 3- 3E$E ' H4' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&' $![% #&-' $ED' F$ ' $ ' F3' IH 34C ' G- 3C ' ' 2F C ' $ED' I4 323C' 2 3E' H4' J1HC3D' QO' F C' N ' -1HE' C-NF' @F$ 4J$E' 43C13N E2' C-NF' ' 32 CR 4 3C' $43' $ED' CF$ ' Q3 ' QO' 4 -3' H&' C-NF' 11H E J3E ' $ED' 114HQ$ HE' $C' $&H43C$ D ' 2 3E' H' $ED' J1HC3D' HE' C-NF' G31- O ' $ED' F$ ' $ ' N C' DHE3' QO' C-NF' G31- O' 43C13N E2' ?-NF' ' 32 C 4 3C' E' $ED' &H4' F3' C$ D' @ O' H&' UF4 [' CF$ ' Q3' H&' F3' C$J3' ; && N$NO' E' >$ ' $C' &' DHE3' QO' F3' C$ D' @F$ 4J$E' F JC3 & ' $ED' C-NF' G31- O' CF$ ' $ ' F3' ; ED' H&' 3$NF' ?3CC HEC ' Q3' 1$ D' $ED' 43J -E34$ 3D' E' F3' C$J3' P$EE34' $ED' $ ' F3' C$J3' ' $ 3' $C' $EO' H F34' G31- O' $11H E 3D' H' 432 C 34' H 3C' -ED34' F C' N

>W W ' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' F C' N ' J$O' Q3' $J3ED3D ' N' J$O' Q3' $ 343D ' H4' 4313$ 3D' QO' $EO' N ' H4' N C' H' Q3' 1$CC3D' E' F C' 143C3E ' $J3ED3D KN' ?3CC HE' H&' I$4 $J3E

Z ! [U Ɉ K S" M # > ; > P M 1 ZZ

?@8 ; G# > ; ? N F NF F3 &H432H E2 N 43&34C

$ = E S

9 H& 2E $ED 4 " Q3&H43 FH J ?3CC HEC &H4
432 C 34 E2 H 3C E 3$NF @ O * H E H4 BH4H-2F $43 H F3 D

? ; ?? < , ? 6< '	B ; 6< ' ;
4 J $2F BH4H-2F	CC C $E B$E C 34 H& 4 J $2F @H-E O
F HE3 BH4H-2F	CC C $E B$44 C 34 H& 9 3C J 3$ F @H-E O
B$EDHE B4 D23 BH4H-2F	CC C $E B$44 C 34 H& 9 3C ' D E2 H& @H4+ @H-E O
B3 &$C BH4H-2F	CC C $E B$44 C 34 H& E 4 J @H-E O
@$4 H BH4H-2F	CC C $E B$44 C 34 H& @$4 H 9
@$44 N+&342-C BH4H-2F	CC C $E B$44 C 34 H& E 4 J @H-E O
@$CF3 BH4H-2F	CC C $E B$44 C 34 H& * 1134$4O @H-E O
@ HE J 3 BH4H-2F	CC C $E B$44 C 34 H& * 1134$4O @H-E O
@H 34$ E3 BH4H-2F	CC C $E B$44 C 34 H& >HEDHED344O @H-E O
@H4+ @ O	CC C $E B$44 C 34 H& ; $C ' D E2 H& @H4+ @H-E O
GH E1$ 4 N+ BH4H-2F	CC C $E B$44 C 34 H& GH E @H-E O
G4H2F3D$ BH4H-2F	CC C $E B$44 C 34 H& >H- F @H-E O
G-Q E @ O	@F$ 4 J $E H& ?3CC HEC H& @H-E O H& G-Q E
G-ED$ + BH4H-2F	CC C $E B$44 C 34 H& >H- F @H-E O
G-E2$EEHE BH4H-2F	CC C $E B$44 C 34 H& * O4HE3 @H-E O&
1-E2$4 $E BH4H-2F	CC C $E B$44 C 34 H& $ 34&H4D @H-E O
; EE C BH4H-2F	CC C $E B$44 C 34 H& @F43 @H-E O
; EE C+ 3E BH4H-2F	CC C $E B$44 C 34 H& 634 J E2F @H-E O
M$ $O * H E	CC C $E B$44 C 34 H& M$ $O @H-E O
% +3EEO @ O	CC C $E B$44 C 34 H& % +3EEO @H-E O
% EC$ 3 BH4H-2F	CC C $E B$44 C 34 H& ; $C ' D E2 H& @H4+ @H-E O
> J 34 N+ @ O	CC C $E B$44 C 34 H& > J 34 N+ @H-E O
> CQ-4E BH4H-2F	CC C $E B$44 C 34 H& E 4 J @H-E O
>HEDHED344O @ O	CC C $E B$44 C 34 H& >HEDHED344O @H-E O
P $ H * H E	CC C $E B$44 C 34 H& ; $C ' D E2 H& @H4+ @H-E O
, 3 4O BH4H-2F	CC C $E B$44 C 34 Q& GH E @H-E O
I H4 $4 E2 HE BH4H-2F	CC C $E B$44 C 34 H& \ -33E C @H-E O
' HCC ^ , 3 _ BH4H-2F	CC C $E B$44 C 34 H& 9 3 &H4D @H-E O
? 2H BH4H-2F	CC C $E B$44 C 34 H& ? 2H @H-E O
* 4$ 33 BH4H-2F	CC C $E B$44 C 3 H& %344O @H-E O
9 $ 34&H4D @ O	CC C $E B$44 C 34 Q& 9 $ 34&H4D @1- O
9 3 &H4D BH4H-2F	CC C $E B$44 C 34 H& 9 3 &H4D
=H-2F$ BH4H-2F	CC C $E B$44 C 34 H& ; $C ' D E2 H& @H4+ @H-E O

Uč K' S ' M # > ; > P ' ' @$1 ZZ Z!

?@ 8 ; G # > ; ' ^B _

; 2 ' H' Q3' $+3E' QO' . 2+(%' $ ' . AA3) / ' Q3&H43' ' 3 -4E E2' < ; N34 ' ?F34 && ' H4' F C' G31 - 3C ' &' 43X - 43D' HE' Q3F$ &' H&' $EO' @$ED D$ 3

' / " ' DH' C 3$4 ' IH4 ' 4! #(' ' Y3 ! ' DH' $& B4 J ㎖ * F$ ' ' $ J ' 3 ' C$ J 3' FHC3' , $ J 3' $113$4C' 432 C 343D' E' F3' @34 & N$ 3' H4' && D$ ' EH ' 14< ' D - N3D ' $ED' F$ ' J O' \ - $ & N$ HE' $C' C - NF' 432 C 343D' H 34' C ' NHE E - 3C ' $ED' F$ ' ' F$ 3' EH ' Q3&H43' H 3D' $ ' F C' ; 3N HE ' $ED' G #') !' I 1!' , ' , 31!) , %&! 1' #' I !1 ' 7 , F#1 ' #&' " , , 3()1 a' F$ ' EH ' J H43' F$E' < E3' 8 $ &' = 3$4 C' M4$ED' 5 - O' H4' P - E N 1$ ' @3CC3C ' ' $ 3C ' H4' * $ 3C' $43' EH ' D - 3' H4' 1$O$Q 3' QO' J 3' E' 43C13N ' H&' F3' I 43 J C3C' E' F C' @34 & N$ 3' J 3E HE3D

?@ 8 ; G # > ; ' ^@ _' , H '

? . (4' H&' . 23 +' &H4' FH D E2' F3' & 4C ' ?3CC HE' &H4' 432 C 34 E2' H 34C' - ED34 F C' N

@H - E O
@ O
* H E H& I$C') !' I 1!' ' 4! a
,
BH4H - 2F

, H N3' C' F343QO' 2 3E ' * F$ ' $' ?3CC HE' &H4' F3' I - 1HC3' H&' 432 C 34 E2' F3' , $ J 3C' H&' I 34CHEC' 3E 3D' H' H 3' $ ' F3' ; 3N HE' H&' P 3 J Q34C' G , ' $' P 3 J Q34㎖ H' C34 3' E' I $4 $ J 3E ' &H4' F3' @H - E O' H&' G6 ' F3' @ O H&' H4' F3' @H - E O' H&' F3' * H E' H& , ' F3' BH4H - 2F' H&' 1') !' I 1!' ' 4! a' 1 - 4C - $E ' H' $E N ' 1$CC3D' E' F3' ?3NHED' $ED' * F 4D' = 3$4' H&' F3' ' 3 2E' H&' % E2' 9 $ J ' F3' 6H - 4 F ' ' Q3' FH D3E' $ ' E' F3' C$ D' @H - E O' H& IH4' @ O' H&' , ' F3' @H - E O' H&' F3' * H E' H&' , BH4H - 2F' H&' 1') !' I 1!' ' 4! a' , #' G$O' H&' E3 QO' $ED' Q3&H43' F3' CC C $E ' B$44 C 34' H&' F3' @H - E O' H&' IH4' Q3&H43 F3' @F$ 4 J $E ' , ' B$44 C 34 ' 1') !' I 1!' ' Y3 ㎖ $ ' F NF' * J 3' $ED' I $N3' 11 R N$ HEC' H&' I 34CHEC' N $ J E2' H' Q3' 3E 3D' H' H 3' $ ' ?- NF' ; 3N N J C' ' Q3' 43N3 3D' $ED' $+3E' E H' NHEC D34$ HE '

' G$ 3D' F C G$O' H&

@ 34+' H&' F3' I 3$N3' H&' F3' C$ D' @H - E O'
H4' IH4' @H - E O' H&' F3
@ O ' H4' @H - E O' H&' F3' * H E ㎖

?@8 ;G#>;' ^@_' ,H'C

/ 'H&'G -' H' I(' 2 3E'H&' 11 N$ HE' H' I(' 432 C 3438' &A' $' H 34' &H4' $'
@H-E O'@ O ' *H E'H4' BH4HE28

? 4

*$+3' ,H N3_' * $' ' C' J O' E 3E HE' H' $11 O' H' Q3' 432 C 343D' $C' $' I 34CHE'
3E 3D' H' H 3' $ ' ; 3N HEC' H&' $' P 3 J Q34' H4' P 3 J Q34C' H' C34 3' E' I $4 $ J 3E ' &H4'
F3' @H-E O H&' IH4' &H4' F3' @ O' *H E' <4' BH4H-2FS 'H&'
$ED' F3' I $4 N- $4C' H&' J O' @ $ J' $43' 1C' &H H C.'

&@(1' $(AH!)'#)+ 1' & < (A)<(H(' +?' '')H& #	' L I&#)*J# H)G@) *	$(AH!)'#)+ '+?' "!+'(!#B1' ',)?' #)(')&@(J)(') '!(A'(H# +?' "!+'(!#B1' L)#J' &@(' +? &!+ B1' +#!)) <1' "&!)A 5/' #!((#1' +!' $(+@) &#)+ 1' +!' &((' LJ(!(' A)#G&#(	(&! B' & G(' #+)(' !(*)A#(!(<

1' O ' +?

' =3H J $E' KN

6433FH D34

>3$C3FH D34

8H-C3FH D34

6433 J $E

'3E NF$423

?@8 ;G#>;' ^@_' , $?

9 'H&' - ' H' Q3' 3E 343D' QO' F3' @ 34+' H&' F3' I 3$N3

+	&)(5' $(AH!)'#)+ 1' & < (A)<(H(' +?' '')H& #	$(AH!)'#)+ '+?' "!+'(!#B1' L)#J' &@(' +?' +L & <1' "&!)AJ1' #!((#1' 4H & <')*J#) ' LJ)HJ' (*)A#!B')A' H &))(<	', (&! B' & G(' #+' I(!(*)A#(!(<

ULKS`M#> ;>P ' ' @$1ZZ Z!S

?@8 ;G#>;'^@_' ,H'

; 2 ' H&' ?(++ .A*+(%' 432 C 34 E2' $' 6433FH D' H&' F3' $ -3' H&' * 3E O'
I H-EDC' H4' -1 $4DC' EH '$4 C E2' &4H J '$' ' 3E NF$423 ' E' $EO' @H-E O ' @ O '
H4' *H E

' / " ' H&' E' F3' @H-E O' b, ' H&' E
F3' @ O ' *H E ' , ' BH4H-2F' H&' m' ; CX- 43 ' @ 34+ ' b, ' 1') !' 2 !1' 5[
,#' C m' DH' C 3$4 ' * F$ ' ' $ J ' $' 6433FH D34' E' F3' @H-E O ' @ O ' H4' *H E'
H&' $ED' F$ ' ' F$ 3' EH ' $' 6433FH D' F343 E' $4 C E2' &4H J ' $
8 H-C3' b, ' 8 H-C3C ' >$EDC ' , ' 4,) ' , ' ,) ! ' ! !& !# 1' 1') !' I 1!' ' 4! X'
O E2' $ED' Q3 E2' $ ' b# #(') !' + !! ' , ' * % ' !' F) ! !' 13 ')
,31!' , ' ,31!1' , ' ,) ! ' ! !& !# 1' 1) %%' 4!' 1 3 !' , ' 1! a' E' F3' @H-E O'
I@ O' , ' *H Em' H&' H&' F3' N 3$4' O3$4 O' $ -3' H&' 6 & O' I H-EDC ' H4
* 3E O' I H-EDC ' IHC') !' I 1!' ' 4! a' $ ' F3' 3$C ' $QH 3' $ ' ' 3E ' $ED' @F$423C'
1OQ 3' H- ' H&' F3' C$ J 3 ' 3 N31 ' HE O' I -Q N' H4' I $4 $ J 3E $4O' * $ 3C ' @H-E O '
@F-4NF ' H4' I $4 CF' @3CC3C' H4' ' $ 3C ' $ED' F$ ' F3' C$ NI' 6433FH D' DH3C' EH ' $4 C3 ' &4H J '
$' ' 3E NF$423 ' $ED' F$ ' ' F$ 3' EH ' $NN31 3D' H4' 14H3-&3D' F3' C$ D' 6433FH D'
&4$-D- 3E O ' EH4' E' 3 NF$E23' &H4' $EO' 6433FH D' E' $EO' H F34' @H-E O ' @ O '
*H E ' H4' BH4H-2F ' ?H' F3 1' J 3' < < G

?@8 ;G#>;' ^@_' ,H' 9

; 2 ' H' Q3' $+3E' QO' +) 25 (/ +(' E' $EO' @H-E O ' @ O ' H4' *H E

% / " , ' E' F3' @H-E O' IH4' @ O' H4' *H Em' H&
; CX- 43 ' IH4' 1') !' 2 !1' 5 ,#' C m' DH' C 3$4 ' * F$ ' ' $ J ' $' 6433FH D34' E' F3'
@H-E O' H&' F3' @ O' IH4' *H Em' H&' $ED' F$ ' ' F$ 3' $' 6433FH D' F343 E
H&' F3' N 3$4' O3$4 O' $ -3' H&' * 3E O' I H-EDC' $ ' F3' 3$C ' $QH 3' $ ' @F$423C' 1$OR
$Q 3' H- ' H&' F3' C$ J 3 ' NHEC C E2' H&' $' ' 3E NF$423 ' 24$E 3D' QO' G 33D' H4' EC 4- J 3E '
Q3$4 E2' G $ 3' F3' G $O' H&' E' F3' = 3$4
QO' / ' " ' H&' <E' F3' >$EDC' H&' b# (') !' < #&1 ' ,31!
, ' ,31!1' H4' ,) ! ' ! !& !# 1' !# ,#!&' #' 13 ')' 2 ! ! &a' E' F3' @H-E O ' @ O' IH4'
*H Em' ' H&' ' $ED' F$ ' ' $ J ' E' F3' I HCC3CC HE' F343H&' H' F3' N 3$4
J H-E ' H&' * 3E O' I H-EDC' O3$4 O ' $ED' $ J ' 3E 3D' H' 43N3 3' F3' C$ J 3' $C' '
Q3NH J 3C' D-3 ' H' $ED' &H4' J O' H E' CH 3' # C3' $ED' B 3E3& ' $ED' F$ ' ' F$ 3' EH ' 14HR
N-43D' H4' $NN31 3D' F3' C$ J 3' &4$-D- 3E O ' EH4' E' 3 NF$E23' &H4' $' 6433FH D' E' $EO'
H F34' @H-E O' I@ O' H4' *H Em' ?H' F3 1' J 3' M < G

! K 4 i : =E E : &'

?@8 ;G#> ; ^@_ , H Y

; H& ? ' ' + . A*+@ 432 C 34 E2 $ 6433FH D H& F3 $EE-$ $ -3 H& *3E
IH-EDC E $EO @H-E O @ O H4 *H #

(? R H& E F3 @H-E O @ O , *H E H&
=3HJ $E G, 1)! I 1! DH C 3$4 *F$ $J
$ 6433FH D34 H& F3 @H-E O I@H-E O H& F3 \ O , F3 *H E H&
$ED F$ F$ 3 $ 6433FH D F343 E $4 C E2 &4HJ $ 8H-C3 G, 8H-C3C >$ED ,
4,) 1)! I 1! Y3 H& F3 N 3$4 O3$4 O $ -3 H& *3E IH-EDC $QH 3 $
3E $ED @F$423C 1OQ 3 H- H& F3 C$J 3 3 N31 HE O I-Q N H4 I$4 $J 3E $4O
*$ 3C @H-E O I$4 CF H4 @F-4NF @3CC3C H4 $ 3C $ED @3CC3C HE $EO *H E
$ED H4 G C HE H& $EO I$4 CF H4 B$4HEO O E2 $ED Q3 E2 $
G# #(%0! 7,F#O & , 7,F#% #&1 , ,)! 2!#,#&# F 4
F)))! *% ! 1 (!#! %%) 3# 0T)! " ,# , " ,# !1 ,)! * 1)
#& + !! , + !! 1 ,)! I,3# I , 7,F# 1)! I 1! 4! F)! ! #
1 1 3 ! X E F3 @H-E O @ O IH4 *H E H& $ED Fa F3
C$ D 6433FH D DH3C EH $4 C3 &4HJ $ 3E NF$423 $ED F$ F3 C$J 3 $4 C3C QO
4 -3 H& F3 G33D >3$C3 H4 EC4-J 3E Q3$4 E2 G$ 3 F3
G$O H& E F3 =3$4 IH4 ,)! F 1! 1 #(
)! E 3 ! ,)! 7 %! 1)! I 1! !3 $ED F$ $J E F3 $N -$ <NN-R
1$ HE F343H& QO 43C D E2 F343HE IH4 QO E2 H4 QO 24$T E2 , 4 4,)
%% #(#& (#(1)! I 1! 4! a b #& F)! !)! R !!),%& 1)!%& 4 #
2!!& <! 1! , $#1 3 !# && #( )!1! , &1 $ED F$ F3 6433FH D C EH
3 H4 $2433D H Q3 3 H F3 I34CHE H4 I34CHEC FH 3 3N- 3D F3 C$ D G33D H4
EC4-J 3E H4 H F3 8 3 4C H4 CC2EC H& C-NF I34CHE H4 I34CHEC H4 H $EO
HE3 E *4-C &H4 F J F34 H4 F3J EH4 DH E 3ED H 3 F3 C$J 3 H4 $EO I$4
F343H& H C-NF I34CHE H4 I34CHEC H4 $"O H& F3J $ED F$ F$ 3 EH $2433D
H 3 &H4 F3 *34J &H4 F NF FH D $ED F$ F$ 3 EH 14HN-43D H4
$NN31 3D F3 C$ D 6433FH D &4$-D- 3E O EH4 E 3 NF$E23 &H4 $ 6433FH D E $EO
H F34 @H-E O @ O H4 *H E

?H F3 1 J 3 M < G

?@8 ;G#> ; ^@_ , H P

" H& 9 " 432 C 34 E2 $ >3$C3FH D E $EO @H-E O @ O
H4 *H E

" R H& E F3 @H-E O G, @ O , *H E H&
6$4J 34 G, 1)! I 1! 4! a DH C 3$4 *F$ DH EH
FH D F3 >$EDC H& IH4 1)! I 1! 4! &!1 4 #( )! 7!#! !1 a C+E$ 3
O E2 $ED Q3 E2 $ -ED34 $ >3$C3 IG33D , EC4-J 3E
1)! I 1! 3 Q3$4 E2 G$ 3 F3 G$O H& E
F3 =3$4 QO $ED Q3 33E $ED F$ C-NF
>3$C3FH D C EH H& F3 N 3$4 O3$4 O $ -3 H& * 3E O IH-EDC IH4 *3E IH-EDC
HC)! I 1! 4! a H 34 $ED $QH 3 $ 3E $ED @F$42 1OQ 3 H# H& F3
C$J 3 3 N31 HE O I-Q N H4 I$4 $J 3E $4O *$ 3C @H-E O @F-4D H4 I$4 CF
@3CC3C H4 $ 3C $ED @3CC3C -1HE $EO *H E $ED H4 G C HE H& $EO I$4 CF H4
B$4HEO $ED F$ F3 C$ D >3$C3FH D DH3C EH $4 C3 &4HJ $ 3E NF$423 $ED
F$ F$ 3 EH $NN31 3D H4 14HN-43D F3 C$ D >3$C3FH D &4$-D- 3E O EH4 E
3 NF$E23 &H4 $EO 6433FH DC H4 >3$C3FH D E $EO H F34 @H-E O @ O H4 *H E
G #&)! 1 & <! 1!),%& ! 4!)! <!11!! , /11 (#!! 6 &! 0 0! 7! ,
3#&! <! 1! a F$ $J E F3 $N -$ <NN-1$ HE F343H&

?H F3 1 J 3 M < G

?@8 ;G#> ;'^@_' ,H'Z

; 2 ' H' Q3' $+3E' QO' ! .>%+ .A*+(%' 432 C 34 E2' $C' H 34C' E' $EO' @ O
*H E' H4' BH4H-2F

'8 'R' H&' E' F3' @ O' I*H E' , 'BH H-2Fd' H&
P 34NF$E 'IH4' !' 1')!' I 1!' 'Y3'5 'DH' C 3$4' *F$' '$J '$ED' $ 3' Q33E' &H4'
? ' @$ 3ED$4' P HE FC' $C' 1$C ' E' I HCC3CC HE' $ED' $N -$' <NN-1$ HE' H&' F3'
8H-C3' 9 $43FH-C3' A&N' &!1' ##(')!' * ! 1!1 a' C -$ 3' $'
E' F3' C$ D' @ O' I*H E' Y4' BH4H-2Fm' $ED' F$' F3' C$ D' 143 J C3C' 43' 4,#&' &'
H&' F3' N 3$4' O3$4 O' $ -3' H&' EH' 3CC' F$E' *3E' IH-EDC' I<4' 6 3' IH-EDC' HC')!'
I 1!' '4!a' $ED' F$' EH' J H43' F$E' <E3' 8 $ &' =3$4 C' M4$ED' 5-4O' H4' P -E R
N 1$' @3CC3C' '$ 3C' H4' *$ 3C' $43' H 'D-3' H4' 1$O$Q 3' QO' J 3' E' 43C13N' H' F3'
C$ D' I 43 J C3C' H4' $EO' I $4' F343H&

?H' F3 1' J 3' M <G

?@8 ;G#> ;'^@_' ,H'V

; 2 ' H' Q3' $+3E' QO' +%3*+)2' ?(++4+)' $ED' 6H4 O CF E2' 6433FH D34C
FHC3' ' 2F C' $43' C$ 3D

' / ' " ' H& E' F3' @ O' IH4' *H E' , 'BH4H-2Fm'
H&' ' P 34NF$E 'IH4' 1')!' I 1!' 4! a' DH' C 3$4' *F$
'$J' $' 6433 J $E' H4' H F34' @H41H4$ 3' <&KN34' IHC')!' I 1!' '4!a' H&' F3' C$ D' @ O'
I*H E' H4' BH4H-2F m' F$ E2' $' ' 2F' H' H 3' $' ; 3N HEC' &H4' F3' C$ D' @ O' I?N ('
H&' IH4' F$' '$J' $' 432 C 343D' 6H4 O CFD E2' 6433FH D34' F$ E2
$' ' 2F' H' H 3' $' ; 3N HEC' &H4' F3' C$ D' @ O' f N' H&' 1')!
I 1!' ')!a' $ED' F$' '$J '$ED' &H4' F3' $C' ? ' P HE FC' F$ 3' Q33E' $' ' 3C D3E'
F E' F3' C$ D' @ O' I f N m' H&' H4' F E' ?3 3E' ? $ - 3' P 3C' H&
F3' -C-$' I $N3' H&' ; 3N HE' E' F3' C$ D' @ O' I*H E' H4' BH4H-2F' 1')!' I 1!'
')!a

?H' F3 1' J 3' M <G

?@8 ;G#> ;'^G_' ,H'

+(23D3 2+' H&' +)25 (/+(' 6433FH D34' H4' >3$C3FH D34

@H-E O
@ O
*H E' H&' I$C')!' I 1!' '!3m
,
BH4H-2F

3%' C' H'N34 &O' F$' / ' " 'H&' E' F C' @H-E O' I@ O
, '*H E' 1')!' I 1!' '4! a' @ 34+' I P 34NF$E 'M3E 3 J $E' 6$4 J 34' =3H J $E'
f [' 1' & !' I 1!' 'Y3 m' $C' F C' G$O' D- O' 43 C 343D' Q3&H43' J 3' $C' $' H 34' &H4'
F C' I@H-E O' '' 1')!' I 1!' 'Y3 m' E' 4 2F' H&' $' ' 3E NF$423' 6433FH D' IH4'
>3$C3FH D' 1')!' I 1!' '4!a' H&' F3' O3$4 O' $ -3' H&' 6 & O' IH-EDC' , '* 3E O'
IH-EDC' H4' *3E' IH-EDC' , 'I$C')!' I 1!' '4!a' C -$ 3' $' &!1' 4 #(')!' 7 ,F#'
% #&' #&' *% '!' f Nm' E' F C' @H-E O' I@ O' f Nm

[' 5-D23' @F$ 4 J $E' <4 CC C $E' B$44 C 34'
< ' @ 34+' H&' F3' I 3$N3

@34 &N$ 3' ,H' I f 3m

Z!Y PKV9W / 6 \6 @$1 ZZ

?@8 ;G#>; ^G_ ,H U

+(23D3 2+ H& ! .>%+ . 5*+(

@ O
*H E
,
BH4H-2F

[ ] 1)! I 1! ! 4! ?

*F C C H N34 &O *F$ ^ H& E F C
$C F C G$O D- O 432 C 343D Q3&H43 J 3 $C $ H 34 &H4 F C @ O I*H E ,
BH4H-2F 1)! I 1! 4! E 4 2F H& F C 8H Cb f C -$ 3 $] 1! 4#( )!
*% '! #& +) ,# a G$ 3D P C G$O H&

[5-D23 @F$ 4J $E CC C $E B$4 C 34 , B$44 C 34 f N

< @ 34+ H& F3 I 3$N3

@34 &N$ 3 ,H I 4N m

?@8 ;G#>; ^G_ -+

+(23D3 2+ H& ?(++4+) V

@ O
*H E
,
BH4H-2F 5

IHC)! I 1! 4! K

*F C C H N34 &O *F$ / " H& E F C
=3H J $E IH4 1)! I 1! 4! $C F C G$O D- O 432 C 343D Q3&H43 J 3 $C $
H 34 &H4 F C @ O I*H E , BH4H-2F 1)! I 1! 4! E 4 2F H& F C Q3 E2 $
' 3C D3E 6433 J $E IH4 ' 3C D3E 6H4 O CF E2 6433FH D34 1)! I 1! 4! ?
G$ 3D F C G$O H& $

\ 5-D23 @F$ 4J $E CC C $E B$44 C 34 H4 B$44 C 34 . '

\ @ 34+ H& F3 I 3$N3

@34 &N$ 3 ,H I N S

>< ,G< ,: I4 E 3D QO #@. /+ 2++ $ED O1.2 3%, . . *+
I4 E 34C H F3 + E2 C JHC ; N3 3E P$(3C O ZSU

, , <ʻ ? ; @# , G<ʻ Kʻ * ; ' * <

M#> ; ; >P ʻ ʻ ' ; M ?

?ʻ ʻ I ʻ >WWW W

Eʻ N ʻ Hʻ C3 3ʻ $EDʻ D3CN4 Q3ʻ F3ʻ > J Cʻ H&ʻ @ 3C ʻ *H EC ʻ $EDʻ BH4H-2FCʻ Eʻ *ʻ Eʻ CHʻ &$4ʻ $Cʻ 43C13N Cʻ F3ʻ ; 3N HEʻ H&ʻ P3JQ34Cʻ Hʻ C34 3ʻ Eʻ I$4 $J3E ʻ I Fʻ ʻ ZSU ㎡

9 8 ; ' ; ?ʻ QOʻ $Eʻ N ʻ 1$CC3Dʻ Eʻ F Cʻ 143C3E ʻ ?3CC HEʻ H&ʻ I$4 $J3E ʻ E - 3Dʻ /#ʻ / ' ʻ ,ʻ !#&ʻ)!ʻ L!5 !1!# ,#ʻ ʻ4ʻ ʻ > ʻ9 , ʻ)!ʻ *!,5%!ʻ Vʻ 43 $ED ʻ ʻ Cʻ $ EHE2C ʻ H F34ʻ *F E2Cʻ 14HR D3D ʻ F$ ʻ 3$NFʻ H&ʻ F3ʻ @ 3C ʻ *H EC ʻ $EDʻ BH4H-2FCʻ 43 -4E E2ʻ $ʻ P3JQ34ʻ H4ʻ P3JQ34Cʻ Hʻ C34 3ʻ Eʻ I$4 $J3E ʻ CFH- D ʻ &H4ʻ F3ʻ I-41HC3Cʻ H&ʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ EN -D3ʻ F3ʻ I $N3ʻ H4ʻ I $N3Cʻ 43C13N 3 Oʻ F NFʻ CFH- Dʻ Q3ʻ NHJ143F3ED3Dʻ F Eʻ F3ʻ BH-ED$4 3Cʻ H&ʻ 3$NFʻ H&ʻ F3ʻ C$ Dʻ @ 3C ʻ *H EC ʻ $EDʻ BH4H-2FCʻ 43C13N 3 O ʻ $Cʻ C-NFʻ BH-ED$4 3Cʻ CFH- Dʻ Q3ʻ C3 3Dʻ QOʻ $Eʻ N ʻ Hʻ Q3ʻ 1$CC3Dʻ &H4ʻ F$ ʻ I-41HC3ʻ Eʻ F Cʻ 143C3E ʻ I$4 $J3E ʻ F NFʻ N ʻ F3Eʻ 1$CC3D ʻ CFH- Dʻ Q3ʻ D33J3Dʻ $EDʻ $+3Eʻ Hʻ Q3ʻ I$4 ʻ H&ʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ $Cʻ &- Oʻ $EDʻ 3&&3N -$ Oʻ $Cʻ &ʻ F3ʻ C$J3ʻ 343ʻ ENH41H4$ 3Dʻ F343 F.ʻ EDʻ F343$Cʻ F3ʻ N ʻ CHʻ Hʻ Q3ʻ 1$CC3Dʻ &H4ʻ C3 E2ʻ $EDʻ D3CN4 Q E2ʻ F3ʻ BH-ED$4 3Cʻ H&ʻ @ 3C ʻ *H EC ʻ $EDʻ BH4H-2FC ʻ $Cʻ Eʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ Cʻ J3E HE3D ʻ Cʻ F Cʻ 143C3E ʻ N .ʻ EDʻ F343$Cʻ F3ʻ C3 34$ ʻ @ 3C ʻ *H EC ʻ $EDʻ BH4H-2FCʻ F343H&ʻ F3ʻ BH-ED$4 3Cʻ 343ʻ CHʻ Hʻ Q3ʻ C3 3Dʻ $EDʻ D3CN4 Q3D ʻ $Cʻ Eʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ Cʻ J3E HE3D ʻ $43ʻ F3ʻ C3 34$ ʻ @ 3C ʻ *H EC ʻ $EDʻ BH4H-2FCʻ F NFʻ $43ʻ C13N & 3Dʻ Eʻ F3ʻ ?NF3D- 3ʻ Hʻ F Cʻ N ʻ $EE3 3D ʻ Q3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ $EDʻ D3N $43Dʻ QOʻ F3ʻ % E2 Cʻ JHC ʻ ; N3 3E ʻ P$(3C O ʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3E ʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ ʻ $EDʻ *3J1H4$) ʻ [ʻ 8ʻ ʻ $ED

N 3C' KN' CF$ '$C' H' ; 3N HEC' EN -D3' F3' I $N3C' $ED' Q3' NH J 14 C3D' F E' F3' QH-ED$4 3C' C13N & 3D' E' F3' ?NF3D- 3

$ED' @H J J HEC' E' F C' 143C3E' I $4 $ J 3E' $CC3 J Q 3D' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3' *F$' F3' C3 34$'@ 3C' *H EC' BH4H-2FC' $ED' I $N3C' C13N & 3D' E' F3' ?NF3D- 3' H' F C' N' $EE3 3D' C $ ' $C' H' 3' ; 3N HE' H&' P 3 J Q34C' H4' $' P 3 J Q34' H' C34 3' E' I $4 $ J 3E '43C13N 3 O' EN -D3' F3' I $N3C' $ED' Q3' NH J 14 C3D' F E' F3' BH-ED$4 3C' F NF' E' C-NF' ?NF3D- 3' $43' 43C13N 3 O' C13N & 3D' $ED' D3CN4 Q3D' E' N3 J -EN' HE' F' F3' , $ J 3C' H&' C-NF' @ 3C' *H EC' BH4H-2FC' $ED' I $N3C' 43C13N 3 O

' - 3C' H&'

C34 3D' E'

E 34143 E2' ?NF3D- 3

' ED' Q3' ' 3E$N 3D' *F$' C-Q(3N' H' $EO' G 43N HE' H' F3' NHE 4$40' F3' &H H E2' ' - 3C' CF$ 'Q3' HQC34 3D' E' F3' @HEC 4-N HE' C3 34$' G3CN4 1 HEC' H&' BH-ED$4 3C' NH$ $ 3D' E' F3' C$ D ?NF3D- 3' F343 H' $EE3 3D' ^ F$' C' H' C$O _

h *F$' F3' 9 H4DC' `' , H4 F $4D c' `' ?H- F $4D c' `' ; $C $4D c' `' 9 3C $4D c' CF$ '43C13N 3 O' Q3' -ED34C HHD' H' D3EH 3' HE O' F3' 23E34$' G 43N HE' E' F NF' $EO' BH-ED$40' 14HN33DC' &4H J' F3' I H E' $C' D3CN4 Q3D' $ED' EH' F$' C-NF' BH-ED$40' CF$ ' NHE E-3' H' 14HN33D' F4H-2FH-' E' F3' C$ J 3' G 43N HE' H' F3' I H E 'E3 ' D3CN4 Q3D.

*F$' F3E' $EO' ' H$D' C' J 3E HE3D' E 343 O' QO' F3' , $ J 3' H&' F3' I $N3' H' F NF' C-NF' ' H$D' 3$DC' F3' 14 EN 1$' ' H$D' F F34' &4H J' F3' @ O' *H E' H4' BH4H-2F' H&' F NF' F3' BH-E $40' C' E' NH-4C3' H&' G3CN4 1 HE' CF$ 'Q3' -ED34C HHD'

- *F$' F3E3 34' $' > E3' C' C$ D' H' Q3' D4$ E' &4H J' H' H4' F&H-2F' $E' <Q(3N ' C-NF' > E3' CF$ ' E' F3' QC3EN3' H&' $EO' G 43N HE' H' F3' NHE 4$40' Q3' -ED34C HHD' H' Q3' D4$ E' &4H J' H' H4' F4H-2F' F3' @3E 43' H&' C-NF' <Q(3N ' $C' E3$4 O' $C' F3' @3E 43' F343H&' N$E' Q3' $CN34 $ E3D.

h* F$ '3 340' B- D E2' F4H-2F' F NF' H4' F4H-2F' $EO' I $4' F343H&' $EO' BH-ED$40' F343QO' 3C $Q CF3D' CF$ ' 1$CC' CF$ 'Q3' NHEC D343D' $C' F E' C-NF' BH-ED$40'.

! *F$' F3E3 34' $EO' BH-ED$40' QO' F C' N' 3C $Q CF3D' C' C$ D' H' 1$CC' $ HE2' $EO' H F34' BH-ED$40' H4' $ HE2' $EO' ' H$D' >$E3' I $ F' ' 34' ? 43$ J' @E' G4$ E' B4HH+' H4' G NF' F3' P DD 3' ^$C' E3$4 O' $C' F3' C$ J 3' N$E' Q3' $CN34 $ E3D_' H&' C-NF' H F34' BH-ED$40' H4' H&' C-NF' ' H$D' >$E3' I $ F' ' 34' ? 43$ J' @E' G4$ E' B4HH+' H4' G NF' CF$ ' E' F3' QC3EN3' H&' $EO' G 43N HE' H' F3' NHE 4$40' Q3' -ED34C HHD'.

*F$' F3' P DD 3' H&' $EO' ' H$D' H4' >$E3' CF$ ' F3' -ED34C HHD' $C' F3' P DD 3' H&' F3' @$44 $23 $O' $ HE2' F3' C J 3'.

*F$' F3E' $EO' BH-ED$40' QO' F C' N' 3C $Q CF3D' C' C$ D' H' 14HN33D' $ HE2' $' ' H$D' >$E3' I $ F' ' 34' ? 43$ J' @E' H4' G4$ E' &4H J' H4' H' $EO' <Q(3N ' C-NF' BH-ED$40' CF$ 'Q3' -ED34R C HHD' H' 14HN33D' &4H J' H4' H' F$' I H E' E' F3' P DD 3' H&' C-NF' ' H$D(' >$E3' I $ F' ' 34' ? 43$ J' @E' H4' G4$ E' &4H J' F NF' F3' CFH4 3C' > E3' H- D' Q3' D4$ E' H' F3' @3E 43' H&' C-NF' <Q(3N ' $C' E3$4 O' $C' F3' @3E 43' F343H&' N$E' Q3' $CN34 $ E3D.

*F$' F3' I H E' $' F NF' $EO' 63EN3' 8 3D ' 9$' ' BH-ED$40' ' H$D' >$E3' I $ F' ' 34' ? 43$ J' @E' G4$ E' B4HH+' H4' G NF' C' C$ D' H' @- ' J 33 '(H E' N4HCC' 3$NF' H4' 3$ 3' $EO' BH-ED$40' ' H$D' >$E3' I $ F' 9 $ ' ' 34' ? 43$ J' @E' G4$ E' B4HH+' H4' G NF' CF$ ' E' F3' QC3EN3' H&' $EO' G 43N HE H

U/ K S M # > ; > P @$1 Z [Z ! [

H F3 NHE 4$40 Q3 - ED34C HHD $C F$ I H E $ F NF $ > E3
1$CC E2 $ HE2 F3 P DD < H& F3 BH - ED$40 ' H$D > $E3 I $ F
9 $ ' ' 34 ? 43$ J @E G4$ E B4HH+ H4 G NF ?H N-&
J 3 (H E3D N4HCC3D 43$NF3D H4 3& H - D Q3 E 34C3N 3D
QO $ > E3 D4$ E $ HE2 F3 P DD 3 H& F3 63EN3 8 3D23 9 $
BH - ED$40 ' H$D > $E3 I $ F ' 34 ? 43$ J @E G4$ E
B4HH+ H4 G NF CH N- E2 J 33 E2 (H E E2 N4HCC E2 43$NFR
E2 < 4 3$ E2 & C - NF > E3 343 14H HE23D C-&& @ 3E * O & $.

V h * F$ F3E $ > E3 C C$ D H Q3 D4$ E H $ ' H$D > $E3 ' 34
? 43$ J H4 @E C - NF > E3 CF$ E F3 QC3EN3 H& $EO
G 43N HE H F3 NHE 4$40 Q3 NHEC D343D $C 14H HE23D H F3
P DD 3 H& C - NF ' H$D > $E3 ' 34 ? 43$ J < 4 @$E J .

[h * F$ QO F3 9 H4DC ? 3$c $ED S ? 3$ @H$C c CF$ Q3 - ED34R
C HHD F3 > H $ 34 P $4+.

h * F$ & $EO G3& N 3ENO CF$ Q3 &H - ED H 3 C E F3 > E3 H&
$EO BH - ED$40 D3CN4 Q3D E F3 C$ D ? NF3D - 3 H F C N
$EE3 3D QO 43$CHE H& F3 E 34 3E HE H& $EO ? 1$N3 Q3 33E
$EO * H J J 3D $ 3 O NHEC3N - 3 I H E C C - NF G3& H 3FNO
CF$ Q3 C - 11 3D QO $ C 4$ 2F > E3 H Q3 D4$ E &4H J
F3 HE3 H F3 H F34 H& C - NF * H J 4$3D($ 3 O NHEC3N - 3
I H E C

ED Q3 & - 4 F34 3E$N 3D * F$ EH FC $ED E2 F3 < 3F3 B C13N E2
4$ O H& $EO G3CN4 1 HE NHE $ E3D E F3 C$ D ? NF3D - 3 H F C D3 $NQ3$
N $EE3 3D EH @ O * H E H4 BH4H - 2F H4 I $N3 F3 @HE 3E C
F343H& $43 C13N & 3D E C - NF ? NF3D - 3 CF$ EN - D3 $EO I $4 H&
$EO I $4 CF * H E $ED P $EH4 > H4DCF 1 B$4HEO H4 8 $ & B$4HEO < 4
> Q34 O F NF C D3 $NF3D &4H J F3 J $ E BHDO H& C - NF I $4 CF
* H E $ED P $EH4 > H4DCF 1 H4 B$4HEO H4 8 $ & B$4HEO H4 > Q34 O
& QO 43$CHE H& EN - D E2 C - NF D3 $NF3D I $4 F3 BH - ED$40 F343QO
3C $Q CF3D H& C - NF @ O * H E H4 BH4H - 2F H4 I $N3 H - D EH Q3
NHE E - H - C - E 3CC C - NF D3 $NF3D I $4 CF$ Q3&H 3 F3 1$CC E2 H&
F C N F$ 3 &H4 J 3D I $4 H& C - NF @ O * H E H4 ' H4H - 2F H4 I $N3
&H4 F3 I - 41HC3 H& F3 ; 3N HE H& $ P 3 J Q34 H4 P 3 J Q34C H C3 3
E I $4 $ J 3E Q - F$ $; 4$ 1$4HNF $ I $N3C F NF $43
C - 44H - ED3D QO $EO I $4 CF * H E $ED P $EH4 > H4DCF 1 H4 > Q34 O
H& F NF $EO @ O * H E , BH4H - 2F H4 1 $N3 C C$ D E C - NF
? NF3D - 3 H NHEC C CF$ Q3 NHEC D343D $a EN - D3D F E C - NF
@ O * H E H4 BH4H - 2F H4 I $N3 &H4 F3 ; 3N HE H& $ P 3 J Q34 H4
P 3 J Q34C H C34 3 E I $4 $ J 3E $ED F$ $ I $N3C HN$ O C - $ 3
H4 EN - D3D F E F3 BH - ED$4 3C H& $EO @ O * H E < 4 BH4H - 2F
$C D3& E3D - ED34 F C N CF$ &H4 F3 I - 41HC3C H& F C N HE O
Q3 D33 J 3D $ED $+3E H Q3 $ I $4 H4 I $4 C H& C - NF @ O * H E
$ED BH4H - 2F

I 4H D3D $ $OC $ED Q3 3E$N 3D * F$ EH P CEH J 34 H4
E$NN - 4$ 3 G3CN4 1 HE NHE $ E3D E F C N H4 E F3 ? NF3D - 3
F343 H $EE3 3D CF$ E $EO C3 143 3E H4 $Q4 D23 F3 < 134$ HE
H& F C N F 43C13N H F3 ? - Q(3N H& C - NF G3CN4 1 HE 14HR
D3D F3 C$ J 3 CF$ Q3 CH D3C 2E$ 3D $C H Q3 NH J J HE O - ED34R
C HHD $ED F$ &H4 F3 I - 41HC3 H& D3E &O E2 F3 G3CN4 1 HEC
NHE $ E3D E F3 C$ D ? NF3D 3 F F3 ? - Q(3N C H& C - NF G3CN4 1R
HEC 43C13N 3 O C - NF G3CN4 1 HEC CF$ & C - NF @HEC 4 - N HE
CFH - D

P CEH J 34 H4
P CD3CN4 1R
HE EH H
$Q4 D23 < 13R
4$ HE H& N
$ED G3CN4 1R
HE @H 43 $ 3
H 5C 5$E
ZSU

ZY[UL K SL M # > ; > P @$1 ZV

CFH- D Q3 E3N3CC$4O Q3 F3 D H $11 O H C-NF ?-Q(3N C $C F3O
3 C 3D HE)! 1 71 , ? < E3 FH-C$ED 3 2F F-ED43D
$ED F 4 O H

N J$O Q3
$ 343D F C
?3CC HE

I4H D3D $ $OC $ED Q3 3E$N 3D * F$ C N J $O Q3
$ J 3ED3D H4 $ 343D QO $EO N H4 N C H Q3 1$CC3D D-4 E2 F C
143C3E ?3CC HE H& I$4 $ J 3E

U K S ` M # > ; > P ' ' @$1 ZV ZY

?@8 ; G# > ;' H' F NF' F3' &H432H E2' N ' 43&34C

h ' P M8

64HJ' P '@$44H C' 9 EDJ ' HE' F3' 9 3C 'H&' F3' @ O' E' $' C 4$ 2F ' > E3' E' F3' G 43N HE' H&' F3' ?1 43' H&' M4$E23' @F-4NF' H' F3' I H E ' $ ' F NF' C-NF' C 4$ 2F ' > E3' N- C' F3' E3 'G-E2$EEHE' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' E' F3' G 43N HE' H&' F3' ; $C 34E' GH J 3' H&' F3' < QC34 $ H4O' H' F3' I H E ' $ ' F NF' C-NF' C 4$ 2F ' > E3' N- C' F3' BH-ED$4O' H&' F3' M4H-EDC' $ $NF3D' H' F3' < QC34 $ H4O ' F3EN3 ' ; $C $4D ' $ HE2' F3' BH-ED$4O' H&' F3' M4H-EDC' H&' F3' < QC34 $ H4O' H' F'" I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' ' H$D' H' F3' G3$E34O ' F3EN3' E' # C 4$ 2F ' > E3' H' F3' P 2T E3' E3$4' F3' E&$E 4O' B44N+C ' F3EN3' E' $' C 4$ 2F ' > E3' F4H-2F' $' I H E ' HE' F3' ' NF' 8 ' ' H$D' F NF' C' D C $E ' U!' =$4DC' ^J 3$C-43D' $ HE2' F3' ' NF' 8 ' ' H$D_ H' F3' ; $C ' H&' F3' ?H- F 3$C 34E' @H4E34' H&' F3' E&$E 4O' B$44$N+C' H' $' I H E ' F NF' C' < E3' F-ED43D' $ED' F 4 O' =$4DC' Q3OHED' F3' C$ D' I H E ' HE' F3' ' NF' 8 #' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' E' F3' G 43N HE' H&' F3' ?H- F 3$C 3 9 '" E2 3' H&' F3' I $ $N3' H' F3' I H E ' $ ' F NF' C-NF' C 4$ 2F ' > E3' N- C' F3' G3 J 3CE3' 9 $ ' F3EN3' , H4 F $4D ' $ HE2' F3' G3 J 3CE3' 9 $ ' H' F3' I H E ' $ ' F NF' F3' C$ J 3' 3$ 3C' F3' BH-ED$4O' H&' F3' @H41H(&$ HE' > $ED ' F3EN3' , H4 F $4D ' $ HE2' F3' BH-ED$4O' H&' F3' @H41H4$ HE' > $ED' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' P HE$2F$E' ' H$D' 5 F3EN3' E' $' C 4$ 2F ' > E3' H' P 4' @$44H C' 9 EDJ

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h * 8 > < , ;

64HJ' F3' I H E ' $ ' F NF' F3' ?H- F34E' ; ED' H&' F3' @ E$' (H EC' F3' ' 3 ' ?F$EEHE' $ HE2' F3' @E ' H' F3' I H E ' $ ' F NF' F3' , H4 F34E' ; ED' F343H&' (H EC' F3' ' 34' ?F$EEHE ' F3EN3' $ HE2' F3' ' 34' ?F$EEHE' H' F3' I H E ' $ ' F NF' F3' C$ J 3' C' J 3 ' QO' F3' , H4 F 3C 34E' EN HC-43' 9 $ ' H&' F3' B44N+C' ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' E2 3' E' F3' 8 $43' C $ED' ' H$D' $ ' F NF' F3' C$ J 3' -4EC' , H4 F $4D ' $ED' $ ' F NF' F343' $43' * H' M$ 3 $OC' F' I $ C' H11HC 3' 3$NF' H F34 ' F3EN3' E' $' C 4$ 2F ' > E3' H' $' M$ 3 $O' F' I $4C' HE' F3' B$ O J $FHE' ' H$D ' $QH- ' * 3E O' =$4DC' H' F3' ; $C ' H&' F3' M 3Q3' 9 $ ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' , H4 F 3$C 34E' @H4E34' H&' F3' 9 $ ' H&' F3' * H E $ED' N$ 3D' ENFH4 C' BH 3&' ' F3EN3' ?H- F $4D ' $ HE2' F3' 9 $ ' H&' ENFH4 C' BH 34' H' F3' I H E ' $ ' F NF' F3' C$ J 3' J 33 C' F3' H D' G E' ' H$D F3EN3' E' $' C 4$ 2F ' > E3' E' F3' G 43N HE' H&' P 4' G$ CHE C' 8 H-C3' E' B-E$ $ 5O' H' F3' I H E ' $ ' F NF' C-NF' C 4$ 2F ' > E3' N- C' $' C J $ ' BO3' ' H$D' F NF' 4-EC' E H' F3' G-Q E' ' H$D ' F3EN3' $ HE2' F3' C$ D' C J $ ' BO3' ' H$D' H' F3' I H E ' #' F NF' F3' C$ J 3' (H EC' F3' G-Q E' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' B4(D3C 3 ' BH2' ' H$D' C' (H E3D' QO' $' BO3' ' H$D' 3$D E2' F343 H' &4H J' F3' ; $C ' $QH- ' * F433' F-ER D43D' =$4DC' &4H J' F3' I H E ' $ ' F NF' F3' B4 D3C 3 ' BH2' ' H$D' 3$ 3C' F3' G-Q E' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' E' F3' G 43N HE' H&' F3' @F J E3O' H&' P 4' ' HQ ECHE C' G C 34O' H' F3' I H E ' $ ' F NF' C-NF' C 4$ 2F ' > E3' N- C' F3' ' 34' ?F$EEHE ' F3EN3' $ HE2' F3' ' 34' ?F$EEHE' H' F3' I H E ' & 4C ' D3CN4 Q3D

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64HJ F3 I H E $ F NF F3 ; $C 34E 'H$D H P $N4HHJ 3$ 3C F3 H D H4 , H4 F34E 'H$D H @H4+ E $ C 4$ 2F > E3 4 $ 9 3C 34 O G R 43N HE H F3 , H4 F 3C 34E @H4E34 H& P 4 ? $ECHE C M$4D3E F3EN3 $ HE2 F3 9 $ H& F3 C$ D M$4D3E H F3 ?H- F 3C 34E @H J 34 F343H& F3EN3 E $ C 4$ 2F > E3 $N4HCC F3 ' 34 ' $EDHE $ED $N4HCC F3 ; EE C +$E3 'H$D H F3 I H E $ F NF F3 H D 'H$D H @ HE$+ O C (H E3D QO $ BO3 'H$D F NF -EC F343 H &4HJ F3 E3 'H$D H @ HE$+ O F3EN3 $ HE2 F3 C$ D BO3 'H$D H F3 I H E $ F NF F3 C$ J 3 (H EC F3 E3 'H$D H @ HE$+ O F3EN3 H $4DC B$EDHE $ HE2 F3 E3 'H$D H @ HE$+ O H F$ I H E F343H& F NF C E3$ 3C H F3 , H4 F34E I $4 H& F3 M$ 3 H& P 4 P7@ F $ 8 H-C3 F3 N3 E $ C 4$ 2F > E3 H F3 C$ D , H4 F34E I $4 F3EN3 E $ C 4$ 2F > E3 $N4HCC F3 N3E 43 % Q4 3E 'H$D H F3 I H E $ F NF F3 ; $C 34E % F4 3E 'H$D C (H E3D QO $ C J $ BO3 'H$D 4-EE E2 9 3C $4D H F3 6 3 DC $QH- * F433 F-ED43D $ED F 4 O =$4DC H D 3 ?H- F H& F3 I H E $ F NF F3 ; $C 34E % Q4 3E 'H$D 3$ 3C F3 EE3CF$E HE 'H$D F3EN3 E $ C 4$ 2F > E3 H F3 ?H- F34E @H&E34 HE F3 B$# E$D3 'H$D H& F3 I43 J C3C H& P 4 <4 J HED C G C 34O F3EN3 ; $C $4D $ HE2 F3 BH-ED$4O H& F3 I43 J C3C H& P 4 < J HED C G C 34O H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 ?H- F34E J HC 'H$D H EE CF$EEHE F3E@3 E $ C 4$ 2F > E3 $N4HCC F3 ' 34 B$EDHE H F3 I H E $ F NF F3 H D EE CF$EEHE 'H$D C (H E3D QO $ BO3 'H$D F NF 4-EC , H4 F 3C E F3 G 43N HE H& F3 % Q4H2$E @F$13 F<EN3 E $ C 4$ 2F > E3 H F3 , H4 F34E I $4 H& $ M$ 3 $O HE F3 H D @H4+ 'H$D $QH- 6H-4 F-ED43D $ED F 4 O =$4DC H F3 , H4 F H& F3 I H E $ F NF F3 C$ J 3 3$ 3C F3 E CQ$EEHE 'H$D F3EN3 $ C 4$ 2F E 3 H F3 I H E & 4C D3CN4 Q3D

hB ; >6 ?*

64HJ F3 I H E HE F3 ?H- F 3$? H& F3 *H E $ F NF F3 B $N+ C $&& ' 34 (H 1C F3 ' 34 >$2$E -1 F3 B $N+C $&& ' 34 H F3 I H ($ F NF F3 C$ J 3 C (H E3D QO $ C J $? 43$ J F NF $CF3C F3 9 $ H& P 4 @$ J 1Q3 C @H HE 9 H4+C F3EN3 -1 F3 C$ D C J $? 43$ J H F3 I H E $ F NF F3 C$ J 3 H- D Q3 N- QO $ C 4$ 2F > E3 H F3 D4$ E &4HJ F3 @F J E3O H& P 4 @$ J 1Q3 C @H HE 9 H4+C H $E H D 6H4 HE F3 9 3C H& F3 *H E E $ 6 3 D Q3 HE2 E2 H P 4 ; H E3$4 $ B4 N+& 3 D HE F3 >3& H& F3 H D >HD23 'H$D F3EN3 E $ C 4$ 2F > E3 H F3 C$ D H D 6H4 F3EN3 E $ C 4$ 2F > E3 H F3 ?H- F 3C 34E E2 3 H& F3 M4$ 3 O$4D F NF C H J 3 9 3C H& F3 E&$E 4O B$44$N+C F3EN3 $ HE2 F3 ?H- F34E 9 H& F3 C$ D M4$ 3R O$4D H F3 I H E $ F NF F3 C$ J 3 J $+3C $E E2 3 F3EN3 E $ C 4$ 2F > E3 H F3 ?H- F 3C 34E E2 H H& F3 ; -N HC$43 H& F3 E&$E O B44N+C F3EN3 $ HE2 F3 9 3C 34E ; EN HC-43 9 $ H& F3 E&$E 4O B$44$N+C H F3 , H4 F34E ; 43 J O F343H& 3FN3 $ HE2 $ G NF F NF C F3 BH-ED$4O H& F3 <4DE$EN3 >$ED H F3 I H E $ F NF F3 C$ J 3 43$NF3C F3 ?H 4 F 3C 34E E2 3 H& F3 ; EN HC-43 H& F3 4 34O B44N+C F3EN3 $ HE2 F3 9 3C 34E ; EN HC-43 9 $ H& F3 4 #3 O B44N+C $ED $ HE2 $ G NF E NHE E-$ HE H& F3 G 43NR HE F343H& H F3 I H E $ F NF C-NF G NF E 33 C $ 'H$D F NF 3$DC &4HJ F3 B$ OE-43 'H$D E H F3 H D M-44 N+&342-C 'H$D F3EN3 $ HE2 F3 'H$D CH 3$D E2 E H F3 H D @$44 N+&342-C 'H$D H F3

U K S M # > ; > P . @$1 ZV ZYS

F3 I H E $ F NF F3 C$J3 (H EC F3 H D @$44 N+&342-C 'H$D (F3EN3(
, H4 F $4D $ HE2 F3 H D @$44 N+&342-C 'H$D H F3 I H E $ F NF
F3 C$J3 J33 C F3 P 3 9 $ 34 F3EN3 DH E F3 P 3 9 $ 34 H
F3 I H E $ F NF F3 C$J3 (H EC F3 ' 34 >$2$E F3EN3 $ HE2 F3
' 34 >2E H F3 I H E & 4C D3CN4 Q3D $ CH Q3OHED F3 >2E F3
*H 1 $ED H& B$ OJN443

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64HJ F3 I H E Q3H F3 *H E $ F NF F3 ' 34 B$ H C J3
QO F3 ?H- F34E 9 $ H& F3 M4H-EDC H& F3 8H-C3 Q3 HE2 E2 H
P4 @$430" D(- $E H F3 @$4H P $" ; $C $4D $+_ F3 C$D
9 $ H F3 I H E $ F NF F3 C$J3 J33 C F3 ; D +3EEO 'H$D F3EN3
E $ C 4$ 2F > E3 H F3 ?H- F34E @H4E34 H& F3 E& 4J $40 F3EN3 E $
C 4$ 2F > E3 H F3 I H E & 3 $QH 3 F3 B$44$N+C $ F NF F3
' 34 B-443E C (H E3D QO $ CJ$? 43$J F3EN3 -1 F3 C$D ? 43$J
$ED $N4HCC F3 *- H 'H$D H F3 I H E $ F NF & 3 C$J3 ? 43$J C J3
QO $ 8 3D23 F NF 4-EC DH E F343 H &4HJ H11HC 3 F3 ?H- F34E ; ED H&
F3 I $E $ HE $ $NF3D H F3 8H-C3 <E F3 B$(E2 $CC 'H$D F NF
Q3 HE2C H P4 8 -E $ED C HNN-1 3D QO P4 B- 34 F3EN3 $ HE2 F3
C$D 8 3D23 H F3 I H E $ F NF F3 C$J3 J33 C 3 B$ E2 $CC 'H$D
F3EN3 E $ C 4$ 2F > E3 E F3 G 43N HE H& F3 @-1H $ H& J3 >-E$ N
CO - J H F3 I H E $ F NF C-NF C 4$ 2F > E3 @- C $ 'H$D F NF 4-EC
Q3 33E F3 B$ E2 $CC 'H$D $ED F3 G-Q E 'H$D F3EN3 E $ C 4$ 2F
> E3 H $ M$ 3 HE F3 ; $C 34E ? D3 H& F3 G-Q E 'H$D F+F C D C $E
$QH- < E3 F-ED43D =$4DC H F3 , H4 F H& F3 , H4 F 3$C 34E @H4E34 H&
F3 ; EN HC-43 9 $ H& F3 >-E$ N CO - J F3#@3 E $ C 4$ 2F > E3 H
F3 I H E $ F NF F3 'H$D H FO C J3 QO F3 , H4 F BH-ED$4O H&
F3 G3J3CE3 H& F3 'HJ$E @$ FH N B CFH1 F3EN3 $H4 2 F3 C$D
BH-ED$4O J33 C F3 ' 34 $ F3 I H E F3EN3 $ HE2 F3 ' 34
H F3 , H4 F @H4E34 H& F3 9 $ H& F3 B-4$ M4H-ED F3EN3 E $
C 4$ 2F > E3 H F3 ?1 43 H& M4$ 2-3 @F-4NF F3EN3 E $ C 4$ 2F > E3
H F3 ?-J J34 8H-C3 E P4 9 CHE C 8 $OD3E F3EN3 E $ C 4$ > E3
H F3 I H E & 4C D3CN4 Q3D

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*F3 FH 3 H& F3 G C 4 N -ED34 F3 5-4 CD N HE H& F3 P $OH4 $ED E
$DD HE F343 H

*F3 ?1$N3 F NF 3C Q3 33E F3 BH-ED$4O H& F3 C$D 5-4 CD N HE
$ED $ C 4$ 2F > E3 H Q3 D4$ E 64HJ F3 , D4 F 3$C 34($ @H4E34 H&
F3 ; EN HC-43 9 $ H& F3 @F$4 34 ?NFHH HE F3 G-Q E 'H$D E $
?H- F 3$C 34 O G 43N HE H F3 I H E $ F NF F3 ?H- F34E J HC
% 3E$# 3

% 3 $ 3' 'H$D' C J3 Q(4'$' 9 $ ' F NF' 4-EC' F343 H' &4HJ' F3' ,H4 FR 34E JHC' 63 F$4D' 'H$D' $ED' F NF' IHE' C' $QH-' <E3' F-ED43D' $ED' C3 3E O C '=$4DC' ,H4 F 3C' H&' F3' IHE' $' F NF' F3' ?H- F34ER JHC' % 3E$-3' 'H$D' 3$ 3C' F3' ,H4 F34E JHC' 63 F$4D' 'H$D

ED' $CH' F3' ?1$N3' F NF' 3C' Q3 33E' F3' BH-ED$4O' H&' F3' C$D' 5-4 CD N HE' $ED' F3' &H H E2' BH-ED$4O' ^ F$' C' H' C$O_' 64HJ' F3' IHE' HE' F3' 9 3C' H&' F3' *H E' $' F NF' F3' BH-ED$4O' H&' F3' HD' BH4H-2F' C' J3' QO' $' 9 $ ' F NF' 4-EC' F343&4HJ' &4C' 9 3C $4D' $ED' F3E' ,H4 F $4D' H' F3' MH D3E' 'H$D' 9 3C $4D' $HE2' F3' C$D' 9 $ ' H' F3' IHE' $' F NF' F3' C$J3' J33 C' F3' MH D3E' 'H$D' F3EN3' ;$C $4D' $HE2' F3' MH D3E' 'H$D' ^&H4' $QH-' * .3E O H' =$4DC_' H' F3' IHE' $' F NF' F3' C$J3' C' J3' QO' $' G NF' $ED' 9 $ ' $' F3' ;ED' H&' $' IH4 34 C' >HD23' F3EN3' $HE2' F3' C$D' G NF' $ED' 9 $ ' ^ F NF' Q3ED' ;$C $4D_' &H4' $QH-' ?3 3E O' =$4DC' F3EN3' $HE2' F3' @HER E-$ HE' H&' F3' $C J3E HE3D' G NF' ,H4 F $4D' &H4' $QH-' <E3' F-ED43D' =$4DC' F3EN3' $HE2' $' M$4D3E' 9 $ ' NHE E- E2' E' F3' C$J3' G 43N HE' ,H4 F $4D' &H4' $QH-' <E3' F-ED43D' $ED' F 4 O' =$4DC' H' F3' IHE' $' F NF' F3' C$J3' J33 C' $' 9 $ ' F NF' E- C' 9 3C $4D' F343&4HJ' F3EN3' 9 3C $4D' $HE2' F3' $C J3E HE3D' 9 $ ' ^&H4' $QH-' 6 & O & 3' =$4DC_' H' F3' IHE' $' F NF' F3' C$J3' J33 C' $' 9 $ ' F NF' Q3EDC' 4H-ED' ;$C $4D' H' F3' @$J$C' 'H$D' F3EN3' $HE2' F3' $C J3E HE3D' 9 $ ' H' F3' IHE' $' F NF' F3' C$J3' J33 C' F3' MJC' 'H$D' F3EN3' $HE2' F3' 'H$D' F NF' 3$DC' &4HJ' F3' @$J$C' 'H$D' E H' F3' 4J3' 'H$D' H' F3' IHE' $' F NF' F3' C$J3' J33 C' F3' BH-ED$4O' H&' F3' HD' BH4H-2F

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64HJ' F3' IHE' $' F NF' F3' 9 3C 34E' ;EN HC-43' 9 $ ' H&' F3' 8H-C3' H&' ED-C 4O' J33 C' F3' ' 34' ?- 4' $HE2' F3' C$D' 9 3C 34E' 9 $ ' H' F3' IHE' $' F NF' F3' C$J3' J33 C' P $4' ? 433 ' F3EN3' $HE2' ?$ E' ? 31 3E C' >$E3' H' F3' IHE' $' F NF' F3' C$J3' J33 C' F3' HD' @$F 4' 'H$D' F3EN3' ;$C $4D' $HE2' F3' HD' @$F 4' 'H$D' H' F3' IHE' $' F NF' F3' C$J3' C' J3' QO' $' >$E3' 4-EE E2' ,H4 F $4D' F3EN3' ,H4 F $4D' $HE2' F3' C$D' >$E3' H' F3' IHE' $' F NF' F3' C$J3' C' J3' QO' F3' & 4C' B$E+' HE' F3' ' 2F ' F3EN3' ;$C $4D' $HE2' F3' C$D' B$E+' H' F3' IHE' $' F D' F3' C$J3' C' J3' QO' $' >$E3' NHJ E2' &4HJ' F3' ,H4 F' $ED' -4E E2' H' F3' ;$C ' F3EN3' ;$C $4D' $HE2' F3' $C J3E HE3D' >$E3' H' F3' IHE' $' F NF' F3' C$J3' J33 C' 830 HHD' ? 433 ' F3EN3' $HE2' $' B$E+' F NF' 4-EC' ;$C R $4D' &4HJ' $' 8H-C3' $' 3' H' F3' ?H- F' H&' F3' IHE' $C' D3CN4 Q3D' H' F3' IHE' $' F NF' F3' C$D' B$E+' J33 C' $' C J$' BO3' >$E3' 3$D E2' E H' F3' @$CF3' 'H$D' F3EN3' $HE2' F3' C$D' BO3' >$E3' H' F3' @$CF3' 'H$D' F3EN3' ?H- F $4D' $HE2' F3' C$D' @$CF3' 'H$D' H' F3' IHE' $' F NF' F3' C$J3' C' J3' QO' F3' ?H- F34E' BH-ED$4O' 9 $ ' H&' F3' I$4+' H4' I 3$C-43' M4H-EDC' H&' P 4' G$ D' P $ NH J CHE' F3EN3' $HE2' F3' C$D' BH-ED$4O' 9 $ ' H' F3' IHE' F343' F3' C$D' 9 $ ' J33 C' #1134' 5HFECHE' ? 433 ' F3EN3' ;$C $4D' $HE2' B$N+QHE3' >$E3' H' F3' ; 43 J O' F343H&' F3EN3' H' $' IHE' E' F3' E3 ' 'H$D' H' 63 F$4D' F NF' IHE' C' ? O' &H-4' =$4DC' H' F3' ,H4 F' H&' F3' ?1H' $' F NF' F3' C$D' 'H$D' C' N4HCC3D' QO' BHE 3' >$E3' F3EN3' ?H- F $4D' &H4' ? O &H-4' =$4DC' H' F3' C$D' ?1H' F343' F3' 63 F$4D' 'H$D' C' N4HCC3D' QO' BHE 3' >$E3' F3EN3' ;$C $4D' $HE2' BHE 3' >$E3' &H4' $QH-' ? ' F-ED43D' $ED' &H4 O &H-4' =$4DC' H' $' IHE' $' F NF' F3' C$J3' C' J3' QO' $' B$E+' HE' F3' ' 2F' H11HC 3' $' C J$' 8H-C3' F3EN3' ?H- F $4D' $HE2' F3' C$D' B$E+' &H4 F3

U ʾ Kʻ Sčʻ M # > ; > P ʻ ʻ @$1 ZV ZY!

F3ʻ G C $EN3ʻ H&ʻ $QH- ʻ * Hʻ F-ED43Dʻ $EDʻ E E3ʻ =$4DCʻ Hʻ F3ʻ I H E ʻ F343ʻ ʻ Cʻ J 3 ʻ QOʻ $EH F34ʻ B$E+ʻ 4-EE E2ʻ ; $C $4D ʻ F3EN3 ʻ ;$C 9 $4Dʻ $ HE2ʻ F3ʻ $C J 3E HE3Dʻ B$E+ʻ &H4ʻ $QH- ʻ 6 & Oʻ =$4DCʻ Hʻ $ʻ I H E ʻ F343ʻ F3ʻ C$J 3ʻ J $+3Cʻ $Eʻ E2 3ʻ Eʻ -4E E2ʻ Hʻ F3ʻ ?H- F ʻ F3EN3 ʻ ?H- F $4Dʻ &H4ʻ $QH- ʻ 6 & Oʻ =$4DCʻ $ HE2ʻ $ʻ B$E+ʻ F NFʻ 3$DCʻ Hʻ $ʻ BO3ʻ ' H$Dʻ Hʻ I H 34Cʻ *H Eʻ -E ʻ F3ʻ C$ Dʻ B$E+ʻ 43$NF3Cʻ F3ʻ C$ Dʻ BO3ʻ ' H$D ʻ F3EN3 ʻ ; $C $4D ʻ $ HE2ʻ F3ʻ C$ Dʻ BO3ʻ ' H$Dʻ &H4ʻ D 3ʻ G C $EN3ʻ H&ʻ $QH- ʻ * Hʻ F-ED43Dʻ $EDʻ C3 3E 33Eʻ =$4DCʻ Hʻ F3ʻ ?1H ʻ F343ʻ ʻ Cʻ J 3 ʻ QOʻ F3ʻ & 4C ʻ B$E+ʻ HEʻ F3ʻ ' 2F ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ F3ʻ J HC ʻ , H4 F34Eʻ I H E ʻ H&ʻ $ʻ B$E+ʻ HEʻ F3ʻ ?H- F34Eʻ ? D3ʻ E&ʻ F3ʻ G-Q Eʻ ' H$D ʻ F NFʻ I H E ʻ Cʻ D C $E ʻ $QH- ʻ 6H-4ʻ F-ED43Dʻ $EDʻ C O &H-4ʻ =$4DCʻ &4H J ʻ $ʻ ? HE3ʻ Eʻ B$44$N+ʻ ? 433 ʻ F NFʻ J $4+Cʻ F3ʻ ?H- F 3$C 34Eʻ @H4(34ʻ H&ʻ F3ʻ <4DR E$EN3ʻ >$ED ʻ F3EN3ʻ $ HE2ʻ F3ʻ $C J 3EDHE3Dʻ B$E+ʻ Hʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ C$J 3ʻ J 33 Cʻ F3ʻ ' 34ʻ ?- 4 ʻ F3EN3ʻ $ HE2ʻ F3ʻ ?H- F34E J HC ʻ @F$EE3 ʻ H&ʻ F3ʻ ' 34ʻ ?- 4ʻ $Cʻ &$4ʻ $Cʻ P HH43 Cʻ C $EDʻ ʻ F3EN3ʻ $ HE2ʻ F3ʻ @F$EE3 ʻ H&ʻ F3ʻ C$J 3ʻ Hʻ F3ʻ , H4 Fʻ H&ʻ P HH43 Cʻ C $EDʻ Hʻ F3ʻ I H E ʻ & 4C ʻ D3CN4 Q3D

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; $C ʻ H&ʻ F3ʻ ' 34ʻ B$EE h * F3ʻ *H E $EDʻ N$ 3Dʻ `ʻ @H 34$ E3ʻ $EDʻ ?-Q-4QC c

9 3C ʻ H&ʻ F3ʻ ' 34ʻ B$EE h 64HJʻ F3ʻ I H E ʻ $ ʻ F NFʻ F3ʻ , H4 F34Eʻ B$E+ʻ F NFʻ QH-EDCʻ F3ʻ I $E $ HEʻ H&ʻ D+N+CHEʻ 8 $ ʻ J 33 Cʻ F3ʻ B 34ʻ B$EE ʻ 9 3C $4D ʻ $ HE2ʻ F3ʻ C$ Dʻ B$E+ʻ Hʻ F3ʻ ; EDʻ F343H& ʻ F3EN3ʻ $ HE2ʻ $EH F34ʻ B$E+ʻ F NFʻ 4-ECʻ E3$4 Oʻ Eʻ NHE E-$ HEʻ H&ʻ F3ʻ Q3&H43 J 3E ʻ HE3Dʻ B$E+ʻ Hʻ F3ʻ I H E ʻ F343ʻ F3ʻ C$J 3ʻ J 33 Cʻ F3ʻ B$ ON$ 4Eʻ ' H$Dʻ(
F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ F3ʻ I H E ʻ F343ʻ F3ʻ GH EF ʻ ' H$Dʻ 3$ 3Cʻ F3ʻ H Dʻ ' H$Dʻ Hʻ , 3 ʻ *H Eʻ > J $ $DO ʻ F3EN3ʻ Hʻ F3ʻ I H E ʻ F343ʻ F3ʻ *F433ʻ *H E $EDCʻ H&ʻ , H4 Fʻ B$ E 334 ʻ @F-4NF $ED ʻ $EDʻ > C4$-41FOʻ J 33 ʻ F3EN3ʻ $ HE2ʻ F3ʻ BH-ED$4Oʻ Q3 33Eʻ F3ʻ *H J $EDCʻ H&ʻ @F-4NF ʻ $EDʻ $EDʻ > C J F41FOʻ Hʻ F3ʻ ' 34ʻ B$EE

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4 ʻ * F3ʻ @H-E Oʻ H&ʻ F3ʻ @ Oʻ H&ʻ @H4+

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- ʻ * F3ʻ G3 J 3CE3ʻ H&ʻ GH E

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" * F3ʻ @H-E Oʻ H&ʻ F3ʻ @ Oʻ H&ʻ G4H2F3D$ ʻ

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&ʿ F3ʿ @H-E Cʿ H&ʿ F3ʿ @ Cʿ H&ʿ G-Q Eʿ $EDʿ C-N'ʿ I$4 Cʿ H&ʿ F3ʿ @H-E Cʿ $ C$423ʿ $Cʿ 3ʿ F Eʿ F3ʿ @ 4N- $4ʿ 'H$D

gG# , G >%

64H Jʿ F3ʿ I H E ʿHEʿ F3ʿ ; $C ʿH&ʿ F3ʿ *H Eʿ $QH- ʿ ; 2F ʿF-ED43Dʿ =$4DCʿ &4H Jʿ F3ʿ ; EN HC-43ʿ 9 $ ʿ H&ʿ F3ʿ @$ $ 4Cʿ B44N+Cʿ $ʿ F NFʿ $ʿ 'H$Dʿ F NFʿ 4-ECʿ &4H Jʿ F3ʿ ?3$ CF 43ʿ F4H-2Fʿ F3ʿ P $4CF3Cʿ Hʿ B $N+ʿ 'HN+ʿ 3$ 3Cʿ F3ʿ ?3$ CFH43ʿ $ HE2ʿ C-NFʿ 'H$Dʿ Hʿ F3ʿ I Q E ʿ$ʿ F NFʿ F3ʿ C$J3ʿ J 33 Cʿ F3ʿ BH-ED$4Cʿ H&ʿ F3ʿ >H 34ʿ P $4CFʿ *H E $ED(ʿ F3EN3ʿ 9 3C $4Dʿ $ HE2ʿ F3ʿ BH-ED$4Cʿ H&ʿ F3ʿ >H 34ʿ P $4CFʿ *H:E $EDʿ Hʿ F3ʿ I H E ʿ$ʿ F NFʿ F3ʿ C$J3ʿ 43$NF3Cʿ F3ʿ B4 D23ʿ HEʿ F3ʿ G-Q Eʿ 'H$Dʿ F3EN3ʿ Eʿ $ʿ C 4$ 2F ʿ> E3ʿ &H4ʿ $QH- ʿ<E3ʿ F-ED43Dʿ =$4DCʿ Eʿ $ʿ ?H- F 3C 34 Cʿ G 43N HEʿ Hʿ F3ʿ E3$43Cʿ I H E ʿH&ʿ F3ʿ BH-ED$4Cʿ H&ʿ F3ʿ *H Eʿ I$4+Cʿ F3EN3ʿ 9 3C ʿ $4Dʿ $ HE2ʿ F3ʿ BH-ED$4Cʿ H&ʿ F3ʿ *H Eʿ I$4+Cʿ Hʿ F3ʿ I H E ʿ$ʿ F NF F3ʿ C$J3ʿ J 33 Cʿ F3ʿ BH-ED$4Cʿ H&ʿ >H4Dʿ 'HD3E Cʿ G3 J 3CE3ʿ(ʿ F3EN3ʿ ; $C R $4Dʿ $ HE2ʿ F3ʿ BH-ED$4Cʿ H&ʿ >H4Dʿ 'HD3E Cʿ G3 J 3CE3ʿ Hʿ F3ʿ I H E ʿ$ʿ F NFʿ F3ʿ C$J3ʿ J 33 Cʿ F3ʿ BH-ED$4Cʿ Q3 33Eʿ F3ʿ I$4 CF3Cʿ H&ʿ G-ED$ +ʿ $EDʿ @$C 3 H Eʿ 3 N -D E2ʿ F3ʿ FH 3ʿ H&ʿ F3ʿ G3 J 3CE3ʿ ʿ F3EN3ʿ , H4 FR $4Dʿ $ HE2ʿ F3ʿ BH-ED$4Cʿ Q3 33Eʿ F3ʿ I$4 CF3Cʿ H&ʿ G-ED$ +ʿ &ʿ @$C 3R H Eʿ Hʿ F3ʿ I H E ʿ$ʿ F NFʿ F3ʿ C$J3ʿ J 33 Cʿ F3ʿ BH-ED$4Cʿ H&ʿ F3ʿ *H Eʿ I$4+Cʿ $ʿ F3ʿ ' 34ʿ F3EN3ʿ ; $C $4Dʿ $ H ʿ 3ʿ BH-ED$ ʿH&ʿ F3ʿ *H Eʿ I$4+Cʿ Hʿ F3ʿ B4 D23ʿ HEʿ F3ʿ , 3 4Cʿ 'H$Dʿ F3EN3ʿ $ HE2ʿ F3ʿ ?H- F34Eʿ ?FH43ʿ H&ʿ F3ʿ B$Cʿ H&ʿ G - E D ʿ Hʿ F3ʿ I H E ʿ& 4C ʿD3CN4 Q3D

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64H Jʿ F3ʿ I H E ʿHEʿ F3ʿ ?D- Fʿ H&ʿ F3ʿ *H Eʿ $ʿ F NFʿ F3ʿ BH-ED$4Cʿ Q3 33Eʿ F3ʿ G4- J NHHʿ *H E $EDʿ $EDʿ F3ʿ B$ OEH4 F $EDʿ G3 J 3CE3ʿ J 33 Cʿ F3ʿ BH-ED$4Cʿ H&ʿ F3ʿ I$4 CFʿ H&ʿ G J J 2 $CCʿ , H4 F $4Dʿ $ HE2ʿ F3ʿ BH-ED$4Cʿ H&ʿ F3ʿ G4- J NHHʿ *H E $EDʿ Hʿ F3ʿ I H E ʿ$ʿ F NFʿ F3ʿ C$J3ʿ J 33 Cʿ N HC3ʿ QCʿ F3ʿ M$ 3ʿ 3$D E2ʿ Hʿ P 4ʿ ?F 3 Cʿ 8 H-C3ʿ Eʿ % O$ 3$ ʿ$E H Dʿ 'H$Dʿ F NFʿ 3$DCʿ 9 3C $4Dʿ E Hʿ F3ʿ ? H43ʿ 'H$Dʿ F3EN3ʿ $ HE2ʿ C-NFʿ H Dʿ 'H$Dʿ Hʿ F3ʿ I H E ʿ$ʿ 9 F NFʿ F3ʿ C$J3ʿ (H ECʿ F3ʿ ? H43ʿ 'H$Dʿ F3EN3ʿ , H4 F $4Dʿ $ HE2ʿ F3ʿ ? H43ʿ 'H$Dʿ Hʿ 3ʿ I H E ʿ$ʿ F NFʿ F3ʿ C$J3ʿ J 33 Cʿ F3ʿ @HH+C H Eʿ 'H$Dʿ F3EN3ʿ Eʿ $ʿ C 4$ 2F ʿ> E3ʿ Hʿ # I H E ʿHEʿ F3ʿ M$ H Cʿ 8 ʿ 'H$Dʿ F NFʿ Cʿ D C $E ʿ* Hʿ F-ED43Dʿ $EDʿ 3E Cʿ =$4DCʿ ^J 3$C-43Dʿ $ HE2ʿ F3ʿ M D H Cʿ 8 ʿ 'H$D_ Hʿ F3ʿ 9 3C ʿH&ʿ D Jʿ I H E ʿ$ʿ F NFʿ F3ʿ C$J3ʿ 3$ 3Cʿ F3ʿ GHE$2F J H43ʿ 'H$Dʿ F3EN3ʿ Eʿ $ʿ C 4$ 2F ʿ> E3ʿ Eʿ F3ʿ G 43N HEʿ H&ʿ F3ʿ *H 34ʿ H&ʿ G34402H4 43$ Cʿ @F-4NFʿ Hʿ F3ʿ I H E ʿ$ʿ F NFʿ C-NFʿ C 4$ 2F ʿ> E3ʿ N- Cʿ F3ʿ BH-ED$4Cʿ H&ʿ F3ʿ I$4 CFʿ H&ʿ G J J 2 $CCʿ F3EN3ʿ ?H- F $4Dʿ $ HE2ʿ F3ʿ BH-ED$4Cʿ H&ʿ F3ʿ I$4 CFʿ H&ʿ G J J 2 $CCʿ Hʿ F3ʿ I H E ʿ& 4C ʿD3CN4 Q3D

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*F3ʿ 143C3E ʿBH4H-2Fʿ H4ʿ P $EH4ʿ H&ʿ G-E2$4 $E ʿ Fʿ F3ʿ ; N31 HEʿ H&ʿ C-NFʿ I$4 Cʿ H&ʿ F3ʿ C$J3ʿ $Cʿ 3ʿ 3E 43 Cʿ D3 $NF3Dʿ & "Jʿ F3ʿ 43C ʿ $ CH ʿ Eʿ $DD HEʿ Hʿ F3ʿ 143C3E ʿP $EH4ʿ $ ʿ FHC3ʿ I H4 HECʿ H&ʿ >$ED ʿ F NF ʿ FH-2Fʿ EH ʿQ3 HE2 E2ʿ Hʿ F3ʿ C$J3ʿ $43ʿ HN$ Cʿ C -$ 3ʿ F Eʿ ʿ<4 3E 43 Cʿ C-4R 4H-ED3Dʿ QCʿ F3ʿ >-EDCʿ H&ʿ F3ʿ P $EH4

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64H J' F3' @ $433E' B4 D23' E' $' C 4$ 2F ' > 3' E' $' ?H- F ' G 43N HE' H' F3' I H E ' $' F NF' F3' ' H$D' 4H-ED' F3' 8 ' &4H J' ENF' B4 D23' J 33 C' F3' ' H$D' H' F3' 8 34 J $23' F3EN3' $ HE2' $' BO3' ' H$D' F NF' 4-EC' ?H- F $4D' &4H J' F3' I H E ' $C ' D3CN4 Q3D' H' F3' I H E ' n$QH- ' * H' F-ED43D' $ED' 3E O' =$4DC' &4H J' F3' I H E ' $C ' D3CN4 Q3D_' E ' F NF' C-NF' BO3' ' H$D' C' J 3 ' QO' $E' <4NF$4D' 9 $ ' ! F3EN3' E' $' C 4$ 2F ' > E3' H' F3' ; $C 34E' I 34' H&' $' M$ 3' HE' F3' ENF' B4 D23' ' H$D' F NF' C' F3' ; E 4$EN3' H' P 4' @4H C' 6$4 J ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' ; $C 34E' I 34' H&' $' M$ 3' HE' F3' % 4-CF' ' H$D' $QH- ' * H' F-ED43D' $ED' F 4 O' =$4DC' H' F3' ; $C ' H&' F3' I H E ' $' F NF' $' ' H$D' Q4$ENF3C' &4H J' F3' % ' 4-CF' ' H$D' H' (H E' F3' ENF' B4 D23' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' E' $' ?H- F 3$C 34 O' G 43N HE' H' F3' ?H- F 3C 34E' @H4E34' H&' P 4' 8 3E O C' M$4D3E ' F3EN3' $ HE2' F3' ?H- F34E' 9 $ ' H&' F3' C$ J 3' M$4D3E' H' F3' I H E ' $' F NF' F3' C$ J 3' J 33 C' F3' @ $43' ' H$D ' F3EN3' , H4 F $4D' $ED' ; $C $4D' $ HE2' F3' P $ ' @H$NF' ' H$D' &4H J' @ $43' ^&H4' $QH- ' * F433' \ -$4 34C' H&' $' P 3_' H' F3' I H E ' $' F NF' F3' C$ J 3' C' J 3 ' QO' $' 9 $ ' HE' F3' , H4 F34E' ? D3' F343H&' E3$4' $' 9 3 ' F3EN3' E' $' C 4$ 2F ' > EE' H' F3' , H4 F 3C 34E' @H J 34' H&' F3' 9 $ ' F NF' C-44H-EDC' $' G C 3 OHE' F3' B$E+C' H&' F3' ' 34' 6342-C' Q- ' EH ' EH ' E' - C3' F3EN3' $ HE2' 3' $C ' J 3E HE3D' 9 $8' $NF D E2' F3' G C 34O' H' F3' I H E ' $' D D' F3' C$ J 3' 9 $ ' J 33 C' F3' ' 34' 6342-C' F3EN3' E' $' C 4$ 2F ' > E3' E' $' , H4 F 3$C 34 O' G CN HE' H' F3' I H E ' $' F NF' F3' $EN3' [S ' H4' ?H- F34E' MH4 ' ' H$D' C' (H E3D' QO' $' @4HCC' ' H$D' &4HE ' F3' , H4 F34E' MH4 ' ' H$D ' $ED' F NF' I H E ' C' D C $E ' $QH- ' 6H-4' F-ED43D' =$4DC' &4H J' F3' B4 D23' H 34' F3' ' 34' 6342-C' F3EN3' $ HE2' F3' $C J 3E HE3D' I , 11' ' H$D' H' F3' I H E ' $' F NF' F3' C$ J 3' (H EC' F3' , H4 F34E' MH4 ' ' H$D' 5 F3EN3' $ HE2' F3' C$ J 3' , H4 F34E' MH4 ' ' H$D' &H4' * 3E O & 3' =$4DC' Q3OHED' F3' I H E ' $C ' D3CN4 Q3D ' F3EN3' E' $' C 4$ 2F ' > E3' E' $' , H4 FR 3C 34 O' G 43N HE' H' F3' 9 ED J ' ? - J 1 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' @ $433E' B4 D23

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* F3' C $ED' H&' ; EE C+ 3E ' $ED' $ CH' F3' ?1$N3C' EN - D3D' Q3 33E' ' >H-2F' ; 4E3' $ED' F3' * H' &H H E2' BH-ED$4 3C' 43C13N 3 O' D3EH J R E$ 3D' ; $C ' $ED' 9 3C .

$ 64H J' F3' 9 3C 34E J HC ' I H E ' H&' F3' * H E $ED' H&' * HE3OC N+' E' $' C 4$ 2F ' > E3' H' F3' C$ 3E ' I H E ' H&' F3' , H4 F 3C 34E' B$C HE' H&' F3' ; $C ' 6H4 ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' ?$ 3E ' I H E ' H&' F3' , H4 F 3$C 34E' B$C HE' H&' F3' C$ J 3 ' F3EN3' E' $' ? 4$ 2F ' > E3' E' F3' G 43N HE' H&' F3' ?H- F 3C 34E' E 3' H&' F3 @H-E O' E& 4 J $40' H' F3' I H E ' $' F NF' C-NF' C 4$ 2F ' > E3' N- C' F3' BH-ED$40' H&' F3' * H E $ED' H&' * HE3OC N+' F3EN3' ?H- F $4D' $ HE2' F3' BH-ED$40' H&' F3' * H E $ED' H&' * HE3OC N+' H' F3' I H E ' $' F NF' F3' C$ J 3' J 33 C' >H-2F' ; 4E3

9 ; ? * 64H J' F3' I H E ' $' F NF' F3' BH-ED$40' Q3 33E' F3' * H E ' ' $EDC' H&' @H 3 C' 8 ' $ED' 9 ED J ' 8 ' J 33 C' >H-2F' ; J 3 ' 9 3C $4D' $ HE2' F3' C$ D' BH-ED$40' H' $' I H E ' F NF' C' D C $E ' <E3' FEED43D' =$4DC' ^J 3$C-43D' $ HE2' C-NF' BH-ED$40_' Q3OHED' F3' I H E ' F343' F$ ' BH-ED$40' N4HCC3C' F3' 6 H43EN3' @H-4 ' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' C$ 3E ' E2 3' H&' F3' ?H- F 3C 34E B$C HE

U" K'S/' M # > ; > P ' ' @$1 Z"

B$C HE' H&' F3' 9 3C ' 6H4 ' F3EN3' E' $' C 4$ 2F ' < E3' H' 3'
I H E ' $ ' F NF' F3' BH-ED$4O' Q3 33E' F3' * H 9 E $EDC' H&' 9 EDR
J ' 8 ' $ED' I H4 H4$' J 33 C' F3' ; $C 34E' B$E+' 4&>H 2F' M$ $2F='
F3EN3' , H4 F $4D' $ HE ' F3' ; $C 34E' B$E+' H&' >H-2F' M$ $2F'
H' F3' I H E ' F NF' F3' C$J 3' J 33 C' F3' @?F"4NF' 8 ' ' H$D '
F3EN3' H $4DC' F3' * H E ' $ HE2' F3' $C J 3E HE3D' ' H$D' H' F3'
>HD23' M$ 3' H&' I H& H4$' ?NFHH ' F3EN3' $ HE2' $' 8 3D23' F NF'
4-EC' $ ' F3' 6HH ' H&' F3' >$ E' H&' I H4 H4$' ?NFHH ' , H4 F $4D '
H ; H-2F ; 4E3 ' H' F3' I DE ' $ ' F NF' F3' J 3' J 33 C' >H-2F'
; 4E3

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* F3' @H-E O' H&' F3' * H E' H&' M$ $O

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* F3' @H-E O' H&' F3' @ O' H&' % +3EEO

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64H J ' F3' I H E ' HE' F3' , H4 F 3$C ' H&' F3' * H E' $ ' F NF' F3' E3 '
@H4+' ' H$D' N4HCC3C' F3' H D' @H4+' ' H$D ' E' $' C 4$ 2F ' > E3' H' F3'
, H4 F34E' ; 43 J O' H&' P 4 ' 8 - 4 30 C' ? $Q 3C ' F3EN3' E' $' C 4$ ' > E3'
H' F3' I H E ' $ ' F NF' F3' ' H$D' H' B$EDHE' ' 34' 3$ 3C' F3' ' H$D' H'
B$EDHE ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E ' $ ' F NF' F3' B ED2$ 3'
' H$D' J 33 C' F3' @H J 1$CC' 8 ' ' H$D ' F3EN3' E' $' C 4$ 2F ' > E3' H 34'
@H J 1$CC' 8 ' H' F3' 9 3C 34E J HC ' 8 H-C3' $ ' F3' I $N3' N$ 3D' `' * F3'
' 9 H4 D C' ; EDc ' F3EN3' $ HE2' F3' @H$C ' H' F3' I H E ' $ ' F NF' F3' C$J 3
C' J 3 ' QO' F3' & 4C ' B$E+' F NF' 4-EC' - 1' F3' 8 ' H' F3' ; $C ' H&' $ED'
Q3OHED' F3' $23' H&' ?N O ' F3EN3' $ HE2' F3' C$ D' B$E+' H' F3' I H E '
$ ' F NF' F3' C$J 3' J 33 C' F3' ' H$D' &4H J ' ?N O' H' @F$4 3C' 6H4 ' F3EN3'
E' $' C 4$ 2F ' > E3' H' $' I H E ' HE' F3' 8 $4QH-4' 8 ' ' H$D' F NF' C' D C $E '
< E3' F-ED43D' $ED' 3 2F O' = $4DC' ^ J 3$C-43D' $ HE2' F3' 8 $4QH-4' 8 ' ' H$D_ '
H' F3' ; $C ' H&' F3' B$44$N+' 9 $ ' F3EN3' E' $' C 4$ 2F ' > E3' H' F3' I H E '
& 4C ' D3CN4 Q3D

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9 - ' * F3' @H-E O' H&' F3' @ O' H&' > J 34 N+

US h> ?B#' ,

*F3'C3 34$'*H E$EDC'H&'> CE$2$4 O' *HE$2F'$ED'< D' 9 $443E' E' F3' I$4 CF'H&' B $4 C' $ CH' F$' IH4 HE' H&' F3' *H E$ED' H&' >$(EQ32' F$' 3C' H' F3' 9 3C'H&' F3' ' 34' >2E'$ED' C' QH-ED3D' $C' &H H C' E$J3O'HE' F3' ?H- F' $ED' 9 3C'QO' F3' *H E$ED'H&'> CE$2$4O'HE' F3' ,H4 F' Q3 33E' F3' B3 C T3' 'H$D' $ED' F3' H D' B3 &$C' 'H$D' QO' $' CJ$ ' ?43$J' F NF' C' F3' BH-ED$4O'H&' F3' *H E$ED' H&' P F43 3$ 3'$ED' HE' F3' ;$C'QO' F3' H D' B3 &$C' 'H$D' &4HJ' F3' IHE' F343' F3' C$J3' N4HCC3C' F3' $QH 3 J3E HE3D' CJ$ ' ?43$J' H' F3' IHE' F343' ' C' J3' QO' F3' >H 34' 'H$D' E3$4' >$JQ32' M 3Q3' D 3EN3' $HE2' F3' C$ D' >H 34' 'H$D' H' F3' IHE' F343' F3' C$J3' C' J3'QO'`' 9 F33 34C'G NF F3EN3' $HE2' 9 F33 34C'G NF' H' F3' ' 34' >2E

CH' F3' ?1$N3' NHE $E3D' Q3 33E' F3' ' 34' >$2$E' $ED' F3' &H R H E2' BH-ED$4O' ^F$' C' H' C$O_

64HJ' F3' B4 D23' $HE2' F3' GJJQH' 'H$D' &H4' $QH-' 6 3' F-ED43D' =$4DC' H' F3' IHE'$' F NF' F3' C$J3' C' J3'QO' $EH F34' 'H$D' NHJ E2' H-'H&' F3' ?-Q-4Q' F3EN3' ;$C $4D' $HE2' $' G NF' HE' F3' ,H4 F' ?D3' H&' F NF' 6 4'*433C' $43' 1$E 3D' &H4' $QH-'* H' F-ED43D' $ED' C O' =$4DC' H' F3' IHE'$' F NF' F3' C$ D' G NF' J33 C' $' >$E3' 4-EE E2' H' F3' ' 34' F3EN3' $HE2' F$'>$E3' H' F3' ' 34

CH' F3' CJ$ ' C $ED' HE' F3' ' 34' >$2$E' E' F NF' $43' C -$ 3D' F3' 4H' 9 H4+C

CH' F$' IH4 HE' H&' F3' *H E$ED' H&' %EHN+JH43' F NF' F$C' F F34 H' &H4J3D' $' I$4'H&' F3' BH4H-2F

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64HJ' F3' IHE' HE' F3' ?H- F 3C' H&' F3' @ O' $' F NF' P$4O' B -3C' B-4E' (H EC' F3' ' 34' 6HO 3' -1' P$4O' B -3C' B-4E' H' F3' IHE' $' F NF' F3' C$J3' N4HCC3C' ?$E 30C' 9 $+' F3EN3' 9 3C $4D' $HE2' ?$E 30C' 9 $+' H' F3' IHE'$' F NF' F3' C$J3' J33 C' $' 'H$D' F NF' 4-EC' E3$4 O' 1$ $ 3' H' P$4O' B -3C' B-4E' F3EN3' ,H4 F $4D' $HE2' F3' $C J3E HE3D' 'H$D' H' F3' IHE'$' F NF' F3' C$J3' 43$NF3C' F3' ;E 4$EN3' M$ 3' H' F3' B CFH1 C' G3J3CE3' $ED' G334' I$4+' F3EN3' 9 3C R $4D' $HE2' F3' 'H$D' F NF' 14HN33DC' &4HJ' F3' C$ D' ;E 4$EN3' M$ 3' H' F3' IHE'$' F NF' F3' C$J3' -4EC' ?H- F 3C $4D' F3EN3' ,H4 F $4D' $HE2' $' CJ$ '?43$J' &H4' $QH-'?3 3E O' =$4DC' H' F3' IHE'$' F NF' F3' C$J3' J33 C' $' B$E+' F NF' C+4C' F3' ?H- F 3$C 34E' B$E+' H&' $' N4N- $4' I $E $ HE'$ED' 4-EC' -1' H' F3' @4322$E' $ED' B-4' 'H$D' F3EN3' $HE2' F3' B$E+' CH' 4-EE E2' H' F3' @4322$E' $ED' B-4' 'H$D' H' F3' IHE'$' F NF' F3' C$J3' J33 C' F3' @4322$E' $ED' B-4' 'H$D' F3EN3' $HE2' $' G NF' F NF' 4-EC' &4HJ' F3' ,H4 F34E' ?D3' H&' F3' @4322$E' $ED' B-4' 'H$D' $ED' E3$4 O' H11HC 3' H' F3' IHE' $C'D3CN4Q3D' H' F3' IHE'$' F NF' F3' C$J3' J33 C' $' CJ$ '?43$J' F3EN3' E' $' C 4$ 2F' > E3' H' F3' ,H4 F 3C 34E' @H4E34' H&' F3' ;EN HC-43' 9 $ 'H&' F3' >-E$ N' CO -J' F3EN3' $HE2' F3' ,H4 F34E' ;EN HC-43' 9 $ 'H&' F3' >-E$ N' -J' $ED' E' $' > E3' E' NHE E-$ HE' F343H&' H' F3' IHE'$' F NF' C-NF' > E3' N- C' F3' ' 34' 6HO 3' F3EN3' ?H- F $4D' $HE2' F3' ' 34' 6HO 3' H' F3' IHE'$' F NF' F3' C$J3' C' J3' HE' F3' ;$C 34E' ?D3'QO' $' G NF' H4' B$E+' F NF' &H4J C' F3' ?H- F34E' BH-ED$4O' H&' F3' I 3$C-43' M4H-EDC' H&'

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P4' 9 $J'BHED-' F3EN3'$HE2'B3' $C J3E HE3D' G NF' H4' B$E+' H' F3' IHE'$' F NF' F3' C$J3' J33C' F3' ,3 HE'> J$ $DO' 'H$D' F3EN3' ?H- F $4D'$HE2' F3' ,3 HE'> J$ $DO' 'H$D' &H4'$Q J' , E3 O'=$4DC' H' F3' IHE' F343' F3' C$D' 'H$D'(H EC' F3' H D' ? 4$Q H3' 'H$D' F3EX3' $HE2' F3' H D' ? 4$Q$E3' 'H$D' &H4'$QH-'*F433' F-ED43D' $ED' E E3 O'=$4DC' H' F3' IHE' F343' F3' C$J3' C' J3'FO'$'E$44H ' 'H$D'4-EE E2' F343R &4HJ' H' F3'*$E+' F3EN3' 9 3C $4D'$HE2' F3' $C J3E HE3D' E$44H ' 'H$D' &H4'$QH-'*F 4 O'=$4DC' H' F3' ?1H' F343' F3' C$J3' C' J3'QO'$' B$E+' EH ' 1$E 3D' F' B-CF3C' 4-EE E2' ?H- F $4D' F3EN3' $HE2' F3' $C J3E HE3D' B$E+' H' F3' ?1H' F343' F3' C$J3' C' J3'QO' $' >$E3' 4-EE E2' &4HJ' 9 $ 34C D3' -1' $' C 331' 8 ' H' F3' H D' ? 4QE3' 'H$D' F3EN3' H' F3' E3$43C' 'HE' H&' $' CJ$' ?43$J' F NF' C' D3' BH-ED$4O' Q3 33E' F3' *H E $EDC' H&' @ HHE3O'$ED' MHQECN3' F3EN3' DH E' F3' C$D' ?43$J' &H4'$QH-'?3 3E O'=$4DC' H' F3' IHE' F343' F3' C$J3' C' J3'QO'$'>$E3' 4-EE E2' ?H- F 3C $4D' H' F3' 6 3 DC' F3EN3' $HE2' F3' $C J3E HE3D'>$E3' H' F3' IHE' F343' '@-C' F3' BH-ED$4O' Q3 33E' F3' *H E $EDC' H&' MHQE$CN$3' $ED' *$J E3O J H43' F3EN3' 9 3C $4D'$HE2' F3' BH-ED$4O' Q3 33E' F3' *H E $EDC' H&' MHQE$CN$3' $ED' *$J E3O J H43' H' F3' IHE' $' F NF' F3' C$J3' J33C' F3' ' 34' 6HO3' F3EN3' ?H- F $4D' $HE2' F3' ' 34' 6HO3' H' F3' IHE'&4C' D3CN4 Q3D'

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64HJ' F3' ;$C 34E J HC'M$3' IHC'^H11HC 3' F3' I$4+' 9 $ 'H&'P4' I -4 ' N3 _' H&' $' 6 3 D' HE' F3' %$E -4+' 'H$D' F3' ;E 4$EN3' H' F NF' C' D C $E' $QH-'<E3' F-ED43D' $ED' C3 3E O C '=$4DC' ^J3$C-43D' $HE2' F3' %$E -4+' 'H$D_' &4HJ' F3' ?3E3CNF$ C' 8H-C3' E' $' C 4$ 2F'> E3' H' F3' M$3' IHC' E3$43C' F3' *-4E1 +3' E' $' 9 $ ' HE' F3' ?H- F34E' ? D3' H&' F3' H D' 'H$D' F NF' &-EC' $' 3' H' F3' ,H4 F' H&' F3'> J34 N+' 'H$D' $ED' F NF' IHC' C' D C $E' $QH-'* H' F-ED43D' $ED' &H4 O H' =$4DC' ^J3$C-43D' $HE2' F3' C$D' H D' 'H$D_' H' F3' ,H4 F 3C'H&' F3' *-4E1 +3' ' F3EN3' E' $' C 4 -2F' > E3' H' F3' IHE'$' F NF' $' BO3' >$E3' (H EC' F3' 6$ 4 $E3' 'H$D'$QH-' <E3' F-ED43D' $ED' & & O'=$4DC' H' F3' ,H4 F' H&' F3' ;E 4$EN3' H' F3'> J3' $ED' ?$ ' 9 H4+C' F3EN3' E' $' C 4$ 2F'> E3' H' F3' IHE'$' F NF' &F3' @$44 2HHE' 'H$D' F NF' 1$CC3C' -ED34' P4'531FCHE C' I$4+' 9 $ ' C' J3' QO'$' 63EN3' F NF'D D3C' $' 6 3 D' HNN-1 3D' QO' P4'>OENF' &4NJ'$' 6 3 D' HNN-1 3D' QO' P4'@$4J NF$3' $ED' F NF' IHE' C' $CH' $QH-'*F433' F-ED43D' $ED' C3 3E O & 3' =$4DC' H' F3' ,H4 F' H&' $' CJ$'GHH4' E' F3' I$4+' 9 $ ' F3EN3' E' $' C 4$ 2F'> E3' $N4HCC' F3' I$4+' H' F3' 9 3C 34ER J HC' IHE'$' F NF' F3' BH-ED$4O' H&' P4'G3 $NH-4 C' I 3$C-43' M4H-EDC' J33C' F3' 634J HO' 'H$D' F3EN3' 9 3C $4D' $HE2' F3' BH-ED$4O' H&' P4'G3 $NH-4 C' I 3$C-43' M4H-EDC' H' F3' ?H- F34E J HC' IH&'$' F NF/' F3' C$J3' J33C' F3' BH-ED$4O' H&' F3' M$4D3E' $ $NF3D' H' F3' 9 $ 34' P ' F3EN3' E' $' C 4$ 2F' > E3' H' $' IHE' HE' F3' H D' @H4+' 'H$D' F NF' C' D C $E'* H' F-ED43D' $ED' 3E O & 3' =$4DC' ^J3$C-43D' $HE2' F3' H D' @H4+' 'H$D_' H F3' ?H- F' H&' F3' H D' *-4E1 +3' F343HE' F3EN3' E' $' C 4$ 2F'> E3' H' $' IHE'<E' F3' E3 '@H4+' 'H$D' F NF' C' D C $E' $QH-'* H' F-ED43D' $ED' E E3 O'=$4DC' ^J3$C-43D' $HE2' F3' E3 '@H4+' 'H$D_' H' F3' ?H- F' H&' F3' C$D' H D' *-4E1 +3'$ED' F NF' IHE' C' $' F3' @HJ J3EN3 J3E' H&' $' , -4C34O' M4<#ED' F3EN3' E' $' C 4$ 2F'> E3' E' F3' G 43N HE' H&' F3' ;$C3 7E' @H4E34' H&' @$1 $E' G$ CC' 8H-C3' H' F3' IHE'$' F NF' C-NF' C 4$ 2F'> E3' N- C' F3' B $N+ $ 34' ' 34' F3EN3' E' $' C 4$ 2F'> E3' H' F3' M$3' IHC'&4C' D3CN4 Q3D

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" 3 : F-ED43D = $4DC ^J 3$C-43D $ HE2 F3 BH2 ' H$D_ H F3 9 3C H& F3 I H E $ F NF F3 C$ J 3 3$ 3C F3 ' $ F$E2$E ' H$D F3EN3 ; $C $4D $ HE2 F3 BH2 ' H$D H F3 I H E $ F NF F3 C$ J 3 (H EC F3 ' $ F$E2$E ' H$D F3EN3 ?H- F $4D $ HE2 F3 ' $ F$E2$E ' H$D H F3 B4 D23 HE F3 C$ J 3 < 34 F3 ' 34 B$44H F3EN3 $ HE2 F3 ' B$4 H H F$ I H E F343H& F NF H- D Q3 N- QO $ C 4$ 2F > EH H Q3 D4$ E F343 H D-3 , H4 F &4H J F3 B4 D23 H 34 F3 @E HF FH P HE$C 343 3E ' H$D F3EN3 E $ C 4$ 2F > E3 H F3 C$ D B4 D23 HE F3 P HE$C 343 3E ' H$D

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G +AA H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 4 CF *H E ' H$D F3EN3 9 3C $4D $ HE2 F3 4 CF *H E ' H$D H F3 I H E $ F NF F3 C$ J 3 C J 3 QO $ >$E3 F NF 4-EC , H4 F $4D F343&4H J HE F3 ; $C 34E ? D3 H& P 4 ?- R HE C 8H-C3 $ED B43 34O F3EN3 , H4 F $4D $ HE2 F3 C$ D >$E3 &H4 $QH- < E3 F-ED43D $ED F 4 O = $4DC H F3 I H E $ F NF F3 C$ J 3 43$NF3C $? HE3 ? 3 F3EN3 E $ C 4$ 2F > E3 H $ M$ 3 $O HE F3 P H-E 2$443 ' H$D F NF C F3 & 4C HE F3 ; $C 34E ? D3 F343H& H F3 , #& F H& F3 I H E

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I H E ʻ$ʻ F NFʻ F3ʻC$J3ʻ Cʻ(H E3Dʻ 9ʻ$ʻ 'H$Dʻ&4HJʻ & ʻ*H Eʻʻ 3EN3ʻ Eʻ$ʻC 4$ 2F ʻ> E3ʻ Eʻ$, H4D 9 3C 34 Oʻ G 43N HEʻ Hʻ F3ʻ ' -ECʻ H&ʻ /ʻ \ -$Oʻ H4ʻ 9 F$Eʻ HEʻ F3ʻ 9 3C 34Eʻ ? D3ʻ H&ʻ F3ʻ ' 34ʻ B$44H ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ> E3ʻ Hʻ F3ʻ I H E ʻ$ʻ F NFʻ F3ʻ% +3EEOʻ 'Q$Dʻ Cʻ(H E3Dʻ&3Oʻ F3ʻ & 4C ʻB03ʻ 'H$Dʻ Hʻ F3ʻ 9 3C ʻ H&ʻ F3ʻ 'H J $Eʻ @$ FH Nʻ @F$13 ʻ F3EN3ʻ Eʻ $ʻC 4$ 2F ʻ > E3ʻ Eʻ $ʻ ?HE F34 Oʻ G 43N HEʻ Hʻ F3ʻ ?$- F 3C 34Eʻ @H4E ʻ H&ʻ F3ʻ M$4D3Eʻ H&ʻ F3ʻ 8 H -C3ʻ $ $NF3Dʻ Hʻ F3ʻ D ʻHEʻ F3ʻ 9 3C 34Eʻ B$E+ʻ H&ʻ F3ʻ ' 34ʻ B$44H ʻ F3EN3ʻ $ HE2ʻ F3ʻ ?H- F34Eʻ BH-ED$4Oʻ H&ʻ F3ʻ $C ʻ J3E NJ3Dʻ M$4D3Eʻ Hʻ F3ʻ ?H Q & 3 J ʻ @+ J34ʻ D $43H&ʻ F3E (3ʻ ʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ F3ʻ I H E ʻ & 4C ʻ D3CN4 Q3D ʻ

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?-NFʻ I$4ʻH4ʻ I$4 Cʻ H&ʻ F3ʻ *H Eʻ H4ʻ I 43N EN Cʻ H&ʻ F3ʻ *H 9 Eʻ Dʻ? 2Hʻ$Cʻ 3ʻH4ʻ $43ʻ C -$ 3ʻ F Eʻ F3ʻ G C $EN3ʻ H&ʻ <E3ʻ P 3ʻ 4 CFʻ D J 3$C-43R J 3E ʻH&ʻ $ʻ N34 $ Eʻ ?1Hʻ Eʻ P $4+3ʻ ? 433ʻ Eʻ C$ Dʻ *H Eʻ HEʻ F NFʻ $ʻ B- D E2ʻ H4ʻ ; 43N HEʻ &H4 J 34 Oʻ C HHDʻ N$ 3Dʻ F3ʻ P $4+3ʻ G4HCCʻ Q3 E2ʻ F3ʻ ?1$N3ʻ D3& E3Dʻ Eʻ F3ʻ ?3 3E 33E Fʻ ?3N HEʻ H&ʻ $Eʻ Nʻ 1$CC3Dʻ Eʻ F3ʻ 6H4 Oʻ F 4Dʻ =3$4ʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ P $(3C Oʻ % E2ʻ M3N$23ʻ F3ʻ *F 4DCʻ E - 3Dʻ ` Eʻ Nʻ &H4ʻ 4313$ E2ʻ CHʻ J -NFʻ H&ʻ $Eʻ Nʻ J $D3ʻ Eʻ F3ʻ 8 - 4Dʻ =3$4ʻ H&ʻ & 3ʻ ' 3 2Eʻ H&ʻ % E2ʻ M3H423ʻ F3ʻ ?3NHEDʻ E - 3Dʻ ʻ Eʻ Nʻ &H4ʻ N 3$EC E2ʻ F3ʻ I H4 Cʻ 8 $4QH-4Cʻ $EDʻ ' 34Cʻ H&ʻ F3ʻ @ Oʻ @H4+ʻ $EDʻ 4& F3ʻ *H ECʻ ʻ M$ $Oʻ ? 2Hʻ G4H2F3D$ʻ $EDʻ B3 &$C ʻ $EDʻ &H4ʻ 343N E2ʻ $ʻ B$ $C ʻ <&& N3ʻ Eʻ F3ʻ C$ Dʻ @ Oʻ $EDʻ 3$NFʻ H&ʻ F3ʻ C$ Dʻ *H EC ʻ $Cʻ 43 $ 3Cʻ Hʻ F3ʻ I H4ʻ $EDʻ 8 $4QH-4ʻ H&ʻ F3ʻ *H Eʻ H&ʻ? 2Hʻ $EDʻ &H4ʻ 4313$ E2ʻ $Eʻ Nʻ J $D3ʻ Eʻ F3ʻ 6H4 3 Fʻ =3$4ʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ 143C3E ʻ P $(3C Oʻ E - 3Dʻ 7 <ʻ Nʻ &H4ʻ 1$ E2ʻ N 3$EC E2ʻ 2F E2ʻ $EDʻ J 14H E2ʻ F3ʻ ? 433 Cʻ \ -$OCʻ >$E3Cʻ $& ʻ I CC23Cʻ Eʻ F3ʻ *H Eʻ H&ʻ ? 2Hʻ Eʻ F3ʻ @H-E Oʻ H&ʻ ? 2Hʻ &H4ʻ 3C $Q CF E2ʻ $ʻ E 2F Oʻ 9 $ NFʻ Eʻ F3ʻ C$ Dʻ *H Eʻ &H4ʻ C-11 O E2ʻ F3ʻ C$ Dʻ *H Eʻ Fʻ I 13ʻ 9 $ 34ʻ $EDʻ &H4ʻ J 14H E2ʻ $EDʻ 432- $ E2ʻ F3ʻ I H4ʻ $EDʻ 8 $4QH-4ʻ F343H& ʻ $EDʻ &H4ʻ J $+ E2ʻ Q3 34ʻ I 4H C HEʻ &H4ʻ F3ʻ 1$ E2ʻ 2F E2ʻ $ NF E2ʻ N 3$EC E2ʻ $EDʻ J 14H E2ʻ H&ʻ F3ʻ C$ Dʻ *H Eʻ H&ʻ ? 2Hʻ $EDʻ &H4ʻ 4 - $ E2ʻ F3ʻ I H4 34Cʻ $EDʻ @$4 J 3Eʻ 3 J 1 HO3Dʻ F343 Eʻ $EDʻ &H4ʻ F3ʻ Q3 34ʻ ' 32- $ HEʻ $EDʻ J 14H 3 J 3Eʻ H&ʻ F3ʻ I H4ʻ $EDʻ 8 $4QH-4ʻ F343H& Cʻ $Cʻ F3ʻ I $4ʻ H4ʻ I $4 Cʻ H&ʻ F3ʻ I 43N EN Cʻ H&ʻ F3ʻ *H Eʻ H&ʻ ? 2Hʻ F NFʻ CF$ ʻQ3ʻ H4ʻ Q3ʻ D33 J 3Dʻ Hʻ Q3ʻ F Eʻ F3ʻ E 3Eʻ $EDʻ I -4 3 ʻ H&ʻ F3ʻ C$ Dʻ Nʻ H&ʻ F3ʻ 6H4 O F 4Dʻ =3$4ʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ % E2ʻ M3H423ʻ F3ʻ *F 4Dʻ &H4ʻ F3ʻ C3 34$ʻ I -41HC3Cʻ Eʻ F3ʻ C$ Dʻ ?3 3E 33E Fʻ ?3N HEʻ C13N & 3D

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64H Jʻ F3ʻ P 3C HE3ʻ HEʻ F3ʻ % $4E3Oʻ 'H$Dʻ H11HC 3ʻ $ʻ >$ 3ʻ F NFʻ 4-ECʻ ; $C $4Dʻ F343& - J ʻ Eʻ $ʻ C 4$ 2F ʻ> E3ʻ Hʻ F3ʻ ?H- F 3$C 34Eʻ E2 3ʻ H&ʻ F3ʻ M$4D3Eʻ 9 $ ʻH&ʻ $ʻ 8 H-C3ʻ F NFʻ Cʻ C -$ 3ʻ $ʻ F3ʻ ?H- F 3C 34Eʻ @H4E34ʻ H&ʻ F3ʻ B44N+ʻ 9 $ ʻ F3EN3ʻ 9 3C $4Dʻ $ HE2ʻ F3ʻ C$ Dʻ M$4D3Eʻ 9 $ ʻ Hʻ F3ʻ I H E ʻ$ʻ F NFʻ F3ʻ C$J3ʻ J 33 Cʻ $EH F34ʻ 9 $ ʻ F NFʻ 4-ECʻ 9 $4Dʻ Hʻ F3ʻ ; EDʻ H&ʻ P 4ʻ B3EE34Cʻ B43 340ʻ F3EN3ʻ 9 3C $4Dʻ $ HE2ʻ F3ʻ $C J 3E HE3Dʻ 9 $ ʻ Hʻ F3ʻ B43 340ʻ F3EN3ʻ $ HE2ʻ F3ʻ ?H- 3 J ʻ ? D3ʻ H&ʻ F3ʻ B43 340ʻ Hʻ F3ʻ P ʻ '$N3ʻ F NFʻ Cʻ Q3OHEDʻ

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64H J ʻ 3ʻ I H E ʻ HEʻ 3ʻ ?H - 3$C ʻ H&ʻ 3ʻ * H Eʻ $ ʻ F NFʻ 3ʻ ?3$R CFH43ʻ Cʻ J 3 ʻ QOʻ $ʻ 9 $ ʻ $EDʻ 6HH 1$ Fʻ 9 F NFʻ 4 - Eʻ $ʻ &3 ʻ = $4DCʻ Hʻ F3ʻ , H4 Fʻ H&ʻ F3ʻ B - 4 $ ʻ M4H - EDʻ F NFʻ Cʻ E3$4ʻ F3ʻ @H - E 4Oʻ 8 H - C3ʻ Q3 HE2 E2ʻ Hʻ P 4ʻ * $ QH ʻ $ HE2ʻ 3ʻ C$ Dʻ 9 $ ʻ Hʻ F3ʻ 1H E ʻ $ʻ F NFʻ F3ʻ C$J3ʻ J 33 Cʻ 3ʻ 6$O3 ʻ ʻ H$D ʻ 3E@3ʻ Eʻ $ʻ C 4$ 2F ʻ > J 3ʻ Hʻ F3ʻ 6 $2C $&&ʻ $ʻ 3ʻ ? 2E$ʻ ? $DHE ʻ 3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Eʻ F3ʻ G 43N HEʻ H&ʻ F3ʻ ; $C 34Eʻ @H J 34ʻ H&ʻ @4H J 3 &Cʻ 6H4 ʻ 8 H - C3ʻ Hʻ F3ʻ I H E ʻ $ʻ F NFʻ C - NFʻ C 4$ 2F ʻ > E3ʻ N - Cʻ 3ʻ 9 $Dʻ H&ʻ F3ʻ I 3$C - 43ʻ M4H - EDCʻ H&ʻ @4H J 3 Cʻ 6H4 ʻ 8 H - C3 ʻ 3EN3ʻ , H4 F $4Dʻ $ HE2ʻ 3ʻ 9 $ ʻ H&ʻ 3ʻ C$ Dʻ I 3$C - 43ʻ M4H - EDCʻ Hʻ 3ʻ G - ENH4 J N+ʻ ʻ H$D ʻ 3 # N3ʻ 9 3C $4Dʻ C ʻ $ HE2ʻ F3ʻ 9 $ ʻ H&ʻ F3ʻ C$ Dʻ I 3$C - 43ʻ M4H - EDC ʻ Hʻ F3ʻ 9 3C 34E J HC ʻ I H E ʻ $ʻ F NFʻ F3ʻ C$J3ʻ 3$ 3Cʻ F3ʻ G - ENH4 J N+ʻ ʻ H$Dʻ F - Cʻ 3 N - D E2ʻ F3ʻ FH 3ʻ H&ʻ F3ʻ C$ Dʻ I 3$C - 43ʻ M4H - EDC ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Eʻ F3ʻ G 43N HEʻ H&ʻ F3ʻ ?H - F 3C 34Eʻ @H4E34ʻ H&ʻ 3ʻ G C 34Oʻ Hʻ F3ʻ I H E ʻ $ʻ F NFʻ C - NFʻ C 4$ 2F ʻ > E3ʻ N - Cʻ F3ʻ ʻ H$Dʻ F NFʻ 4 - ECʻ Eʻ &4HE ʻ H&ʻ 3ʻ G C 34O ʻ F3EN3ʻ

5 F : $ HE2ʻ 3ʻ $C J 3E HE1Dʻ ʻ H$Dʻ Hʻ 3ʻ I H E ʻ $ʻ F NFʻ F3ʻ C$J3ʻ N4HCC3Cʻ 1ʻ 5HFEC H Eʻ ʻ H$Dʻ E3$4ʻ F3ʻ B4 D23ʻ H 34ʻ 3ʻ B CFH1 Cʻ 9 $ 34 ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ 3ʻ I H J ʻ N HC3ʻ Hʻ F3ʻ 63 J $ 3ʻ <41F$Eʻ 8 H - C3 ʻ $ʻ F NFʻ 3ʻ , H4 F34Eʻ G - EN$EEHEʻ ʻ H$Dʻ Cʻ J 3 ʻ QOʻ $ʻ ʻ H$Dʻ F NFʻ 3$DCʻ 343&4H J ʻ E Hʻ 3ʻ , 3 ʻ ʻ HCCʻ ʻ H$D ʻ 3EN3ʻ $ HE2ʻ F3ʻ ʻ H$Dʻ CHʻ 3$D E2ʻ E Hʻ F3ʻ , 3 ʻ ʻ HCCʻ ʻ H$Dʻ Hʻ 3ʻ ʻ - ECʻ H&ʻ F3ʻ ?H - F34E J HC ʻ H&ʻ * Hʻ H Dʻ 9 ED J Cʻ 3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ $ʻ I H E ʻ HEʻ F3ʻ , 3 ʻ ʻ HCCʻ ʻ H$Dʻ F NFʻ Cʻ D C $E ʻ < E3ʻ F - ED43Dʻ $EDʻ C Oʻ = $4DCʻ ^ J 3$C - 43Dʻ $ HE2ʻ 3ʻ , 3 ʻ ʻ HCCʻ ʻ H$D_ʻ Hʻ F3ʻ , H4 3C ʻ H&ʻ F3ʻ < Q3 C+ʻ F3EN3ʻ Eʻ $ʻ C 4$ 2F ʻ > E3ʻ Hʻ F3ʻ , H4 F34E J HC ʻ I H E ʻ $ʻ F NFʻ 3ʻ BH - ED$4Oʻ H&ʻ F3ʻ

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9 3C $4D $ HE2 F3 ; EE CNH4 QO ' H$D 4 $E 4HE M$ 3 E $? HE3
9 $ D C $E $QH- * F433 F-ED43D $ED C O =$4DC &4H J F3 @3E 73 H&
F3 G HN3C$E ?3FHH F3EN3 $ HE2 F3 ' H$D H4 I $D F NF 3$DC &4H J
F3 C$ D 4HE M$ 3 H F3 I H E $ F NF F3 C$ J 3 J 33 C F3 ?3$ CFH43
F3EN3 $ HE2 F3 ?3$ CFH43 H F3 I H E & 4C D3CN4 Q3D

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64H J F3 I H E H F3 ?H- F H& F3 * H E Q 3 F3 4(3 ' HED H
@H4+ X- C F3 ?3$ CFH43 , H4 F $4D E $ C 4$ 2F G E3 H F3 I H E E
9 ED J >$E3 F343 F3 C$ J 3 C 5H E3D QO $ ' O3 ' H$D &4H J F3
, H4 F $QH- * H F-ED43D =$4DC H F3 9 3C H& 3 8 H-C3 HNN-1 3D
QO P C 34 6 OE F3EN3 E $ C 4$ 2F > E3 H F3 ?H- F 3C 34E E 3
H& F3 < 4DE$EN3 M4H-ED HE 9 F NF F3 B44N+C C $ED E3$4 F3 H D
@H4+ ' H$D (F3EN3 $ HE2 F3 9 3C 34E 63EN3 H& F3 < 4DE$EN3 M4H-ED
H F3 , H4 F 3C 34E E2 3 H& F3 C$ J 3 F3EH3 , H4 F C$D F $
C 4$ 2F > E3 H F3 ?1H F343 F3 -1134 ; D23 H& F3 $ \ -$44O
6 5 GG E3$4 @H-EC3 H4 63-23C 8 H-C3 C N- QO $ ' H$D F NF 4-EC F4H-2F
F3 C$ J 3 H F3 P H-E # E $N+3 ' H$D F3EN3 $ HE2 F3 ' H$D CH
4-EE E2 F4H-2F F3 \ -$44O H F3 I H E F343 F3 C$ J 3 J 33 C F3
P H-E # E $N+3 ' H$D F3EN3 , H4 F $4D E $ C 4$ 2F > E3 H F3
I H E F343 $ BO3 ' H$D F NF 3$DC &4H J D 3 P H-E # E $N+3 ' H$D H
F3 9 $ 34&H4D ' H$D J $+3C $ * -4E $ J HC $ ' 2F E2 3C $ 3 H
F3 ?H- F H& F3 8 H-C3 N$ 3D ; -C $N3 C 6H O F3EN3 , H4 F $4D $ HE2
F3 C$ J 3 ' H$D 1$ J E2 H D 3 9 3C H& ; -C $N3 C 6H O H D 3 ?1H
F343 F3 C$ J 3 ' H$D J 33 C F3 9 $ 34&H4D ' H$D F3E4H E $ C 4$ 2F
> E3 H F3 E3$43C I H E H& F3 ?N$ CFH43 F3EN3 $ HE2 F3 ?3$ CFH43
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P$(3C O Cʿ *43$C-4Oʿ Hʿ 24$E ʿ @H J 13EC$ HEʿ Hʿ F3ʿ
EC13N H4Cʿ $EDʿ @H$ ʿ P 3 34Cʿ H&ʿ F3ʿ @ Oʿ H&ʿ
$ 4ʿ $EDʿ Hʿ J 1HC3ʿ $ʿ ' $ 3ʿ -1HEʿ @H$ Cʿ J R
1H4 3Dʿ E Hʿ F3ʿ I H4 ʿ H&ʿ $ *ʿ Hʿ 14H D3ʿ $ʿ
6-EDʿ &H4ʿ C-NFʿ @H J 13EC$ HE

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8 ; ' ; ?ʿ QOʿ $Eʿ N ʿ 1$CC3Dʿ Eʿ F Cʿ 143C3E ʿ ?3CC HEʿ H&ʿ I$4 $J3E ʿ E - 3Dʿ / #ʿ / ' ʿ ,ʿ !5! %ʿ1!0! %ʿ / ' 1ʿ , ʿ) !ʿ ʿ ʿN U ʿ * O ! % ʿ , ʿ 43 $EDʿ 5,1 #(ʿ L!1 ' ,#1ʿ 35,#ʿ) !ʿ I , %ʿ 7 &! ʿ #&ʿ ,ʿ !(3% !ʿ) !ʿ 1 ! ʿN34 $ 1ʿ N Cʿ H&ʿ I$4 $J3E ʿ F343 Eʿ J3E HE3Dʿ 343ʿ 4313$ 3D.ʿ EDʿ F343$Cʿ QOʿ F3ʿ C$ Dʿ N ʿ ʿ Cʿ 3E$N 3D ʿ F$ ʿ EHʿ I H4 34 ʿ @$4 J $E ʿ P 3 34 ʿ H ʿ 9 3 2Fʿ P $C 34 ʿ FH CH3 34ʿ N3EC3Dʿ H4ʿ $11H E 3D ʿ CF$ ʿ -ED34ʿ $EOʿ I 43 3 ʿ F$ 3 34 ʿ E 34&343ʿ Eʿ H4ʿ J 3D 3ʿ Fʿ F3ʿ ?$ 3 ʿ P 3$C-43 J 3E ʿ 3 2F E2 ʿ G3 340 ʿ H4ʿ ? H4$23ʿ H&ʿ @H$ C ʿ C$ 3ʿ -1HEʿ F3ʿ ' 3X-3C ʿ $EDʿ QOʿ G3C 43ʿ H&ʿ F3ʿ B-034ʿ H4ʿ ?3 34ʿ F343H& ʿ EH4ʿ CF$ ʿ $EOʿ I 34CHEʿ C-3ʿ &H4 ʿ D3 J $ED ʿ H4ʿ $+3ʿ $EOʿ 633 I $O J 3E ʿ H4ʿ ' 3 $4Dʿ F$ CH3 34 ʿ -ED34ʿ 143 3 ʿ H&ʿ Q3 E2ʿ CHʿ N3EC3Dʿ H4ʿ $11H E 3D ʿ C$ 3ʿ F3Eʿ $EDʿ CHʿ &$4ʿ $Cʿ F3ʿ J $Oʿ Q3ʿ 3 J 1 HO3Dʿ QOʿ C-NFʿ B-034ʿ H4ʿ ?3 34ʿ $Cʿ $&H43C$ Dʿ (ʿ $EDʿ F$ ʿ ʿ CF$ ʿ $EDʿ J $Oʿ Q3ʿ $ &- ʿ Hʿ 3 J 1 HO ʿ &H4ʿ F3ʿ 3 2F E2 J 3$C-4 E2 ʿ H$D E2 ʿ H4ʿ @$44 $23ʿ H&ʿ @H$ C ʿ $EOʿ H F34ʿ I 34CHEʿ H4ʿ I 34CHECʿ F$ 3 34 ʿ $EDʿ Hʿ J $+3ʿ Fʿ C-NFʿ H F34ʿ I 34CHEʿ H4ʿ I 34CHECʿ $EOʿ 14 $ 3ʿ H4ʿ C13N $ ʿ 2433 J 3E ʿ &H4ʿ F Cʿ H4ʿ F3 4ʿ

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9 $23C' H4' 8 43' ' $EO' >$ ' ?$-3' H4' 5C$23' H' Fv' NHE 4$4O' EH &'' FC $ED E2' ED' F343$C' QO' F3' 1$CC E2' H&' F3' C$ D' N 'N34 $ E' EC13N H4C' H&' P3 34C' $ED' N34 $ E' P3 34C' $ED' ?-134$EE-$ 3D' P3 34C' H&' @H$ C' E' F3' @ O' H&' 23)% ' E' F1' ?NF3D-3' H' F C' N ' $EE3 3D' J H43' 1$4 N- $4 O' D3CN4 Q3D' ' HC3' $ED' Q3' D314 3D' H&' N34 $ E' 633C' $ED' I$O J 3E C' &H4' F3' J 3 E2' $ED' 3 2F E2' H&' @H$ C' H' F NF' C-NF' EC13N H4C' $ED' P3 34C' H- D' H F34 C3' QO' >$ ' F$ 3' Q33E' 3E 3D: ED' F343$C' ' C' 3 13D 3E ' H' 14H D3' @H J 13EC$ HE' &H4' C-NF' EC13N H4C' $ED' P3 34C' (Q3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC '

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$' ' ?1 4 -$' $ED' *3 J 1H4$ ' $ED' @H J J HEC' E' F C' 143C3E ' I$4 $ J 3E '

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'H& - J &H4' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' *43$C-40' H4' $EO' *F433' H4'

' : ' J H43' H&' F3 J ' H' 24$E ' H' $ ' C-NF' EC13N H4C' $ED' P3 34C' FH' $ ' F3'

H& #+(' * J 3' H&' F3' 1$CC E2' F3' C$ D' & 4C J 3E HE3D' N ' 343' 3E 3D' H' C-NF' 633C' $ED' I$O J 3E C' $' @H J 13EC$ HE' &H4' F3' >HCC' H&' F3' C$ J 3' EH '3 N33D E2' E' J H-E ' H' $EO' <E3' H&' F3 J ' F3' 43C13N 3' ?-JC' C3 ' &H4 F' E' 6 2-43C' E' F3' C$ D' ?NF3D-3

! $' >+ ' ' ED' Q3' ' &-4 F34' 3E$N 3D' ' *F$ ' &' $EO' I34CHE' F343QO' 3E 3D'

'($',-' H' C-NF' @H J 13EC$ HE' CF$ ' QO' Q3 E2' $11H E 3D' H' $EO' <&& N3' -ED34'

-' " 8 C' P$(3C O C' MH 34E J 3E ' 3$4E' $ED' 14HN-43' &H4' F J C3 &' $EO' ENH J 3'

' '(' H4' ?-J' H4' ? J C' H&' PHE3O' ' CF$ ' Q3' $ & $' &H4' F3' C$ D' @H J J CR

+, ' C HE34C' H&' F3' *43$C-40' H4' $EO' *F433' H4' J H43' H&' F3 J ' H' D3D-N ' F3'

! + ' ' J H-E ' H&' $ ' C-NF' ?-J C' CH' 3$4E3D' $ED' 14HN-43D' &4H J ' F3' @H J 13ER C$ HE' F343QO' 134 J 3D' H' Q3' 24$E 3D' H' C-NF' I34CHE ' $ED' H' 1$O' H' C-NF' I34CHE' F3' ; N3CC H&' F3' @H J 13EC$ HE' $QH 3' F3' ?-J' CH' 3$4E3D' $ED' 14HN-43D' $ED' EH' J H43

)-) +$' W ' ED' Q3' ' &-4 F34' 3E$N 3D' ' *F$ ' ' CF$ ' $ED' J $O' Q3' $ &-'

$' 4+ ' H' $ED' &H4' F3' C$ D' @H J J CC HE34C' H&' F3' *43$C-40' H4' $EO' *F433' H&'

'? + ' ' F3 J ' H' 43X-43' $ ' $EO' * J 3' &4H J ' F3' C$ D' P3 34C' $' '3 -4E' H&'

-' : ' F3 4' 633C' $ED' I4H& C' $C' D34 3D' &4H J ' F3' P3 $23' H&' @H$ C' $FD' 43 C3' F3' @H J 13EC$ HE' 24$E 3D' H' C-NF' P3 34C' &4H J ' * J 3' *' * J 3' $ED' $ 34' F3' C$ J 3' 14H D3D' F3' @H J 13EC$ HE' H' 3$NF' @ $CC' H&' P3 34C' H4' H' $EO' <E3' H&' F3 J ' CF$ ' E' EH' @$C3' 3 N33D' F3' J H-E ' C13N & 3D' E' F3' ?NF3D-3' H' F C' N ' $EE3 3D

+ %" , ' ' ED' &H4' F3' I-41HC3' H&' 14H D E2' $' 6-ED' &H4' F3' I$O J 3E @H J 13EC$ HE ' Q3' ' &-4 F34' 3E$N 3D' ' *F$ ' F343' CF$ ' Q3'

@H$C' EH / H' F3' @H 3N H4' H&' F3' @-C H J C' &H4' F3' I H4 ' , '$A34% ' &H4' F3'

3 -" * J 3' Q3 E2' F3' ?-J' H&' 6H-4 13EN3' &H4' 3 34O' *HE' H&' @H$ C' EH '

" ' ' Q3 E2' F3' I 4HD-N3' H&' F$ ' I$4 ' H&' F3' #E 3D' % E2DH J 'N$ 3D' $!% #& '

#+(J 1H4 3D' E H' F3' I H4 ' H&' 234% #' $ED' 3 143CC3D' E' F3' @34 & N$ 3' 43X- 43D' QO' $E' N ' 1$CC3D' E' F3' ? F' =3$4' H&' F3' '3 2E' H&' 8 C'

;' ' 9 ' $ 3' P$(3C O' % E2' ! , (!' F3' 6H-4 F' E - 3D' / #' / ' ' , ') !' (!#! %' L!(3% ,#' ,)! I 31 , 1' H' Q3' D3 343D' QO' F3' 6 34C' @H$' < E34' H4' F C' 23E ' H' F3' @H 3N H4' H4' @H J 1 4H 34' $ ' F3' I H4 ' H&' ?F 1 J 3E

- ' ' ' ED' Q3' ' &-4 F34' 3E$N 3D' ' *F$ ' E' $ ' @$C3C' F343' F3' \ -$E O'

' 4+ E' F3' C$ D' $C J 3E HE3D' @34 & N$ 3' C' 3 143CC3D' E' @F$ D4HEC' F$ '

) ' ' ' 3$NF' @F$ D4HE' CF$ ' Q3' D33 J 3D' $ED' $+3E' H' Q3' 3X- $ 3E ' H' <E3'

@ *HE' $ED' $' 8$ &'

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ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ʻ EHʻ 3CC3ʻ J1H4 E2ʻ @H$Cʻ ,Hʻ 3CC3ʻ Hʻ E Hʻ F3ʻ I H4 H&ʻ 4 ,ʻ CF$ʻ Q3ʻ 134J 3Dʻ QOʻ F3ʻ C$Dʻ @H 3N H4ʻ Hʻ DCNF$423ʻ "34 DCNF$423ʻ F34ʻ @$42Hʻ H4ʻ $EOʻ I$4ʻ F343H&ʻ-E ʻ F3ʻ C$Dʻ ?-Jʻ F343QO D43N 3Dʻ Hʻ Q3ʻ 1$Dʻ CF$ʻ F$ 3ʻ Q33Eʻ 43N3 3Dʻ QOʻ F3ʻ C$D ʻ@H 3N H4ʻ $EDʻ F$ʻ$ʻ@H$Cʻ $ED3Dʻ&4HJʻ $EOʻ 3CC3ʻ Q3&H43ʻ F3ʻ C$Dʻ +3 ʻ CF$ʻ F$ 3ʻ Q33Eʻ 1$Dʻ CF$ʻ Q3ʻ &H4&3 3Dʻ $EDʻ CF$ʻ $EDʻ J$Oʻ Q3ʻ C3 T3Dʻ QOʻ $EOʻ< BN34ʻ H&ʻ@-CHJCʻ $EDʻ CF$ʻ $EDʻ J$Oʻ Q3ʻ D3$ʻ Fʻ Eʻ F3ʻ C$J3ʻ P$EE34ʻ $Cʻ $EOʻ H F34ʻ MHHDCʻ C3 T3Dʻ -ED34ʻ $EOʻ >$ ʻ 43$ E2ʻ Hʻ F3ʻ @-CHJC

ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ʻ $ʻ@H$Cʻ J1H4 3Dʻ E Hʻ F3ʻ @H$Cʻ 43ʻ C$Dʻ I H4ʻ H&ʻ 23)%#ʻ F NFʻ CF$ʻ Q3ʻ E 3ED3Dʻ H4ʻ 1-4NF$C3Dʻ &H4ʻ F3 #C3ʻ H&ʻ F3ʻ M $CCʻ ?-2$4ʻ $EDʻ ?$ ʻ P$E-&$N -434Cʻ $EDʻ &H4ʻ F3ʻ #C3ʻ &$NH43Cʻ Eʻ H&ʻ G C 34Cʻ B43 34Cʻ @$ NHʻ I4 E 34Cʻ 4HEʻ B4$CCʻ $EDʻ P N $ʻ G-Q E 3ʻ 6H-ED34Cʻ I$134ʻ P$E-&$N -434Cʻ 9 HH 3Eʻ P$E-&$N -434Cʻ > E3Eʻ 3$13Dʻ P$E-&$N -434Cʻ @H HEʻ P$E-&$N -434Cʻ ? -&&ʻ P$E-&$N -434Cʻ 8$ʻ P$E-&$N -434Cʻ GO34Cʻ @F3J N$ʻ 9 H4+34Cʻ $EDʻ $ʻ H F34ʻ P$E-&$NR -434Cʻ 43X- 4 E2ʻ F3ʻ #C3ʻ H&ʻ @H$ʻ Eʻ F3 4ʻ 43C13N 3ʻ P$E-&$N H4 3Cʻ > CF$ʻ Q3ʻ 3 3J1 3Dʻ $EDʻ DCNF$423Dʻ &4HEʻ F3ʻ I$OJ3Eʻ H&ʻ F3ʻ C$Dʻ ?-Jʻ F343QOʻ D43N 3Dʻ Hʻ Q3ʻ 1$Dʻ I4H D3Dʻ $ $OCʻ F$ʻ F3ʻ J1H4 34ʻ H4ʻ J1HF34 H4 I-4NF$C34ʻ H&ʻ C-NFʻ @H$Cʻ H4ʻ CHE 3ʻ I34CHEʻ $- FH4 T3Dʻ QOʻ C-NFʻ I-4NF$C34 H& I-4NF$C34ʻ CF$ʻ $ʻ F3ʻ * J3ʻ H&ʻ ;E 4Oʻ F343H&ʻ D3N $43ʻ Q3&H43ʻ F3 L ʻ @H 3N H4ʻ H4ʻ H F34ʻ NF 3&ʻ @P?N34ʻ H&ʻ F3ʻ C$Dʻ I H4ʻ FHʻ Cʻ F343QOʻ 4$ HEʻ F$ʻ 3J1H 343Dʻ $EDʻ 43X- 43Dʻ Hʻ 43N3 3ʻ C-NFʻ G3N 4 HEʻ F$ʻ F3ʻ C$Dʻ C$J3ʻ $3ʻ @H$Cʻ $43ʻ 1-4NF$C3Dʻ $EDʻ 4,#&ʻ? &!ʻ E 3ED3Dʻ &H4ʻ F3ʻ #C3ʻ H&ʻ F3ʻ M $CCʻ ?-2$4ʻ H4ʻ ?$ ʻ P$E-&$N H4 3Cʻ G C 34Cʻ B43 34Cʻ @$ NHʻ I4 E 34C 4HEʻ B4$CCʻ $EDʻ P3 $ʻ 6H-ED34Cʻ I$134ʻ P$E-&$N &34Cʻ 9 HH 3$ʻ P E-&$Nʻ > E3Eʻ $EDʻ @H HEʻ P$E-&$N -434Cʻ ? -&&ʻ P$E-&$N -434Cʻ 8$ʻ P$E-ʻ HE3Cʻ &$N -434Cʻ GO34Cʻ 9 H4+34Cʻ H4ʻ H F34ʻ P$E-&$N -434Cʻ 43X- 4 E2ʻ F3ʻ #C3ʻ H&ʻ @H$ʻ Eʻ F3 4ʻ P$E-&$N H4 3Cʻ $EDʻ &H4ʻ EHʻ H F34ʻ #C3ʻ F$ CH3 34ʻ ($EDʻ &ʻ $EOʻ I34CHEʻ H4ʻ I34CHECʻ CF$ʻ +EH E2 Oʻ D3N $43ʻ $EOʻ F E2ʻ F$ʻ I34CHECʻ Cʻ &$C3ʻ Eʻ C-NFʻ G3N 4 HEʻ F3ʻ H4ʻ F3Oʻ CF$ʻ &H4&3 ʻ F3ʻ ?-Jʻ H&ʻ <E3ʻ J$+E2 &$C3 F-ED43Dʻ I H-EDC.ʻ I4H D3Dʻ $CHʻ F$ʻ &ʻ F3ʻ C$Dʻ J1H4 34ʻ H4ʻ I-4ʻ NF$C34ʻ CF$ʻ C3 ʻ H4ʻ -C3ʻ F3ʻ C$Dʻ @H$Cʻ H4ʻ N$-C3ʻ F3ʻ C$J3ʻ Hʻ Q3ʻ CH Dʻ NH$Q&H4ʻ H4ʻ -C3Dʻ &H4ʻ $EOʻ H F34ʻ I-41HC3ʻ C$ 3ʻ $EDʻ 3 N31ʻ &H4ʻ F3ʻ I-41HC3Cʻ H F34 I-4ʻ F343 E Q3&H43ʻ J3E HE3Dʻ F$ʻ F3Eʻ $EDʻ Eʻ 3 34Oʻ C-NFʻ @$C3ʻ C-NFʻ 1HC3Cʻ H I34CHEʻ H4ʻ I34CHECʻ CF$ʻ &H4&3 ʻ F3ʻ ?-Jʻ H&ʻ <E3ʻ F-ED43Dʻ I H-EDCʻ &H&&3$ HHʻ F3ʻ C$Dʻ C3 34$ʻ ?-JCʻ H4ʻ I3E$ 3Cʻ H&ʻ <E3ʻ F-ED43Dʻ I H-EDCʻ Hʻ Q3ʻ 43NH 343Dʻ 3 3Dʻ $EDʻ $11 3Dʻ Eʻ F3ʻ C$J3ʻ P$EE34ʻ $Cʻ $EOʻ I3E$ 3C E& N 3Dʻ QOʻ $EOʻ >$ ʻ 43$ E2ʻ Hʻ F3ʻ @-CHJCʻ J$Oʻ EH ʻ QOʻ >$ ʻ Q3ʻ 43NH 343Dʻ 3 3Dʻ $EDʻ $11 3D

ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ʻ F3ʻ C$Dʻ @H 3N H4ʻ , ʻ F3ʻ + (H#+!ʻ H& @-CHJCʻ &H4ʻ F3ʻ I H4ʻ H&ʻ 234%#ʻ &H4ʻ F3ʻ * J3ʻ Q3 E2ʻ CF$ʻ &4HJʻ * J3ʻ (Hʻ * J3ʻ D- Oʻ $NNH-Eʻ &H4ʻ $ʻ ?-4$Cʻ H&ʻ PHE3Oʻ 43N3 3Dʻ QOʻ F Jʻ QOʻ H NNH-E ʻ 4 -3ʻ H&ʻ F Cʻ N ʻ Hʻ F3ʻ @HJJ CCHE34Cʻ H&ʻ 8 Cʻ P$(3C O Cʻ *43$C-4Oʻ &H4 $ʻ + (Bʻ H4ʻ $EOʻ *F433ʻ H4ʻ JH43ʻ H&ʻ F3J ʻ $EDʻ CF$ʻ 1$Oʻ H- ʻH&ʻ C-NFʻ PHE3Oʻ CH !(H()2(<1ʻ CHʻ 43N3 3Dʻ QOʻ F Jʻ $ʻ C-NFʻ ?-JCʻ Eʻ 43C13Nʻ H&ʻ C-NFʻ @HJ13EC$ HEC Hʻ C-NFʻ I34CHECʻ $Cʻ F3ʻ C$Dʻ @HJJ CCHE34Cʻ H&ʻ 8 Cʻ P$(3C O Cʻ *43$C-4Oʻ H4ʻ $EOʻ *F433ʻ H4ʻ JH43ʻ H&ʻ F3Jʻ CF$ʻ D43N

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> 8 ; ' ; ?ʻ $Eʻ N ʻ $Cʻ 1$CC3Dʻ Eʻ F3ʻ I$4 $ J 3E ʻ H&ʻ $!% #&ʻ Eʻ F3ʻ *F 4 33E Fʻ $EDʻ 6H-4 33E Fʻ =3$4Cʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P$(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ *F 4D ʻ F343QOʻ $ʻ ? $ J 1ʻ G- Oʻ H&ʻ ? 13EN3ʻ 3$NFʻ $Cʻ J 1HC3Dʻ -1HEʻ F3ʻ D J CC HECʻ H&ʻ $ ʻ 6433 ʻ ʻ J 3Eʻ E Hʻ @H41H4$ HEC ʻ F3 F34ʻ N $ J E2ʻ QOʻ ' 2F ʻ H4ʻ 6$ H-4 ʻ F NFʻ C$ Dʻ G- Oʻ $Cʻ EN43$C3Dʻ Hʻ <E3ʻ ?F E2ʻ 3$NFʻ QOʻ $EH F34ʻ ? $ - 3ʻ 1$CC3Dʻ Eʻ F3ʻ , E3 33E Fʻ $EDʻ * 3E 3 Fʻ =3$4Cʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ C$ Dʻ $ 3ʻ P$(3C O ʻ $EDʻ $Cʻ &-4 F34ʻ EN43$C3Dʻ Hʻ * Hʻ ?F E2Cʻ 3$NFʻ QOʻ $ʻ ? $ - 3ʻ 1$CC3Dʻ Eʻ F3ʻ *F 4 O C3 3E Fʻ =3$4ʻ H&ʻ 8 Cʻ C$ Dʻ $ 3ʻ P$(3C O.ʻ EDʻ F343$Cʻ $ʻ F3ʻ * J 3ʻ H&ʻ H4ʻ J J 3D $ 3 Oʻ Q3&H43ʻ F3ʻ >32 C $ 3ʻ #E HEʻ Q3 33Eʻ ! ʻ " #ʻ $FDʻ $!% #& ʻ QOʻ $ʻ N34 $ Eʻ H F34ʻ ? $ - 3ʻ 1$CC3Dʻ Eʻ F3ʻ I$4 $ J 3E ʻ H&ʻ $!% #&ʻ Eʻ F3ʻ 6H4 3 Fʻ =3$4ʻ H&ʻ 8 Cʻ C$ Dʻ $ 3ʻ P$(3C Oʻ $< (ʻ ! , (!ʻ F3ʻ *F 4D ʻ F3ʻ G- Oʻ 1OQ 3ʻ HEʻ F3ʻ D J CC HEʻ H&ʻ $ ʻ 6433 J 3Eʻ E Hʻ $EOʻ @H41H4$ HEʻ H4ʻ @H J 1$EOʻ Eʻ $!% #& ʻ F3 F34ʻ 3E 3Dʻ QOʻ ' 2F ʻ H4ʻ 6$ H-4 ʻ $Cʻ & 3Dʻ $EDʻ C3 3Dʻ $ʻ *3Eʻ ?F E2Cʻ 3$NF.ʻ EDʻ F343$Cʻ QOʻ $Eʻ N ʻ 1$CC3Dʻ Eʻ F3ʻ 6 & O C Fʻ =3$4ʻ H&ʻ 8 Cʻ C$ Dʻ $ 3ʻ P$(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ *F 4D ʻ E - 3Dʻ / #ʻ / ' ʻ ,ʻ !5! %ʻ) !ʻ 1!0! %ʻ + 5ʻ 2 3 !1ʻ #ʻ 43 $ED ʻ YYʻ M S @ !Yʻ #&ʻ %1,ʻ +!0! %ʻ / ' 1ʻ , ʻ) !ʻ I ,%%! ' ,#ʻ #&ʻ # (! !# ʻ , ʻ) !ʻ ʻ 1 &ʻ

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C HE' E' F3' @H-4' BHH+' H&' F3' @H41H4$ HE' F343' F3' D J CC HE'
CF$ ' Q3' E' 43C13N ' H&' B 4 F' 1143E N3CF 1' <4 P $44 $23' < E3' I H-ED'
3$NF' $ED' F343' F3' ?$J3' CF$ ' Q3' HE' $EO' H F34' M4H-ED' * F433'
I H-EDC' 3$NF.' ED' F343$C' $' $ ' * J 3C' C EN3' F3' ; E$N J 3E ' H&' F3'
C$ D' $C J 3E HE3D' ? $ - 3' 3E' $ED' 6H43 2E34' $ED' 8 C' P 23C O C'
?-Q(3N C' FH' QO' 4 -3' H&' Q3 E2' 3E2$23D' E' $EO' * 4$D3' P OC 340' H4'
8 $ED N44&' $43' QO' $EO' @F$4 4' B O3' >$ ' #C$23' H4' ? $ - 3' 3E J 3D'
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$!% #&' $C' ' ' 2F ' F$ 3' Q33E' -E 34C$ O' DC J 3D' 431- 3D' $ED' NHER
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N4$&' $43' CH' 3E 3D' H' N $ J' H4' $+3' -1' F3 4' 6433DH J' $C' $&H43C$ D'
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* 34 J C' $ED' @HED HEC' $ED' C-Q(3N' H' F3' C$ J 3' G- O' $C' 6433 J 3E'
N $ J E2' QO' ' 2F ' H&' (143E N3 1' $C' $&H43C$ D.' ED' 9 F343$C' &H4'
F3' Q3 34' @H 3N HE' H * 8 C' P $(3C O C' ' 3 3E -3' $ED' F3' J H43' Q34$'
; E(HO J 3E ' H&' F3' C$ D' 64$ENF C3' H4' I 4 323' ' C' 3 13D 3E ' F$' F3'
C$ D' GH-Q C' CFH- D' Q3' 43 J H 3D' 5 B3' ' F343&H43' 3E$N 3D' QO' F3'
% E2 C' J HC' ; N3 3E ' P $(3C O' QO' $ED' 9 F' F3' D N3' $4 D' @HEC3E '
H&' F3' >H4DC' ?1 4 -$' $ED' * 3 J 1H4$ ' $4 D' @H J J HEC' ' F C' 143C3E '
I $4 $ J 3E ' $CC3 J Q 3D' $ED' QO' F3' - FH4 O' H&'' F3' C$ J 3' * F$' $ '
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' 2F ' CF$ ' Q3' $D J 3D' H' C-NF' 6433DH J' -1HE' I $O J 3E ' H&' F3' C$ J 3'
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^ F$' C' H' C$O _' HE' I $O J 3E ' H&' F3' G- O' H&' < E3' I H-ED' HE O' &H4' F3'
' 32 C 40' ; E 40' P E- 3' H4' P 3 J H4$ED- J' F343H&' $' F3' @H-4' BHH+'
' H ' H4' ' 3NH4D' H&' $EO' @H41H4$ HE' M- D' H4' @H J 1$EO' ($EO' F E2'
NHE $ E3D' E' F3' C$ D' F343(E Q3&H43' 43N 3D' / ? $ - 3' 1$CC3D' E' F3'
6 & O C F' =3$4' H&' F3' ' 3 2E' H&' 8 C' C$ D' $ 3' P $(3C O' % E2' !, (!'
F3' * F 4D' H4' $EO' < F34' ? $ - 3' H4' >$ 9' H' F3' NHE 4$40' F343H&' '
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I 34CHEC' FH' QO' 4 -3' H&' Q3 E2' 3E R 2$23D' E' $EO' * 4$D3' E' ' @ 3C' $ED' * H EC' E' 43 $ED' N$E' N $ J' F3' 6433DH J' F343H&' J$O' Q3' $D J 3D' H' C-NF' -1HE' I $O J 3E ' H&' F3' C$E 3 ? $ J 1' G- O' $C' H F34' 6433R J 3E

6433 J 3E' -ER D34' F C' N ?E 413E$ ' 3C$C' H F34C'

' I 4H D3D' E3 34 F3 3CC' $ED' Q3' ' &-4 F34' 3E$N 3D' * F$' E' G3 '
&$- ' H&' I $O J 3E ' H&' C-NF' ?- J' $C' $&H43C$ D' F3' 6433 J 3E' 3E 3D' #ED34'
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p' ' 2F ' H&' B 4 F' P $44 $23' H4' ?34 N3' $43' H4' H- D' Q3' $Q 3

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E' N ' &H4' 4$EC&344 E2' F3' I H 34C' H&' F3' 8 2F'
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> 8 ; ' ; ?' QO' $E' N ' 1$CC3D' E' F3' * 3E O & & F' =3$4' H&' F3
' 3 ' H&' % E2' ! # ' F3' ; 2F F ' $ED' E - 3D' 7) !' +34 ' U!'@ '@' '
11 ,#' , ') !' I %! (' #&'L !1 # ' , '/ U ! %1 ' ' C' ^$ J HE2C '
H F34' * F E2C ' 14H D3D ' F$ ' &H4' >$N+' H&' 5-C N3' $ ' H4' E' $EO' H&'
F3' @H-4 C' H&' F3' 4NFQ CFH1C' H&' F C' ' 3$ J ' H4' E' $EO' H&' F3' % E2 C'
GH J E HEC ' ' CFH- D' Q3' $ &- ' H' F3' I $4 3C' 24 3 3D' H' 113 ' H'
F3' % E2 C' P $(3C O' E' F3' % E2 C' @H-4 ' H&' @F$EN34O ' $ED' F$ ' -1HE'
3 34O' C-NF' 113$ ' $' @H J J CC HE' CFH- D' Q3' D 43N 3D' -ED34' F3' M43$ '
?3$ ' H' C-NF' I 34CHEC' $C' CFH- D' Q3' E$ J 3D' QO' F3' % E2 C' 8 2FE3CC
8 C' 8 3 4C' H4' ?-NN3CCH4C ' +3' $C' E' N$C3' H&' 113$ ' &4H J' F3' D J 4$ C'
@H-4 ' H' F3$4' $ED' D3& E 3 O' D3 34 J E3' C-NF' 113$ C ' $ED' F3'
@$-C3C' NHEN34E E2' F3' C$ J 3' ' F NF' @H J J CC HE34C' CH' QO' F3' % E2 C'
8 2FE3CC ' 8 C' 8 3 4C' H4' ?-NN3CCH4C ' H' Q3' E$ J 3D' H4' $11H E 3D ' CFH DD'
F$ 3' &- ' I H 34' $ED' - FH4 O' H' F3$4' $ED' D3& E 3 O' D3 34 J E3'
3 34O' C-NF' 113$ ' F' F3' @$-C3C' $ED' $ ' @ 4N- J C $EN3C' NHEN34ER
E2' F3' C$ J 3 ' $ED' F$ ' C-NF' 5-D2 J 3E ' $ED' ?3E 3EN3' $C' F3' C$ D'
@H J J CC HE34C' CFH- D' J $+3' $ED' D3N433' E' $ED' -1HE' $EO' C-NF' 113$ '
CFH- D' Q3' 2HHD' $ED' 3&&3N -$ ' $ED' $ CH' D3& E 3 ' $ED' F$ ' EH' &-4 F34'
113$ C' CFH- D' Q3' F$D' H4' J $D3' &4H J' F3' C$ D' @H J J CC HE34C' &H4' F3'
' I' C$ J 3

U ` K S c M # >   ; > P ʻ   ʻ @$1 VU

C$J3ʻ ! $EDʻ F$ʻ$ ʻ J$EE34ʻ H&ʻ I4H HN$ HECʻ $EDʻ 113$ Cʻ F343$& 34ʻ Hʻ
Q3ʻ F$Dʻ J$D3ʻ H4ʻ $+3Eʻ &4HJʻ F3ʻ 5$4 CD N Jʻ H&ʻ $EOʻ QQH ?(I4 H4Cʻ
H4ʻ H F34ʻ 83$DCʻ $EDʻ MH 34EH4Cʻ H&ʻ P HE$C 34 3Cʻ QQ3OCʻ I4 H4 3Cʻ $EDʻ
H F34ʻ 8H-C3Cʻ $EDʻ I $N3Cʻ 3 3J1 ʻ Eʻ C-NFʻ @$C3Cʻ $C F3Oʻ 93&3ʻ HEʻ H4ʻ
J 2Fʻ $&H43ʻ F3ʻ J$+ E2ʻ H&ʻ F3ʻ Nʻ EH ʻ Eʻ 43N $ ʻ QOʻ 43$CHEʻ H&ʻ
M4$E Cʻ H4ʻ > Q34 3Cʻ H&ʻ C-NFʻ I $N3Cʻ 3 3J1 ʻ Hʻ F$ 3ʻ H4ʻ J$+3ʻ J J3R
D $ 3 Oʻ $EOʻ 113$ʻ H4ʻ I4H HN$ HEʻ Hʻ F3ʻ B CFH1ʻ H&ʻ L , !ʻ H F34 C3ʻ
N$ 3Dʻ IH13ʻ H4ʻ Hʻ F3ʻ ?33ʻ L , !ʻ Eʻ $ ʻ FHC3ʻ @$C3Cʻ 3 34Oʻ I34CHEʻ
$EDʻ I34CHECʻ F$ E2ʻ @$-C3ʻ H&ʻ 113$ʻ H4ʻ 14H HN$ HEʻ CFH- Dʻ $EDʻ
J 2Fʻ $+3ʻ $EDʻ J$+3ʻ F3 4ʻ 113$ Cʻ $EDʻ I4H HN$ HECʻ J J3D $ 3 Oʻ
Hʻ F3ʻ % E2 Cʻ P$(3C Oʻ H&ʻ F Cʻ '3$ Jʻ E Hʻ F3ʻ @H-4ʻ H&ʻ @F$EN34Oʻ Eʻ
F3ʻ P$EE34ʻ $EDʻ 6H4Jʻ $Cʻ F3Oʻ -C3Dʻ $&H43ʻ Hʻ DHʻ Hʻ F3ʻ ?33ʻ H&ʻ L , !ʻ =ʻ
F NFʻ 113$ Cʻ $EDʻ I4H HN$ HECʻ CHʻ J$D3ʻ CFH- Dʻ Q3ʻ D3& E 3 Oʻ D3 34ʻ
ʻ J E3Dʻ QOʻ - FH4 Oʻ H&ʻ F3ʻ % ED Cʻ @J EE CC HEʻ Eʻ C-NFʻ P$EE34ʻ $EDʻ
6H4Jʻ $Cʻ $Cʻ Eʻ F3ʻ C$Dʻ Nʻ EH ʻ Jʻ 43N $ʻ $QH 3ʻ J3E HE3Dʻ CHʻ F$ʻ EHʻ
4NFQ CFH1ʻ H4ʻ B CFH1ʻ H&ʻ F Cʻ '3$ Jʻ CFH- Dʻ E 34J ʻ H4ʻ J3DD 3ʻ Fʻ $EOʻ
C-NFʻ 113$ Cʻ H F34 C3ʻ H4ʻ Eʻ $EOʻ H F34ʻ P$EE34ʻ F$Eʻ F3Oʻ J 2Fʻ
F$ 3ʻ DHE3ʻ $&H43ʻ F3ʻ J$+ E2ʻ H&ʻ F3ʻ Nʻ FH ʻ Eʻ 43N $ʻ ʻ $EOʻ F E2ʻ Eʻ
F3ʻ Nʻ EH ʻ Eʻ 43N $ʻ Hʻ F3ʻ NHE 4$4Oʻ F343H&ʻ EH FC $ED E2.ʻ EDʻ
F343$Cʻ QOʻ $Eʻ Nʻ 1$CC3Dʻ Eʻ F3ʻ F Fʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ \ J3"ʻ
ʻ ;8Tʻ N !ʻ 8% 4!)ʻ $EDʻ E - 3Dʻ R , ʻ)!ʻ 0 , & #(, ʻ !& ,31ʻ +0 1ʻ #ʻ I 0 %ʻ #&ʻ
#!ʻ Cʻ 14H D3Dʻ F$ʻ 3 34Oʻ C-NFʻ 5-D2J3Eʻ $EDʻ ?3ER
3EN3ʻ D3& E 3ʻ $Cʻ CFH- Dʻ Q3ʻ 2 3Eʻ $EDʻ 14HEH-EN3Dʻ ʻ $EOʻ @ ʻ $EDʻ
P$4 E3ʻ @$-C3ʻ -1HEʻ 113$ʻ $ &- Oʻ Hʻ Q3ʻ J$D3ʻ F343 Eʻ Hʻ F3ʻ
\ 33E Cʻ P$(3C Oʻ Eʻ 834ʻ 8 2FE3CC ʻ @H-4ʻ H&ʻ @ $EN34Oʻ QOʻ C-NFʻ
@HJ J CC HE34Cʻ H4ʻ G3 32$ 3Cʻ $Cʻ CFH- Dʻ Q3ʻ EHJ E$ 3Dʻ $EDʻ $11H E 3Dʻ
QOʻ 834ʻ P$(3C Oʻ 834ʻ 83 4Cʻ H4ʻ ?-NN3CCH4Cʻ QOʻ @HJ J CC HEʻ -ED34ʻ F3ʻ
8 $ &ʻ ?3$ ʻ $Cʻ ʻ F$Dʻ Q33Eʻ F343 $&H43ʻ -C3Dʻ Eʻ C-NFʻ <$C3Cʻ CFH- Dʻ Q3ʻ
& E$ʻ $EDʻ F$ʻ EHʻ &-4 F34ʻ 113$ʻ CFH- Dʻ Q3ʻ J$D3ʻ &4HJʻ F3ʻ C$Dʻ 5-D2R
J3Eʻ H4ʻ ?3E 3EN3ʻ D3& E 3ʻ H4ʻ &4HJʻ F3ʻ ?$Dʻ @HJ J CC HE34Cʻ H4ʻ G3 3R
2$ 3Cʻ &H4ʻ H4ʻ ʻ F3ʻ C$J3ʻ $EOʻ >$ ʻ #C$23ʻ H4ʻ @#? JEʻ Hʻ F3ʻ NHE 4$4Oʻ
EH FC $ED E2.ʻ EDʻ F343$Cʻ F3ʻ I34CHECʻ FHʻ &4HJʻ * J3ʻ Hʻ * J3ʻ
F$ 3ʻ Q33Eʻ $11H E 3Dʻ @HJ J CC HE34Cʻ QOʻ @HJ J CC HEʻ -ED34ʻ F3ʻ M43$ʻ
?3$ʻ H4ʻ -ED34ʻ F3ʻ 8 $ &ʻ ?3$ʻ QOʻ 4 -3ʻ H&ʻ F3ʻ - J4 Oʻ H&ʻ 3 F34ʻ H&ʻ
F3ʻ F343 EtQ3&H43ʻ 43N 3Dʻ 1 Cʻ F$ 3ʻ Q33Eʻ NHJ JHE Oʻ N$ 3Dʻ 77 * F3ʻ
8 2Fʻ @H-4ʻ H&ʻ G3 32$ 3C.cʻ EDʻ F343$Cʻ EH FC $ED E2ʻ F3ʻ
F343 E Q3&Q43ʻ 43N 3Dʻ N Cʻ F3ʻ % E2 Cʻ P$(3C Oʻ &H4ʻ F3ʻ * J3ʻ Q3 E2ʻ
F$ Fʻ H-ʻ H&ʻ 8 Cʻ 'HO$ʻ 6$ H-4ʻ HNN$C HE$ Oʻ 24$E 3Dʻ -1HEʻ I3 HEʻ Hʻ
8 Jʻ Eʻ @H-EN ʻ J$D3ʻ &H4ʻ F$ʻ I-41HC3ʻ $ʻ @HJ J CC HEʻ -ED34ʻ F3ʻ
M43$ʻ ?3$ʻ $- FH4 T E2ʻ F3ʻ @HJ J CC+J34Cʻ F343 Eʻ E$J3Dʻ Hʻ 43 3 ʻ
F3ʻ 5-D2J3E Cʻ $EDʻ G3N433Cʻ H&ʻ F3ʻ 8 2Fʻ @H-4ʻ H&ʻ G3 32$ 3Cʻ CHʻ
$11H E 3Dʻ $Cʻ $&H43C$ D.ʻ EDʻ F343$Cʻ ʻ Cʻ 3 13D 3Eʻ F$ʻ F3ʻ F343 ER
Q3&H43ʻ 43N 3Dʻ Nʻ H&ʻ F3ʻ ; 2F Fʻ =3$4ʻ H&ʻ \ -33Eʻ 8% 4!)ʻ $1Dʻ $ CHʻ
CHʻ J-NFʻ H&ʻ F3ʻ F343 E Q3&H43ʻ 43N 3Dʻ Nʻ H&ʻ F3ʻ * 3E O & & Fʻ =3$4ʻ
H&ʻ % E2ʻ !# ʻ F3ʻ ; 2F Fʻ $Cʻ 43 $ 3Cʻ Hʻ F3ʻ 113$ʻ Hʻ 8 Cʻ P$(3C Oʻ
Fʻ @F$ N34Oʻ CFH- Dʻ Q3ʻ 4313$ 3Dʻ $EDʻ F$ʻ $ ʻ F3ʻ IH 34Cʻ F NFʻ QOʻ
4 -3ʻ H&ʻ 3 F34ʻ H&ʻ F3ʻ C$Dʻ N Cʻ F$ 3ʻ H4ʻ J 2Fʻ F$ 3ʻ Q33Eʻ 3E(HO3Dʻ
QOʻ F3ʻ C$Dʻ 8 2Fʻ @H-4ʻ H&ʻ G3 32$ 3Cʻ CFH- Dʻ Q3ʻ Eʻ &- -43ʻ 3 34N C3Dʻ
QOʻ 8 Cʻ P$(3C Oʻ Eʻ @H-EN ʻ $EDʻ F$ʻ EHʻ C-NFʻ @HJ J CC HEʻ H&ʻ '3 3 ʻ
$Cʻ $&H43C$ Dʻ CFH- Dʻ F343$& 34ʻ Q3ʻ 24$E 3Dʻ ! Q3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ
F3ʻ % E2 Cʻ JHCʻ ; N3 3Eʻ P$(3C Oʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ
@HEC3Eʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ʻ $EDʻ *3J1H4$ʻ $EDʻ @HJ JHECʻ Eʻ F C
143C3E

143C3E' I$4 $J3E' $CC3JQ 3D' $ED' QO' F3' - FH4 O' H&' F3' C$J3' *F$' F3' F343 E Q3&H43' 43N 3D' N' H&' F3' * 3E 0 & & F' =3$4' H&' F3' %3 2E' H&' % E2' !# ' F3' ; 2F F' C' &$4' $a' 43 $ 3C' H' $EO' I H 34' F343QO' 2 3E' H' 113' E' $EO' @$C3' H' F3' % E2 C' P $(3C O' E' 8 C' 8 2F' @H-4' H&' @F$EN34O' $ED' CH' &$4' $C' F3' C$J3'3J1H 34C' 8 C' P $(3C O' H' 24$E'$' @HJ J CC HE' -ED34' F3' M43$'?3$'$- FH4 T E2' F3' I 34CHEC' F343 E' E$J3D' H' F3$4' $ED' D3 34J E3' C-NF' 113$ C'CF$ ' $C' &4HJ' F3' 6 4C'G$O' H&' R!4 3 ' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 F433' Q3' $ED' F3' C$J3' C' F343QO' 4313$ 3D

U!8 Z@ V' CH' K4' $C' 43R Q$ 3C' H' F3' I H 34'H' 1R 13$'$ED' H' F3' 11H E R J3E'_'G3R 32$ 3C' 43R 13$ 3D' &4HJ' '63Q' ZSS

' ED' Q3' '$ CH' 3E$N 3D' *F$' F3' F343 E Q3&H43' 43N 3D' N' H&' Z; T'N!' F3' ; 2F F' =3$4' H&' F3' '3 2E' 1&' \ -33E' CF$ ' $C' &4HJ' F3' 4313$ 3D 6 4C'G$O' H&' R!4 3 ' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0' != '' b7 F433' Q3' $ED' F3' C$J3' C' F343QO' 4313$ 3D

' ED' Q3' '&-4 F34' 3E$N 3D' *F$'&4HJ' $ED' $& 34' F3' C$ D' 6 4C' G$O' H&' R!4 3 ' 6#!' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 F433' ' CF$ ' Q3' $ &-' H' $ED' &H4' 3 34O' 134CHE' FH' J 2F' F343 H&H43' QO' 4 -3' H&' 3 F34' H&' F3' C$ D' 43N 3D' N C'F$ 3' 113 3D' H4' J$D3' ?- ' H' 8 C' P $(3C O' E' 8 C' 8 2F' @H-4' H&' @F$EN34O' H' 113' H4' J$+3' ?- ' H' 3' % E2 C' P 3C O' 8 C' 8 3 4C' H4' ?-N33 H4C' E' @H-EN ' F E' C-NF' * E$3' E' C-NF' P $EE34' $ED' C-Q(3N' H' C-NF' '- 3C <4D34C' $ED' '32- $ HEC' &H4' F3' D-3' $ED' JH43' NHE 3E 3E' 14HR N33D E2' $C' CF$ ' C33J' J33'$ED' E3N3CC$4O' $ED' -1HE' C-NF' ?3N-4 O' &'EO'C' 8 C' P $(3C O' 8 C' 8 3 4C' $ED' ?-NN3CCH4C' CF$ '&4HJ' * J3' H' * J3' QO' <4D34' E' @H-EN ' D 43N ' $ED' F$' F3' % E2 C' P 3C O 8 C' 8 3 4C' $ED' ?-NN3CCH4C' E' @H-EN 'CF$ ' F343-1HE' F$ 3' I H 34' H' 14HN33D' H' F3$4' $ED' D3 34J E3' 3 34O' 113$' $ED' ?- 'CH' H' Q3' J$D3' QO' 4 -3' H&' F C' N ' $ED' H' J$+3' $ ' C-NF' 5-D2J3E C' <4D34C' $ED' G3N433C' E' F3' P $ 34' H&' C-NF' 113$' H4' ?- ' $C' J 2F' F343 H&H43' F$ 3' Q33E' J$D3' QO' 8 C' P $(3C O C' @HJ J CC HE34C' $11H E 3D' QO' 4 -3' H&' 3 F34' H&' F3' F343 E Q3&H43' 43N 3D' N C' &' F C' N'F$D' EH'Q33E' 1$CC3D' $ED' F$'3 34O' C-NF' 5-D2J3E ' <4D34' $ED' G3N433' CH' H' Q3' J$D3' QO' F3' % E2 C' P $(3C O' 8 C' 8 3 4C' $ED' ?-NN3CCH4C' CF$ ' F$ 3' C-NF' $ED' F3' +3' 6H4N3' $ED' ; &&3N' E' $ ' 43C13N C' F$ CH3 34' $C' F3' C$J3' 43C13N 3 O' H- D' F$ 3' F$D' &' J$D3' $ED' 14HEH-EN3D' QO' F3' $&H43C$ D' 8 2F' @H-4' H&' G3 32$ 3C' ' $ED' F$'3 34O' C-NF' 5-D2J3E <4D34' $ED' G3N433' CF$ ' Q3'& E$' $ED' D3& E 3' $ED' F$' EH' @HJR J CC HE' CF$ ' F343$& 34' Q3' 24$E 3D']4 $- FH4 T3D' H' 43 3 ' $EO' 5-D2J3E' H4' G3N433' H' Q3' J$D3' QO' 4 3' H&' F C' N

'63Q' ZSS' I H 34C' H&' F3' 8 2F' @H-4' H&' G3 32$ 3C' 4$EC&3443D' H' F3' % E2' E' @H-EN ' $ED' EH' @HJ J CR C HE' H&' '3R 3 ' H' Q3' F343$& 34' 24$E 3D

' I4H D3D' $ $OC' $ED' Q3' '3E$N 3D' *F$'EH F E2' F343 E' NHE' $ E3D' CF$ ' 3 3ED' H' $&&3N' $EO' 113$' EH ' 13ED E2' H4' F NF' Q3&H43' F3' C$ D' 6 4C'G$O' H&' R!4 3 ' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 F433' J$O' Q3' 13ED E2' H' 8 C' P $(3C O' E' @F$EN34O' QO' 4 -3' H&' 3 F34' H&' F3' F343 E Q3&H43' &3N 3D' N C' H4' H' $&&3N' F3' ' 2F' H&' 8 C' P $(3C O' H' 24$E' $EO' C-NF' @HJ J CC HE' -ED34' F3' M43$' ?3$' H4' -ED34' F3' 8 $ &' ?3$' $C' $&H43C$ D' H' F3$4' $ED' $D(-D N$ 3' -1HE' $EO' 113$' CH' EH ' 13ED E2' H4' F NF' J$O' Q3&H43' F3' C$ D' 6 4C' G$O' H&' R!4 3 ' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 F433' Q3' 13ED E2' $ED' F$' 3 34O' 5-D2J3E' H4' G3N433' H&' F3' C$ D' 8 2F' @H-4' H&' G3 32$ 3C' QO' 4 -3' H&' 3 F34' H&' F3' C$ D' 43N 3D' N C '$ 43$DO

I4H CH' &H4' 113$ C' EH ' 13ED E2 143 H-C' H' '63Q' ZSS'

ZZZ @$1 VU

$ 43$DO J $D3 H4 F343$& 34 H Q3 J $D3 E $EO @$-C3 CH EH 13ED E2 H4 F NF CF$ Q3 CH 13ED E2 $C $&H43C$ D CF$ F$ 3 C-NF $ED F3 +3 6H4N3 $ED ; ;&3N E 3C13N&3 $C & F C / J F$D EH Q33E 1$CC3D

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> 8 ; ' ; ?' 243$ ' ENHE 3E 3EN3' F$C' Q33E' &H-ED' H' $4 C3'
QO' 43$CHE' H&' ' F3' I 4HN3CC' H&' F3' C3 34$ ' ; NN 3C $C N$ '
@H-4 C' E' 8#(% #&' $ED' $!% #&' Q3 E2' EH134$ 3' $ED'
-E$ $ $Q 3' H- ' H&' F3' > J C' H&' F3' 43C13N 3' 5-4 CD N HEC' H&' C-NF'
@H-4 C' $ED' 2 EC ' I 34CHEC' F$ E2' I 4 323' H&' I 334$23 ' >H4DC' H&'
I $4 $ J 3E ' $ED' P 3 J Q34C' H&' F3' 8 H-C3' H&' @H J J HEC' ' $ED' E' J $EO'
EC $EN3C' $' 6$ -43' H&' 5-C N3' F$ F' F343QO' 3EC-3D.' ED' F343$C'
' C' 3 13D 3E ' &H4' ' 3 J 3DO' F343H&' F$ ' F3' I 4HN3CC' H&' F3' C$ D'
C3 34$ ' @H-4 C' $ED' F3' P 3$EC' H&' 3E&H4N E2' <Q3D 3EN3' H' F3' C$ J 3 '
CFH- D' Q3' H&' 3X-$ ' 6H4N3' $ED' F$ 3' F3' +3' <134$ HE ' $C' 3 ' E'
F$ ' I $4 ' H&' 3' #E 3D' % E2DH J ' H&' ! ' " #' $ED' $!% #&'
N$ 3D' 8#(% #&' $C' E' F$ ' I $4 ' H&' F3' C$ J 3' #E 3D' % E2DH J ' N$ 3D'
$!% #&' $ED' $C' 3 ' 2 EC ' I 34CHEC' F$ E2' I 4 323' H&' I 334$23
>H4DC' H&' I $4 $ J 3E ' $ED' P 3 J Q34C' H&' F3' 8 H-C3' H&' @H J J HEC ' $C'
2 EC ' $ ' H F34' 8 C' P $(3C O C' ?-Q(3N C'.' B3' ' F343&H43' 3E$N 3D' QO'
F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' QO' $ED' F' F3' D N3' $ED'
@HEC3E ' H&' F3' >H4DC' ?1 4 -$ ' $ED' * 3 J 1H4$ ' $ED' @H J J HEC ' E' F C'
143C3E ' I $4 $ J 3E ' $CC3 J Q 3D ' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3
* F$ ' E' $ ' @$-C3C' F NF' $NNH4D E2' H' F3' >$ C' H&' F C' ' 3$ J ' $43' F343' I 34 '
H4' J $O' Q3' NH2E T$Q 3' E' $EO' H&' F3' C3 34$ ' ; NN 3C $C N$ ' @H-4 C ' $C' CHEC' 43C D E2'
3 ' E' F$ ' I $4 ' H&' F3' #E 3D' % E2DH J ' H&' ! ' " #' $ED' $!% #&'
[' \' ' N$ 3D

N3C $C 3$'
@H-4 C $43
N 3D H
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F3 5-D23
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14HEH-EN3
F3 J' NHE -'
J$JH-C' $ED
N34 &O F3
C$J3 H F3
H4D @F$ER
N3 H4' KN'
F E *3E
G$OC' $ED
F343-1HE
$ 94 'G3
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N$1 3EDH
CF$ CC-3'
-E 3CC F3
I34CHE Q3 $
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N$ 3D' #(#&' $C E F$' 6$4' H&' F3 C$J3 #E 3D' % E2DH &' N$ 3D
$!% #&' F3E $ ' I34CHE H4 I34CHE?' $C 3 ' FHC3 9 F NF F$ 3 <4 F343' '
$& 34 CF$ ' F$ 3 I4 323 H&' I334$23' H4 $43 H4 F343$& 34 J $O Q3 I334C
H&' I$4 $J3E ' H4 P3JQ34C H&' F3 8H-C3 H&' @HJJHEC' $C $ ' H F34C
FH C $ ' F$113E H F3 DHJ N 3D N4' 43C D E2 3 F34 E 8#(% &' F4
E $!% #&' $ED Q3OHED F3 > J C <& F3 5-4 CD N HE H&' F3 @H-4' E
F NF C-NF @$-C3C F$ 3 Q33E H4 CF$ ' F$ 3 Q33E 43C13N 3 O EC - 3D
H4 NHJJ3EN3D' H4 CF$ ' Q3 D313ED E2' F$ E2 Q33E D- O N 3D H
$113$4 E $EO C-NF ; NN 3C $C N$' @H-4 ' F3 F34 E 8#(% #&' H4 E
$!% #&' H4 43X- 43D H NHJ1 O F $EO $ &-' <4D34 H4 G3N433' $C
3 ' & E$' $C E 34 HN- H4O ' F NF F$ F Q33E H4 CF$ ' F$ 3 Q33E J$D3
QO $EO C-NF @H-4 ' 43C13N 3 O ' CF$ ' E32 3N ' H4 43&-C3 H 1$O
<Q3D 3EN3 H $EO C-NF $ &-' [34' H4 G3N433' H4 F3E $EO C-NF
I34CHE H4 I34CHEC CF$ ' NHJJ ' $ @HE 3J1 ' E F3 6$N3 H&' C-NF @H-4 '
H4 $EO H F34 @HE 3J1 ' H $4DC C-NF @H-4 ' H4 F3 I4HN3CC F343H&_ '
CF$ ' Q3 $ &-' &H4 F3 5-D23 H4 5-D23C H-' H&' FHC3 @Q-4 ' F3 @? $ HE
H4 I4HN3CC F$ F $ 43$DO CC-3D H4 J$O F343$& 34 CC-3' H4 FHC3 $ &-'
<4D34C <4 G3N433C F$ 3 EH' H4 CF$ ' EH' F$ 3 Q33E HQ3O3D' H4 Q3&H43
FHJ' C-NF @HE 3J1 ' E F3 6$N3 <& F3 @H-4 ' CF$ ' Q3 NHJJ 3D'
H4 ' FHC3 <4D34 H4 - FH4 O C-NF I4HN3CC E 43C13N ' H&' H4
H $4DC F NF $EO C-NF @HE 3J1 ' CF$ ' F$ 3 Q33E NHJJ 3D F$C
Q33E H4 CF$ ' Q3 $ $4D3D H4 CC-3D' H4 F3 ?-NN3CCH4 H4 ?-NN3CCH4C
E <& ?N3 H&' C-NF 5-D23 H4 5-D23C 43C13N 3 O ' H 14HEH-EN3 C-NF
I34CHE H4 I34CHEC NHE -J$N H-C $ED E NHE 3J1 ' $ED F E *3E
G$OC $& 34 C-NF I34CHE H4 I34CHEC CF$ ' F$ 3 Q33E CH 14HEH-EN3D
H Q3 NHE -J$N H-C $ED E NHE 3J1 ' H C 2E &O F3 C$J3 H F3
>H4D @F$EN3 H4 ' >H4D %33134 H4 >H4DC @$JJ CC HE34C K4 F3
@-C HDO H&' F3 M43$' ?3$' , '8#(% #&' &H4 F3 * J3 Q3 E2 43C13N 3 O '
F3E3 34 F3 I34CHE H4 I34CHEC FH CF$ ' F$ 3 Q33E ' CH 14HEH-EN3D
NHE -J$N H-C $ED E NHE 3J1 ' CF$ ' Q3 DHJ N 3D H4 43C D E2 E
8#(% #&' $ED F E F3 PF3 I34 HD H&' *3E G$OC H C 2E &O F3
C$J3 H F3 >H4D @F$EN3 H4' >H4D %33134 H4 >H4DC @HJJ CC HE34C
&H4 F3 @-C HDO H&' F3 M43$' ?3$' H&' $!% #&' &H4 F3 * J3 Q3 E2 43R
C13N 3 O ' F3E3 34 F3 I34CHE H4 I34CHEC FH CF$ ' F$ 3 Q33E CH
14HEH-EN3D NHE -J$N H-C $ED E NHE 3J1 ' CF$ ' Q3 DHJ N 3D H4
43C D E2 E $!% #&' E F3 6H4J' $EE3 3D H $E N ' H&' I$4 $J3E '
J$D3 $ED 1$CC3D E F3 6 & O F 4D =3$4 H&' F3 ' 3 2E H&' 8 C $ 3
. :1 (P$(3C O % E2 !, (!' F3 *F 4D' E - 3D /# / ' ' , ' 4! ! '
L!(3% ,# , '8''%!1 1 ' % I,3 1 # ; E2 $ED' #&' , ' ' , !
! 1 ' L!',0! ' , ' I)3 ')' L !1 #&' 7)!1 ' $ED F343-1HE ' $ED E
N$C3 F3 I34CHE CH 431- 3D H Q3 E NHE 3J1 ' CF$ ' EH' Q3 $ I334'
>H4D H&' I$4 $J3E ' H4 P3JQ34 H&' F3 8H-C3 H&' @F<PBJ$C' ' 94 '
G3' NHE -J$N3 N$1 3EDH CF$ ' CC-3 &4HJ' 8 C PJ3C O C C$D 8 2F
@H-4 ' H&' @F$EN34O E 8#(% #&' H4 E $!% #&' $C F3 @$C3 J$O F$113E '
H Q3 D 43N 3D H F3 C$J3 I34CHEC H FHJ' 94 C G3 3 *< JJ-'
E N$ H N$1 3EDH 343 QO 6 , ' 43 -4E$Q 3 Q3&H43 F3 1$C4 2 H&' F3
C$D N ' H&' I$4 $J3E ' $ED F3 C$J3 CF$ ' Q3 43 -4E$Q 3 E +3
P$EE34 $C F3 94 ' G3 3 NHJJ -F N$ H N$1 3EDH F$D Q33E ' F343R
H&H43 QO >$ ' 43 -4E$Q 3' $ED CF$ ' F$ 3 F3 C$J3 I H433 $ED %&&33 '
$C F3 $C J3E HE3D 94 ' $ED $ ' ' - 3C $ED '32- $ HEC EH'
$ 343D QO F3 C4 D N ' H&' F3 6 & O F 4D =3$4 H&' 8 C C$D P$(3C O
!, (!' F3 *F 4D' $ED F NF Q3&H43 F3 1$CC E2 F3 C$J3 N

' '32- $R
HEC $ED
I4H C HEC
$11 O E2 H

$11 3D' H' F3' C$ D' 9 4 ' G3' 3 NHJ J$E N$ H' N$1 3EDH' $ED' F3' I4H' .33D E2C' &H H E2' F343-1HE $ED' 1$4 N- $4 O' F3' C3 34$' I4H C HEC' NHE $ E3D' E' $' N34 $ E' N ' 1$CC3D' E' F3' 6 & F' =3$4' H&' F3' I 3 2E' H&' \ -33E' 8% 1 4! ? ' E - 3D' / #' / ' '?4 ') !' &3!' 8J! '3 ,#' , ') !' ' 2 !' !J' , ,' $1 3 n H' CF$ '3 3ED' $ED' Q3' $11 3D' H' F3' C$ D' 9 4 ' G3' NHE - J $N3' N$1 3EDH' $ED' F3' I4HN33D E2C' &H H E2' F343R -1HE' $C' &' F3' C$ J 3' 343' F343 E' 1$4 N- $4 O' 4313$ 3D' $ED' 3E$N 3DO' $ED' F3' 14H134' <&& N34C' H&' F3' C$ D' * H' C3 34$' 8 2F' @H-4 C' H&' @F$EN34O' E' 8#(% #&' /#&' $!% #&' $C' F3' @$C3' J $O' F$113E' H' Q3' $43' F343QO' $- FH4 T3D' $ED' 43X- 43D' H' CC-3' C-NF' 9 4 ' G 3' NHE -4$$N3' N$1 3EDH' $NNH4D E2 O' $ED' $ ' ?F34 &&C' M$H 34C' $ED' H F34' <&& N34C' E' 8#(% #&' $ED' E' $!% #&' $C' F3' @$a3' J $O' F$113E' H' Q3' $43' F343QO' 43X- 43D' $ED' $- FH4 T3D' H' 3 3N- 3' F3' C$ J 3' QO' $+ E2' $ED' D3 $ ER E2' F3' BHDO' H&' F3' I 34CHE' H4' I 34CHE$' 2 EC' FH J' F3' C$ D' 9 4 ' CF$ 8_3' CH' D 43N 3D' H' Q3' 3 3N- 3DO' $ED' -1HE' F3' D-3' 113$4$EN3' H&' F3' 9 O' H4' I $4 3C' CH' N 3D' $ED' EH' F$ E2' HQ3O3D' $C' $ H43C$ D' H4' F3' D-3' ?-Q J CC HE' H&' F3' I $4 O' H4' I $4 3C' CH' F$ E2' NHJ J 3D' $' @HE 3 J 1 ' E' F3' 6$N3' H&' F3' @H-4 ' H4' H F34 C3' $C' F343 E Q3&H43' C' J 3E HE3D' F3' 5-D23' H4' 5-D23C' H&' CX3F' ; NN 3C $C N$ '@H-4 ' F3 F34' E' 8#(% #&' H4' E' $!% #&' $C' F3' @$C3' J $O' Q3 ' CF$ ' 14HEH-EN3' C-NF' I $4 O' H4' I $4 3C' $QCH 3D' &4H J' F3' @HE - J $NO' $ED' @HE 3 J 1 ' $&H43R C$ D' $ED' CF$ ' &H4 F F' J $+3' $E' <4D34' -1HE' F3' ?F34 &&' M$H 34' H4' H F34' <&& N34' (E' FH?3' @-C HDO' F3' CF3' <4 F3O' CF$ 'Q3' E' F3' 6H4 J' H' F3' C$ D' N ' H&' F3' 6 & O F 4D' =3$4' H&' F3' ; 3 2E' H&' 8 C' C$ D' P $(3C O' ! , (!' F3' * F 4D' $EE3 3D' &H4' D CNF$42 E2' C-NF' I $4 O' H4' I $4 3C' H- ' H&' @-C HDO' $ED' C-NF' ?F34 & ' M$H 34' $ED' H F34' <&& N34' CF$ ' HE' F3' C$ D' <4D34' Q3 E2' CFH E' H' F J ' CH' CHHE' $a' C-NF' I $4 O' H4' I $4 3C' CF$ ' F$ 3' D CNF$423D' F3' @HC C' $ &- O' EN-443D' QO' 43$CHE' H&' C-NF' @-C HDO' $ED' @HE 3 J 1 ' &H4 F F' D CNF$423' F J ' F34' H4' F3 J ' '

F3' 9 4 ' _3' 3 NHJ J -E R N$ H' $ED' I 4HN33D E2C' F343-1HE' CF$ ' Q3' $11 3D' H' F3' 9 4 ' I 3' NH \ - J $N3 !' ; T' N' US

#1HE' F3' 113$4$EN3' H4' ?-Q J CR C HE' H&' F3' I $4 O' F3' 5-D23' J $O' H4D34' F J' H' Q3' $QCH 3D' H4' D CNF$423D

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' E' $ ' C-NF' @$C3C' $C' $43' F343 E Q3&H43' J 3E HE3D' $ED' F NF' $43' H4' J $O' Q3' NH2E T$Q 3' E' $EO' H4' 3 F34' H&' F3' C3 34$' F343 E Q3&H43' J 3E HE3D' @H-4 C' F3E' $EO' I 34CHE' H4' I 34CHEC' $C' 3 ' C-NF' I 34CHE' H4' I 34CHEC' $C' F$ 3' H4' CF$ ' F343$& 34' F$ 3' I 4 323' H&' I 334$23' H4' $43' H4' CF$ ' F343$& 34' Q3' >H4DC' H&' I $4 $ J 3E' H4' P 3 J Q34C' H&' F3' 8 H-C3' H&' @H J J HEC' $C' H F34C' FH' CF$ ' F$113E' H' Q3' DH J N 3D' H4' 43C D E2' 3 F34' E' 8 : (% #&' H4' E' $!% #&') O!' Q33E' H4' CF$ ' F$ 3' Q33E' H4D343D' H4' 43X- 43D' QO' F3' $ &- ' <4D34' H4' G3N433' & E$' H4' E 34 HN- H4O' H&' $EO' C-NF' @H-4 ' 43C13N 3 O' H' 1$O' $EO' ?-4$' H4' ?- J C' H&' P HE3O' $ED' F3E' $EO' C-NF' I 34CHE' H4' I 34CHEC' $& 34' F$ E2' Q33E' D- O' J HE CF3D' CF$ ' 43&-C3' H4' E32 3N ' H' NH J 1 O' F' C-NF' P HE HE' $ED' H' 1$O' F3' ?- J' H4' ?- J C J &' P HE3O' F343 E' H4D343D' H' Q3' 1$ D' QO' F J' H4' F3 J ' F E' F3' * J 3' J D' E' F3' P $EE34' E' $EO' C-NF' <4D34' H4' G3N433' J 3E HE3D' H4' 3 143CC3D' H4' $' I 334' H4' >H4D' H&' I $4 $ J 3E' H4' P 3 J Q34' H&' F3' 8 H-C3' H&' @H J J HEC' CF$ ' 43&-C3' H4' FFH D' <Q3D 3EN3' H4' CF$ ' E' $EO' $O' E32 3N ' H' 134R &H4 J' H4' CF$ ' EH' 134&H4 J' $EO' G3N433' H4' <4D34' & E$' H4' E 34 HN- H4O' H&' C-NF' @H-4 C' $C' $&H43C$ D' ' CF$ ' Q3' $ &- ' &H4' F3' 5-D23' H4' (-D23C' FH' CF$ ' F$ 3' J $D3' C-NF' <4D34' H4' G3N433' H4' F C' H4' F3 4' ?-NN3CR CH4' H4' ?-NN3CCH4C' E' <&& N3' H' 14HEH-EN3' F3' I 34CHE' H4' I 34CHEC' CH' E32 3N E2' H4' 43&-C E2' H' NH J 1 O' F' C-NF' <4D34' H4' G3N433' NHER - J $N H-C' $ED' E' NHE 3 J 1 ' $ED' F E' * 3E' G$OC' $& 34' C-NF' I 34CHE H4

F343' I 34R CHEC' 1HCR C3CC3D' H&' ; C $ 3C' KN' E' ; E2 $ED' E32 3N' H' 1$O' P HE3O' H4D343D' QO' F3' C$ D' @H-4 C' F3' 5-D23C' J $O' 14HEH-EN3' C-NF' I 34CHEC' NHE - J $R N H-C' $ED' N34 &O' F3' C$ J 3' H' F3' ; H4D' @F$ER N3 H4' FH' CF$ ' N$-C3' I 4HN3CC' H&' ?3X-3C 4$R HE' H' CC-3' 2 EC' F3' ; C $ 3' H&' F3' I $4 9' E'))LG <

Q ' I34CHEC' C $ ' F$ 3' Q33E' CH' 14HEH EN3D' NHE - J$N H-C' $- ' E' NHE 3 J 1 ' H' N$-C3' $' @H1O' H&' C-NF' <4D34' H4' G3N433 ' -ED34' F3' ?3$' H&' F3' @H-4 ' F343 E' F3' C$J3' CF$ ' F$ 3' Q33E' J$D3 ' H4' -ED34' F3' 8 $ED' H4' 8 $EDC' H&' C-NF' 5-D23' H4' 5-D23C ' H4' < E3' H&' F3 J ' H' Q3' 3 3 J 1 & 3D ' $ED' N34 & 3D' H' F3' >H4D' @F$E " H4 ' >H4D' %33134' H4' >H4DC' @H J J CC HE34C' &H4' F3' @-C HDO' H&' F3' M43$ ' ?3$ ' H&' 8#(% #&' &H4' F3' * J3' Q3 E2' 43C13N 3 O ' F3E3 34' F3' I34CHE' H4' I34CHEC' '

FH' CF$ * F$ 3' Q33E' CH' 14HEH-EN3D' NHE $(J $N H$C' CF$ ' Q3' DH J R N 3D' H4' 43C D E2 ' H4' CF$ ' Q3' C3 C3D' H4' 1HCC3CC3D' H&' H4' 3E 3D' H' $EO' %3$ ' H4' I34CHE$ ' ; C $ 3 ' MHHDC ' @F$ 3 C ' H4' ; &&3N C ' C -$ 3 ' O E2 ' H4' Q3 E2' E' 8#(% #&=' $ED' F3' C$ D' >H4D' @F$EN3 H4 ' > J D' %33134' H4' >H4DC' @H J J CC HE34C' &H4' F3' @-C HDO' H&' F3' F43$ ' ?3$ ' H&' 8#(% #& ' CF$ ' &H4 F F' N$-C3' C-NF' @H1O' H&' C-NF' <4D34' H4' G3N433 '

F3E' ' CF$ ' Q3' 143C3E 3D' H' F3 J ' 43C13N 3 O ' CH' 3 3 J 1 && 3D ' H' Q3' E4H 3D' E' F3' ' H C' H&' F3' 8 2F' @H-4 ' H&' @F$EN34O' E' 8#(% #& ' $ED' CF$ ' F343-1HE' N$-C3' I4HN3CC' H&' ?3X-3C 4$ HE' H' CC-3' 2 EC ' F3' ' 3$ ' $ED' I34CHE$ ' ; C $ 3 ' MHHDC ' @F$ 3 C ' $ED' ; & 3N C ' 8#(% #& ' H&' F3' I$4 O' H4' I$4 3C' 2 EC ' FH J' C-NF' <4D34' H4' G3N433' CF$ ' F$ 3' Q33E' J$D3 ' E' H4D34' H' 3E&H4N3' <Q3D 3EN3' H' $ED' I34&H4 J $EN3' H&' F3' C$J3 ' E' F3' C$J3' P$EE34' $ED' I34 J ' $ED' F' F3' +3' IH 34' $ED' ; &&3N ' $C' &' F3' @$-C3' F343 E' C-NF' <4D34' H4' G3N433' CF$ ' F$ 3' Q33E' J$D3' F$D' Q33E' H4 2 E$ O' NH2E T$Q 3' QO' $ED' EC R - 3D' E' F3' C$ D' @H-4 ' H&' @F$EN34O' E' 8#(% #& ' $ED' $C' &' $ ' $ED' 3 34O' F3' I4HN3CC' H&' F3' C$ D' @H-4 ' H&' @F$EN34O' E' 8#(% #&' H E$4 O' CC- E2' E' @$-C3C' F343' 13ED E2' $E 3N3D3E ' H' I4HN3CC' H&' ?3X-3CR 4$ HE' F$D' Q33E' D- O' CC-3D' $ED' 43 -4E3D' E' F3' $C J3E HE3D' @H-4 ' $ED' ' CF$ ' $ED' J$O' Q3' $ &- ' &H4' F3' C$ D' >H4D' @F$EN3 H4 ' >H4D' %33134' H4' >H4DC' @H J J CC HE34C' H&' F3' M43$ ' ?3$ ' E' 8#(% #& ' H' J$+3' C-NF' <4D34' $ED' <4D34C' E' 43C13N ' H&' H4' NHEC3X-3E ' -1HE' C-NF' ?3X-3C 4$ HE ' H4' E' 43C13N ' H&' F3' ' 3$ ' H4' I34CHE$ ' ; C $ 3 ' MHHDC ' @F$ 3 C ' H4' ; &&3N C' C3X-3C 4$ 3D' QO' 4 -3' F343H& ' $C' F3' H4' 3O' CF$ ' &4H J ' * J3' H' * J3' F E+' & ' H4' &H4' I$O J3E ' H&' $ ' H4' $EO' H&' F3' P HE 3C' 3 3D' H4' 43N3 3D' QO' 4 -3' F343H&' E H' F3' B$E+' H&' 8#(% #& ' F' F3' I4 O' H&' F3' NNH-E $E ' M3E34$ ' H&' F3' C$ D' @H-4 ' H&' @F$EN34O' E' 8#(% #& ' H' F3' @43D ' $ED' &H4' F3' B3E3& ' H&' F3' I$4 O' H4' I$4 3C' FH' CF$ ' F$ 3' HQ $ E3D' C-NF' <4D34' H4' G3N433 ' &' F3' C$J3' $C' &H4' I$O J3E ' H&' 5 HE3O ' H4' &' & H ' H' F3' @43D ' H&' F3' 8 2F' @H-4 ' H&' @F$EN34O ' $ED' F3' MH 34EH4' $ED' @H J 1$EO' H&' F3' B$E+' H&' 8#(% #&' $43' F343QO' $- FH4 C3D' $ED' 43X- 43D' H' 43N3 3' $ED' FH D' $ ' C-NF' P HE 3C ' C-Q(3N ' H' F3' <4D34C' H&' F3' C$ D' @H-4 ' H&' @F$EN34O.' I4H D3D' $ $OC ' F$ ' EH' C-NF' P HE 3C' CF$ ' Q3' NF$423D' F' H4' C-Q(3N ' H' IH-ED$23' F3E' F3' C$J3' CF$ ' Q3' 1$ D' H- ' QO' <4D34' , ' F3' C$ D' @H-4

*F3' +3' I4H C HE' $C' H' I34CHEC' ' 1HCC3CC3D' H&' ; C $ 3C ' KN' E' 43 $ED

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' E' $ ' C-NF' @$-C3C' $C' $ 3 F343 E Q3&H43' J3E HE3D ' $ED' F NF' $43' H4' J$O' Q3' NH2E T$Q 3' E' $EO' H&' 3 F34' H&' F3' C3 34$ ' F343 F Q3&H43' J3E HE3D' @H-4 C ' F3E' $EO' I34CHE' H4' I34CHEC ' $C' 3 ' C-NF' I34CHE' H4' I34CHEC' $C' F$ 3' H 7 CF$ ' F343$& 34' F$ 3' I4 323' H&' I334$23 ' H&' $43' H4' CF$ ' F343$& 34' Q3' >H4DC' H&' I$4 $ J3E ' H4' P 3 J Q34C' H&' F3' 8H-C3' H&' @H J JHEC ' $C' H F34C ' FH' CF$ ' F$113E' H' Q3' DH J N 3D' H4' 43C D E2' 3 F34' E' 8#(% #&' H4' E' $!% #& ' F$ F' H4' F$ 3' Q33E' H4' CF$ ' F$ 3' Q33E' H4D343D' <4 43X- 43D' QO' F3' $ &- ' <4D34' H4' G3N433 ' & E$ ' H4' E 34 HN- H4O

H&

H&' $EO' C-NF' @H-4 ' 43C13N 3 O ' H' 1$O' $EO' ?- J' H4' ?- J C' H&' P HE3O '
H4' H' DH' $EO' H F34' N ' H4' * F E2 ' $ED' F3E' $EO' C-NF' I 34CHE' H4'
I 34CHEC ' $& 34' F$ E2' Q33E' D- O' 134CHE$ O' C34 3D' F' $' @H1O'
H4' @H1 3C' H&' C-NF' <4D34' H4' G3N433 ' CF$ ' 43&-C3' H4' E32 3N ' H'
NH J 1 O' F343 F ' H4' H' 1$O' F3' ?- J' H4' ?- J C' H&' P HE3O' F343 E'
H4D343D' H' Q3' 1$ D' QO' F J' H4' F3 J ' H4' H' DH' F3' N ' H4' * F E2' 43X- 43D'
QO' C-NF' <4D34' H' Q3' DHE3 ' F E' F3' * J 3' $ED' E' F3' P $EE34' E' $EO'
C-NF' <4D34' H4' G3N433' J 3E HE3D' H4' 3 143CC3D ' ' CF$ ' Q3' $ &- ' &H4'
F3' 5-D23' H4' 5-D23C' FH' CF$ ' F$ 3' J $D3' C-NF' <4D34' H4' G3N433 ' H4' F C'
H4' F3 4' ?-NN3CCH4' H4' ?-NN3CCH4C' E' <&& N3 ' H' 14HEH-EN3' F3' I 34CHE'
H4' I 34CHEC' CH' E32 3N E2' H4' 43&-C E2' H' NH J 1 O' F' C-NF' <4D34'
H4' G3N433' NHE - J $N H-C' $ED' E' NHE 3 J 1 ' $ED' F E' * 3E' G$OC'
$& 34' C-NF' I 34CHE' H4' I 34CHEC' CF$ ' F$ 3' Q33E' CH' 14HEH-EN3D' NHE - J $R
N H-C' $ED' E' NHE 3 J 1 ' H N$-C3' $' @H1O' H&' C-NF' <4D34' H4' G3Q433 ' -ED34'
F3' ?3$ ' H&' F3' @H-4 ' F343 E' F3' C$ J 3' CF$ ' F$ 3' Q33E' J $D3 ' H4'
-ED34' F3' 8 $ED' H4' 8 $EDC' H&' C-NF' 5-D23' H4' 5-D23C ' H4' <E3' H&' F3 J '
H' Q3' 3 3 J 1 & 3D ' $ED' N34 & 3D' H' F3' >H4D' @F$EN3 H4 ' >H4D' %33134'
H4' >H4DC' @H J J CC HE34C' &H4' F3' @-C HDO' H&' F3 M43$ ' ?3$ ' H&' $!% #&'
&H4' F3' * J 3' Q3 E2' 43C13N 3 O ' F3E3 34' F3' I 34CHE' H4' I 34CHEC' FH'
CF$ ' F$ 3' Q33E' CH' 14HEH-EN3D' NHE - J $N H-C' $ED' E' NHE 3 J 1 ' CF$ '
Q3' DH J N 3D' H4' 43C D E2 ' H4' CF$ ' Q3' C3 C3D' H4' 1HCC3CC3D' H&' H4' 3E 3D'
H' $EO' ' 3$ ' H4' I 34CHE$ ' ; C $ 3 ' MHHDC ' @F$ 3 C ' H4' ; &&3N C ' C -$ 3 '
O E2 ' H4' Q3 E2' E' $!% #& ' $ED' F E' & 3' +3' I 34 HD' H&' * 3E' G$OC'
$ED' $& 34' C-NF' $C J 3E HE3D' I 34CHE' H4' I 34CHEC' CF$ ' F$ 3' Q33E' 14HR
EH-EN3D' NHE - J $N H-C' $ED' E' NHE 3 J 1 ' H' N$-C3' $' @H1O' H&' C-NF'
<4D34' H4' G3N433' H' Q3' 3 3 J 1 & 3D ' $ED' N34 & 3D' E' J $EE34' F343 ER
Q3&H43' J 3E HE3D' H' F3' B$4HEC' H&' 8 C' P $(3C O C' @H-4 ' H&' ; NF3X-34'
E' F$ ' I $4 ' H&' F3' #E 3D' % E2DH J ' N$ 3D' $!% #& ' F3E3 34' F3'
I 3 CHE' H4' I 3 CHEC' FH' ?F$ ' F$ 3' Q33E' CH' 14HEH-EN3D' NHE - J $N H-C'
$ED' E' NHE 3 J 1 ' CF$ ' Q3' DH J N 3D' H4' 43C D E2 ' H4' CF$ ' Q3' C3 C3D' H4'
1HCC3CC3D' H&' H4' 3E 3D' H' $EO' ' 3$ ' H4' I 34CHE$ ' ; C $ 3 ' MHHDC '
@F$ 3 C ' H4' ; &&3N C ' C -$ 3 ' O E2 ' H4' Q3 E2' $!% #&-' $ED' F3' C$ D'
>H4D' @F$EN3 H4 ' >H4D' %33134' H4' >H4DC' @H J J CC HE34C' &H4' F3' @-CR
HDO' H&' F3' M43$ ' ?3$ ' H&' $!% #& ' CF$ ' &H4 F F' N$-C3' C-NF' @H1O' H&'
C-NF' <4D34' H4' G3N433 ' F3E' ' CF$ ' Q3' 143C3E 3D' H' F3 J ' 43C13N 3 O '
CH' 3 3 J 1 & 3D ' H' Q3' E4H 3D' E' F3' ' H C' H&' F3' 8 2F' @H-4 ' H&'
@F$EN34O' E' $!% #& ' $ED' CF$ ' F343-1HE' N$-C3' I 4HN3CC' H&' ?3X-3CR
4$ HE' H' CC-3' 2 EC ' F3' ' 3$ ' $ED' I 34CHE$ ' ; C $ 3 ' MHHDC ' @F$ 3 C '
$ED' ; &&3N C ' E' $!% #& ' H&' F3' I $4 O' H4' I $4 3C' 2 EC ' FH J ' C-NF'
<4D34' H4' G3N433' CF$ ' F$ 3' Q33E' J $D3 ' E' H4D34' H' 3E&H4N3' <Q3D 3EN3'
H' $ED' I 34&H4 J $EN3' H&' F3' C$ J 3 ' E' F3' C$ J 3' P $EE34' $ED' 6H4 J ' $ED'
F' F3' +3' I H 34' $ED' ; &&3N ' $C' &' F3' @$-C3' F343 E' C-NF' <4D34'
H4' G3N433' CF$ ' F$ 3' Q33E' J $D3' F$D' Q33E' H4 2 E$ O' NH2E T$Q 3' QO'
$ED' EC - 3D' E' F3' C$ D' @H-4 ' H&' @F$EN34O' E' $!% #& ' $ED' $C' &' $ '
$ED' 3 34O' F3' I 4HN3CC' H&' F3' C$ D' @H-4 ' H&' @F$EN34O' E' $!% #&'
H4D E$4 O' CC- E2' E' @$-C3C' F343' 13ED E2' $E 3N3D3E ' H' I 4HN3CC' H&' '
?3X-3C 4$ HE' F$D' Q33E' D- O' CC-3D' $ED' 43 -4E3D' E' F3' $C J 3E HE3D'
@H-4 ' $ED' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' F3' C$ D' >H4D' @F$EN3 H4 '
>H4D' %33134' H4' >H4DC' @H J J CC HE34C' H&' F3' M43$ ' ?3$ ' E' $!% #& '
H' J $+3' C-NF' <4D34' H4' <4D34C' E' 43C13N ' H&' H4' NHEC3X-3E ' -1HE' C-NF'
?3X-3C 4$ HE ' H4' E' 43C13N ' H&' F3' ' 3$ ' H4' I 34CHE$ ' ; C $ 3 ' MHHDC '
@F$ 3 C ' H4' ; &&3N C' C3X-3C 343D' QO' 4 -3' F343H& ' $C' F3' H4' F3O' CF$ '
&4H J ' * J 3' H' * J 3' F E+' & ' H4' &H4' I $O J 3E ' H&' $ ' H4' $EO' H&' F3'
' ' '

PHE 3C' 3 3D' H4' 43N3 3D' QO' 4 -3 ' F343H&' E H' F3' B$E+' H&'$!% #& '
F' F3' I4 O' H&' F3' NNH-E $E ' M3E34$ ' H&' F3' C$ D' @H-4 ' H&'
@F$EN34O' E' $!% #&' H' F3' @43D ' $ED' &H4' F3' B3E3& ' H&' F3' 1$4 O'
H4' I$4 3C' FH' CF$ ' F$ 3' HQ $ E3D' C-NF' <4D34' H4' G3N433 ' &' F3' C$J3'
$C' &H4' F3' I$OJ3E ' H&' PHE3O ' H4' &' EH ' F3E' H' F3' @43D ' H&' F3'
C$ D' 8 2F' @H-4 ' H&' @F$EN340 ' $ED' F3' MH 34EH4' $ED' @HJ1$EO' H&' F3'
C$ D' B$E+' , '$!% #&' $43' F343QO' $- FH4 T3D' $ED' 43X- 43D' H' 43N3 3'
$ED' FH D' $ ' C-NF' PHE 3C ' C-Q(3N ' H' F3' <4D34C' H&' F3' C$ D' @H-4 ' H&'
@F$EN34O' E' $!% #&' ' I4H D3D' $ $OC ' F$ ' EH' C-NF' PHE 3C' CF$ '
Q3' NF$423D' F' H4' C-Q(3N ' H' IH-ED$23' &H4' F3' #CF34' H&' F3' C$ D'
@H-4 ' H&' @F$EN34O' E' $!% #&' H4' H F34 C3 ' F3E' F3' C$J3' CF$ ' Q3'
1$ D' H- ' QO' <4D34' H&' F3' $C J3E HE3D' @H-4

N ' EH ' H
3 3ED' H
<4D34C' J$D3'
Y =3$4CC EN3

' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' EHE3' H&' F3' I4H C HEC' H&' F C'
N ' CF$ ' 3 3ED' H' $EO' <4D34' H4' G3N433 ' H4' F3' 43&-C E2' H4' E32 3N R
E2' H' 134&H4 J' $EO' <4D34' H4' G3N433 ' F NF' CF$ ' F$ 3' Q33E' J$D3'
JH43' F$E' ? ' =3$4C' Q3&H43' F3' 1$CC E2' H&' F C' N

> J $ HE'
H&' N HEC'

' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' &' $EO' N HE' H4' ?- ' CF$ '
Q4H-2F ' H4' NHJ J3EN3D' &H4' $EO' F E2' DHE3' E' 1-4C-$EN3' H&' F C'
N ' 3 34O' C-NF' N HE' H4' ?- ' CF$ ' Q3' NHJ J3EN3D' F E' *F433'
@$ 3ED$4' PHE FC' E3 ' $& 34' F3' 6$N ' NHJ J 3D ' $ED' EH ' $& 34 $4DC '
$ED' CF$ ' Q3' $ D' $ED' 4 3D' E' F3' @ O' H4' @H-E O' F343 E' F3' @$-C3'
M3E34$
CC-3
H&' N HE' CF$ ' F$ 3' $4 C3E ' $ED' EH ' 3 C3 F343' ($ED' F3' G3&3ED$E ' H4'
G3&3ED$E C' E' C-NF' N HE' H4' ?- ' CF$ ' $ED' J$O' 1 3$D' F3' M3E34$ '
CC-3 ' $ED' 2 3' F C' N ' $ED' F3' C13N $ ' P$ 34' E' ; D3EN3' $ ' $EO'
*E$ ' H' Q3' F$D' F343-1HE ' $ED' F$ ' F3' C$J3' $C' DHE3' E' 1-4C-$EN3'
H4' QO' F3' - FH4 O' H&' F C' N ' $ED' &' F3' C$J3' CF$ ' $113$4' H' F$ 3'
Q33E' CH' DHE3 ' H4' &' $EO' N HE' H4' ?- ' CF$ ' Q3' Q4H-2F ' $& 34' F3'
* J3' J 3D' &H4' Q4 E2 E2' F3' C$J3 ' H4' CF$ ' Q3' $ D' E' $EO' H F34'
@ O ' @H-E O ' H4' I $N3' F$E' $C' $&H43C$ D ' F3E' F3' 5-D23' CF$ ' & ED'
&H4' F3' G3&3ED$E ' H4' G3&3ED$E C ' $ED' -1HE' C-NF' 34D N ' H4' &' F3'
I $ E &&' H4' I $ E &&C' CF$ ' Q3' EHEC- 3D ' H4' C-K4' $' G CNHE E-$EN3' H&'
F3 4' N HE' H4' ?- ' $& 34' F3' G3&3ED$E ' H4' G3&3ED$E C' CF$ ' F$ 3'
$113$43D ' H4' &' -1HE' G3J -4434' 5-D2J3E ' CF$ ' Q3' 2 3E' 2 EC ' F3'
*43Q 3' @HC C' I $ E &&' H4' I $ E &&C ' F3' G3&3ED$E ' H4' G3&3ED$E C' ?F$ ' F$ 3' *43Q 3'
@HC C ' $ED' CF$ ' F$ 3' C-NF' ' 3J3DO' &H4' F3' C$J3' $C' $FO' G3&3ED$E '
H4' G3&3ED$E C' F$ F' H4' F$ 3' &H4' @HC C' H&' ?- ' E' $EO' H F34' @$C3' QO'
>$

>< , G< , ' I4 E 3D' QO' #+.(/+' &(+' $ED')*(+,' O1.223%, ..*+'
I4 E 34C' H' F3' % E2 C' JHC ' ; N3 3E ' P$(3C O' X -B

, , <‘ ? ; @# , G<‘ K‘ * ; ' * <

M # > J # ‘ 0 ‘ ' ; M ?

@ I ‘ W@

E‘ N ‘ &H4‘ 4$ C E2‘ F3‘ ?- J ‘ H&‘ * F 4 33E‘ J HEC‘
‘ 3 2F ‘ F-ED43D‘ $ED‘ E E3 0 C ‘ FH-C$ED‘ C ‘ F-E ‘
D43D‘ I H-EDC‘ QO‘ ; NF3X-34‘ B C ‘ &H4‘ F3‘ ?34 N3‘
H&‘ F3‘ =3$4‘ < E3‘ FH-C$ED‘ 3 2F ‘ F-ED43D‘ $ED‘
F 4 0 H‘ 84 8 ‘ # ‘ 8 B

P HC ‘ M4$N H-C‘ ?H 343 2E
; ‘ "=H-4‘ P $(3C O C‘ J HC ‘ D- &- ‘ $ED‘ HO$ ‘ ?-Q(3N C ‘ F3‘
@H J J HEC‘ H&‘ E3‘ # E 3D‘ % E2DH J ‘ H&‘ ! ‘ " #‘ $ED‘
$!% #&‘ E‘ I $4 $ J 3E ‘ $CC3 J Q 3D ‘ H $4DC‘ 4$ C E2‘ F3‘
E3N3CC$4O‘ ?-11 3C‘ F NF‘ 3‘ F$ 3‘ NF334&- O‘ 24$E 3D‘ -E H‘ =H-4‘
P $(3C O‘ E‘ F C‘ ?3CC HE‘ H&‘ I $4 $ J 3E ‘ F$ 3‘ 43CH 3D‘ H‘ 2 3‘ $ED‘
24$E ‘ -E H‘ =H-4‘ P CO3C O‘ F3‘ ?- J ‘ F343 E $& 34‘ J 3E HE3D‘ ($ED‘ DH
F343&H43‘ J HC ‘ F- J Q O‘ Q3C33NF‘ =H-4‘ P $(3C O‘ F$ ‘ ‘ J $O‘ Q3‘ 3E$N 3D ‘
$ED‘ Q3‘ ‘ 3E$N 3D‘ QO‘ F3‘ % E2 C‘ J HC ‘ ; N3 3E ‘ P $(3C O ‘ QO‘ $ED‘ F‘
F3‘ D N3‘ $ED‘ @HEC3E ‘ H&‘ F3‘ >H4DC‘ ?1 4 -$ ‘ $ED‘ * 3 J 1H4$ ‘ $ED‘
@H J J HEC ‘ E‘ F C‘ 143C3E ‘ I $4 $ J 3E ‘ $CC3 J Q 3D ‘ $ED‘ QO‘ F3‘ - FHR
4 O‘ H&‘ F3‘ C$ J 3 ‘ * F$ ‘ ‘ CF$ ‘ Q3‘ $ &- ‘ &H4‘ F3‘ @H J J CC HE34C‘ H&‘
8 C‘ P $(3C O C‘ * 43$C-4O‘ H&‘ F3‘ # E 3D‘ % E2DH J ‘ H&‘ ! ‘ " #‘ $ED‘
$!% #&‘ $ ‘ $EO‘ * J 3‘ H4‘ * J 3C‘ H‘ N$-C3‘ H4‘ D 43N ‘ $EO‘ , - J Q34‘ H&‘
; NF3X-34‘ B C‘ H‘ Q3‘ J $D3‘ H- ‘ $ ‘ F3‘ ' 3N3 1 ‘ H&‘ F3‘ ; NF3X-34‘ $ ‘
!1 # #1 ! ‘ &H4‘ $EO‘ ?- J ‘ H4‘ ?- J C‘ H&‘ P HE3O‘ EH ‘ 3 N33D E2‘ E‘ F3‘
FH 3‘ F3‘ ?- J ‘ H&‘ * F 4 33E‘ J HEC‘ 3 2F ‘ F-ED43D‘ E E3 0 C ‘ FH-R
C$ED‘ C ‘ F-ED43D‘ I H-EDC ‘ E‘ F3‘ C$ J 3‘ H4‘ +3‘ P $EE34 ‘ 6H4 J ‘ $ED‘
[‘ ?‘ < 4D34

* F3‘ * 43$C-4O‘ J $O‘ 4$ C3‘ S ZVY Y [[QO‘ ; NF3X-34 B C ‘ E‘ +3‘ P $EE34‘ $C‘ C 143CN4 Q3D‘ QO‘ Z‘ ! S ‘ N‘

<4D34'ED'NNH4DE2' H' F3' C$J3' H4' +3 ' - 3C' $ED' G 43N HEC'$C' $43' 143CN4Q3D' E' $E N' 1$CC3D' E' F3' 6H4 O 3 2F F' =3$4' H&' F3' '3 2E' H&' 8 C' P$(3C O' % E2' !, (!' F3' *F 4D' E - 3D' /#' /'' , ' !(3% #(')!' 113 #(' #&' #(' , ', '8J')!V3! '" %%1

*F3' @$-C3C' KN' E' 43N 3D' ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' $ ' $ED' 3 34O' F3' @$-C3C' I4H CH3C' IH 34C' I4 323C' D $E $23C' I3E$ 3C' 6H4&3 -43C' $ED' G C$Q 3C' NHE $ E3D' E' F3' C$ D' N ' CF$ ' Q3' $11 3D' $ED' 3 3ED3D' H' F3' ; NF3X-34' B C' H' Q3' J$D3' H- ' E' 1-4C-$EN3' H&' F C' N ' $C' &- O' $ED' 3&&3N -$ O' H' $ ' E 3E C' $ED' I -41HC3C' $C' &' F3' C$ D' C3 34$' @$-C3C' H4' I4H CH3C' F$D' Q33E' 1$4 N- $4 O' 4313$ 3D' $ED' 43 3E$N 3D' E' F3' BHDO' H&' F C' N

*43$C-4O' H' $11 O' F3' PHE3O'4$C3D' 8 ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' 'CF$ ' Q3' $ &-' &H4' F3' C$ D' @H J J CC HE34C' H&' F3' *43$C-4O' H' CC-3' $ED' $11 O' &4H J' * J3' * J3' $ ' C-NF' ?-JC' H&' PHE3O' $C' CF$ ' Q3' 4$ C3D' QO' ; NF3X-34 B C' H' Q3' J$D3' H- ' E' 1-4C-$EN3' H&' F C' N ' H' C-NF' ?34 N3C' $C' CF$ ' F3E' F$ 3' Q33E' H 3D' QO' F3' @H J JHEC' H&' F3' #E 3D' % E2DH J' H&' ! '" #' $ED' $!% #&' E' F C' 143C3E' ?3CC HE' H&' I$4 $J3E

B C' H' Q3' 1OQ 3' H-' H&' ?-11 3C' H&' F3' E3 ' ?3CC HE ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' I4 EN 1$' ?-J' H4' ?-JC' H&' PHE3O' H Q3' NHE $ E3D' E' C-NF' ; NF3X-34' B C' CF$ ' Q3' $ED' $43' F343QO' NF$423D' $ED' NF$423$Q 3' -1HE' $ED' CF$ ' Q3' 1$ D' $ED' D CNF$423D' QO' $ED' H- ' H&' F3' & 4C' ?-11 3C' H' Q3' 24$E 3D' E' F3' E3 ' ?3CC HE' H&' I$4 $J3E

E 343C' HE' ; NF3X-34' B C O ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' ; NF3X-34' B C' H' Q3' J$D3' H- ' E' 1-4C-$EN3' H&' F C' N ' CF$ ' Q3$4' G$ 3' HE' F3' G$OC' HE' F NF' F3' C$J3' CF$ ' Q3' 43C13N 3 O' CC-3D' $ED' CF$ ' $ED' J$O' Q3$4' $E' E 343C' EH ' 3 N33D E2' F3' ' $ 3' H&' *F433 13EN3' 8$ &13EEO' 5! ' I!# 3 '5! '2 ! ' -1HE' H4' E' 43C13N' H&' F3' FH 3' H&' F3' PHE 3C' 43C13N 3 O' NHE $ E3D' F343 E' 1OQ 3' H- ' H&' $EO' DC' H4' ?-11 3C' E' F3' '3N3 1 ' H&' 8 C' P$(3C O C' ; NF3X-34' $ ' !1 #1 !

B C' H' Q3' ' N-443E' $' F3' ; NF3X-34' ' ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' $ ' $ED' 3 34O' F3' ; NF3X-34' B C' H' Q3' J$D3' &H4 F' QO' 4 -3' H&' F C' N ' H4' CH' J$EO' H&' F3 J' $C' * J3' H' * J3' 43 J$ E' -ED CNF$423D' $ED' -ENf EN3 3D' CF$ E$O' &4H J' $ED' $& 34' F3' 6 & F' G$O' H&' / 5 %' <E3' FH-C$ED' 3 2F F-ED43D' $ED' F 4 O F433' Q3' 43N3 3D' $ED' $+3E' $ED' CF$ ' 1$CC' $ED' Q3' N-443E ' H' $ ' $ED' 3 34O' F3' '3N3 34C' $ED' @H 3N H4C' E' ! '" #' H ' F3' @-C HJC' ; N C3' H4' $EO' '3 3E-3' ?-11 O' D' H4' *$ ' F$ R CH3 34' $ 43$DO' 24$E 3D' D-3' H4' 1OQ 3' H4' F NF' CF$ ' H4' J$O' F343$& 34' Q3' 24$E 3D' D-3' H4' 1$O$Q 3' H' 8 C' P$(3C O' 8 C' 8 3 4C' $ED' ?-NN3CCH4C' $ED' $ CH' $ ' F3' '3N3 1 ' H&' F3' C$ D' ; NF3X-34' &4H J' F3' C$ D' '3N3 34C' H4' @H 3N H4C' H4' &4H J' $EO' H F34' I34CHE' H4' I34CHEC' BHD 3C' IH N' H4' @H41H4$ 3' F$ CH3 34' J$+ E2' $EO' I$O J3E ' F343' H' 8 C' P$(3C O' 8 C' 8 3 4C' $ED' ?-NN3CCH4C' &H4' H4' -1HE' $EO' NNH-E ' @$-C3' H4' <NN$C HE' F$ CH3 34' $NNH4D E2' H' F3' I -41H4' $ED' 4-3' P3$E E2' H&' F C' N ' $ED' F$ ' C-NF' H&' F3' C$ J3' B C' $C' CF$ ' Q3' 43N3 3D' $ ' F3' C$ D' ; NF3X-34' CF$ ' $ED' J$O' Q3' HN+3D' -1' $ED' C3N-43D' $C' @$CF' $NNH4D E2' H' F3' @H-4C3' H&' F3' C$ D' ; NF3X-34' C3 3D' $ED' 3C $Q CF3D' QO' >$ ' &H4' HN+ E2' -1' $ED' C3N-4 E2' PHE 3C' 43N3 3D' E' ?13N 3' F343

' ' ED

UL K S M#> ; > P @$1 V ZW

ED Q3 D3N $43D $ED &-4 F34 3E$N 3D *F$ CF$ $ED& ; +? *D
J$O Q3 $ &- &H4 F3 MH 34EH4 $ED @H J 1$EO H& F3 B$E+ , 8#(% #& & <) &B
H $D $EN3 H4 3ED H 8 C P$(3C O -1HE F3 @43D H& F3 ; NF3X-34 &<2& H(
B C H Q3 J$D3 H- E 1-4C-$EN3 H& F C N $EO ?- J H4 ?- JC H& 1 - 1
P HE3O EH 3 N33D E2 E F3 FH 3 F3 ?- J H& *F 4 33E J HEC 3 2F + #J(!(<)#
F-ED43D E E3 O C FH-C$ED C F-ED43D I H-EDC $EO F E2 E $E +?#J)A H#1
N J$D3 E F3 6 & F $ED ? F =3$4C H& F3 ' 3 2E H& % E2 %% +#L)#JD
$ED \ -33E E - 3D / # / ' ' , (# #(, 7) ! U!1 !1 A#& <) *
1!0! % L !1 #& 2 3 !1 35,# 7,## (! , +) 51 #& C!11!%1 #& 35,# . 4 > 4
" ! ! / %! #& ,) ! < V3 , 1= #& , 1!'3 #(' ! # " ! ' , 5!#'!1
#& / &0 # (!1 #) ! 1 & / ' ' !# ,#!& , 13')*! 1,#1 1 1) %%
0,%3# % &0 #'!) ! +3 , 6#! %% ,# 0!)3#& !&),31 #&
*,3#&1 ,F &1 ' #(,#) ! (#1 64$EN3 H4 E $EO C-QR
C3X-3E N H F3 NHE 4$4O F343H& E $EO C3 EH FC $ED E2

> < , G < , : I4 E 3D QO $ED
I4 E 34C H F3 % E2 C J HC ; N3 3E P$(3C O ZZU

ʻ ! " ʻ#ʻ $

M#> ;>P ʻ 4 ʻ ' ;M ?

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Eʻ Nʻ&H4ʻ 24$E E2ʻ Hʻ 8 Cʻ P$(3C Oʻ -E ʻ F3ʻ 6&Fʻ Gʻ$Oʻ H&ʻ % ʻ <E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ F 4 Oʻ` F433ʻN34 $ EʻG- 3Cʻ HEʻ?-2$4ʻ J 1H4 3Dʻ E Hʻ F3ʻ #E 3Dʻ % E2DH J ʻ &H4ʻ F3ʻ ?34 N3ʻ H&ʻ F3ʻ =3$4ʻ <E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ F 4 O Hʻ

8 ʻ # ʻ ; *;/

PHC ʻ M4$N H-Cʻ ?H 343 2E

> ; ʻ =H-4ʻ P$(3C O Cʻ JHC ʻ D- &- ʻ $EDʻ HO$ ʻ ?-Q(3N C ʻ F3ʻ @H J JHECʻ H&ʻ F3ʻ #E 3Dʻ % E2DH J ʻ H&ʻ ! ʻ " #ʻ $EDʻ $!% #&ʻ Eʻ I$4 $J3E ʻ $CC3 J Q 3D ʻ H $4DCʻ 4$ C E2ʻ F3ʻ E3N3CC$4Oʻ ?-11 3Cʻ Hʻ D3&4$Oʻ =H-4ʻ P$(3C O Cʻ 1-Q Nʻ ; 1@EN3C ʻ F$ 3ʻ &433 Oʻ $EDʻ H -E $4 Oʻ 43CH 3Dʻ Hʻ 2 3ʻ $EDʻ 24$E ʻ -E Hʻ =H-4ʻ P$(3C Oʻ F3ʻ G- 3Cʻ F343 E $& 34ʻ J 3E HE3D ʻ $EDʻ F343&H43ʻ DHʻ JHC ʻ F-J Q Oʻ Q3C33NFʻ =H-4ʻ P$(3C Oʻ F$ ʻ ʻ J $Oʻ Q3ʻ 3E$N 3Dʻ ʻ $EDʻ Q3ʻ ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ JHC ʻ ; N3 3E ʻ P$(3C O ʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3E ʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ ʻ $EDʻ *3 J 1H4$ ʻ $EDʻ @H J JHEC ʻ Eʻ F Cʻ 143C3E ʻ I$4 $J3E ʻ $CC3 J Q 3D ʻ $EDʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$J3 *F$ ʻ F3ʻ G- 3Cʻ J 1HC3Dʻ HEʻ ?-2$4ʻ $EDʻ PH $CC3C ʻ $EDʻ F3ʻ BH-E 3Cʻ $ H 3Dʻ F343HE ʻ QOʻ $Eʻ N ʻ 1$CC3Dʻ Eʻ F3ʻ 6 4C ʻ =3$4ʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ 143C3E ʻ P$(3C O ʻ E - 3Dʻ / #ʻ / ' ʻ , ʻ(# #(ʻ ,ʻ 1ʻ U!1 ʻ 3# %ʻ)!ʻR)ʻ2 ʻ, ʻ 6#!ʻ),31 #&ʻ! ()ʻ)3#& !&ʻ #&ʻ) ʻ ,#!ʻ '! #ʻ 2 3 !1ʻ,#ʻ +3(ʻ 5, !&ʻ #,ʻ)!ʻ O# !&ʻ #(&, ʻ, ʻ)!ʻ+! 0 '!ʻ , ʻ)!ʻ H! ʻ 6#!ʻ),31 #&ʻ! ()ʻ)3#& !&ʻ #&ʻ) ʻ $EDʻ F NFʻ F$ 3ʻ Q33Eʻ &-4 F34ʻ NHE E-3Dʻ -E ʻ F3ʻ *3E Fʻ Gʻ$Oʻ H&ʻ 6 ' ,4! ʻ <E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ F 4 O Hʻ CF$ ʻQ3ʻ $EDʻ F3ʻ C$J3ʻ ʻ $43ʻ F343QOʻ &-4 F34ʻ NHE E-3Dʻ -E ʻ F3ʻ 6&Fʻ Gʻ$Oʻ H&ʻ / 5 %ʻ <E3ʻ FH-R C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ F 4 O F433

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+)(A' '&)<') #+' #J(' NHJ(OG(!' H# AJ&J' I(' A('&!&#('?!+@' +#J(!' "&B%' @(#A

8 ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F343' CF$' Q3' 14H D3D' $ED' +31' E' F3' <&& N3' H&' F3' -D H4' H&' F3' '3N3 1' H&' 8 C' P$(3C O C ; NF3X-34' $' !1 #1 !' <E3' BHH+' H&' '32 C 34' E' F NF' $' F3 PHE3O' F$'CF$' Q3' 1$ D' E H' F3' C$ D' ; NF3X-34' &4H J' CH' J -NF' H&' F3' C$ D' '$ 3C' $ED' G- 3C' F343QO' 24$E 3D' HE' ?-2 4' $C' CF$' $4 C3' $ED' Q3' 1$O$Q 3' ' Y !, ' " #' CF$' Q3' 3E 343D' ED' 432 C 343D' $1$4' $ED' D C EN' &4H J' $' H F34' P HE 3C' 1$ D' $ED' 1$O$Q 3' H' 8 C' P$(3C O' $ED' 'CF$' Q3' $ &-' &H4' F3' @H J J CC HE34C' H&' F3' *43$C-4O' H&' F3' #E 3D' % E2DH J' H&' ! ' " #' $ED' $!% #&' H' CC-3' $ED' $11 O' F3' C$J3' &4H J' * J3' H' * J3' H' C#NQ' ?34 N3C' $C' CF$' F3E' F$ 3' Q33E' H 3D' QO' F3' @H J JHEC' H&' F3' #E 3D' % E2DH J', ' ! ' " #' $ED' $!% #&' E' F C' 143C3E' ?3CC HE' H&' I$4 $J3E' $ED' F$' CH' J -NF' H&' F3' C$ D' G- 3C' HE' ?-2$4' $C' CF$' $4 C3' $ED' Q3' 1$O$Q 3' E' $!% #&' CF$' Q3' 1$ D' E H' F3' '3N3 1' H&' F3' ; NF3X-34' F343' $ED' CF$' Q3' N$44 3D' H' F3' @HECH D$ 3D' 6-ED' H&' F3' #E 3D' % E2DH J' H&' ! ' " #' 1JJ& $!% #&

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' ED' Q3' '&-4 F34' 3E$N 3D' *F$' ' CF$' Q3' $ &-' &H4' F3' C$ D' @H J J CC HE34C' H&' 8 C' P$(3C O C' *43$C-4O' $' $EO' * J3' H4' * J3C' F3E' F3O' CF$' F E+' F' CH' H' DH' H' N$-C3' H4' D 43N' $EO' , - J Q34' H&' ; NF3X-34' B C' H' Q3' J$D3' H-' $' F3' '3N3 1' H&' F3' ; NF3X-34' $' !1 #1 ! ' &H4' $EO' ?- J' H4' ?- J C' H&' P HE3O' EH' 3 N33D E2' E' F3' FH 3' EN -D E2' $EO' ?- J' H4' ?- J C' H&' P HE3O' CC-3D' H $4DC' F3' DC' H4' ?-11 3C' E' 1-4C-$EN3' H&' F C' N ' F3' ?- J' H&' <E3' J HE' & 3' F-ED43D' FH-C$ED' I H-EDC' E' F3' C$J3' H4' +3' P$EE34' 6H4 J' $ED' <4D34' $ED' $NNH4D E2' H' F3' C$J3' H4' +3' ' - 3C' $ED' G 43N HEC' $C' $43' D 43N 3D' $ED' 143CN4 Q3D' E' $ED' Q ' $E' N ' 1$CC3D' E' F3' 6H4 O' 3 2F F' =3$4' H&' F3' '3 2E' H&' 8 C' $ 3' P$(3C O' % E2' !, (!' F3' *F 4D'
9 ' : ' ' E - 3D' / #' / ' ' , ' !(3% #(')!' 113 #(' #&'5 #(', ', '8J')!VF' " %%1

"+L(!A'+?' 9 ' : ' 'H' ' (N#(<(<' #+' #J)A' H#

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' $' $ED' 3 34O' F3' @ $-C3C' I 4H CH3C' I H 34C' I 4 323C' D $E $23C' I 3E$ 3C' 6H4&3 -43C' $ED' G C$Q 3C' NHE $ E3D' E' F3' C$ D' 43N 3D' N ' 1$CC3D' E' F3' 6H4 O 3 2F F' =3$4' H&' F3' '3 2E' H&' 8 C' C$ D' $ 3' P$(3C O' CF$' Q3' $11 3D' $ED' 3 3ED3D' H' F3' ; NF3X-34' B C' H' Q3' J$D3' H-' E' 1-4C-$EN3' H&' F C' N ' $C' & O' $ED' 3&&3N -$ O' H' $ ' E 3E C' $ED' I -41HC3C' $C' &' F3' C$ D' C3 34$' @ $-C3C' H4' I 4H CH3C' F$D' Q33E' 1$4R N- $4 O' 4313$ 3D' $ED' 43 3E$N 3D' E' F3' BHDO' H&' F C' N

% C Q3$4 & ' #(!(A#1'

&-4 F34' 3E$N 3D' *F$' F3' ; NF3X-34' B C' H' Q3 J$D3' H-' '1-4C-$EN3' H&' F C' N ' CF$' $ED' J$O' Q3$4' $E' E 343C' EH' 3 N33D E2' F3' '$ 3' H&' 6H-4' I H-EDC' 5! ' I !#3 '5! ' / ##3 ' -1HE' H4' E' 43C13N' H&' F3' FH 3' H&' F3' P HE 3C' 43C13N 3 O' NHE $ E3D' F343 E

. 2' H&' 6 %' $EN3 PHE3O ' HE' F3' @43D '

>' ED' Q3' 'D3N $43D' $ED' 3E$N 3D' *F$' ' CF$' Q3' $ &-' &H4' MH 34EH4' $ED' @H J 1$EO' H&' F3' B$E+' H&' 8 #(% #&' H' $D $EN3' H4' ' ED' H' 8 C' P$(3C O' $' F3' '3N3 1' H&' F3' ; NF3X-34' $' !1 #1 ! #1HE

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U K' S' M#> ; >P ' ' @$1 V! V[S

-1HE' F3' @43D ' H&' F3' ; NF3X-34' B C' $- FH4 T3D' QO' F C' N ' $EO' #J)A' H#1'
?- J' H4' ?- J C' H&' P HE3O' EH ' 3 N33D E2' E' F3' FH 3' F3' ?- J' H&' <E3'
J HE' & 3' F-ED43D' FH-C$ED' I H-EDC ' $E0 F E2' E' $E' N ' J $D3' CK3 9 KP'
E' F3' 6 & F' $ED' ? F' =3$4C' H&' F3' ' 3 2E' H&' % E2' %% ' $ED' \ -33E' N' U['
' E - 3D' / #' / ' ' , '(# #(' ,' 7)! ' U!1 !1' 1!0! %' L !1'
#&' 2 3 !1' 35,#' 7,## (!' , '+) 51' #&' C!11!%1' #&' 35,#' " !! ' / %! '
#&' ,) ! ' < V3, 1'=' #& , '1!'3 #(' '! #' L!', 5!#'!1' #&' / &0 #[
(!1' #')!' 1 &' / ' ' !# ,#!&' ,' 13')' *! 1,#1' 1' 1) %%' 0,%3# % '
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F3' NHE 4$4O' F343H&' E' $E0 C3' EH FC $ED E2

>' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' 'CF$ 'Q3' $ &-'&H4' F3' C$ D') A' #+' I('
@H J J CC HE34C' H&' F3' *43$C-40' $ED' F3O' $43' F343QO' $- FH4 T3D' $ED'
3 J 1H 343D' H' N$-C3' C-NF' B C' $C' CF$ ' Q3' 1431$43D' QO' 4 -3' H&' F C' ; NF3X-34 '
N ' H' Q3' 1 $N3D' $C' CH' J -NF' @$CF' E' F3' 43C13N 3' <&& N3C' H&' F3'
*3 34C' H&' F3' C$ D' ' 3N3 1 ' H&' ; NF3X-34' 3$NF' $ED' 3 34O' H&' F NF'
*3 34C' CF$ ' Q3' C3 34$ O' NF$423D' F' $' I4H1H4 HE' H&' F3' C$ D' B C' '
F NF' CF$ ' Q3' CH' 1 $N3D' E' F C' <&& N3' 43C13N 3 O ' $EO' >$ ' H4' #C$23'
H' F3' NHE 4$4O' EH FC $ED E2

W' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' F3' C$ D' ; NF3X-34' B C' H Q3'
E' F3' 8$EDC' H&' F3' C$ D' *3 34C' F$ ' Q3' HN+3D' -1' $ED' C3N-43D' $C'
@$CF' $NNH4D E2' H' F3' @H-4C3' H&' F3' ; NF3X-34' $' !1 #1 ! ' $ED' #J(!(+G#')'
CF$ ' Q3' $+3E' $ED' 3C 33 J 3D' $C' CH' J -NF' E' 1$4 ' H&' F3' ' 3 J $ EC' E' +@@+ ' L)#J'
43$' P HE3O' F343 F' 3$NF' H&' F3' C$ D' *3 34C' CF$ ' &4H J' * J 3' H' +#J(! +)(A
* J 3' C $ED' NF$423D' E' NH J J HE' F' H F34' F3' P HE 3C' E' F3' C$ D'
; NF3X-34' $EO' >$ ' H4' #C$23' H' F3' NHE 4$4O' EH FC $ED E2 ' $ED'
'CF$ ' Q3' $ &-'&H4' F3' C$ D' @H J J CC HE34C' H&' F3' *43$C-40' H' CC-3'
$ED' $11 O' F3' C$ J 3' &4H J' * J 3' H' * J 3' H' C-NF' ?34 N3C' $C' CF$ ' F3E'
F$ 3' Q33E' H 3D' QO' F3' @H J J HEC' H&' F3' #E 3D' % E2DH J' H&' '
" #' $ED' $!% #&' E' F C' 143C3E ' ?3CC HE' H&' I $4 $ J 3E

W' I 4H D3D' $ $OC' $ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' F3' ; NF3R NHJ(OG(!'
X-34' B C' H' Q3' J $D3' &H4 F' QO' 4 -3' H&' F C' N ' H23 F34' F') A' #+' J('
F3' E 343C ' F$ ' J $O' Q3NH J 3' D-3' F343HE' $ED' F3' @F$423C' H&' HJ&!*(<' + '
3 NF$E2 E2' $ED' N 4N- $ E2' F3' C$ J 3' CF$ ' Q3' $ED' F3' C$ J 3' $43' #J(' $G#)(A'
F343QO' J $D3' NF$423$Q 3' $ED' NF$423D' -1HE' F3' ' $ 3C ' G- 3C ' $ED' *!& #(<' IB'
CC3CC J 3E C' 24$E 3D' QO' F C' N ' $ED' 'CF$ ' Q3' $ &-'&H4' F3' #J)A' H#
C$ D' @H J J CC HE3D' H&' F3' *43$C-40' $ED' F3O' $43' F343QO' $- FH4 T3D'
&4H J' * J 3' H' * J 3' H' D 43N ' H' Q3' CC-3D' H' F3' C$ D' I $0 J $C 34C ' QO'
$O' H&' J 143C ' $ED' -1HE' NNH-E ' C-NF' ?- J C' H&' P HE3O' $ED' $ '
C-NF' I 34 HDC' $C' F3' C$ D' @H J J CC HE34C' CF$ ' F E+' E3N3CC$4O ' &H4' H4'
H $4DC' 1$O E2' H&& $ED' D CNF$42 E2' F3' ; NF3X-34' B C' F NF' CF$ '
F$ 3' Q33E' J $D3' &H4 F' QO' 4 -3' H&' F C' N ' H4' $EO' H&' F3 J ' $ED' &H4'
$ED' H $4DC' 1$O E2' F3' E 343C ' H' Q3NH J 3' D-3' HE' F3' C$ D' B C'
$ED' &H4' $ED' H $4DC' F3' @F$423' H&' 3 NF$E2 E2' $ED' N 4N- $ E2' F3'
C$ J 3' B #C ' H4' $EO' H&' F3 J

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' HE' F3' 6 & F' G$O' H&' ?3% ' HH+G+#'+?'
<E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433' H4' F E' *3E' G$OC' ; F3X-34
'$& 34' F3' C$ D' @H J J CC HE34C' H&' F3' *43$C-40' H4' $EO' *F433' H4' J H43'
H&' F3 J' EH 'Q3 E2' H4' F3' >H4D' 8 2F' *43$C-434' H4' $EO' *F433' H4
@+!(

J H43' H&' F3' C$ D' @H J J CC HE34C' H&' F3' * 43$C-40' H&' F3' # E 3D' % E2R DH J' H&' ! ' " #' $ED' $!% #&' &H4' F3' * J 3' Q3 E2 ' CF$ ' N$-C3' $' 4-3' $ED' 134&3N ' NNH-E ' E' 9 4 E2' H' Q3' $F3E' $ED' $ 3C 3D' QO' F3' 14H134' <&& N34C' H&' F3' J H-E ' H&' $ ' ; NF3X-34' B C' F$ ' CF$ ' F$ 3' Q33E' CC-3D' QO' 4 -3' H&' EC' N ' $ED' FH ' J -NF' F343H&' CF$ ' Q3&H43' F$ ' * J 3' F$ 3' Q33E' 1$ D' H&&' H4' D CNF$423D ' $ED' FH ' J -NF' F343H&' CF$ ' F3E' 43 J $ E' -ED CNF$423D

+ (B' <G(' + ' NHJ(OG(!' $DH- H& #J(' (N# L')<A'

W ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F3' P HE 3C' CH' 43 J $ E E2' -EC$ C& 3D' >O' EHA' D CNF$423D ' F' F3' E 343C ' D-3' H4' H' 24H ' D-3' F343HE ' $ED' F3' @F$423C' H&' 3 NF$E2 E2' $ED' N 4N- $ E2' F3' C$ J 3' F3' 1$ D' $ED' C$ C& 3D' H- ' H&' F3' E3 ' D' H4' DC' H' Q3' 24$E 3D E' I $4 $ J 3E ' $& 34' F3' C$ D' 6 & F' G$O' H&' ?3% ' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O F433

G! ' GA' +)(A' #+' Q3' S /A+)<&#(< G <'

W ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F3' ?-41 -C' H&' F3' P HE 3C $4 C E2' &4H J' F3' ' $ 3C ' G- 3C ' $ED' CC3CC J 3E C' 24$E 3D' $ED' J 1HC3D' QO' F C' N ' $& 34' 1$O E2' H&&' $ED' C$ C&O E2' $ ' F3' ; NF3X-34' B C' CC-3D' QO' 4 -3' H&' F C' N ' H23 F34' F' F3' E 343C ' F$ ' J $O' Q3NH J 3' D-3' F343HE ' $ED' F3' @F$423C' H&' 3 NF$E2 E2' $ED' N 4N- $ & 2' F3' C$ J 3' CF$ ' $C' $' ?-41 -C' H&' $EO' C-NF' P HE 3C' 43C13N 3 O' CF$ ' Q3' 1$ D' E H' F3' ' 3N3 1 ' H&' F3' ; NF3X-34' $ ' !1 #1 ! ' Q3' N$44 3D' H' $ED' J $D3' I $4 ' H&' F3' @HECH D$ 3D' 6 - D' H&' F3' # E 3D' % E2DH J' H&' ! ' " #' $ED' $!% #&

J(' !(&AG!B' #+' & +L' #J(' (H(AA&!B' J&! * (A' +?' @&;) * ?+!#J' (L' NHJ(D OG(!') AP

W ' I4H D3D' $ CH ' $ED' Q3' ' 3E$N 3D ' * F$ ' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' F3' @H J J CC HE34C' H&' 8 C' P $(3C O C' * 43$C-40' H4' $EO' * F433' H4' J H43' H&' F3 J' EH ' Q3 E2 ' , ' F3' C$ D' >H4D' 8 2F' * 43$C-434' H4' $EO' * F433' H4' J H43' H&' F3' C$ D' @H J J CC HE34C' H&' F3' * 43$C-40' &H4' F3' * J 3' Q3 E2 ' $ED' F3' H4' F3O' C' $ED' $43' F343QO' $- FH4 T3D' $ED' 3 J R 1H 343D ' H' 1$O' $ED' $ H ' H4' N$-C3' H' Q3' 1$ D' $ED' $ H 3D ' H- ' H&' F3' P HE 3C' H' $4 C3' H&' H4' &4H J' F3' C$ D' ' $ 3C' $ED' G- 3C' F343QO' 24$E 3D ' H4' H&' H4' &4H J' F3' C$ D' @HECH D$ 3D' 6-ED ' &4H J' * J 3' H' * J 3 ' F3' E3N3CC$4O' @F$423C' H&' J $+ E2' &H4 F' F3' E3 ' ; NF3X-34' B C' F343QO' $- FH4 T3D' H' Q3' J $D3' &H4 F ' $ED' C-NF' H F34' @F$423C' $C' CF$ ' Q3' E3N3CC$4 O' EN D3E ' E' H4' &H4' F3' ; 3N- HE' H&' F C' N ' H4' $EO' I $4 ' F343H&' E' 43 $ HE' H' F3' C$ D' B C ' $EO' F E2' F343 E' NHE $ E3D' H' F3' NHE 4$4O' EH FC $ED E2

#+' I (' !(D ' &H(<' +G# +?' #J(' ?)!A# G' ')(A

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> < , G < , ' I4 E 3D' QO' # + . (/ +' & (+' $ED') * (+ , ' O1 . 223% , . . * + ' I4 E 34C' H' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' ZS

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Eʿ N ʿ &H4ʿ F3ʿQ3 34ʿ ; J 1 HO J 3E ʿ H&ʿ >$QH-434Cʿ Eʿ
24 N- -4$ ʿ I $4 CF3Cʿ -E ʿ F3ʿ * 3E O & & Fʿ G $Oʿ
H&ʿ ')ʿ 6 # !ʿ FH-C$EDʿ 3 2F ʿ F-ED43Dʿ $EDʿ F 4 O ʿ
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9 8 ; ' ; ?ʿ EH FC $ED E2ʿ F3ʿ J $EOʿ >$ Cʿ Eʿ &H4N3ʿ &H4ʿ
F3ʿ ' 3 3&ʿ $EDʿ ; J 1 HO J 3E ʿ H&ʿ F3ʿ I HH4ʿ J $EOʿ $Q 3 ʿ
QHD 3Dʿ >$QH-434Cʿ $43ʿ &43X-3E Oʿ 3E 43 Oʿ D3C - 3ʿ H&ʿ
9 H4+ʿ H4ʿ -E14H& $Q Oʿ 3 J 1 HO3D ʿ $EDʿ Eʿ J $EOʿ EC $EN3Cʿ 43N3 3ʿ EC-&R
& N 3E ʿ H $EN3ʿ &H4ʿ F3 4ʿ ?-11H4 ʿ &4H Jʿ F3ʿ I QH4ʿ ' $ 3C ʿ EDʿ
F343$Cʿ F3ʿ P HD3ʿ H&ʿ 14H D E2ʿ ; J 1 HO J 3E ʿ &H4ʿ F3ʿ I HH4ʿ F NFʿ
J $OʿQ3ʿ 3 13D 3E ʿ Eʿ CH J 3ʿ I $4 CF3Cʿ J $Oʿ Q3ʿ E3 13D 3E ʿ Eʿ H F34C ʿ $EDʿ
ʿ J $Oʿ F343&H43ʿ Q3ʿ D3C 4$Q 3ʿ Hʿ 3 3EDʿ F3ʿ I H 34Cʿ H&ʿ I $4 CFʿ 3C 4 3Cʿ
Eʿ H4D34ʿ F$ ʿ C-NFʿ $ʿ @H-4C3ʿ J $OQ3ʿ 1-4C-3Dʿ $Cʿ J $Oʿ Q3ʿ Q3C ʿ D1 3Dʿ Hʿ
F3ʿ 13N- $4ʿ @ 4N- J C $EN3Cʿ H&ʿ 3$NFʿ I $4 CFʿ . EDʿ F343$Cʿ QOʿ $Eʿ N ʿ
1$CC3Dʿ Eʿ F3ʿ 6 & O 3 2F Fʿ =3$4ʿ H&ʿ F3ʿ ' 3 2Eʿ H&ʿ 8 Cʿ $ 3ʿ P $(3C Oʿ % E2ʿ
! , (!ʿ F3ʿ * F 4D ʿ E - 3Dʿ / #ʿ / ' ʿ , ʿ) !ʿ L ! (3% , #ʿ , ʿ * 1) ʿ !ZM S ʿN ʿYVʿ
C!1 !1 ʿ I 4H C HEʿ Cʿ J $D3ʿ Hʿ 432- $ 3ʿ F3ʿ P $EE34ʿ H&ʿ H E2ʿ F343 Eʿ .
B3ʿ ʿ F343&H43ʿ 3E$N 3Dʿ QOʿ F3ʿ % E2 Cʿ J HC ʿ ; N3 3E ʿ P $(3C O ʿ QOʿ
$EDʿ Fʿ F3ʿ D N3ʿ $EDʿ @HEC3E ʿ H&ʿ F3ʿ >H4DCʿ ?1 4 -$ ʿ $EDʿ * 3 J R
1H4$ ʿ $EDʿ @H J J HEC ʿ Eʿ F Cʿ 143C3E ʿ I $4 $ J 3E ʿ $CC3 J Q 3D ʿ $EDʿ QOʿ
F3ʿ - FH4 Oʿ H&ʿ F3ʿ C$ J 3 ʿ * F$ ʿ &4H J ʿ $EDʿ $& 34ʿ F3ʿ 6 4C ʿ G $Oʿ H&ʿ 2433 J3E Cʿ
6 ' , 4 ! ʿ E3 ʿ F3E3 34ʿ $ ʿ $ʿ P 33 E2ʿ H&ʿ $ʿ I $4 CFʿ 3C 4O ʿ NHE 3E3Dʿ
$NNH4D E2ʿ Hʿ F3ʿ I 4H C HECʿ $EDʿ G 43N HECʿ H&ʿ $Eʿ N ʿ 1$CC3Dʿ Eʿ F3ʿ ' !+2(<ʿ +?ʿ IBʿ
[ʿ #ʿ 6 & O ʿ 3GA#)H(A1ʿ #+

Q3 Q ED E2 HE F3 ' $ 3 $ — 6 & O 3 2Q F =3$4 H& F3 ' 3 2E H& % E2 ! , (! F3 * F 9 ' E - 3D / # / ' ' , ') ! L ! (3% ,# * 1) ' C!1 !1 ' $ P $(H4 O H& * F433 6H-4 FC H& F3 ' $ 3 I$O34C H&$EO I$4 CF ' * H ECF 1 ' ' H4 I $N3 J $ E $ E E2 C H E IHH4 ' F3 H 3C Q3 E2 H+3E $3NH4D E2 - ' F3 I4H C HEC H& F3 C$ D N ' CF$ ' NH J 3 H $EO 2433 J 3E ' CH 3 O&H4 F3 I-41D&33 H& 3 J 1 HO E2 H4 43 3 E2 F3 IHH4 H& C-NF I$4 CF ' * H ER CF 1 ' ' H4 I $N3 ' C-NF 2433 J 3E ' CF$ ' &H4 F F Q3 43D-N3D E H 9 4 E2 ' $ED CF$F Q3 C-Q J 3D H F3 5-C N3 H& F3 I3$N3 $CR C3 J Q 3D $ ' F3 I3 O ?3CC HEC F3E E30 ' FH D3E E $ED &H4 F3 G C HE ' 8-ED43D ' H4 ' D E2 E F NF F3 C$ D I$4 CF ' * H ECF 1 ' ' H4 I $N3 CF$ ' Q3 C -$ 3 ' $ED E N$C3 C-NF 2433 J 3E ' CF$ ' Q3 $114H 3D H& QO $ P$(H4 O H& CHNF 5-C N3C $ ' C-NF I3 O ?3CC HEC ' C-NF 114HR Q$ HE CF$ ' Q3 C 2E & 3D QO F3 4 ? 2E$ -43C F343 H ' $ED C-NF 2433R J 3E ' CF$ ' Q3 Q ED E2 HE F3 @HE 4 Q- H4C H F3 IHH4 ' $ 3C H& F3 C$ D I$4 CF ' * H ECF 1 ' ' H4 I $N3 &H4 $EO I34 HD EH ' 3 N33D E2 ? ' @$ 3ED$4 PHE FC ' $C J $O Q3 C13N & 3D E C-NF 2433 J 3E '

113$ ' H 3 \ -$4 34 ?3CC HEC — ' ED Q3 ' &-4 F34 3E$N 3D ' * F$ ' &$EO I34CHF CF$ ' F E+ F J C3 & ' F34C3 & ' <& F3 J C3 3C $224 3 3D ' $EO F E2 DHE3 $ ' 1$4C$$ 9 ' H& F C N ' F3E $ED E 3 34O C-NF @$C3 F3 ' CF3 ' H4 F3O J $O 113 ' H F3 M3E34$ ' H4 \ -$4 34 ?3CC HEC H& F3 I3$N3 H Q3 FH D3E &H4 F3 @H-E O H4 G C 4 N ' F343 F3 @$-C3 H& @H J 1 $ E ' D4$ ' F$ 3 $4 C3E ' $ ' F3 4 E3 ' 3EC- E2 P 33 E2 ($ED F3 5-C N3C E C-NF ?3CC HEC $CC3 J Q 3D $43 F343QO 43X- 43D H F3$4 $ED ' D3 34 J E3 F3 P$ 34 H& C-NF 113$ ' $ED H J $+3 C-NF 34$ HEC E C-NF 2433R J 3E ' $ED H J $+3 C 3F <4D34 F343 E ' $ED H $ $4D J NF @HC C ' $C H F3 J ' CF$ ' C33 J ' (-C ' $ED 43$CHE$Q 3 ' $ED QO F J 4 <4D34 $ED 9 44E ' H 3 O C-NF @HC C QO G C 43CC $ED ?$ 3 H& F3 MHHDC $ED @F$ 3 C H& F3 I$4 O J $D3 $Q 3 H 1$O F3C$ J 3 ' $ED 3 34O <4D34 $ED G3 34 J E$ HE H& F3 C$ D 5-C N3C -1HE $-O C-NF 13$ ' CF$ ' Q3 & E$ ' $ED NHEN -C 3 HE $ ' I$4 3C NHEN34E3D ' $ED CF$ ' 8H ' Q3 43 J H 3D H4 Q3 43 J H $Q 3 ' QO @34 H4$4 ' H4 QO $EO H F34 9 4 ' H& I4HN3CC F$ CH3 34 ' E H $EO H& 8 C P$(3C O C @H-4 C H& ' 3NH4D $ ' !1 #1 ! ' H4 3 C3 F343 ' Q- ' E N$C3 $EO & 3$ ' CF$ ' $113$4 H F3 C$ D 5-C N3C &4 H H-C H4 3 $ H-C ' F3E F3 ?$ D 5-C N3C CF$ ' N$-C3 C-NF @HC C H Q3 1$ D QO F3 113 $E ' H4 113 $E C $C H F3 J ' CF$ ' C33 J ' 43CHEQ 3 ' $ED C-NF @HC C CF$ ' Q3 3 3D E J $EE34 $&H43C$ D

2433 J 3E ' H Q3 $N 3D -1HE -E ' F3 113$ ' C D3 34 J E3D — ' I4H D3D $ CH ' $ED Q3 ' 3E$N 3D ' * F$ ' EH FC $ED E2 , H N3 H& 113$ ' 2 EC ' $EO C-NF 2433 J 3E ' CH $114H 3D H& QO C-NF 5-C N3C $ ' F3 4 I3 O ?3CC HEC ' H4 2 EC ' $EO I$4 ' F343H& ' C-NF 2433 J 3E ' CF$ ' $ED J $O Q3 $N 3D -1HE E C-NF $ED F3 +3 P$EE34 $C & EH C-NF , H N3 H& 113$ ' F$D Q33E 2 3E ' -E ' C-NF 113$ ' CF$ ' F$ 3 Q33E D3 34 J E3D QO C-NF 5-C N3C $ ' C-NF MHE3&$ ' H4 2 $4 34 ' ?3CC HE ($ED C-NF 5-C N3C J $O ' E N$C3 F3O CF$ ' F E+ ' 4 2F ' $ $4D C-NF G$ J $23C H Q3 1$ D H- ' H& F3 IHH4 ' $ 3C H& C-NF I$4 CF ' * H ECF 1 ' ' H4 I $N3 NHEN34E3D E C-NF 113$ ' H F3 I34CHE H4 I34CHEC $224 3 3D

N ' EH ' H C$EN HE F3 4N$FE2E1 — ' ED F343$C - ' J $EO I$4 CF3C ' * H ECF 1C ' C ' $ED I $N3C ' Q33E F3 @-C H J ' H 1$O H >$QH-434C $ED H F34C 3CC 4 ' F3 H J J HE ' $ 3 H& 9 $23C &H4 F3 4 >$QH-4 ' $ED H J $+3 -1 ' F3 '

G3& N 3ENO

G3& N 3ENO' &4H J' F3' I HH4' ' $ 3C ' Q3' ' F343&H43' 3E$N 3D' *F$ '
EH F E2' F343 E' NHE $ E3D' CF$ ' 3 3ED' CH' $C' E' $EO' $O' H' 32$ T3' H4'
C$EN HE' $EO' C-NF' I 4HN33D E2

' I 4H D3D' $ CH' $ED' Q3' ' 3E$N 3D' *F$ ' ' CF$ ' EH ' Q3' $ &- ' &H4' ' $ 3C' "H' H'
F3' @F-4NF $4D3EC' $ED' < 34C334C' H&' $EO' I $4 CF' *H ECF 1' ' H4' $11 3D'
I $N3' H' D CQ-4C3' H4' 3 13ED' $EO' P HE3O' 4$ C3D' &H4' F3' ' 3 3&' H&' F3' H >$QH-4c'
I HH4' H&' C-NF' I $4 CF' *H ECF 1' ' H4' I $N3' E' F3' ; J 1 HO J 3E ' H&' H- ' H&' I $4 CF'
$EO' I 34CHE' H4' I 34CHEC' E' $EO' H F34' I $4 CF' *H ECF 1' ' H4' I $N3
E' $EO' 24 N- -4$ ' >$QH-4 ' H4' E' $EO' H F34' 9 H4+' F$ 3 34

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' F C' N ' CF$ ' EH ' 3 3ED' H' N ' EH ' H
$EO' @ O' H4' *H E' NHE $ E E2' J H43' F$E' < E3' I $4 CF' EH4' H' $EO' 3 3ED' H' N34 '
I $4 CF' *H ECF 1' ' H4' I $N3' F343' F3' ' $ 3C' &H4' F3' ' 3 3&' H&' 6 N3C
F3' I HH4' CF$ ' EH ' 3 N33D' 6 3' ?F E2C' E' F3' I H-ED' HE' F3' &- ' H4
4$N+' ' 3E $ ' F343H&

' I 4H D3D' $ $OC ' $ED' Q3' ' 3E$N 3D' *F$ ' $ ' F3' G 43N HEC N ' H' 3 R
F343 E' NHE $ E3D' CF$ ' 3 3ED' $ED' Q3' NHEC 4-3D' H' 3 3ED' ^C$ 3' $ED' 3ED' H' $ '
3 N31 ' $C' F343 E' 3 N31 3D_' H' $ ' I $4 CF3C' *H ECF 1C' C ' $ED' I $4 CF3C' ^3 R
I $N3C' F$ E2' C31$4$ 3' < 34C334C' H&' F3' I HH4' $ED' J $ E $ E E2' F3 4' N31 ' $C' Q3&H43'
I HH4' C31$4$ 3 O ' $ED' $ ' F3' G 43N HEC' $ED' ' 32- $ HEC' NHE $ E3D' 3 N31 3D_'
^C$ 3' $ED' 3 N31 ' $C' $&H43C$ D_' CF$ ' 3 3ED' H' $ ' 3C 4O' P 33 E2C' F$ P' C@($'
F NF' J $O' QO' >$ ' Q3' FH D3E' QO' F3' EF$Q $E C' H&' C-NF' I $4 CF' 4$ 3' < 43 '
*H ECF 1' ' H4' I $N3 C334C

' I 4H D3D' E3 34 F3 3CC ' $ED' Q3' ' 3E$N 3D' *F$ ' EH F E2' E' , H F E2'
F C' N ' NHE $ E3D' CF$ ' Q3' NHEC 4-3D' H' $ 34' $Q4 D23' H4' $&&3N ' F343 E' H'
$EO' H&' F3' I 4H C HEC' NHE $ E3D' E' $E' N ' 1$CC3D' E' F3' * 3E O ' $&&3N ' UU' M' S'
C3NHED' =3$4' H&' F3' ' 3 2E' H&' % E2' ! , (!' F3' *F 4D' E - 3D' / #
/ ' , ')!' 4! ! ' L !% ! ' #&' 8 5%, !#' , ')!' *, ,

W ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' F C' N ' CF$ ' NH J J 3EN3' $ED' @H J J3$N3 '
$+3' 3&&3N ' &4H J' $ED' $& 34' F3' 6 4C ' 7N ' , ' 6 ' , 4! ' E3 ' $ED' J 3E H&' N '
NHE E-3' E' &H4N3' -E ' F3' * 3E O & & F' G$O' H&' ')' < E3' FH-C$ED
3 2F ' F-ED43D' $ED' F 4 O &H-4

> < , G < , .' I 4 E 3D' QO' # + . (/ +' & (+' $ED') * (+ , ' O1 . 2 3% , . . * '
I 4 E 34C' H' F3' ' E2 C' J HC ' ; N3 3E ' P $(3C O' ZSU

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M # > ; > P ʻ ʻ ' ; M ?

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Eʻ Nʻ Hʻ 4 3$ ʻ C3 34$ʻ N Cʻ &H4ʻ 3E$Q E2ʻ F3ʻ
9 3Cʻ $EDʻ 6$ J 3Cʻ H&ʻ ?H D 34C ʻ $EDʻ F3ʻ 9 DH Cʻ
$EDʻ 6$ J 3Cʻ H&ʻ D3N3$C3Dʻ ?H D 34C ʻ Hʻ 43 - 4Eʻ Hʻ
F3 4ʻ 8 H J 3C ʻ IV Fʻ ZSU ㎜

/ 8 ; ' ; ?ʻ $Eʻ N ʻ 1$CC3Dʻ Eʻ F3ʻ 6 & O & 4C ʻ = 3$ ʻ H&ʻ F3ʻ
' 3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ * F 4D ʻ
E - 3Dʻ / ' ʻ , ʻ !# 4% #(ʻ) !ʻ 0!1ʻ #&ʻ R % !1ʻ H&ʻ ! MSN [Yʻ
+,%& ! 1 ʻ! 4 !&ʻ , ʻR, ! (#ʻ +! 0 ' !ʻ ,ʻ ! 3 #ʻ ,ʻ) ! ʻ , Z1ʻ ʻ EDʻ
F343$Cʻ $EH F34ʻ N ʻ 1$CC3Dʻ Eʻ F3ʻ 6 & O C3NHEDʻ = 3$4ʻ H&ʻ F3ʻ C$ Dʻ
' 3 2E ʻ E - 3Dʻ / #ʻ / ' ʻ ,ʻ !J5% #ʻ !#&ʻ #&ʻ !J !#&ʻ) !ʻ * ,0 1 ,#1ʻ . : H) ʻ
, ʻ #ʻ / ' ʻ5 11!&ʻ #ʻ) !ʻ % 1 ʻ +!11 ,#ʻ H&ʻ * % !# ʻ , ʻ !# 4% #(ʻ) !ʻ
0!1ʻ #&ʻ R % !1ʻ, ʻ+,%& ! 1ʻ ,ʻ ! 3 #ʻ ,ʻ) ! ʻ , !1ʻ ,ʻ) !ʻ &, F1
0!1ʻ #&ʻ R % !1ʻ, ʻ+,%& ! 1ʻ & #(ʻ , ʻ ! 5%, !&ʻ ,# R, ! (#ʻ +! 0 ' !ʻ
EDʻ F343$Cʻ $EH F34ʻ N ʻ 1$CC3Dʻ Eʻ F3ʻ C$ J 3ʻ = 3$4ʻ E - 3Dʻ / #ʻ / ' ʻ . ʻMʻS [U ʻ
, ʻ !# 4% #(ʻ) !ʻ 0!1ʻ #&ʻ R % !1ʻ, ʻ+,%& ! 1ʻ ! 4 !&ʻ #ʻ 43 $EDʻ ʻ
, ʻR, ! (#ʻ +! 0 ' !ʻ ,ʻ ! 3 #ʻ ,ʻ) ! ʻ , !1ʻ ʻ EDʻ F343$Cʻ $EH F34ʻ
N ʻ 1$CC3Dʻ Eʻ F3ʻ 6 & O 3 2F Fʻ = 3$4ʻ H&ʻ F3ʻ C$ Dʻ ' 3 2E ʻ E - 3Dʻ / #ʻ . : - ʻ
/ ' ʻ ,ʻ ' ,#1,% & !ʻ #&ʻ !#&ʻ) !ʻ * ,0 1 ,#1ʻ , ʻ1!0! %ʻ / ' 1ʻ 5 11!&ʻ #ʻ
) !ʻ R 1ʻ #&ʻ R 1! ' ,#&ʻ H! 1ʻ !15! ' 0!% ʻ , ʻ) !ʻ L ! (#ʻ , ʻ 1ʻ
5 !1!# ʻ U!1 ʻ , ʻ !# 4% #(ʻ) !ʻ 0!1ʻ #&ʻ R % !1ʻ , ʻ+,%& ! 1ʻ ,ʻ ʻ
! 3 #ʻ ,ʻ) ! ʻ , !1ʻ EDʻ F343$Cʻ ʻ Cʻ 3 13D 3E ʻ F$ ʻ F3ʻ C$ Dʻ
43N 3Dʻ N Cʻ CFH - Dʻ Q3ʻ 4313$ 3D ʻ Q3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ F3ʻ
% E2 Cʻ J HC ʻ ; N3 3E ʻ P $(3C O ʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3E ʻ
H&ʻ F3ʻ >H4DCʻ ?1 4 - $ ʻ $EDʻ * 3 J 1H4$ ʻ $EDʻ @H J J HEC ʻ Eʻ F Cʻ 143C3E ʻ
[ʻ Wʻ I$4 $ J 3E

V [U K S M#> ; > P @$1 V

' 3N 3D N C 4313$ 3D 3 N31 ' $C H I 4HC3N - HE &H4 <&&3EN3C NH J J 3D Q3&H43 F3 1$CC E2 F343H&

I $4 $ J 3E ' $CC3 J Q 3D ' $ED QO F3 - FH4 O H& F3 C$ J 3 ' * F$ ' &4H J $ED $& 34 F3 1$CC E2 H& F C N ' $ ' F3 C$ D C3 34$ ' 43N 3D N C CF$ ' Q3 $ED F3 C$ J 3 $43 F343QO 4313$ 3D ! C$ 3 $ED 3 N31 ' $C H F3 I 4HC3N - HE $ED I - E CF J 3E ' H& $EO 64$ - DC H4 < &&3EN3C F NF J $O F$ 3 Q33E NH J J 3D Q3&H43 F3 1$CC E2 H& F C N ' 2 EC ' $EO H& F3 I 4H C HEC H& F3 C$ D 43N 3D N C ' $ED $ CH C$ 3 $ED 3 N31 ' $C H F3 1$O E2 ' 43 J Q - 4C E2 ' H4 $NNH - E E2 &H4 $EO P HE3O J D34 F3 I 4H C HEC H& F3 C$ D 43N 3D N C

> < , G < , . I 4 E 3D QO M4 ; HEHE ; H@+ $ED) @@+ , ' O1 . H23% , . . 3L+ '
I 4 E 34C H F3 % E2 C J HC ' ; N3 3E ' P $(3C O ' ZS
[

, , <ʿ ? ; @# , G<ʿ Kʿ * ; ' * <

M 5> ; > P ʿ ʿ ' ; M ?

@ʿ ʿ I ʿ W@

Eʿ Nʿ &H4ʿ 432- $ E2ʿ F3ʿ 14H 3C E2ʿ &H4ʿ , HE ʿ
ʿ 1$O J 3E ʿ H&ʿ B Cʿ H&ʿ ; NF$E23ʿ D4$ Eʿ 1OQ 3ʿ $ ʿ
$ʿ I $N3ʿ EH ʿ Q3 E2ʿ F3ʿ I $N3ʿ H&ʿ F3ʿ ' 3C D3EN3ʿ H&ʿ
F3ʿ G4$ 33ʿ H4ʿ G4$ 33Cʿ H&ʿ F3ʿ C$ J 3

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> 8 ; ' ; ?ʿ GH-Q Cʿ F$ E2ʿ $4 C3Eʿ $Cʿ H ʿ F3ʿ I $N3ʿ Eʿ F NFʿ ʿ Cʿ 43X- C 3ʿ Hʿ 14H 3C ʿ &H4ʿ , HE1$O J 3E ʿ B Cʿ H&ʿ ; NF$E23ʿ F NFʿ HEʿ F3ʿ I 43C3E J 3E ʿ &H4ʿ NN31 $EN3ʿ Hʿ F3ʿ G4$ 33ʿ H4ʿ G4$ 33Cʿ CF$ ʿ EH ʿ F$ 3ʿ Q33Eʿ $NN31 3D ʿ C-NFʿ B Cʿ H&ʿ ; NF$E23ʿ Q3 E2ʿ J $D3ʿ 1$O$Q 3ʿ $ ʿ $ʿ I $N3ʿ H F34ʿ F$Eʿ F3ʿ I $N3ʿ J 3E HE3Dʿ F343 Eʿ Hʿ Q3ʿ F3ʿ ' 3C D3EN3ʿ H&ʿ F3ʿ G4$ 33ʿ H4ʿ G4$ 33Cʿ F343H&ʿ $EDʿ ʿ Cʿ 3 13D 3E ʿ Hʿ 43 J H 3ʿ C-NFʿ GH-Q C ʿ Q3ʿ ʿ F343&H43ʿ 3E$N 3Dʿ QOʿ F3ʿ % E2 Cʿ J HC ʿ ; N3 3E ʿ P $(3C O ʿ QOʿ $EDʿ Fʿ F3ʿ D N3ʿ $EDʿ @HEC3E ʿ H&ʿ F3ʿ >H4DCʿ ?1 4 -$ ʿ $EDʿ *3 J 1H4$ ʿ $EDʿ @H J J HEC ʿ Eʿ F Cʿ 143C3E ʿ I $4 $ J 3E ʿ $CC3 J Q 3D ʿ $EDʿ QOʿ F3ʿ - FH4 Oʿ H&ʿ F3ʿ C$ J 3 ʿ *F$ ʿ &4H J ʿ $EDʿ $& 34ʿ F3ʿ 1$CC E2ʿ H&ʿ F Cʿ N ʿ $ ʿ B Cʿ H&ʿ B Cʿ H&ʿ ; ʿ ; NF$E23ʿ F343 Eʿ F3ʿ G4$ 34ʿ H4ʿ G4$ 34Cʿ F343H&ʿ CF$ ʿ F$ 3ʿ 3 R D($ O3ʿ 3 R 143CC3Dʿ F$ ʿ C-NFʿ B Cʿ H&ʿ ; NF$E23ʿ $43ʿ Hʿ Q3ʿ 1$O$Q 3ʿ Eʿ $EOʿ I $N3ʿ 143CC3Dʿ Hʿ Q3ʿ 1$ Dʿ ʿ $EOʿ H F34ʿ F$Eʿ F3ʿ I $N3ʿ QOʿ F J ʿ H4ʿ F3 J ʿ F343 Eʿ J 3E HE3Dʿ Hʿ Q3ʿ F3ʿ I $33ʿ H F34ʿ ' 3C D3EN3ʿ H&ʿ F3ʿ G4$ 33ʿ H4ʿ G4$ 33Cʿ F343H&ʿ $EDʿ F NFʿ CF$ ʿ EH ʿ F$Eʿ Q3 ' 3C ʿ HEʿ F3ʿ I 43C3E J 3E ʿ &H4ʿ NN31 $EN3ʿ F343H&ʿ Q3ʿ $NN31 3D ʿ CF$ ʿ H4ʿ D3EN3ʿ H&ʿ F3ʿ J $Oʿ Q3 ʿ FH- ʿ &-4 F34ʿ I 43C3E J 3E ʿ Hʿ F3ʿ G4$ 33ʿ H4ʿ G4$ 33C ʿ G4$ 33ʿ &ʿ 14H 3C 3Dʿ &H4ʿ , HE1$O J 3E ʿ Eʿ F3ʿ I $N3ʿ Eʿ F NFʿ C-NFʿ B Cʿ H&ʿ ; R EH ʿ $NN31 3Dʿ NF$E23ʿ CF$ ʿ F$ 3ʿ Q33Eʿ QOʿ F3ʿ G4$ 34ʿ H4ʿ I 4$ 34Cʿ 3 143CC3Dʿ Hʿ Q3ʿ HEʿ I 43C3E ʿ H&#1ʿ @&Bʿ Q3ʿ 14H 3C 3D

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E 3CC' F$ 3' Q33E' 1$ D' H' F3' 8 DD34' H4' 8 H D34C' F343H&' HE' F3' G$O' HF'
F NF' C-NF' B C' H&' ; NF$E23' H- D' F$ 3' Q3NH J 3' 1OQ 3' F$D' F3'
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> 8 ; ' ; ?ˢ D 34Cˢ N Cˢ F$ 3ˢ Q33Eˢ 1$CC3Dˢ QOˢ F3ˢ &H4 J 34ˢ I$4 $ J 3E ˢ H&ˢ F$ ˢ I$4 ˢ H&ˢ F3ˢ # E 3Dˢ % E2DH J ˢ N$ 3Dˢ $!% #& ˢ $EDˢ C - QC3X - 3E Oˢ QOˢ F3ˢ I$4 $ J 3E ˢ H&ˢ F3ˢ # E 3Dˢ % E2DH J ˢ &H4ˢ F3ˢ ' 32 - $ HEˢ $EDˢ D - 3ˢ ; $ J E$ HEˢ $EDˢ - D ˢ H&ˢ N34 $ Eˢ I - Q Nˢ NNH - E Cˢ H&ˢ $!% #& ˢ ^EH ˢ Q3 E2ˢ P # $4Oˢ H4ˢ 4 J Oˢ NNH - E C_ˢ: EDˢ F343$Cˢ Eˢ 1 - 4C - $EN3ˢ H&ˢ F3ˢ ?$ Dˢ N Cˢ N34 $ Eˢ @H J J CC HE34Cˢ 343ˢ $11H E 3Dˢ QOˢ >3 34Cˢ I$ 3E ˢ - ED34ˢ F3ˢ M43$ ˢ ?3$ ˢ H&ˢ $!% #& ˢ &H4ˢ F3ˢ D - 3ˢ ; $ J E$ HEˢ $EDˢ - D ˢ H&ˢ F3ˢ C$ Dˢ NNH - E Cˢ ˢ $EDˢ QOˢ 4 - 3ˢ H&ˢ $Eˢ N ˢ 1$CC3Dˢ Eˢ F3ˢ 6 4C ˢ $EDˢ ?3NHEDˢ =3$4Cˢ H&ˢ F3ˢ ' 3 2Eˢ H&ˢ 8 Cˢ 143C3E ˢ P $(3C Oˢ F3ˢ I H 34Cˢ 24$E 3Dˢ QOˢ C - NFˢ >3 34Cˢ I$ 3E ˢ F$ 3ˢ Q3NH J 3ˢ 3C 3Dˢ Eˢ * F433ˢ @H J J CC HE34Cˢ FHˢ $43ˢ EH ˢ Eˢ F3ˢ ; 34N C3ˢ H&ˢ F3ˢ C$ J 3ˢ ˢ EDˢ F343$Cˢ ˢ Cˢ 3 13D 3E ˢ F$ ˢ F3ˢ ; $ J E$ HEˢ $EDˢ - D ˢ H&ˢ F3ˢ Q3&H43 J 3E HE3Dˢ NNH - E Cˢ CFH - Dˢ Q3ˢ 4$EC&3443Dˢ &4H J ˢ F3ˢ C$ Dˢ @H J J CC HE34Cˢ Hˢ F3ˢ @H J J CC HE34Cˢ &H4ˢ $ - D E2ˢ F3ˢ I - Q Nˢ NNH - E Cˢ H&ˢ ! ˢ " #ˢ ˢ B3ˢ ˢ F343&H43ˢ 3E$N 3Dˢ QOˢ F3ˢ % E2 Cˢ J HC ˢ ; N3 R 3E ˢ P $(3C O ˢ QOˢ $EDˢ Fˢ F3ˢ D N3ˢ $EDˢ @HEC3E ˢ H&ˢ F3ˢ >H4DCˢ ?1 4 - $ ˢ $EDˢ * 3 J 1H4$ ˢ $EDˢ @H J J HEC ˢ Eˢ F Cˢ 143C3E ˢ I$4 $ J 3E ˢ $CC3 J Q 3D ˢ $EDˢ QOˢ F3ˢ - FH4 Oˢ H&ˢ F3ˢ C$ J 3 ˢ * F$ ˢ $ ˢ $EOˢ * J 3ˢ F Eˢ F3ˢ I 34 HDˢ H&ˢ < E3ˢ =3$4ˢ $& 34ˢ F3ˢ 1$CC E2ˢ H&ˢ F Cˢ N ˢ ˢ CF$ ˢ $EDˢ J $Oˢ Q3ˢ $ & - ˢ &H4ˢ 8 Cˢ P $(3C O ˢ QOˢ >3 34Cˢ I$ 3E ˢ - ED34ˢ F3ˢ M43$ ˢ ?3$ ˢ H&ˢ ! ˢ " #ˢ ˢ Hˢ 43 H+3ˢ F3ˢ @H J J CC HEˢ - ED34ˢ F NFˢ F3ˢ C$ Dˢ * F433ˢ @H J J CC HE34Cˢ EH ˢ $N ˢ $EDˢ Hˢ D 43N ˢ $EDˢ NH J J $EDˢ F$

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F$ F3 6-EN HEC $ED - FH4 3C H& F3 C$ D @H J J CC HH34C CF$
&4H J F3EN3&H4 F N3$C3 $ED D3 34 J E3 $ED F$ $ NNH-E C F3E
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C$ D >3 34C I $ 3E Q3 43ED343D H $ED Q3 3 $J E3D $ED $-D 3D QO
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$ED F$ $ I34CHEC $Q 3 H 43ED34 NNH-E C H F3 143C3E @H J R
J CC HE34C E $! & CF$ &4H J F3EN3&H4 F D- O 43ED34 F3 C$ J 3 H
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$ED &H4 F3C3 I -41HC3C F$ F3 C$ D @H J J CC HE34C H& NNH-E C E
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H& F NF F3 ; $J E$ HE J $O EH F3E F$ 3 Q33E @HE 1 3 3D E H4D34
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I H 34C H&
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F3 C$ D >3 34C I $ 3E $ F3 I H 34C $ED - FH4 EH 1HCC3CC3D
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&H4 F F Q3NH J 3 3C 3D E F3 @H J J CC HE34C &H4 $-D E2 F3
I -Q N NNH-E C , ! " # FH E 3 $J E E2 $ED $-D E2
F3 NNH-E C CH 4$EC&3443D H F3 J CF$ &4H J F3EN3&H4 F 134&H4 J
F3 C$ J 3 G- 3C $ED &H H F3 C$ J 3 @H- J 3 H& I 4HN33D E2 E $
43C13N C $C $43 14$N C3D E F3 -D <&& N3 H& ! " # F
432$4D H F3 NNH-E C EH 3 $J E3D E F$ G31$4 J 3E ($ED F3
C$ D $C J 3E HE3D @H J J CC HE34C CF$ $ CH F 43C13N H $#
NNH-E C 43ED343D H F3 J &4H J $!% #& Q3 E 3C 3D F $ F3
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MH 34EH4 H4 MH 34EH4C H& $ & #& F 43C13N H F3 $QH 3
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E ! " # CF$ 4$EC J $? $ 3 J 3E H& 3 3 NNH-E 3 $J E3D
$ED $-D 3D QO F3 J -ED34 F3 - FH4 O H& F C N H F3 @H J
J CC HE34C H& F3 *43$C-4O FH F$ E2 NHEC D343D C-NF ? $ 3 J 3E
CF$ 43 -4E F3 C$ J 3 H F3 @H J J CC HE34C H& -D H23 F34 F
F3 4 9 44E D 43N E2 F3 J H J $+3 -1 $ED 1$CC F3 NNH-E
3 F34 NHE&H4 J $Q O H F3 ? $ 3 J 3E H4 F C-NF $4 $ HEC $C F3O
J $O D33 J (-C $ED 43$CHE$Q 3 $ED F3 NND-E F$ E2 Q33E J $DD
-1 1-4C-$E H C-NF G 43N HEC $ED C 2E3D QO *F433 H4 J H43 H&
F3 @H J J CC HE34C &H4 $-D E2 F3 I -Q N NNH-E C &3F$ 43 J $ E

D31HC 3D' E' F3' -D '<&& N3' $ED' CF$ ' F$ 3' F3' C$J3' 6H4N3' $ED' $ D O' $ED' Q3' $C' 3&& N 3E' E' >$ '&H4' $ ' I-41HC3C' F$ CH3 34' $C' &' F3' C$J3' F$D' Q33E' D3N $43D' $NNH4D E2' H' F3' -C-$' @H-4C3' QO' F3' @F$EN3 H4' H&' F3' ; NF3X-34

' ED' Q3' '&-4 F34' 3E$N 3D' *F$'&4HJ' $ED' $& 34' F3' * J3' F3E' @HJJ CC HE' F3' *4$EC&34 H&' NNH-E C' F343QO' $- FH4 T3D' CF$ 'F$ 3' $+3E' 1 $N3' 'CF$ '$ED' J$O' Q3' $ &-'&H4' F3' @HJJ CC HE34C' H&' -D ' E' ! ' J$O' " #' -1HE' $EO' '3X- C HE' $DD43CC3D' H' F3J' QO' F3' H4E3O' 4$EC J ' '3' H4' ?H N H4' H&' F3' I $E && H4' G3&3ED$E ' E' $EO' N HE' H4' ?- 'N3 $C' ?3N' D313ED E2' E' $EO' H&' F3' ?-134 H4' @H-4 C' H&' $!% #&' H' 4$EC J ' H' CHJ3' I34CHE' E' F$' @H-E 4O' H' Q3' $11H E 3D' QO' F3J' &H4' F$' I-41HC3' $EO' '3N3 1 ' H-NF34' H4' H F34' GHN- J3E '43 $ E2' H' $EO' 1H E 3D' E' NNH-E ' F NF' J$O' Q3' E' F3 4' <&& N3' $ED' J$O' Q3' D33J 3D' E3N3C ' 43 $ED' C$4O' QO' F3' I$4 O' 43X- 4 E2' C' I4HD-N HE' F3' I$4 O' E' X-3C HE' 1$O E2' C-NF' @HC C' $C' F3' 14H134' <&& N34' H&' F3' @H-4' J$O' D33J' 43$CHE$Q3' $ED' F3' I34CHE' H' FHJ' F3' GHN- J3E ' CF$ 'F$ 3' Q33E' 4$EC J 3D' Q3 E2' QH-ED' H' 14HD-N3' F3' C$J3' E' $EO' @H-4' H&' '3NH4D' F343' F3' N HE' H4' ?- ' J$O' Q3' D313ED E2' F3E' F3' J$O' Q3' D- O' N$ 3D' -1HE' $ED' C- J JHE3D' &H4' F$' I-41HC3' '

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' E' $ '@$C3C' E' F NF' $EO' @HJJ CC HER I-Q N' NNH-E ' CF$ 'F$ 3' Q33E' 3 $J E3D' $ED' 1$CC3D' E' F3' <&& N3' 34C' H D3 34' H&' F3' @HJJ CC HE34C' H&' -D ' E' ! ' " #' ^ F3 F34' C-NF' &' \- 3 -C' H' NNH-E ' CF$ ' F$ 3' Q33E' D3N $43D' Q3&H43' F3' @F$EN3 H4' H&' F3' HH(@!#& #) ; NF3X-34' H4' H F34 C3_' F3' C$D' @HJJ CC HE34C' CF$ ' D3 34' H4' 4$EC J ' H' 3 34O' NNH-E $E ' $' @34 &N$3' E' F3' ,$ -43' H&' $' \- 3 -C' C13N &O E2' F3' JH-E C' H&' F3' @F$423' $ED' G CNF$423 ' $ED' H&' F3' B$ $EN3' ^ &' $EO_' ED3Q 3D' H4' E' C- X -C$23' $4 C E2' F343HE ' E' F3' C$J3' P $EE34' $C' C' EH '14$N C3D' QO' F3J' F' 432$4D' H' D3N $43D' NNH-E C

' ED' F343$C' ' C' 43$CHE$Q3' $ED' 3 13D 3E ' F$' && D$ C' @HJJC' $ED' ? $ 3J3E C' -1HE' <$ F' CFH- D' Q3' $DJ 3D' E' N34 $ E' @$C3C' &H4 F3' I-41HC3' H&' 3 -N D$ E2' DH-Q &-' 4 N 3C' E' NNH-E C' $ED' 34 ' C$3J3E C' &O E2' F3' C$ J3Q3' ' F343&H43' 3E$N 3D' *F$' 'CF$ 'Q3' $ &-'&H4' -1HE' <$ F' F3' @HJJ CC HE34C' H&' -D ' E' ! ' " # ' E' $ '@$C3C' E' F NF' F3O' CF$ ' F E+' & ' H' 43N3 3' & D$ C' $ED' ? $ 3J3E C' -1HE' <$ F' QO' I-Q N' NNH-E $E C' $ED' H F34C' &H4' F3' $QH 3' I-41HC3C' C-NF' && D$ C' $ED' ? $ 3J3E C' Q3 E2' C H4E' Q3&H43' $' 5-D23' H&' $EO' H&' F3' ?-134 H4' @H-4 C' E' 8#(% #&'+',% #&' H4' $!% #&' H4' H&' $EO' H&' F3' @H HE 3C' H4' G313ED3#N 3C' H&' ! ' " #' H4' Q3&H43' $EO' <&& N34' H4' @HJJ CC HE34' $- FH4 T3D' H' $+3' && D$ C' E' C-NF' @H-4 C' H4' ^E' N$C3' H&' F3' I$4 O' J$+ E2' F3' && D$ ' H4' ? $ 3J3E ' Q3 E2' 43C D3E ' JH43' F$E' *3E' P 3C' D C $E ' &4HJ' $EO' ?-134 H4' @H-4 _' Q3&H43' $EO' P$2 C 4$ 3' H&' F3' G C 4 N ' F E' F NF' F3' I$4 O' J$O' Q3' 43C D3E

' ED' F343$C' <NN$C HE' J$O' $4 C3' F3E' ' J$O' Q3' 43$CHER'@#)))AA)+ % $Q 3' $ED' 3 13D 3E ' F$' NNH-E C' H&' I-Q N' ; 13ED -43' E' $!% #&' 34C3J1H R CFH- D' Q3' C13N $ O' 3 $J E3D' $ED' 3EX- 43D' E H' QO' CHJ3' NHJ13 3E ' 343D' H' .OFC' - FH4 O' E' F$' @H-E 4O' Q3' ' F343&H43' 3E$N 3D' *F$' ' CF$ ' Q3' J 'N34 $ E' 3NHHE C' H' $ &-'&H4' F3' @HJJ CC HE34C' &H4' $-D E2' F3' I-Q N' NNH-E C' $ED' G31- O' '3R F3O' $43' F343QO' $- FH4 T3D' E' $ '@$C3C' E' F NF' F3O' CF$ ' F E+' & ' J3JQ4$EN34' H' 4$EC J ' @H1 3C' ^N34 & 3D' QO' F3J_' H&' $EO' C-NF' NNH-E C' H4 E' 43 $ED' FH' C' H

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I H4 HEC H& NNH-E C H23 F34 F 3 HENQ34C $ED GHN-J3E C 43 $ E2 F343 H H F3 G31- O '3J3J Q4$EN34 H& 8 C P $(3C O C @H-4 H& ; NF3X-34 E $!% #& &H4 F3 I-41HC3 H& HN$ E 3C 2$ HE $ED F3 C$ D G31- O '3J3J Q4$EN34 C F343QO $- FH4 T3D $ED 43X- 43D H 14HN33D F343-1HE H 3 $J E3 $ED E 3C 2$ 3 F3 NNH-E C H-NF34C $ED GHN-J3E C CY 4$EC J 3D $ED 43&3443D H F J $ED & F3 CF$ D33F 3 13D 3E H 3 $J E3 -1HE <$ F ^ F NF <$ F F3 C F343QO 3J 1H 343$ H $D J E C 34_ F3 NNH-E $E H4 NNH-E $E C H4 $EO H F34 I 34CHEC FH J F3 J $O F E+ & H 3$# Q3&H43 F J 43 $ 3 H $EO *4$EC$N HE NHEE3N 3D F F3 P $ 34C 43&3443D H F J $ED F3 C$ D G31- O '3J3J Q4$EN34 C &-4 F34 $- FH4 T3D $ED 43X- 43D $& 34 F$ E2 3 $J E3D $ED E 3C 2$ 3D C-NF P $ 34C H 43 -4E F3 C$ D H-NF34C $ED GHN-J3E C H F3 @H J R J CC HE34C &H4 $-D E2 I-Q N NNH-E C E (; :T2 $"D H23 F34 F $? $ 3J3E H& F3 '3C- H& C-NF E 3 2$ HE $3D H& F(C <1 E HE F343HE $ED F3 C$ D @H J J CC HE34C F$ E2 NH J J -E N$ 3D F3&3 -1YE ^ & E3N3CC$4O_ F F3 C$ D G31- O '3J3J Q4$EN34 CF$ NHEC D34 $ED D3N D3 -1HE F3 P $ 34C &H4 J E2 F3 ?-Q(3N H& F3 Q3&H43 J3E HE3D '3&343EN3 $ED CF$ J $+3 -1 $ED C $ 3 F3 NNH-E H- H& F NF F3 '3&343EN3 J $O F$ 3 $4 C3E $NNH4D E2 H C-NF F3 4 G3N C HE . I 4H D3D $ $OC F$ E 3$C3 H& $EO G & &343EN3 H& <1 E HE Q3 33E F3 C$ D @H J J CC HE34C $ED F3 C$ D G31- O '3J3J Q4$EN34 C-NF G &&343EN3 $ED F3 M4H-EDC F343H& CF$ Q3 D C EN O ?13N & 3D 3 F34 QO $, H 3 H4 P 3J H4$ED- J -1HE F3 I $N3 H& F3 NNH-E F3E C $ 3D H F3 @H J J CC HE34C H& F3 *43$C-4O H4 QO $?13N $ '31H4 $NNH J 1$EO E2 F3 C$J3

G31- O '3R
J3J Q4$EN34
3C 3D F
C$J3 I H 34C
$C @H J J CR
C HE34C H&
I-Q N
NNH-E C E
43 $ED

W ED Q3 &-4 F34 3E$N 3D *F$ &H4 F3 I-41HC3 H& $; EX- 4 3C $- FH4 T3D QO F C N $ED CH &$4 $C J $O Q3 E3N3CC$4O &H4 43ED34 E2 F3 C$J3 3&&3N -$ F3 C$ D G31- O '3J3J Q4$EN34 C F343QO $- FH4 T3D H 3 34N C3 F3 C$J3 I H 34C $ED - FH4 3C &H4 C- J J HE E2 $ED 3E&H4N E2 F3 3ED$EN3 H& 9 E3CC3C $ED &H4 NH J R 13 E2 F3 I 4HD-N HE H& 1-Q N $ED H F34 GHN-J3E C F NF $43 EH 1HCC3CC3D QO F3 @H J J CC HE34C H& NNH-E C E $!% #& $ED $ I 34CHEC FH CF$ 2 3 &$ C3 *3C J HEO Q3&H43 F3 C$ D G31- O '3J3J Q4$EN34 E F3 @H-4C3 H& $EO ; $J E$ HE -1HE <$ F $- FHR 4 T3D QO F C N CF$ Q3 $Q 3 H F3 I $ EC $ED I 3E$ 3C H& I 34(-4O

G31- O '3R
J3J Q4$EN34
H Q3 43 J -R
E34$ 3D QO
@H J J CC HER
34C -ED34
G 43N HE H&
F3 *43$C-4O

W ED Q3 &-4 F34 3E$N 3D *F$ F3 C$ D G31- O '3J3J R Q4$EN34 $ F3 ; 1 4$ HE H& 3$NF =3$4 D-4 E2 F NF Q3 J $O F$ 3 Q33E 3J 1 HO3D QO 4 -3 H& F C N CF$ 4$EC J H F3 @H J J CR C HE34C &H4 $-D E2 I-Q N NNH-E C $? $ 3J3E H& F C @ $ J C &H4 F3 ?34 N3C 134&H4 J 3D QO F J F NF ? $ 3J3E CF$ Q3 &H4 $4D3D H F3 >H4DC H& F3 *43$C-4O QO F3 @H J J CC HE34C &H4 $-D E2 I-Q N NNH-E C F $EO <QC34 $ HEC F NF F3O J $O F$ 3 H H&&34 F343HE $ED F3 >H4DC H& F3 *43$C-4O CF$ F343-1HE D 43N F3 @H J J CC HE34C &H4 $-D E2 I-Q N NNH-E C H N$-C3 H Q3 1$ D H F3 C$ D '3J3J Q4$EN34 C-NF $?- J $C F3 >H4DC H& F3 *43$C-4O J $O F E+ 43$CHE$Q 3

>< , G< , . I 4 E 3D QO # + . (/ + & + % & ED) * (+ , O1 . 2 2 % , . . * +
I 4 E 34C H F3 % E2 C J HC ; N3 3E P $(3C O ZS?

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M # > ; > P ʿ ʿ ' ; M ?

@ʿ ʿ I ʿ @

Eʿ N ʿ &H4ʿ CFH4 3E E2ʿ F3ʿ * J 3ʿ 43X - 43Dʿ Eʿ @ $ J Cʿ
H&ʿ P HD - Cʿ D3N J $ED ʿ H4ʿ ; 3 J 1 HEʿ &4H Jʿ H4ʿ
G CNF$423ʿ H&ʿ * F3C ʿ IV Fʿ ZSU m

> 8 ; ' ; ?ʿ F3ʿ ; 13EN3ʿ $EDʿ ENHE 3E 3EN3ʿ H&ʿ ? - Cʿ EC R - 3Dʿ &H4ʿ F3ʿ ' 3NH 34Oʿ H&ʿ * F3Cʿ J $Oʿ $EDʿ H - 2F ʿ Hʿ Q3ʿ 143 3E 3D ʿ QOʿ CFH4 3E E2ʿ F3ʿ * J 3ʿ 43X - 43Dʿ &H4ʿ F3ʿ $ Dʿ ; C $Q CF J 3E ʿ H&ʿ @ $ J Cʿ H&ʿ $ʿ P HD - Cʿ D3N J $ED ʿ H4ʿ ; 3 J 1 HEʿ & H Jʿ H4ʿ G CNF$423ʿ H&ʿ * F3Cʿ ʿ Q3ʿ ʿ F343&H43ʿ 3E$N 3Dʿ QOʿ F3ʿ % E2 Cʿ J HC ʿ ; N3 3E ʿ P $(3C O ʿ QOʿ $EDʿ Fʿ F3ʿ D N3ʿ $EDʿ @HEC3E ʿ H&ʿ F3ʿ >H4DCʿ ?1 4 - $ ʿ $EDʿ * 3 J 1H4$ ʿ $EDʿ @H J J HEC ʿ Eʿ F Cʿ 143C3E ʿ I $4 $ ʿ ʿ J 3E ʿ $CC3 J Q 3D ʿ $EDʿ QOʿ F3ʿ - FH4 Oʿ H&ʿ F3ʿ C$ J 3 ʿ * F$ ʿ $ ʿ I 434ʿ F$ ʿ I 43R CN4 1 HECʿ $EDʿ @ $ J Cʿ H&ʿ H4ʿ &H4ʿ $EOʿ P HD - Cʿ D3N J $ED ʿ H4ʿ H&ʿ H4ʿ Hʿ $EOʿ CNE1 HECʿ ; 3 J 1 HEʿ &4H Jʿ H4ʿ G CNF$423ʿ H&ʿ * F3C ʿ QOʿ @H J 1HC HEʿ 43$ ʿ H4ʿ H F34 C3 ʿ CF$ ʿ Eʿ @$C3Cʿ F343ʿ F3ʿ ' 3ED34ʿ H&ʿ * F3Cʿ Eʿ % EDʿ CF$ ʿ (3N E $EDʿ H Q3ʿ F343$& 34ʿ D3 J $ED3Dʿ QOʿ H - 4ʿ C$ Dʿ >H4Dʿ F3ʿ % E2 ʿ 8 Cʿ 8 3 4Cʿ H4ʿ Q3ʿ $ Dʿ Eʿ ? - NN3CCH4C ʿ H4ʿ QOʿ $EOʿ G - +3ʿ H&ʿ I , #F %% ʿ H4ʿ QOʿ $EOʿ >$Oʿ I 34CHE ʿ EH ʿ I&L ʿ Q3 E2ʿ $ʿ @H41H4$ HEʿ ?H 3 ʿ H4ʿ QOʿ $EOʿ BHDOʿ @H41H4$ 3ʿ H&ʿ J $EO ʿ F3 F34ʿ * 3 J 1H4$ ʿ H4ʿ ?1 4 - $ ʿ Q3ʿ C - C $ E3Dʿ $EDʿ Q3ʿ D33 J 3Dʿ 2HHDʿ $EDʿ $ Dʿ Eʿ >$ ʿ - 1HEʿ ; D3EN3ʿ CFH E2 ʿ Eʿ @$C3Cʿ H&ʿ @ $ J ʿ 1&ʿ a P HD - Cʿ D3N J $ED ʿ F3ʿ I $O J 3E ʿ H4ʿ ' 3ED34ʿ H&ʿ C - NFʿ P HD - C ʿ $EDʿ Eʿ @$C3Cʿ H&ʿ @ $ Jʿ Hʿ ; 3 J 1 HEʿ H4ʿ G CNF$423ʿ CFH E2ʿ F3ʿ ; E(HO J 3E ʿ H&ʿ F3 ʿ >$ED ʿ FH - ʿ I $O J 3E ʿ H4ʿ ' 3ED34ʿ H&ʿ * F3C ʿ P HE3O ʿ H4ʿ H F34ʿ P $ 34ʿ Eʿ 3 - ʿ F343H& ʿ &H4ʿ F3ʿ & - ʿ I 34 HDʿ H&ʿ * F 4 Oʿ = 3$4Cʿ E3 ʿ Q3&H43ʿ F3ʿ * J 3ʿ H&ʿ C - NFʿ G3 J $ED ʿ - E 3CC ʿ Eʿ F3ʿ @$C3ʿ H&ʿ @ $ Jʿ H&ʿ $ʿ P HD - Cʿ D3N J $ED ʿ F3ʿ $N - $ ʿ I $O J 3E ʿ H4ʿ ' 3ED34ʿ H&ʿ * F3Cʿ Eʿ % ED ʿ , ʿ H&ʿ P HE3O

PHE3O' H4' H F34' *F E2' D& 34 E2' E' JH-E ' \-$ O' H4' \-$E O' &4HJ' F3' PHD C' N$ J 'H4' E' N$C3' H&' @$ J' H' ; 3J1 HE' H4' G CR NF$423' F3' '3ED34' H4' I$OJ3E 'H&' * F3C 'H4' H&' PHE3O' H4' < F34' P$ 34' E' 3-' F343H&' CF$ 'F3' CFH E' H' F$O3' $+3E' 1 $N3' $ 'CHJ3' * && 3' 14 H4' H' C-NF' *F 4 O' =3$4C' 14' 'CF$ 'Q3' 14H 3D' F$ 'C-NF' I$OE 3E 'H4' '3ER D34' H&' PHD-C' $7' J$D3' H4' ;E(J3E '8$D' QO' CHJ3' @HEC3E 'H4' 2433R J3E '3 143CC O' J$D3' <4 2 3E' &H4' F$' I-41HC3' QO' G33D' H4' 9 4 E2' $ED' &' C-NF' I4HH&' E' C-11H4 'H&' F3' @$ J' 3F$ 'Q3' 3 3ED3D' H' F3' &-8' I34 HD' H&' ? O' =3$4C' E3 'Q3&H43' F3' * J3' H&' C-NF' G3J$ED' E' C-NF' @$C3C' F3' @$ J' CF$ 'F3' D33J3D' $QCH - 3' $ED' ED3&3$C P3' -E 3CC' ' CF$ 'Q3' 14H 3D' F$ 'C-NF' I$OJ3E 'H4' '3ED34' H&' PHD-C' $C' J$D3' H4' ;E(HOJ3E ' F$D' FO' CHJ3' @HEC3E ' H4' 2433 J3E '3 143CC O' J$D3' H4' 2 3E' &H4' F$' I-41HC3' QO' G33D' H4' 9 4 E2' $ED' F343' F3' '3ED34' J' * F3C' E' % ED' CF$ ' Q3' D3J$ED3D' QO' $EO' 4NFQ CFH1' B CFH1' G3$E' I43Q3ED$40' I$4CHE' N$4' P$C 34' H&' 8HC1 $ ' H4' H F34' @H4R 1H4$ HE' ?H3' F3 F34' ?1 4 -$' J' *3J1H4$ ' F3E' 3 340' C-NF' I43R CN4 1 HE' H4' @$ J' CF$ ' Q3' $ D' $ED' ED3&3$C Q3' -1HE' ; D3EN3' CFH E2' C-NF' I$OJ3E 'H4' '3ED34' H&' PHD-C' J$D3' H4' ;E(HOJ3E 'F$D' $C' C' F343 E Q3&H43' J3E HE3D' $11 N$Q3' H' F3' , $ -43' H&' F3' @$ J' &H4' $ED' D-4 E2' F3' FH 3' * J3' 9 ' * H' I34CHEC' E' C-NN3CC HE' CF$ ' F$ 3' F3 D' F3' <&& N3' H4' B3E3& N3' E' 43C13N' F343H&' C-NF' '3ED34' H&' * F3C' E' % ED' CF$ ' Q3' N$ J3D' $ED' &H4' EH ' 3CC' F$E' *F433' =3$4C' $& 34' F3' 11H E J3E '$ED' EC - HE' H4' ED-N HE' H&' $' *F 4D' I34CHE'

I4H CH F343 H.' I4H D3D' $ $O ' F$' &7 F3' F D3' * J3' H&' F3' FH D E2' H&' C-NF' * H' I34CHEC' CF$ ' Q3' 3CC' F$E' ? O' =3$4C' F3E' ' CF$ ' Q3' E3N3CC$4O' H' CFH 'C-NF' I$OJ3E 'H4' '3$D34' H&' PHD-C' J$D3' H4' ;E(HOR J3E 'F$D' ^$C' F3' @$C3' J$O' Q3_' EH ' HE O' D-4 E2' F3' FH 3' H&' C-NF' * J3' Q- '$ CH' D-4 E2' C-NF' &-4 F34' , - JQ34' H&' =3$4C' 3 F34' Q3&H43' H4' $& 34' C-NF' * J3' H4' 1$4 O' Q3&H43' $ED' 1$4 O' $& 34' $C' CF$ ' F' C-NF' * J3' Q3' C-&& N3E' H' J$+3' -1' F3' &- '134 HD' H&' ? O' =3$4C' $ED' $ CH' &H4' $ED' D-4 E2' F3' &-4 F34' I34 HD' H&' * 433' =3$4C' $& 34' F3' 11H E J3E '$ED' EC - HE' H4' ED-N HE' H&' $' *F 4D' I34CHE' H' F3' C$J3' <&& N3' H4' B3E3& N3' -E 3CC' ' CF$ 'Q3' 14H 3D' F$ 'C-NF' I$OJ3E ' H4' '3ED34' H&' PHD-C' $C' J$D3' H4' ;E(HOJ3E 'Q$D' QO' CHJ3' @HEC3E 'H4' 2433 J3E '3 143CC O' J$D3' H4' 2 3E' &H4' F$' I-41HC3' QO' G33D' H4' 9 4 E2

9F$' @HJ' *#F34CF$ I' Q3' NHEC D343D' $ D' ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ '3 340' @HJ1HC HE' &H4' * F3C' Q33E' J$D3' H4' NHE& 4J3D' QO' F3' G3N433' H&' $EO' @H-4' H& ;X- O' E' 8#(% #&' E' $' ?- ' H' F NF' F3' <4D E$40' I$ 4HE' $ED' 4' N-JQ3E' 343' I$4 3C' $ED' F NF' F$ F' EH ' C EN3' Q33E' C3' $C D3' QEDHE3D' H4' D31$4 3D' &4HJ' CF$ 'Q3' $ED' F3' C$J3' C' F343QO' NHER & 4J3D' $ED' J$D3' $ D' E' >$ ' $ED' F$' EH' PHD-C' ; 3E(1 HE' H4' G CNF$423' CF$ ' Q3' D33J3D' H' Q3' Q E' F3' I4H C HEC' H&' F C' N ' -E 3CC' C-NF' PHD-C' ; 3J1 HE 'F4' G CNF$423' CF$ 'Q3' 14H 3D' H' F$ 3' 3 C 3D' $ED' Q33E' $N 3D' -1HE' $' F3' * J3' H&' H4' F E' <E3' =3$4' E3 'Q3&H43' F3' 1$CC E2' H&' F C' N

*F3 N EH' $$ $Q3 E' NHJ J3EN3D ' KN' ' 8 ' I4H D3D' $ $OC' *F$' F C' N' CF$ ' EH' Q3' 143(-D N$' H4' $ $ $Q3' H' H4' &H4' $EO' I $ E && H4' G3&3ED$E' E' $EO' ?- ' H4' N HE' 43 $ 3' H' $EO' H&' F3' P$ 34C' Q3&H43' J3E HE3D 'EH 'NHJ J3EN3D 'H4' F NF' J$O' Q3' F343$& 34' NHJ J3EN3D' D-4 E2' F3' 143C3E' ?3CC HE' H& I$4 $J3E 'H4' F E' <E3' =3$4' &4HJ' F3' ;ED' F343H&

' I4H

UcKS7M#> ;>P ' ' @$1 <<

' I4H D3D' $CH' $ED' Q3' '&-4 F34' 3E$N 3D' *F$' F C' N' CF$ ' *H' F$' EH' 3 3ED' H4' Q3' $11 N$Q3' H' $EO' @$C3' F343' F3' * F3C' H&' $EO' @$C3C' F C' >$EDC' *3E3J3E C' H4' 8343D $J3E C' CF$ ' F$ 3' Q33E' D3J C3D' QO' G33D' &H4' $EO' *34J' H&' > &3' H4' ,-JQ34' H&' =3$4C' H4' F343' $EO' 7 @HJ1HC HE' &H4' * F3C' CF$ ' F$ 3' Q33E' J$D3' QO' G33D' H4' 9 4 E2' ' QO' F3' I34CHE' H4' BHDO' @H41H4$ 3' 3E 3D' H' C-NF' * F3C' F' F3' < E34' H4' <NN-1 34' E&' F3' >$ED' &H4' $EO' C-NF' *34J' H4' ,-JQ34' H&' =3$4C' $ED' C-NF' G3J C3' H4' @HJ1HC HE' CF$ ' Q3' C-QC C E2' $' F3' * J3' H&' F3' 1$CC E2' H&' F C' N' $ED' F343' $EO' N HE' H4' ?- ' CF$ ' Q3' EC - 3D' &H4' F3' '3NH 340' H4' 3E&H4N E2' F3 I$OJ3E' H&' * F3C' E' % ED' F E' *F433' =3$4C' E3 ' $& 34' F3' ; 1 4$ HE' ?-443ED34' H4' H F34' G3 34J E$ HE' H&' C-NF' G3J C3' H4' @HJ1HC HE

' I4H D3D' $CH' $ED' Q3' '&-4 F34' 3E$N 3D' *F$' F343' $EO * J3' D-4 E2' >$EDC' H4' *3E3J3E C' CF$ ' F$ 3' Q33E' H4' CF$ ' Q3' F3 D' H4' HNN-1 3D' F NF' >$EDC' QO' $EO' '3N H4' N$4' H4' H F34' I34CHE' 3E 3D' H' F3' * F3C' F343H&' CF$ ' Q3' F3 D' H4' QO' $EO' >3CC33' H&' $EO' C-NF' '3N H4' N$4' H4' H F34' I34CHE' H4' QO' QO' I34CHEC 3E 3D' H' $EO' I34CHE' NHJ1H-ED E2' &H4' * F3C' F' $EO' C-NF' '3N H4' N$4' H4' F3' * F3C' H F34' I34CHE' H4' QO' $EO' *3E$E' H&' $EO' C-NF' '3N H4' N$4' H4' H F34' F343H&' H' &33' I34CHE' H4' H&' $EO' C-NF' >3CC33' H4' @HJ1H-ED34' F343QO' F3' ' 2F' 3 N-D3D' E' H' F3' * F3C' H&' C-NF' >$EDC' H4' *3E3J3E C' J$O' F$ 3' Q33E' H4' J$O' F3' @HJR Q3' D-4 E2' $EO' * J3' E' F3' <NN-1 34' F343H&' H4' E' F3' I34CHE' 3E 3D' 1- $ HE' -ER H' F3' '3E' F343H&' F3' FH 3' H&' 3 340' C-NF' * J3' $ED' * J3C' CF$ ' D34 F C' N Q3' 3 N-D3D' E' F3' @HJ1- $ HE' H&' F3' C3 34$' I34 HDC' H&' * J3' F343 E Q3&H43' J3E HE3D' '

' I4H D3D' $CH' *F$' F3' * J3' D-4 E2' F NF' $EO' I34CHE' H F34 C3' N$1$Q3' H&' 43C C E2' $EO' @$ J' H' $EO' H&' F3' P$ 34C' $EOc' Q3&H43' J3E HE3D' CF$ ' F$ 3' Q33E' H4' CF$ ' Q3' $E' E&$E' D H ' ,HE' 13 CH$' N$1$' NHJ1HC' J3E C' 63J3' @H 34 ' H4' >$O' *3E$E' &H4' > &3' H4' <G!) *' >(F NF' $EO' N HE' H4' ?- ' CF$ ' F$ 3' Q33E' 13ED E2' $ED' F NF' CF$ ' F$ 3' Q33E' D 23E O' 14HC3N- 3D' -E ' Q 3D' QO' F3' G3$ F' H&' $EO' E&$E' KN' I$4 O' H4' I$4 3C' F343 H' CF$ ' Q3' 3 N-D3D' E' F3' @HJ1- $ HE' H&' ' F3' I34 HDC' F343 E Q3&H43' J3E HE3D' 3 N31' HE O' E' @$C3C' F343' F3' ' 2F' H4' @ $ J' C' F343QO' D3N $43D' H' Q3' $QCH - 3' $ED' ED3&3$C Q 3

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' E' $ ' N HEC' $ED' ?- C' H' 9F$ C&3$# Q3' NHJ J3EN3D' $& 34' F C' N' CF$ ' $+3' 3&&3N' ' CF$ ' Q3' C-&& N 3E' C-&& N ' H' $ 323' F$' F3' PHD-C' H4' ; 3J1 HE' H4' G CNF$423' N$ J3D' $C' $N -$ O' 3 34N C3D' $ED' 3E(HO3D' &H4' C-NF' H&' F3' I34 HDC' J3E HE3D E' F C' N' $C' J$O' Q3' $11 N$Q3' H' F3' @$C3' $ED' &' F3' < F34' -ED34 &3C' I$4 O' CF$ ' E 3ED' H' 43 O' HE' $EO' I4H CH' ; N31 HE' EN$1$N O' N' G C$Q O' @HE 4$N ' 2433J3E 'G33D 'H4' 9 4 E2' F343 E' J3E HE3D' H4' $EO' H F34' P$ 34' H&' 6$N' H4' H&' >$ ' EH' ENHEC C 3E' F' F3' C J1 3' 6$N' H&' F3' ; 34N C3' $ED' ; E(HO J3E' H&' F3' P$ 34' N$+E3D' F3' C$J3' CF$ ' Q3' C13N $ O' $ 323D' $ED' C3' &H4 F' E' $EC 34' H' F3' 32$ HE' H&' F3' I$4 O' N$ J E2' $ED' CF$ ' EH' F3' 43N3 3D' E' ; D3EN3' HE' $EO' 23E34$' *4$ 34C3' H4' G3E $' H&' F3' P$ 34' N$ J3D

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> 8 ; ' ; ?ˢ QOˢ $Eˢ N ˢ 1$CC3Dˢ Eˢ F3ˢ ? Fˢ =3$4ˢ H&ˢ F3ˢ ' 3 2Eˢ H&ˢ 8 Cˢ $ 3ˢ P $(3C Oˢ % E2ˢ ! , (!ˢ F3ˢ 6H-4 F ˢ E R - 3Dˢ / #ˢ / ' ˢ ,ˢ !5! %ˢ)!ˢ 8J ' 1!ˢ 2 3 !1ˢ #&ˢ 2 F4 ' 1ˢ ˢ/ J NF ˢ ,#ˢ R% # ˢ % 1 1ˢ #ˢ M43$ ˢ B4 $ E ˢ #&ˢ ,ˢ 5,1!ˢ ,) ! ˢ2 3 !1ˢ #&ˢ #,) ! ˢ 2 F4 ' ˢ #ˢ % !3ˢ) ! !, ˢ) ,3( ) ,3 ˢ)!ˢ O# !&ˢ #(&, ˢ-ˢ #&ˢ ,ˢ ',# #3!ˢ) !ˢ ?3 1& ' ,#ˢ #&ˢ R, F! 1ˢ , ˢ ! ' ,0! #(ˢ * !# % !1ˢ 3#&! ˢ I31 , 1ˢ #&ˢ 8J ' 1!ˢ < F1ˢ #ˢ 43 $EDˢ 3# %ˢ 3) ! ˢ * ,0 1 ,#ˢ ' #ˢ)!ˢ &! ˢ $ˢ G - Oˢ H&ˢ * 3 3ˢ I H-EDCˢ * 3Eˢ ?F E2Cˢ $Cˢ J 1HC3Dˢ &H4ˢ $EDˢ -1HEˢ 3 34Oˢ < E3ˢ FH-C$EDˢ I H-EDCˢ 9 3 2F ˢ H 4D-1H C ˢ $EDˢ CHˢ Eˢ 14H1H4 HEˢ &H4ˢ $EOˢ 243$ 34ˢ H4ˢ 3CCˢ \ -$E O ˢ H&ˢ F3ˢ & - 3Dˢ P $ 34 $ Cˢ H4ˢ P 3 $ ˢ H4ˢ H F34ˢ I 431$4$ HECˢ F$ 3 34ˢ F$ ˢ CFH- Dˢ Q3ˢ J $D3ˢ Eˢ ! ˢ " #ˢ H4ˢ $!% #&ˢ &H4ˢ F3ˢ I -41HC3ˢ H&ˢ J $+ E2ˢ 6 E ˢ M $CCˢ H4ˢ I F $ ˢ M $CC ˢ $EDˢ ˢ $Cˢ QOˢ F3ˢ C$ Dˢ N ˢ $ J HE2C ˢ H F34ˢ F E2Cˢ 3E$N 3D ˢ F$ ˢ $ ˢ F3ˢ ; EDˢ H&ˢ 3 34Oˢ ' H-EDˢ H4ˢ I 34 HDˢ H&ˢ ? ˢ 9 33+Cˢ $Eˢ NNH J ˢ CFH- Dˢ Q3ˢ $+3Eˢ $EDˢ J $D3ˢ H- ˢ QOˢ F3ˢ ? -134 CH4 ˢ ? -4 3OH4 ˢ H4ˢ <&& N34ˢ H&ˢ F3ˢ G C 4 N ˢ H4ˢ I $N3ˢ Eˢ F NFˢ F3ˢ M $CCFH-C3ˢ H&ˢ $EOˢ P $+34ˢ H4ˢ P $+34Cˢ H&ˢ 6 E ˢ M $CCˢ CF$ ˢ Q3ˢ C -$ 3 ˢ H&ˢ F3ˢ FH 3ˢ \ -$E Oˢ H&ˢ 6 E ˢ M $CCˢ &H4ˢ H4ˢ Eˢ 43C13N ˢ H&ˢ F NFˢ C-NFˢ P $+34ˢ H4ˢ P $+34Cˢ H&ˢ M $CCˢ $Cˢ $&H43C$ Dˢ CF$ ˢ F$ 3 Q33Eˢ NF$423Dˢ Fˢ G - Oˢ -1HEˢ F3ˢ & - 3Dˢ P $ 3R 4 $ Cˢ H4ˢ P 3 $ ˢ H4ˢ H F34ˢ I 431$4$ HECˢ &4H J ˢ F NFˢ C-NFˢ M $CCˢ $Cˢ $&Q43 ˢ

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-1HE' F3' & - 3D' P$ 34 $ C' H4' P3 $ ' H4' H F34' I431$4$ HEC' &4H J'
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F3' C$ D' N ' $C' C' F343 E Q3&H43' 43N 3D ' CF$ ' Q3' $ED' &H3' C$ J 3' C'
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F4H-2FH- ' &H3' # E 3D' % E2DH J' &H3' ' $ 3C' $ED' G- 3C' H&' ; N C3'
F343 E $& 34' J 3E HE3D ' ^ F$ ' C' H' C$O _' &H4' $ED' -1HE' 3 34O' < E3'
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C-NF' G- 3C' H' Q3' NF$423D' HE' F3' 24HCC' M$-23' J W' C-NF' & - 3D' P$ 3 '
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Z' ' P$ 34 $ C

P$ 34 $ C' H4' P 3 $' H4' H F34' I431$4$ HEC' *F433' FH-C$ED' H' F-ED43D' Q3 E2' $+3E' $C' F3' ?13N & N' M4$ O' ; 3 3E' CF$ ' Q3' F3' @ 4N- $4' G CH4' &H4' & ED E2' F3' @HE 3E C' H&' 3$NF' I H ' E' I H-EDC' 9 3 2F ' H 4D-1H C' FH- ' $EO' G3D-N HE' Q$ 3 J 3E ' H4' H R $EN3' F$ CH3 34

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' F3' G- 3C' QO' F C' N ' $G#)(A'#+' Q3' J 1HC3D' $ED' 24$E 3D' CF$ ' $ED' J $0' Q3' 3 3D ' 4$ C3D ' NH 3N 3D ' $EC 343D ' 1$ D ' 43NH 343D ' $D(-D23D ' J 2$ 3D ' $ED' $ H 3D' E' C-NF' $ED' F3' +3' P $EE34 ' $ED' E' $ED' QO' $EO' H4' 3 F34' H&' F3' 23E34$ ' #J(' $G#B' 1' H4' C13N $ ' P 3$EC ' 9 $OC ' H4' P 3 FHDC ' QO' F NF' F3' &H4 J 34' G- 3C' H&' !(' (& (<' ; N C3' -1HE' MHHDC ' 9 $43C ' H4' @H J J HD 3C' H&' F3' C$ J 3' ?H4 C' H4' % EDC' 343' H4' J 2F ' Q3' 3 3D ' 4$ C3D ' NH 3N 3D ' $EC 343D ' 1$ D ' 43NH 343D ' $D(-D23D ' J 2$ 3D ' $ED' $ H 3D ' 3 N31 ' $C' &$4' $C' F3' C$ J 3' $43' $ 343D' H4' 4313$ 3D' QO' F C' N ' $ED' F$ ' $ ' $ED' 3 340' N ' $ED' N C' H&' I $4 $ J 3E ' 43 $ E2' H' F3' G- 3C' H&' ; N C3 ' $ED' 3 340' 6 E3 ' I $ E ' I 3E$ O ' H4' 6H4&3 -43' H&' $EO' + ED' F$ CH3 34 ' &H4' $EO' <&&3EN3' 2 EC ' H4' E' Q43$NF' H&' $EO' N ' H4' N C' &H4' C3N-4 E2' F3' G- 3C' H&' ; N C3' H4' $EO' H&' F3 J ' H4' &H4' F3' ' 32- $ HE' H4' J 14H 3 J 3E ' F343H&' E' &H4N3' J J 3D $ 3 O' Q3&H43' F3' @H J J 3EN3R J 3E ' H&' F C' N ' $ED' F3' C3 34$ ' @ $-C3C ' I H 34 C ' $ED' G 43N HEC' F343 E' NHE $ E3D ' CF$ ' $ED' F3' C$ J 3' 43C13N 3 O' $43' F343QO' D 43N 3D' $ED' D3N $43D' H' 3 3ED' H ' $ED' CF$ ' Q3' $11 3D ' 14$N C3D ' $ED' 1- ' E' 3 3N- HE' &H4' $ED' E' 43C13N ' H&' F3' G- 3C' H&' ; N C3' QO' F C' N ' J 1HC3D' E' $C' &- ' $ED' $ J 1 3' P $EE34 ' H' $ ' E 3E C' $ED' I -41HC3C' F$ CH3 34 ' $C' &' $ ' $ED' 3 340' H&' F3' C$ D' N C ' @ $-C3C I 4H C HEC ' I H 34C ' G 43N HEC ' 6 E3C ' I $ EC ' I 3E$ 3C ' $ED' 6H4R &3 -43C' 343' 1$4 N- $4 O' 4313$ 3D' E' $4 D' 43 3E$N 3D' QO' F C' N

' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' $ ' F3' ; ED' H&' 3 340' ' H-ED' H4' I 34 HD' H&' ? ' 9 33+C' $E' NNH-E ' CF$ ' Q3' $+3E' $ED' J $D3' H- ' QO' F3' ?-134 CH4 ' ?-4 3OH4 ' H4' <&& N34' H&' F3' G C 4 N ' H4' I $N3' E' F NF' F3' M $CCFH-C3' H&' $EO' P $+34' H4' P $+34C' H&' 6 E ' M $CC' CF$ ' Q3' C -$ 3 ' H&' F3' FH 3' \ -$E O' H&' 6 E ' M $CC' &H4' H4' E' 43C13N ' H&' F NF' C-NF' P $+34' H4' P $+34C' H&' M $CC' $C' $&H43C$ D' CF$ ' F$ 3' Q33E' NF$423D' F' G- O' -1HE' F3' & - 3D' P $ 34 $ C' H4' P 3 $ ' H4' H F34' I431$4$ HEC' &4H J ' F NF' C-NF' M $CC' $C' $&H43C$ D' CF$ ' F$ 3' Q33E' J $D3 ' $& 34' G3D-N HE' H&' F3' 2$-23D' 9 3 2F ' H&' $ ' & - 3D' P $ 34 $ C ' P 3 $ ' H4' H F34' I431$4$ HEC' $+3E' $NNH-E ' H&' QO' F3' <&& N34' $ED' $D3D' H- ' H&' F3' I H ' $NNH4D E2' H' F3' I 4H C HEC' H&' F3' C$ D' 43N 3D' N ' $ED' F C' N ' $ED' H&' F3' FH 3' 9 3 2F ' H&' J $E-&$N -43D' 6 E ' M $CC' $ED' 6 E ' M $CC' 9 $43C' 3 2F3D' H4' F NF' CF$ ' F$ 3' Q33E' J $D3' QO' C-NF' P $+34' H4' P $+34C' H&' M $CC' $C' $&H43C$ D' F E' C-NF' ' H-ED' H4' I 34 HD' H&' ? ' 9 33+C' $C' $&H43C$ D ' $ED' &' -1HE' C-NF' NNH-E ' Q3 E2' $+3E' $ED' J $D3' H- ' $C' $&H43C$ D' F3' 9 3 2F ' H&' ?-NF' J $E-&$N -43D' M $CC' $ED' M $CC' 9 $43C' $C' $&H43C$ D' CF$ ' 3 N33D' F3' \ -$E O' H&' C-NF' M $CC' $C' $&H43C$ D' F' F NF' C-NF' P $+34' H4' P $+34C' H&' M $CC' $C' $&H43C$ D' CF$ ' F$ 3' Q33E' CH' NF$423D' F' G- O ' $& 34' C-NF' G3D-N HE' $C' $&H43C$ D ' QO' $EO' \ -$E O' 243$ 34' F$E' F3' \ -$E O' H&' 6H4 O' 134' I !# 3 ' H&' H4' -1HE' F3' FH 3' \ -$E O' H&' C-NF' M $CC' $C' $C ' $&H43C$ D ' 3 340' C-NF' P $+34' H4' P $+34C' H&' M $CC' $C' $&H43C$ D' CF$ ' Q3' NF$423D' F' $ED' 1$0' F3' ?- J ' H&' ? 13EN3' 134 I H-ED

<&& N34' H' 4E$+3' H- ' $E' NNH-E ' $ ' F3' ; ED' H&' 3$NF' ' H-ED' H4' ; 34 HD' H&' ? ' 9 33+C' H&' F3' FH 3' \ -$E O' H&' M $CC' NF$423D' F' G- O' ' $ED' F3 FH 3' 9 3 2F ' H&' M $CC' 93 2F3D' F E' C-NF' I 34 HD ' H' NF$423' YD' 134' Q ' $DD R HE$ ' HE' $ ' ; N3CC' $QH 3' [' 134' @3E

1H-ED' -1HE' 3$NF' $ED' 3 340' I H-ED' 9 3 2F ' H&' C-NF' ; N3CC' H 34' $ED' $QH 3' $EO' G- O' F NF' C-NF' P$+34' H4' P$+34C' H&' M $CC' $C' $&H43R C$ D' CF$ ' F$ 3' 1$ D' H4' J $O' F$ 3' Q33E' NF$423D' F' -1HE' 3' & - 3D' P$ 34 $ C' H4' P 3 $' H4' H F34' I 431$4$ HEC' &4H J ' & NF' C-YF' M $CC' $C' $&H43C$ D' CF$ ' F$ 3' Q33E' J $D3

9 F3E' $EO' 65 E' M $CC' C' H Q3' 3 2F3D' F3' P$F34' J$O' C3 3N ' $ED' D3N $43' $EO' I $4' H Q3' J 134&3N ' $ED' D3C 43' EH ' H Q3' 3 2F3D ' $ED' MHHDC' CH C3 3N 3D' H Q3' Q4H+3E' H' I 3N3C' FR H- ' Q3 E2' 3 2F3D' $ED' F3' <&& N34' H' 3 2F' F3' ' 3 J$ ED34

' I 4H D3D' $ $OC ' $ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F3E' $EO' J $E-&$N -43D' 6 E ' M $CC' $ED' M $CC' 9 $43C' $43' 14HD-N3D' H' Q3' 3 2F3D ' ' CF$ ' Q3' $ &- ' &H4' F3' P $+34' H&' C-NF' M $CC' $ED' M $CC' 9 $43C' H' C3 3N ' $ED' D3N $43' $EO' I $4 ' H&' C-NF' M $CC' H4' M $CC' 9 $43C' $C' J 134&3N ' H4' Q4H+3E ' H4' EH ' 14H134 O' J $E-&$N -43D ' $ED' H' D3C 43' F3' C$ J 3' EH ' H' Q3' 3 2F3D ' $ED' F343-1HE' $ ' C-NF' M $CC' $ED' M $CC' 9 $43C' F NF' CF$ ' Q3' CH' C3 3N 3D' $ED' D3N $43D' CF$ ' F3' &H4 F F' Q4H+3E' H' I 3N3C' E' F3' I 43C3EN3' H&' H4' QO' F3' <&& N34' H&' ; N C3' FH' CF$ ' Q3' E' $ 3ED$EN3 ' $ED' 43ED343D' -E& ' &H4' GC3' $C' J $E-&$N -43D' M $CC' H4' M $CC' 9 $43C ' $ED' $& 34' Q3 E2' CH' Q4H+3E' $ED' 43ED343D' -E& ' &H4' # C3' CF$ ' Q3' 1- ' $C D3' FH- ' Q3 E2' 3 2F3D ' $ED' C-NF' <&& N34' CF$ ' F343-1HE' 14HN33D' H' 3 2F' $ED' $+3' $E' NNH-E ' H&' $ ' F3' ; 3 J $ ED34' H&' F3' 6 E ' M $CC' $ED' M $CC' 9 $43C' 9 F NF' CF$ ' Q3' 14HR D-N3D' H' F J ' $ED' &' $EO' P $+34' H&' 6 E ' M $CC' CF$ ' F ED34' H4' HQC 4-N ' H4' N$-C3' H4' C-&&34' H' Q3' F ED343D' H4' HQC 4-N 3D ' $EO' <&& N34' H&' ; N C3' E' Q43$+ E2' H4' N$-C E2' H' Q3' Q4H+3E' H' I 3N3C' $EO' 6 E ' M $CC' H4' 6 E ' M $CC' 9 $43C' C3 3N 3D' H4' D3N $43D' H' Q3' J 134&3N ' Q4H+3E ' H4' EH ' 14H134 O' J $E-&$N -43D ' F3' CF$ ' &H4&3 ' <E3' F-ED43D' I H-EDC

GHH4' H&' ' 3 ' 3 2F E2' ' HH J ' H Q3' +31 ' HN+3D' F C ' F3' <&& N34' C' 3E2$23D' E' 3 2F E2

' M $CC' H Q3' +31 ' 1' F3' ' 3 3 2F E2' ' HH J ' 6H-4' 8H-4C ' -E 3CC' CHHE34' 43R 3 2F3D ' $ED' $C' CHHE' $C' 43 3 2F3D ' H4' $ ' F3' ; 1 4$ HE' H&' F3' 6H-4' 8H-4C ' H Q3' J J3D $ 3 O' 43 J H 3D

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F3E3 34' $EO' <&& N34' CF$ ' $ 3ED' H' 3 2F' $EO' 6 E ' M $CC' H4' 6 E ' M $CC' 9 $43C ' C-NF' <&& N34' CF$ ' Q3&H43' H13E E2' F3' GHH4' H&' F3' 9 3 2F E2' ' HH J ' C3N-43 O' HN+' H4' &$C 3E' F3' H- 34' GHH4' H&' F3' ' 3 3 2F E2' ' HH J ' $ED' CF$ ' NHE E-3' F3' C$ J 3' CH' HN+3D' H4' &$C 3E3D' D-4 E2' F3' FH 3' * J 3' F$ ' C-NF' <&& N34' CF$ ' Q3' 3E2$23D' E' 3 2F E2' E' F3' 9 3 2F E2' ' HH J ' $ED' -E ' $ ' F3' M $CC' F NF' CF$ ' F$ 3' Q33E' 3 2F3D' CF$#' Q3' 43 J H 3D' E H' F3' ' 3 3 2F E2' ' HH J ' ' $ED' $ ' M $?C ' $& 34' Q3 E2' 3 2F3D ' CF$ ' Q3' D31HC 3D' $ED' 43 J $ E' E' F3' ' 3 3 2F E2' ' HH J ' &H4' F3' ?1$N3' H&' 6H-4' 8H-4C' $& 34' Q3 E2' 3 2F3D ' -E 3CC' CHHE34' 43 3 2F3D' QO' F3' ?-4 3OH4' H4' ?-134 CH4 ' $ED' $C' CHHE' $C' 43 3 2F3D' QO' F3' ?-4 3OH4' H4' ?-134 CH4 ' H4' $ ' F3' ; 1 4$ HE' H&' C-NF' 6H-4' 8H-4C ' $ ' C-NF' M $CC' $C' $&H43C$ D' CF$ ' Q3' &H4 F F' 43 J H 3D' &4H J ' F3' ' 3 3 2F E2' ' HH J ' $ED' 3 340' P $+34' H&' 6 E ' M $CC' FH' CF$ ' 143 3E ' H4' F ED34 ' H4' N$-C3' H4' C-&&34' H' Q3' 143 3E 3D' H4' F ED343D ' $EO' <&& N34' H&' ; N C3' &HH4$' C3N-43 O' HN+ E2' H4' &$C 3E E2' F3' GHH4' H&' F3' ' 3 3 2F E2' ' HH J ' H4' FH' CF$ ' H13E' C-NF' GHH4' $& 34' F3' C$ J 3' CF$ ' F$ 3' Q33E' HN+3D' H4' &$C 3E3D ' $ED' D-4 E2' F3' * J 3' F$ ' $EO' <&& N34' CF$ ' Q3' 3E2$23D' E' F3' 3 2F E2' H&' M $CC ' H4' FH' CF$ ' 43 J H 3' $EO' M $CC' & H J ' H- ' H&' F3' ' 3 3 2F E2' ' HH J ' Q3&H43' F3' ; ED' H&' 6H-4' 8H-4C ' -E 3CC' CHHE34' 43 3 2F3D' QO' F3' ?-4 3OH4' H4' ?-134 CH4 ' H4' FH' CF$ ' EH ' J J3D $ 3 O' $& 34' $EO' M $CC' F$ E2' Q33E' 43 3 2F3D ' QO' F3' ?-4 3OH4' H4' ?-134 CH4 ' H4' $ ' F3' ; ED' H&' 6H-4' 8H-4C' $& 34' F3' C$ J 3' CF$ ' F$ 3' Q33E' D31HC 3D' E' F3' ' 3 3 2F E2' ' HH J ' 43 J H 3' $ ' C-NF' M $CC' &4H J ' $ED' H- ' H&' C-NF' ' 3 3 2F E2' ' HH J ' CF$ ' &H4&3 ' * H' F-ED43D' I H-EDC

' ED

ED Q3 &-4 F34 3E$N 3D *F$ CH J -NF H& F3 C$ D 43N 3D = $
N $C 3E$N C ` F$ &4H J $ED $& 34 F3 6 & F G$O , ?3% < E3 FH-C$ED b
3 2F F-ED43D $ED 3E O & 3 $ $ED 3 340 P$+34 H4 P$+34C H&
6 E M $CC CF$ $ED F3 CF3 H4 F3O C $ED $43 F343QO 43X- 43D $
H4 Q3&H43 F3 8H-4 H& ? H @ HN+ E F3 ; 3E E2 H& + 3 & E
3$NF $ED 3 340 9 33+ H H4+ H- E 9 $43C H4 H N$-C3 $ED 14HN-43
H Q3 H4+3D H- E 9 $43C F3 FH 3 H& F3 P$ 34 $ C P 3 $ H4
H F34 I431$4$ HEC F NF $ $EO * J 3 D-4 E2 F$ 9 33+ CF$ F$ E
Q33E & - 3D H4 J 3 3D E $EO I H H4 I H C H F J F34 H4 F3 J Q3
HE2 E2 &H4 F3 I -41HC3 H& J $+ E2 6 E M $CC H4 -1HE $, H N3 &H4
F$ 5 I -41HC3 2 3E QO C-NF P$+34 H4 P$+34C H& M $CC H F3
14H134 <&& N34 H& ; N C3 ? 8H-4C Q3&H43 F3 CF3 H4 F3O CF$
NH J J 3EN3 H $D3 H- $EO I$4 H& C-NF P 3 $ H $D3 H- E F3
I 43C3EN3 H& F3 ?-134 CH4 H4 <&& N34 $ 3ED E2 -1HE C-NF , H N3
&H4 F$ I -41HC3 F3 FH 3 H& C-NF P$ 34 $ C P 3 $ H4 H F34 I 43R
1$4$ HEC $C $&H43C$ D F NF J $O 43 J $ E E C-NF I H $& 34 C-NF
P$+34 H4 P$+34C CF$ F$ 3 @3$C3D H H4+ H- $EO 9 $43C F343&4H J
$ED F3 2$-23D 9 3 2F H& C-NF $D3D & - 3D P$ 34 $ C P 3 $ H4
I431$4$ HEC $C $+3E QO F3 ?-134 CH4 H4 <&& N34 E F3 I H CF$
Q3 D3D-N 3D &4H J F3 9 3 2F H& M $CC &H4 H4 E 43C13N H& F NF
C-NF P$+34 H4 P$+34C CF$ $ F$ * J 3 Q3 NF423Q 3 F G- O
-1HE F3 M$-23 F343H& $+3E E F3 I H $NNH4D E2 H F3 I 4H C HEC
H& F C N $ED & $EO C-NF P$+34 H4 P$+34C H& M $CC $C
$&H43C$ D CF$ E32 3N H4 43&-C3 CH H DH F3 CF3 H4 F3O CF$
&H4 3 340 C-NF I H E 43C13N H& F NF F3 CF3 H4 F3O CF$
NH J J H4 J $+3 C-NF , 32 3N H4 3&-C$ &H4&3 F3 ?- J H&
* H F-ED43D I H-EDC c CF$ Q3 $ED F3 C$ J 3 C F343QO 4313$ 3D

ED Q3 &-4 F34 3E$N 3D *F$ 3 340 P$+34 H& 6 E M $CC F3 FH 3 H&
CF$ $ED F3 C F343QO 43X- 43D $ H4 Q3&H43 F3 8H-4 H& ? H @ HN+ F3 6 E
E F3 ; 3E E2 H& + 3 & E 3$NF $ED 3 340 9 33+ H H4+ H- M $CC & - 3D
E H 9 $43C H4 H N$-C3 $ED 14HN-43 H Q3 H4+3D H- E H 9 $43C E 3$NF 9 33+
F3 FH 3 H& F3 P$ 34 $ C P 3 $ H4 H F34 I431$4$ HEC F NF $ H Q3 HC&33D
$EO * J 3 D-4 E2 F$ 9 33+ CF$ F$ 3 Q33E & - 3D H4 J 3 3D E $EO H4 $D3D
I H H4 I H C H F J Q3 HE2 E2 &H4 F3 I -41HC3 H& J $+ E2 6 E H- QO ?
M $CC H4 E N$C3 H& C-NF P$+34 H& 6 E M $CC EH Q3 E2 $Q 3 H H N HN+ HE
H4+ H- F3 FH 3 H& C-NF P$ 34 $ C P 3 $ H4 I431$4$ HEC E H ?$ -4D$O
9 $43C QO F3 * J 3 $&H43C$ D CF$ Q3 $ & - &H4 C-NF P$+34 ; 3E E2
-1HE $, H N3 2 3E QO F J H F3 14H134 <&& N34 H& ; N C3 ?
8H-4C Q3&H43 NH J J 3EN E2 H $D3 H- $EO I$4 H& C-NF P 3 $ H
$D3 H- E H 9 $ 34 Q3&H43 F3 C$ D 8H-4 H& ? H @ HN+ E F3
; 3E E2 H& + 3 & E F3 I 43C3EN3 H& F3 ?-134 CH4 H4 <&& N34
FH CF$ $ 3ED -1HE C-NF , H N3 &H4 F$ I -41HC3 F3 FH 3 H&
C-NF P$ 34 $ C P 3 $ H4 H F34 I431$4$ HEC $C J $O 43 J $ E E $EO
I H H4 I H C $& 34 C-NF P$+34 CF$ F$ 3 N3$C3D H H4+ H- $EO
9 $43C F343&4H J $ED F3 2$-23D 9 3 2F H& C-NF $D3D & -W3D
P$ 34 $ C P 3 $ H4 H F34 I431$4$ HEC $C $+3E QO F3 ?-134 CH4
H4 <&& N34 E F3 I H CF$ Q3 D3D-N 3D &4H J F3 9 3 2F H& M $CC
&H4 H4 E 43C13N H& F NF C-NF P$+34 CF$ $ F$ * J 3 Q3
NF423Q 3 F G- O -1HE F3 M$-23 F343H& $+3E E F3 I H
$NNH4D E2 H F3 I 4H C HEC H& F3 C$ D 43N 3D N $ED 3 340
P$+34 H& 6 E M $CC FH CF$ E32 3N H4 43&-C3 H H4+ H- $
G C-NF

C-NF P34Cʻ P3$ ʻ H4 HF34 I431$4$ HEC EH 9$43Cʻ H4 H
$D3 H-ʻ EH 9$34 F3 C$J3ʻ HE C-NF ,H N3 $C $&H43C$Dʻ Q3&H43
F3 8H-4 1& ? ʻH @HN+ E F3 ; 3E E2 H& + 3& ʻH4 FH CF$ ʻ
$D3 H-ʻ $EO P$34$Cʻ P3$ ʻ H4 I431$4$ HEC FH-ʻ F$ E2
2 3E C-NF 8H N3 $C $&H43C$Dʻ I4 FH-ʻ F3 I43C3EN3 H& F3
?-134 CH4 H4 <& ?N34ʻ CF$ ʻ&H4&3 ʻ* H F-ED43D IH-EDC . I4H D3D
$ $OC ʻ F$ʻ EH G3D-N HE H4 H $EN3 CF$ ʻQ3 J$D3 H4 24$E 3D
QO $EO <&& N34 H& ; N C3 &H ʻ H4 Eʻ43C13Nʻ H& $EO P$34$Cʻ
P3$ ʻ H4 I431$4$ HEC $D3D H-ʻ $ʻ$EO HF34 * J3ʻʻ F$E $ʻ F3
@HEN -C HE H& F3 5H-4E3O H& 9 33+ C P$+ E2 ʻ 3 N31 ʻ E F3 @$C3
H& 1H C N $N+ E2 H4 Q43$+ E2 ʻ 14H D3D &H& QO F3 C$D 43N 3D N

,H H $EN3 H Q3 24$E 3D HE $EO $D E2 H- ʻ3 N31 ʻ$ʻ F3 ; ED H& F3 5H-4E3Oʻ -E 3CC E F3 @$C3 H& IH C Q43$+ E2

W ʻ ED F343$C GH-Q C F$ 3 Q33E 3E 34$E3D 9F3 F34 IH C
NF$423D $C < 34$+34C -ED34 F3 I4H C HEC H& F3 C$D 43N 3D N ʻ
D-4 E2 $EO 5H-4E3O H4 P$+ E2 H& 6 Eʻ M $CCʻ $43 43X- 43D H Q3
H13E3D $ʻ <E3 $ED F3 C$J3 * J3 $C F3 IH C NF$423D $ʻ F3 @HJR
J3EN3 J3E ʻH& F3 C$J3 5H-4E3O H4 P$+ E2 ʻ H4 F3 F34 $ ʻC-NF IH C
HE O $C J$O Q3 NF$423D $C < 3& $+34C $43 43X- 43D H Q3 H13E3D
H23 F34 $ʻ HE3 $ED F3 C$J3 * J3ʻQ3 ʻ&-4 F34 3E$N 3Dʻ *F$ ʻ
$ ʻC-NF IH C $C J$O F3 NF$423D $C < 3&$+34C D-4 E2 $EO 5H-4E3O
H4 P$+ E2 H& 6 Eʻ M $CC CF$ ʻQ3 H13E3D $ʻHE3 $ED F3 C$J3 * J3 ʻ
E F3 C$J3 P$EE34 $C F3 H F34 IH C H& F3 C$J3 5H-4E3O H4 P$+ E2
$43 43X- 43D H Q3 H13E3D $ʻ HE3 $ED F3 C$J3 * J3

< 34$+34C H Q3 H13E3D H23 F34ʻ $C F3 IH C NF$423D $ʻ @HJ J3EN3R J3E ʻH& F3 5H-4E3O $43 D 43N 3D H Q3 H13E3D $ʻ HE3 $ED F3 C$J3 * J3

W ʻ ED Q3 ʻ&-4 F34 3E$N 3Dʻ *F$ʻ CH J -NF H& F3 C$D 43N 3D
N ʻ $C 14H D3C $ED 3E$N Cʻ 77 F$ʻ & F3 & - 3D P$34$Cʻ P3$ ʻH4
H F34 I431$4$ HEC NHE $E3D E $EO C-NF IH ʻ H4 IH $&4& F NF C-NF
,H N3 CF$ ʻ Q3 2 3E $C $&H43C$D Q3 NH H-43D M $CCʻ $ED EN$1$Q 3
H& Q3 E2 -C3D &H4 9F 3 M $CCʻ H4 H F34 C3 F$E $C B -3ʻ M433E ʻ H4
ʻH F34 NH H-43D M $CC ʻ ʻCF$ ʻQ3 $ &- ʻ&H4 $EO C-NF P$+34 H4 P$+34C ʻ
HE 2 E2 ? ʻ 8H-4C ,H N3 F343H& ʻ $ED H& C-NF F Cʻ F34ʻ H4 F3 4
E 3E HE ʻ H F3 C-4 3O E2 <&& N34 H& ; N C3ʻ C13N &O E2 F343 E F3
1$4 N- $4 IH ʻH4 IH Cʻ H $D3 H- ʻ E F3 I43C3EN3 H& F3 ?-134 CH4
H4 C-4 3O E2 <&& N34ʻ $ ʻC-NF & - 3D P34Cʻ P3$ ʻ H4 H F34 I43R
1$4$ HEC $C CF$ ʻQ3 F343 Eʻ EH 9$34ʻ$ED F343-1HE H J$+3 C-NF
34$ HE E C-NF P$34 DCʻ P3$ C H4 H F34 I431$4$ HEC $C F3ʻ CF3ʻ
H4 F3O J$O F E+ʻ& ʻ&H4 D3313E E2 H4 J 14H E2 F3 @H H-4 F343H&
$&H43C$Dʻ($ED &H4 F F H 43NF$423 C-NF IH ʻ H4 IH C F C-NF
P34Cʻ P3$ ʻ H4 H F34 I431$4$ HECʻ &H4 D 3 J$+ E2 H& C-NF
NH H-43D M $CC $C $&H43C$D HE Oʻ $ED 3 34O C-NF IH ʻ H4 IH C CH
43NF$423D CF$ ʻ F3 D33 J3D $ED CF$ ʻ Q3 C& Q(3N ʻ H F3 C$J3 ʻ32- $R
HEC $C $43 F343 E Q3&H43 14H D3D F 43C13N ʻ H C-NF IH C $a $43
NHJ JHE O @$ 3D < 34$+34C ʻ $ED F$ʻ F3E C-NF IH ʻH4 IH C CF$ ʻ
Q3 2 E -EC H113Dʻ G- O CF$ ʻQ3 NF$423D -1HE F3 2$X23D 9 3 o F ʻ
H& $ ʻ F3 & - 3D P34C H4 H F34 I431$4$ HEC NHE $E3D F343 E ʻ
$ED 3 34O C-NF P$+34 H4 P$+34C CF$ ʻ Q3 $Q 3 H 1$O F3 G- O CH
NF$423D $C $Cʻ $&H43C$Dʻ F3 2$-23D 9 3 2F ʻH& F3 & - 3D P34Cʻ
P3$ ʻH4 H F34 I431$4$ HEC CH $D3D H- ʻ$C $&H43C$D Q3 E2 D3D-N 3D
$C $&H43C$Dʻ $EO F E2 F343 E NHE $E3D H F3 NHE 4$4O EH FR
C $ED E2 c CF$ ʻQ3 $ED F3 C$J3 C F343QO 4313$ 3D

?3N ʻ Yʻ H& YM @ ʻ 4313$ 3D

U K S M # > ; > P @$1 [U VS!

W> ED Q3 &-4 F34 3E$N 3D *F$ CF$ Q3 $ &- &H4 $EO P$+34 H& 6 E M $CC F E ? 33E 8H-4C $& 34 & E2 H4 NH J R J 3EN E2 H NF$423 $EO I H Q- EH $& 34 HE 2 E2 ? 8H-4C ,H N3 H& F C E 3E HE H F3 C-4 30 E2 <&& N34 H& ; N C3 C13N &OR E2 F343 E F3 1$4 N- $4 I H H4 I H C H $D3 H- E H 9 $ 34 E F3 I 43C3EN3 H& F3 ?-134 CH4 H4 C-4 30 E2 <&& N34 $ C-NF & - 3D P $R 34 $ C P 3 $ H4 H F34 I 431$4$ HEC $C CF$ Q3 E C-NF I H F3 F34 C-NF P $ 34 $ C P 3 $ H4 I 431$4$ HEC Q3 &H4 NH H-43D M $CC H4 F 3 M $CC $ED F343-1HE H J $+3 C-NF 34$ HE E C-NF P $ 34 $ C P 3 $ H4 H F34 I 431$4$ HEC $C F3 J $0 F E+ & &H4 J 14H E2 F3 C$ J 3 H4 &H4 D3313E E2 H4 J 14H E2 F3 @H H-4 F343H& $ED &H4 FR F H 43NF$423 C-NF I H F C-NF P $ 34 $ C P 3 $ H4 H F34 I 431$4$ HEC &H4 F3 J $+ E2 H& C-NF M $CC $ED 3 340 C-NF I H CH 43NF$423D CF$ Q3 D33 J 3D $ED CF$ Q3 C-Q(3N H F3 C$ J 3 32- $ HEC $C $43 5 343 E Q3&H43 14H D3D F 43C13N H C-NF I H C $C $43 NH J J HE O N$ 3D < 34 $+34C $ED F$ F3E C-NF I H CF$ Q3 2 E -EC H113D G- O CF$ Q3 NF$423D -1HE F3 2$-23D 9 3 2F H& $ F3 & - 3D P $ 34 $ C P 3 $ H4 H F34 I 431$4$ HEC NHE $ E3D F343 E $ED 3 340 C-NF P $+34 H4 P $+34C CF$ Q3 $Q 3 H 1$0 F3 G- O CH NF$423D $C $C $&H43C$ D F3 2$-23D 9 3 2F H& $ F3 & - 3D P $R 34 $ C P 3 $ H4 H F34 I 431$4$ HEC CH $D3D H- $C $&H43C$ D Q3 E2 D3D-N 3D $EO F E2 E F3 C$ D N H4 F C N NHE $ E3D H F3 NHE 4$40 EH FC $ED E2

9 F E ? 33E 8H-4C $& 34 NF$42 E2 $EO I H F3 P$ 34 $ C J $0 HE ,H N3 Q3 $D3D H- E H 9 $ 34 E H4D34 H J 14H33 F3 J $ED Q3 43 -4E3D E H F3 1H

W ED Q3 &-4 F34 3E$N 3D *F$ 3 340 P $+34 H& 6 E M $CC EC D3 H& CF$ N$-C3 F3 EC D3 H& 3 340 >3$4 -C3D QO F J &H4 $EE3$ E2 6 E 3 340 >3$4 H M $CC H Q3 NH 343D F @3 J 3E H4 I $C 34 H F3 ?$ C&$N HE H& F3 ?-134 CH4 H& ; N C3 $ED CF$ +331 F3 C$ J 3 CH NH 343D $ED N3 J 3E CF$ F3E3 34 F343 H 43X- 43D QO ,H N3 E 9 4 E2 &4H J F3 ?-134 CH4 H& ; N C3 H& F3 G C 4 N H4 $EO C-134 H4 <&& N34 N$-C3 C-NF @3 J 3E H4 I $C 34 H Q3 43E3 3D $ED 3 340 P $+34 H& 6 E M $CC FH CF$ E32 3N H N$-C3 F3 EC D3 H& $EO >3$4 H Q3 CH NH 343D F @3 J 3E H4 I $C 34 H4 FH CF$ E32 3N &H4 F3 ?1$N3 H& 6H-4 33E G$OC $& 34 Q3 E2 43X- 43D QO $EO C-NF ,H N3 $C $&H43C$ D H 43E3 F3 C$ J 3 CF$ &Q4&3 < E3 F-ED43D I H-EDC

W ED Q3 &-4 F34 3E$N 3D *F$ CH J -NF H& F3 C$ D 43N 3D 32- $ HEC N $C 3E$N C `` F$ &4H J $ED $& 34 F3 6 & F G$0 H& ?3% 6 # ! FH-R C$ED 3 2F F-ED43D $ED 3E 0 & 3 EH P $+34 H4 P $+34C H& 8 E M $CC CF$ EN-4 F3 I 3E$ O H& * H F-ED43D I H-EDC -ED34 $E N 1$CC3D E F3 6 & 0 & 4C =3$4 H& F3 3 2E H& 8 C P $(3C O % E2 ! , (! F3 *F 4D QO 43$CHE H& F C F34 H4 F3 4 EH 1- E2 1 $N E2 H4 D31HC E2 E < E3 H4 J H43 H& C-NF >3$4C &H4 F3 I -41HC3 H& $EE3$ E2 F3 C$ J 3 H4 &H4 EH $EE3$ E2 F343 E $ F3 6 E M $CC F NF CF$ &4H J * J 3 H * J 3 Q3 QO F J F34 H4 F3 J J $D3 H4 J $E-&$N -43D Q- F$ CF$ $ED J $0 Q3 $ &- &H4 $EO P $+34 H4 P $+34C H& 6 E M $CC H J $+3 H4 J $E-&$N -43 6 E M $CC F NF CF$ EH Q3 CH 1- 1 $N3D H4 D31HC 3D $C $&H43C$ D E $EO >3$4 H4 >3$4C H4 H Q3 $EE3$ 3D F343 E $C $&H43C$ D -1HE C-NF P $+34 <4 P $+34C H& M $CC $C $&H43C$ D 2 E2 ? 8H-4C ,H N3 E 9 4 E2 H F3 <&& N34 H4 <&& N34C H& ; N C3 -ED34 FHC3 ?-4 30 F3 CF3 H4 F30 CF$

E Y M N $C H -E$EE3$ 3D MHHDC 43R 13$ 3D $ D $ 6 E M $CC H Q3 1- E H F3 >3$4

VSY' U KScM#> ;> ' ' @$1 [U

CF$ ' F3E' Q3 ' H&' F C ' F34 ' H4' F3 4' E 3B H1' CH' H' DH ' C13N &O E2' E' C-NF' , H N3' F3' , - J Q34' $ED' 1$4 N- $4' I H ' H4' I H C' &4H J' F NF' F3' CF3 ' H4' F3O' E 3EDC' H4' E 3ED' H' J $+3' H4' J E&$N E43' C-NF' P E ' M $CC ' $ED' F3' 1$4 N- $4' % EDC' H&' 9 $43C' H' Q3' J $D3' F343&4H J .' I 4H D3D' $ $OC ' F$ ' &' C-NF' P $+34' H4' P DN34C' H&' 6 E ' M $CC' $C' $&H43C$ D' CF$ ' E32 3N ' H4' H J ' H' 2 3' C-NF' , H N3' $C' E' F$ ' B3F$ &' $&H43C$ D ' EH F E2' F343 E' NHE $ E3D' CF$ ' E' $EO C3' 3 31D' H4' F3' D33 J 3D' H4' NHEC 4-3D' H' 3 3ED' H' 143 3E ' C-NF' P $+34' H4' P $+34C' H&' M $CC' $C' $&H43C$ D' &4H J' EN-44 E2' C-NF' I 3E$ O' $C' $QH 3' J 3E HE3D c' H23 F34' &F ' $ ' I 4H C HEC' H&' F3' C$ D' 43N 3D' N ' 134 J E2' H4' 432- $ E2' F3' P $E-&$N -43' H&' 6 E ' M $CC' EH ' 43X- 43D' H' Q3' $EE3$ 3D ' FH- ' F3' C$ J 3' Q J E2' 1- ' 1 $N3D ' H4' D31HC 3D' E' $' >3$4 c' CF$ ' Q3' $ED' F3' C$ J 3' C' $ED' $43' F343QO' 4313$ 3D ' $ED' F$ ' &4H J' $ED' $& 34 ' F3' MH J J 3EN3 J J ' H&' F C' N ' $ ' 6 E ' M $CC' $ED' 6 E ' M $CC' 9 $43C' F NF' CF$ ' Q3' J $E-&$N -43D' QO' $EO' P $+34' H&' 6 E ' M $CC' CF$ ' Q3' 1- ' 1 $N3D ' $ED' D31HC 3D' E' $' >3$4' E' J $EE34' 43X- 43D' QO' F3' C$ D' 43N 3D' N ' H&' F3' 6 & O & 4C ' =3$4' H&' 8 C' C$ D' P $(3C O C' ' 3 2E ' HE' 1$ E' H&' &H4&3 E2' F3' I 3E$ O' F343QO' EN-443D

9 F343' JH 3 ' W ' ED' F343$C' QO' $E' N ' 1$CC3D' E' F3' * F 4 O &H-4 F' =3$4' $Q 3' I H C ' $43' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' !, (!' F3' * F 4D ' E - 3D' T#' Eo $4 ' (# #(' ,' 1' U!1 ' '! #' && ,# %' 2 3 !1' ,#' % 11 H&$CC ' $E' 5, !&' # ,' H4' &!' #' 8 3D ' B4 $ E ' F3' &H H E2' H $EN3C' E' H $EN3' H&' $ ' I H C' NHE $ E E2' J H43' F$E' <E3' 8 -ED43D' 9 3 2F ' -C3D' &H4' F3' J $+ E2' H&' B H E' I $ 3' M $?C' H4' @$C ' I $ 3' M $CC ' $43' D 43N 3D' H' Q3' $D3)c' J $D3' H' F3' P $+34C' H&' I $ 3' [$CC ' F$ ' C' H' C$O ' <E3' * F 4D' I $4 ' H&' F3' P 3 $ ' X4' H F34' P $ 34 $ C' NHE $ E3D' F343 E' $ED H&' 6H-4' ENF3C' $ ' F3' & H N $' & 3 34O' C-NF' I H ' -C3D' &H4' F3' J $+ E2' H&' B H E' I $ 3' M $CC ' $ED' <E3' 8 $ &' H&' * F3' P 3 $ ' H4' H F34' P $ 34 $ C' NHE $ E3D' F343 E' $ED' 6H-4' ENF3C' $ ' F3' BH H J ' H&' 3 34O' I H ' -C3D' &H4' F3' J $+ E2' \&' @$C ' I $ 3' M $CC.' ED' F343$C' F3' C$ D' H R $EN3C' 343' 24$E 3D' HE' I H C' F NF' 343' & 3D ' $ED' EH ' J H 3$Q 3 ' &4H J' P F3#N3' F3' P 3 $ ' $C' $D3D' E H' @ C 34EC' H4' H F34' 3CC3 C' Q3&H43' N$C E2 ' Q- ' F343' J H 3$Q 3' I H C' $43' -C3D' F3' C$ D' H R $EN3' H&' 6H-4' ENF3C' $ ' F3' BH H J' C' EH ' 43X- 43D ' Q- ' * H' ENF3C' $43' C-& N 3E ' Q3' ' F343&H43' 3E$N 3D ' * F$ ' E' 3-' H&' F3' C$ D' ' H $EN3' H&' 6H-4' ENF3C' F3' <&& N34C' H&' 6 N C3' CF(D ' $ H ' * H' ENF3C' HE O' E' F3' BH H J ' H&' 3$NF' C-NF' I H ' $C' CF$ ' Q3' -C3D' E' F3' J $+ E2' H&' B H E' H4' @$C ' I $ 3' M $CC' $C' F3' 6H-ED E2' I H ' $ED' Q3' Q4H-2F ' D 43N ' &4H J' F3' 6 -4E$N3' H' F3' @$C E2' * $Q 3 ' $ED' F343' 3 J 1 3D' H&' F3' P 3 $ ' H4' P $ 34 $ C' F343 E' NHE $ E3D ' FH- ' C-NF' P 3 $ ' H4' P $ 34 $ C' Q3 E2' $D3D' H4' 43 J H 3D' H- ' E H' $EO' [? 34E' H4' H F34' 3CC3 ' F NF' C$ D' H $EN3' H&' * H' ENF3C' CF$ ' Q3' $C' &- ' @H J 13EC$ N J' $C' F3' H $EN3' H&' 6H-4' ENF3C' C' QO' F3' C$ D' N ' D3N $43D' H' Q3'.' I 4H D3D' $ $OC ' F$ ' EH F E2' F343 E' NHE $ E3D' CF$ ' Q3' D33 J 3D' H' $ 34' F3' C$ D' H $EN3' H&' 6H-4' ENF3C' E' I H C' EH ' J H 3$Q 3 ' $ED' & H J' F3EN3' F3' P 3 $ ' H4' P $ 34 $ C' $43' $D3D' H4' 43 J H 3D' E H' @ C 34EC' H4' < F34' 3CC3 C' Q3&H43' Q3 E2' N$C ' H4' Q H E

+#)H(' #+' I(' *)2(' #+' ??)H(!' +? W ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' Q3&H43' $EO' P $+34' H&' ?143$D' 9 EDH ' M $CC' H4' @4H E' M $CC' CF$ ' Q32 E' H' N HC3' H4' C H1' -1' $EO $EE3$ E2

ULKSLM#> ;>P ʻ ʻ @$1ʻ [U VS

$EE3$ E2ʻ 4NFʻ H4ʻ < 3EʻNHE $ E E2ʻ $EOʻ ?143$Dʻ 9 EDH ʻ M $CCʻ H4ʻ ; N C3ʻQ3&H43ʻ
@4H Eʻ M $CCʻ F3ʻ CF$ ʻ D3 34ʻ Hʻ F3ʻ 14H134ʻ <&& N34ʻ H&ʻ ; N C3ʻ $ʻ `Iʻ
G3N 4 HEʻ Jʻ 9 4 E2ʻ C13N &O E2ʻ F3ʻ 4-3ʻ , - J Q34ʻ H&ʻ *$Q 3Cʻ H&ʻ
?143$Dʻ 9 EDH ʻ M $CCʻ H4ʻ @4H Eʻ M $CCʻ 43C13N 3 Oʻ 1- ʻ H4ʻ D31HC 3Dʻ
$EDʻ NHE $ E3Dʻ Eʻ 3$NFʻ $EDʻ 3 34Oʻ C-NFʻ $EE3$ E2ʻ 4NFʻ 43C13N 3 O ʻ
$EDʻ $ CHʻ F3ʻ 4-3ʻ , - J Q34ʻ H&ʻ ENF3Cʻ Eʻ >3E2 Fʻ HNN-1 3Dʻ QOʻ C-
*$Q 3Cʻ H&ʻ M $CCʻ &4H Jʻ F3ʻ B$N+ʻ H4ʻ BH H Jʻ H&ʻ 3$NFʻ C-NFʻ 4NFʻ Hʻ F3ʻ
6 4C ʻ H4ʻ 64HE ʻ *$Q 3ʻ H&ʻ M $CC ʻ $EDʻ F3ʻ 4-3ʻ , - J Q34ʻ H&ʻ ENF3Cʻ
-EHNN-1 3Dʻ Q3 33Eʻ C-NFʻ 6 4C ʻ H4ʻ 64HE ʻ *$Q 3ʻ $EDʻ F3ʻ M4$ E2ʻ $ ʻ
F3ʻ PH- Fʻ H&ʻ F3ʻ 4NF ʻ $EDʻ &ʻ 3 F34ʻ F3ʻ , - J Q34ʻ H&ʻ *$Q 3Cʻ C13R
N & 3Dʻ Eʻ C-NFʻ G3N 4 HEʻ CF$ ʻ Q3ʻ 243$ 34ʻ H4ʻ 3CCʻ F$Eʻ $ ʻ $EDʻ $& 34ʻ
F3ʻ ' $ 3ʻ H&ʻ 6 3ʻ 5! ʻ I !# ʻ HEʻ F3ʻ , - J Q34ʻ H&ʻ *$Q 3Cʻ 1- ʻ H4ʻ D31HR
C 3Dʻ H4ʻ &H-EDʻ Eʻ $EOʻ C-NFʻ $EE3$ E2ʻ 4NF ʻ H4ʻ &ʻ F3ʻ , - J Q34ʻ H&ʻ
ENF3Cʻ C13N & 3Dʻ Eʻ $EOʻ C-NFʻ G3N 4 HEʻ $Cʻ HNN-1 3Dʻ QOʻ *$Q 3Cʻ H&ʻ
M $CC ʻ H4ʻ -EHNN-1 3Dʻ Eʻ $EOʻ C-NFʻ $EE3$ E2ʻ 4NF ʻ CF$ ʻ Q3ʻ &H-EDʻ
Hʻ $4Oʻ Eʻ $ʻ 243$ 34ʻ H4ʻ 3CC34ʻ I 4H1H4 HEʻ F$Eʻ $ ʻ $EDʻ $& 34ʻ F3ʻ ' $ 3ʻ
H&ʻ 6 3ʻ 5! ʻ I !# ʻ &4H Jʻ F3ʻ , - J Q34ʻ H&ʻ ENF3Cʻ $CN34 $ E3Dʻ HEʻ $EOʻ
P 3$C-43 J 3E ʻ H&ʻ $EOʻ C-NFʻ $EE3$ E2ʻ 4NFʻ QOʻ $EOʻ <&& N34ʻ H&ʻ ; N C3 ʻ
C-NFʻ P $+34ʻ CF$ ʻ &H4&3 ʻ 6 & Oʻ I H-EDCʻ ʻ $EDʻ &ʻ $EOʻ C-NFʻ P $+34ʻ CF$ ʻ
E32 3N ʻ H4ʻ 43&-C3ʻ Hʻ D3 34ʻ C-NFʻ G3N 4 HEʻ $Cʻ $&H43C$ D ʻ H4ʻ &ʻ $EOʻ
C-NFʻ $4 $ HEʻ Eʻ F3ʻ , - J Q34ʻ H&ʻ *$Q 3Cʻ $Cʻ $&H43C$ D ʻ $EDʻ $ CHʻ $ ʻ F3ʻ
C$J 3ʻ * J 3ʻ $EOʻ C-NFʻ $4 $ HEʻ Eʻ F3ʻ , - J Q34ʻ H&ʻ ENF3C ʻ CF$ ʻ Q3ʻ
&H-EDʻ H4ʻ D CNH 343D ʻ C-NFʻ P $+34ʻ CF$ ʻ &H4&3 ʻ F3ʻ ?- J ʻ H&ʻ * Hʻ F-ER
D43Dʻ I H-EDC

W ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ F3ʻ @H J J CC HER
@H J J CC HE34Cʻ H&ʻ ; N C3ʻ Hʻ 134 J ʻ $EDʻ $ H ʻ $EOʻ $EE3$ E2ʻ 4NFʻ 34Cʻ H&ʻ ; N C3ʻ
H4ʻ < 3Eʻ E 3ED3Dʻ Hʻ Q3 ʻ-C3Dʻ &H4ʻ $EE3$ E2ʻ ! ʻ ?F33 ʻ M $CCʻ Hʻ J$Oʻ $ H ʻ
Q3ʻ J $D3ʻ $EDʻ NHEC 4-N 3Dʻ Fʻ * Hʻ PH- FCʻ H4ʻ ; E 4$EN3Cʻ Hʻ F3ʻ * Hʻ PH- FC ʻ
C$J 3 ʻ 14H D3Dʻ C-NFʻ $EE3$ E2ʻ 4NFʻ Q3ʻ NHEC 4-N 3D ʻ Q- ʻ $EDʻ J $D3ʻ H4ʻ ; E 4$EN3Cʻ
Eʻ H F34ʻ 43C13N Cʻ Eʻ NHE&H4 J Oʻ Fʻ F3ʻ G 43N HECʻ $EDʻ ' 32- $ HECʻ Hʻ 4NF3Cʻ &H4ʻ ʻ
H&ʻ F3ʻ C$ Dʻ 43N 3Dʻ N ʻ H&ʻ F3ʻ 6H4 O E E Fʻ =3$4ʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ $EE3$ E2ʻ
8 Cʻ C$ Dʻ P $(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ *F 4D ʻ $EDʻ F$ ʻ 3$NFʻ C$ Dʻ M34 J $Eʻ
PH- Fʻ H4ʻ ; E 4$EN3ʻ Q3ʻ C3N-43Dʻ Eʻ J $EE34ʻ 43X- 43Dʻ $EDʻ -ED34ʻ F3ʻ ? Q33ʻ M $CC
I 3E$ 3Cʻ J 1HC3Dʻ QOʻ F3ʻ C$J 3ʻ N

W ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ 9 EDH ʻ
$EOʻ P $+34ʻ H&ʻ ?1 3$Dʻ 9 EDH ʻ M $CC ʻ @4H Eʻ M $CC ʻ H4ʻ ! #ʻ ?F33 ʻ M $CCʻ @4H E
M $CCʻ Hʻ NH H-4ʻ $EOʻ C-NFʻ M $CCʻ J $E-&$N -43Dʻ QOʻ F Jʻ FH- ʻ F3ʻ M $CC ʻ $EDʻ
C$J 3ʻ Q3 E2ʻ D33 J 3Dʻ Hʻ Q3ʻ 6 E ʻ M $CC ʻ $EOʻ F E2ʻ Eʻ $Eʻ N ʻ 1$CC3Dʻ M34 J $Eʻ
Eʻ F3ʻ 6 & O & 4C ʻ =3$4ʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ P $(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ ?F33 ʻ M $CC
*F 4D ʻ E - 3Dʻ / #ʻ / ' ʻ , ʻ !5! % #(ʻ) !ʻ 2 3 ʻ ,#) !ʻ ! %1ʻ 31!&ʻ J $Oʻ Q3ʻ
#(ʻ R% # ʻ #&ʻ *) %ʻ % 11ʻ #&ʻ , ʻ (# #(3# %ʻ) !ʻ R 1ʻ NH H-43Dʻ
2 ʻ -2-C ʻ 6#!ʻ) ,31 #&ʻ ! ( ) ʻ) 3#& !&ʻ #&ʻ F!%0! ʻ ,) ! ʻ 2 3 !1ʻ FH- ʻ
% !3ʻ) ! !, ʻ #&ʻ , ʻ ' ,# #3 #(ʻ #&ʻ !#& #(ʻ # / ' ʻ 5 11!&ʻ #) !ʻ Q3 E2ʻ D33 J 3Dʻ
R, # #)ʻ H! ʻ , ʻ 1ʻ U!1 1ʻ L! (#ʻ # 3%!&ʻ 7 / #ʻ / ' ʻ , ʻ 6 E ʻ M $Ca
ʻ !5! % #(ʻ) !ʻ 2 3 !1ʻ ,#) !ʻ ! %1ʻ 31!&ʻ # #(ʻ +5 ! &ʻ
7 #&,Fʻ % 11ʻ #&ʻ , ʻ (# #(ʻ ,) ! ʻ 2 3 !1ʻ # % !3ʻ) ! !V ʻ #&ʻ
, ʻ) !ʻ 4! ! ʻ I ,%%!' ,# , ʻ) !ʻ 1 &ʻ 2 3 !1>ʻ Hʻ F3ʻ NH 4$4Oʻ EH R
FC $ED E2

W ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ *F$ ʻ 3 34Oʻ P $+34ʻ H&ʻ 6 E ʻ
M $CC ʻ H4ʻ H&ʻ ?143$Dʻ 9 EDH ʻ M $CC ʻ H4ʻ @4H Eʻ M $CC ʻ H4ʻ ! ʻ M $CCʻ
ʻ ʻ ?F33 ʻ @ < (# I (
G- 3C

?F33 M $CC FH CF&5 &4$-D- 3E F 3 H4 NHEN3$ H4 N$-C3 H Q3 F DD3E H4 NH-N3$ 3D H4 *#&FX CF$ & &4$-D- 3E O 43JH 3 H4 D31HC H4 N$-C3 H Q3 43JH 3D H4 D31HC 3D $EO 6 E M $CC H4 ?143$D 9 EDH M $CC H4 @4H E M $CC ,J ! # ?F33 M $CC H4 I $ 3 M $CC F E 3E H 3 $D3 F3 G- 3C 1$0$Q 3 F343HE H4 $EO I$4 H& C-NF G- 3C: CF$ H 34 $ED $QH 3 3 34O H F34 I 3E$ O H F NF F3 J$O F343QO Q3NHJ3 ?-Q(3N &H4&3 6 3 F-ED43D IH-EDC

+@@(H(% @(#+? F3 H# WW ED Q3 &-4 F34 3E$N 3D *F$ F C N CF$ NHJ J3EN3 $ED $+3 3&&3N HE F3 ; 3 3E F G$O H& 6 ' ,4! <E3 FH-C$ED 3 2F F-ED43D $ED F 4 O H

N @&B Q3 &;(!(< F$ WW ED #3 &H4 F34 3E$N 3D *F$ F C N J$O Q3 $J3ED3D $ 343D 4313$ 3D <* $4 3D QO $EO N H Q3 1$CC3D E F C 143C3E ?3CC HE H& I$4 $J3E

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Eʿ N ʿ Hʿ 14H D3ʿ &H4ʿ F3ʿ ; $ J E$ HEʿ $EDʿ -D ʿ
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I Fʿ ?SU S

78 ; ' ; ?ʿ QOʿ $Eʿ N ʿ 1$CC3Dʿ Eʿ F3ʿ ? ʿ =3$4ʿ H&ʿ F3ʿ ' 3 2Eʿ
H&ʿ 8 34ʿ P $(3C Oʿ \ -33Eʿ / ##! ʿ E - 3Dʿ / #ʿ / ' ʿ , ʿ 1! % #(ʿ Y EE ʿ N ʿ UY ʿ
#&ʿ !1 4% 1) #(ʿ ʿ I , 3 ʿ , ʿ 8J ') !V3! ʿ #ʿ) !ʿ E ,)ʿ 8 , ʿ , ʿ
M43$ ʿ B4 $ Eʿ ' %%!&ʿ ?NH $ED ʿ $ ʿ NNH-E Cʿ 43 $ E2ʿ Hʿ F3ʿ ' 3 3E-3Cʿ
$EDʿ G- 3Cʿ H&ʿ @-C H J Cʿ $EDʿ ; N C3 ʿ $EOʿ $OCʿ $1134 $ E E2ʿ H4ʿ F NFʿ
F343$& 34ʿ CFH- Dʿ $1134 $ Eʿ Hʿ F3ʿ \ -33E Cʿ P $(3C O ʿ 8 34ʿ 8 3 4Cʿ H4ʿ ʿ
?-NN3CCH4C ʿ F Eʿ +' , % #& ʿ $EDʿ $ ʿ NNH-E Cʿ NHEN34E E2ʿ 6H&&3 -43Cʿ
$EDʿ I 3E$ 3Cʿ F NFʿ F$Dʿ Q33Eʿ EN-443D ʿ H4ʿ CFH- Dʿ H4ʿ J 2F ʿ Q3ʿ EN-443Dʿ
H&ʿ Q3NH J 3ʿ $EOʿ 9 $OCʿ D-3ʿ $EDʿ 1$O$Q 3 ʿ Eʿ +' , % #& ʿ QOʿ &H4N3ʿ H4ʿ 4 -3ʿ H&ʿ
$EOʿ >$ ʿ H4ʿ ? $ - 3ʿ H-NF E2ʿ H4ʿ 43 $ E2ʿ Hʿ F3ʿ @-C H J Cʿ H4ʿ ; N C3 ʿ
$43ʿ 1 $N3Dʿ F Eʿ F3ʿ 5-4 CD N HECʿ Eʿ - FH4 Oʿ H&ʿ F3ʿ @H-4 ʿ H&ʿ
; NF3X-34ʿ Eʿ +' , % #& ʿ $EDʿ $43ʿ QOʿ F$ ʿ N ʿ $EE3 3Dʿ Hʿ F3ʿ C$ Dʿ
@H-4 .ʿ EDʿ F343$Cʿ ʿ Cʿ QOʿ F3ʿ C$ Dʿ N ʿ ^$ J HE2C ʿ H F34ʿ F E2C_ʿ
3E$N 3D ʿ F$ ʿ $ ʿ $EDʿ 3 34Oʿ C-NFʿ I 34CHEʿ $EDʿ I 34CHECʿ $Cʿ Cʿ H4ʿ $43ʿ H4ʿ
CF$ ʿ Q3ʿ $11H E 3Dʿ -ED34ʿ F3ʿ $&H43C$ Dʿ ?3$ ʿ F NFʿ QOʿ F3ʿ 4 N 3Cʿ H&ʿ
#E HEʿ Cʿ $11H E 3Dʿ Hʿ F3ʿ +31 ʿ Eʿ +' , % #&ʿ Hʿ Q3ʿ F3ʿ -D H4ʿ H4ʿ -D R
H4Cʿ H&ʿ F3ʿ C$ Dʿ ' 3 3E-3Cʿ H&ʿ @-C H J Cʿ H4ʿ ; N C3 ʿ H4ʿ H F34ʿ @4H Eʿ ' 3 3R
E-3Cʿ H4ʿ G- 3Cʿ F$ CH3 34 ʿ #ʿ +' , % #& ʿ H4ʿ $EOʿ I $4 ʿ F343H& ʿ CF$ ʿ $+3ʿ F3ʿ
C$ J 3ʿ H4ʿ +3ʿ <$ F ʿ 3 1ʿ 3 #& 1 ʿ &H4ʿ F3ʿ D-3ʿ ; 3N- HEʿ H&ʿ F Cʿ H4ʿ
F3 4ʿ <&& N3ʿ H4ʿ <& N3C ʿ Q3&H43ʿ F3ʿ B$4HECʿ H&ʿ F3ʿ C$ Dʿ @H-4 ʿ H&ʿ ; NF3X-34ʿ
Eʿ +' , % #& ʿ $Cʿ $EOʿ -D H4ʿ H&ʿ $EOʿ H&ʿ F3ʿ @4H Eʿ ' 3 3E-3Cʿ Eʿ 8 #(% #&ʿ
F$ Fʿ H4ʿ F$ 3ʿ -C3Dʿ H4ʿ H-2F ʿ Hʿ $+3 ʿ $EDʿ C-NFʿ -D H4ʿ H4ʿ -D H4Cʿ CF$ ʿ
F$ 3ʿ F3ʿ $+ E2ʿ $EDʿ J $+ E2ʿ -1ʿ $ ʿ F3ʿ C$ Dʿ NNH-E C ʿ F NFʿ Q3 E2ʿ
C H4Eʿ Hʿ QOʿ F3ʿ 43C13N 3ʿ NNH-E $E Cʿ $Cʿ Hʿ F3ʿ * 4- Fʿ F343H& ʿ $EDʿ
$ H 3Dʿ $4 Dʿ D3N $43Dʿ QOʿ $EDʿ Q3&H43ʿ F3ʿ C$ Dʿ @H-4 ʿ H&ʿ ; NF3X-34ʿ Eʿ
+' , % #& ʿ H4ʿ Q3&H43ʿ F3ʿ @F 3&ʿ B$4HEʿ H4ʿ CH J 3ʿ H F34ʿ H&ʿ F3ʿ B$4HECʿ H&ʿ
F3ʿ C$ Dʿ @H-4 ʿ H&ʿ ; NF3X-34 ʿ F3ʿ C$ J 3ʿ CF$ ʿ Q3ʿ 3 $ J E3D ʿ 3E 34C ʿ $EDʿ
4 4H 3Dʿ Eʿ F3ʿ <&& N3Cʿ H&ʿ ' 3 J 3 J Q4$EN34ʿ H&ʿ F3ʿ \ -33E Cʿ P $(3C O ʿ 8 34ʿ
8 3 4Cʿ $EDʿ ?-NN3CCH4C ʿ $EDʿ I $4 N- $4Cʿ $EDʿ H-NF34Cʿ H&ʿ C-NFʿ ʿ NNH-E ʿ
NHE $ E3Dʿ J ʿ $ʿ B$2ʿ &H= F$ ʿ I -41HC3ʿ CF$ ʿ Q3ʿ F343ʿ 3& ʿ $EDʿ C-NFʿ
NNH-E ʿ CF$ ʿ Q3ʿ $ CHʿ 3E 343Dʿ Eʿ F3ʿ <&& N3ʿ H&ʿ F3ʿ >H4Dʿ * 43$C-434 Cʿ
ʿ ʿ 6ʿ ' 34$3 J

' 3 J 3 J Q4$EN34 ' E C-NF $EDf &$3 +3 P $EE34 $C C $ED F$ F Q33E -C3D E F3 +3 <&& N3C E 8#(#& ' $ED F3E CF$ ' Q3 D3 343D E H F3 7 I 13 <&& N3 E F3 @H-4 ' H& ; NF3X-34 E + ' , % #&= $ED F3 @ 34+ H& F3 I 13 ' H4 NF 3& <&& N34 E F$ ' <&& N3 ' H4 F C G31- O ' ^ E N$C3 F$ ' <&& N3 CF$ ' Q3 3 3N- 3D 4 ' G31- O _CF$ ' N$-C3 F3 C$ D NNH-E C H Q3 3 $J E3D ' $ED &'&H-ED 4-3 H Q3 3E 343D $ED E4H 3D E F3 C$ D <&& N3 ' $ED CF$ ' J $+3 $ED 3 $ \ - 3 -C H4 G CNF$423 H F3 NR NH-E $E ' F343-1HE ' F NF CF$ ' Q3 $ G CNF$423 H $ED &H4 C-NF NNH-E $E ' $C H F3 ' 3 3E-3C ' G- 3C ' P $ 34C ' $ED * F E2C F343 E $ED F343QO $NNH-E 3D &H4 ' 1$ D ' $ED $EC 343D ' $ED & $EO ?-134C H4 443$4C CF$ ' Q3 C3 ' -1HE F3 NNH-E $E ' H4 $EO H F34 I 34CHE H4 I 34CHEC ' BHD 3C I H N H4 @H41H4$ 3 ' QO H4 -1HE F3 C$ D NNH-E ' F3 @H-4 ' H& ; NF3X-34 E + ' , % #& CF$ ' $ $4D $ ' 14H134 $ED 3DFN -$ ' I 4HN3CC H Q3 J $D3 $ED CC-3D H- ' H& C-NF <E3 H& F3 * H ' 3 J 3 J Q4$EN34 C <&& N3C $C F3 @E-4 ' CF$ ' D 43N ' &H4 F3 C133DO $NNH-E E2 &H4 ' 3 _DE2 ' $ED 43N3 E2 H& C-NF ?-134C $ED 443$4C ' $ED $EC 34 E2 F3 C$ J 3 H F3 #C3 H& F3 @4H E ' E C-NF ?H4 ' $ED P $EE34 $C $ +3 @$C3C J CO QO >$ ' Q3 DHE3 H4 Q$ F Q33E -C3D E F3 @H-4 ' 1& ; NF3X-34 E 8#(% #& ' ED F343$C $E N ' $C 1$CC3D E F3 6H-4 F =3$4 H& F3 ' 3 2E H& 8 C $ 3 P $(3C O % E2

'M' 'N' SS' !, (! F3 6H-4 F ' E - 3D ' / # / ' ' , ' ' ,#1,% & !)! 1!0! % " , &1 V 'I 31 , 1 #& T%1, ')! 1!0! % " , &1 , '8J ' 1! 'M43$ ' B4 $ E & 43 $ED . ED 9 F343$C QO $E N 1 $CC E F3 ?3 3E F J D ; 2F F =3$4C H& F3 ' 3 2E H& 8 C C$ D $ 3 P $(3C O % E2 !, (! F3 6H-4 F ' E - 3D / # / ' ' ' ' ,#1,% & ! #& !#&)! <! 1 !% #(,)! , !' ,# #& # (! !# , ')! L!0!#3!U '8J ' 1!) ,3(),3 'M43$ ' B4 $ E #& 43 $ED ' 8 ? 8 3C O C $- FH4 T3D $ED 3 J 1H 343D H $11H E ' -ED34 F3 M43$ ' ?3$ ' H& F3 # E 3D % E2DH J ' $EO , - J Q34 H& I 34CHEC EH ' 3 N33D E2 * F 4 33E H Q3 @H J J CC HE34C H& ; N C3 &H4 F3 @H 3N HE $ED P E23 J 3E ' H& F3 FH 3 H& F3 ' 3 3E-3 ' H& ; N C3 $4 C E2 E $ED F4H-2FH- ' F3 # E 3D % E2DH J ' H& ! ' " 3 # ,& ' *43&H D ' $ED F3 ' C $EDC $ED * 344 H4 3C F343-E H 43C13N 3 O Q3 HE2R E2 ' ' ED F343$C QO F3 C J D $C&N 43N 3D N ' ' C "^$ J HE2C ' H F34 F E2C_ ' 3E$N 3D ' F$ ' ' CF$ ' Q3 $ &- ' &H4 F3 >H4D 8 2F *43$C-434 H4 $EO * F433 H& F3 @H J J CC HE34C H& F3 *43$C-4O ' &4H J ' * J 3 H * J 3 ' -ED34 F C 8 $ED $ED ?3$ ' H4 -ED34 F3 4 8 $EDC $ED ?3$ C ' H ' $11H E ' $ @H J 1 4H 34 $ED $E -D H4 &H4 F3 # E ' % E2DH J ' &H4 F3 I -41HC3 H& NH J 1 4H E2 $ED ' $-D E2 43C13N 3 O $ ' NNH-E C ' H& $ED Q3 HE2 E2 H F3 ' 3 3E-3 H& ; N a3 ' F C-NF ?$ $4 3C 43C13N 3 O ' 1$O$Q 3 QO F3 @H J J CC HE34C H& ; N C3 H- ' H& F1 ' 3R 3E-3 H& ; N C3 ' $C F3 >H4D 8 2F *43$C-434 14 $EO * F 33 1A ' J H43_ H& F3 @H J J CC HE34C H F3 *43$C-4O J $O E F$ ' B3F J & H4D34 $ED D 43N ' $FD F$ ' C-NF @H J 1 4H 34 $E@ -D H4 ' 43C13N 3 O CF$ ' E $ '43C13N C Q3 C-Q(3N ' H C-NF ' - 3C ' <4D3 J ' ' 32- $ HEC ' $ED G 43N ' HEC $C F3 >H4D 8 2F *43$C-434 H4 $EO ' ' * F433 H4 J H43 H& F3 @H J J CC HE34C H& F3 *43$C-4O CF$ ' &4H J ' * J 3 H * J 3 J $+3 F4 143CN4 Q3 ' $ED &H$EC J ' 1 F3 C$ D @H J 1 4H 34 $ED -D H4 4@& C13N 3 O ' &H4 F3 4 G 43N N ' J D M -5$EH3 E F3 4 43C13N 3 <&& N3C ' ED F343$C $E N ' $C 1$CC3D E F3 6 4C ' =3$4 H& F3

9 '3U! ' ' 3 2E H& 8 C 143C3E ' P $(3C O ' #]J O&! / / # / ' ' , ')! ' +355, ' , ' 1 U!1 1 ,31!),%& ' #& , ')! ,#,3 ' #& 5 (#% ' ,)! I , F# , ')! O# !& #(&, ' 'M43$ ' B4 $ E 43 $ED . ED F343$C F3 FH 3 ' 3 3E-3 H& ; N C3 '$ED F4H-2FH- ' F3 # E 3D % E2DH J ' Q3 2 EH ' -ED34 F3 @HE 41- ' $ED P E23 J 3E ' H& <E3 BH$4D H4 BHDO H& @H J J CC HE34C ' -ED34 $ED QO 4 -3 H& F3 * H 43N 3D N C H& F3 6H-4 F $ED ?3 3E F $ED ; 2F F =3$4C H& F3 ' 3 2E

D
@!S

' 3 2E' H&' 8 C' C$ D' $ 3' P $(3C O' % E2' !, (!' F3' 6H-4 F ' $ED' F3' ' 3 3E-3' H&' @-C H J C' F4H-2FH- ' F3' #E 3D' % E2DH J' Q3 E2' $ CH' -ER D34' F3' @HE 4H- ' $ED' P E23 J 3E ' H&' < E3' BH$4D' H4' BHDO' H&' @H J J CR C HE34C' ' C' 3 13D 3E ' F$ ' $ ' F3' ' 3 3E-3C' $ED' G- 3C ' @-C H J C' $ED' ; N C3 ' $EO' $OC' $1134 $ E E2' H' 8 C' P $(3C O' F E' $ED' $ ' 6H4&3 -43C' $ED' I 3E$ 3C' F NF' F$ 3' Q33E' EN-443D ' H4' CF$ ' H4' J $O' Q3' EN-443D' H4' Q3NH J 3' $EO' $OC' D-3' $ED' 1$O$Q 3 ' E' + ' , % #& ' QO' &H4N3' H4' 4 -3' H&' $EO' >$ ' H4' ? $ - 3' H-NF E2' H4' 43 $ E2' H' F3' @-C H J C' H4' ; N C3 ' CFH- D' Q3' 43N3 3D ' $EC 343D ' 1$ D ' $ED' C$ C& 3D ' $ED' Q3' $NNH-E 3D' &H4 ' NH J 1 4H 3D ' $ED' $-D 3D ' $C' F3' ' 3 3E-3C' $ED' G- 3C' H&' @-C H J C' $ED' ; N C3 ' $ED' I 3E$ 3C' $ED' 6H4&3 -43C ' $4 C E2' E' 8 #(% #& ' $43' 43N3 3D ' $EC 343D ' 1$ D ' C$ C& 3D ' $NNH-E 3D' &H4 ' $ED' NH J 1 4H 3D' $ED' $-D 3D ' Q- ' F3' C$ J 3' N$EEH ' Q3' &- O' N$44 3D' E H' 3&&3N ' 9 FH- ' F3' ' 313$ ' H&' CH' J -NF' H&' F3' C$ D' 43N 3D' N ' H&' 8 3&' P $(3C O' \ -33E' / ##!' $C' 43X- 43C' F3' C$ D' NNH-E C' H' Q3' NH J 1 4H 3D' $ED' $-D 3D' $ED' E4H 3D' E' + ' , % #&-' Q3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$ ' $ED' * 3 J 1H4$ ' $ED' @H J J HEC ' E' F C' 143C3E ' I $4 $ J 3E ' $CC3 J Q 3D ' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3 ' * F$ ' I $4 ' H&' N ' CH' J -NF' H&' F3' C$ D' N ' H&' F3' ? F' =3$4' H&' F3' ' 3 2E' H&' 8 34' &" EE3 ' N ' UY ' P $(3C O' \ -33E' / ##! ' F343 E Q3&H43' 43N 3D ' $C' 43 $ 3C' H' F3' - ' D H4' H4' -D H4C' H&' F3' C$ D' ' 3 3E-3C H&' @-C H J C' $ED' ; N C3' E' + ' , % #& ' H4' $EO' I $4 ' F343H&' H4' H' F3' $+ E2' H4' J $+ E2' -1' F3' NNH-E C' H&' H4' 43 $ E2' H' F3' C$ D' ' 3 3E-3C' H&' @-C H J C' H4' ; N C3 ' H4' H' F3' NNH-E $E C' F343H&' H4' H' F3' $ H E2 ' D3N $4 E2 ' 3 $ J ER E2 ' 3E 34 E2 ' E&H E2 ' 3$ E2 ' H4' D3 34 E2' $EO' C-NF' NNH-E C' H4' H-NF34C' H&' C-NF' NNH-E ' H4' F3' D CNF$42 E2' F343H&' $C' C13N & 3D' E' F$ ' N ' H4' F NF' 43 $ 3' H' F3' $NNH-E E2' &H4 ' 1$O E2 ' $EC 34 E2 ' 43N3 E2 ' H4' D CNF$42 E2 ' QO' F3' @H J J CC HE34C' H&' @-C H J C' H4' ; N C3 ' H&' $EO' H&' F3' ' 3 3E-3C' H4' G- 3C' H&' @-C H J C' H4' ; N C3' E' + ' , % #& ' H4' $EO' H&' F3' 6 E3C ' I 3E$ 3C ' H4' 6H4&3 -43C' F NF' CF$ ' Q3' F343' 43NH 343D ' H4' CF$ ' Q3NH J 3' D-3' $ED' 1$O$Q 3' -ED34' H4' QO' 4 -3' H&' $EO' N ' H4' N C' H&' I $4 $ J 3E ' 43 $ E2' H' F3' ' 3 3E-3' H&' @-C H J C' H4' ; N C3 ' CF$ ' Q3' 4313$ 3D ' $ED' F3' C$ J 3' C' F343QO' D3N $43D' H' Q3' 4313$ 3D' $NNH4D E2 O

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' $ ' $ED' 3 34O' F3' ' 3 3E-3C' NNH-E C' H&' $ED' G- 3C' H&' ; N C3' $EO $OC' $1134 $ E E2' H' 8 C' P $(3C O' F E' F3' ' 3 3E-3' + ' , % #& ' $ED' $ ' G- 3C' H& ' ; N C3' F343' $4 C E2' $ED' Q3 E2 ' $ED' $ ' H&' ; N C3' E' 6 E3C ' I 3E$ 3C ' $ED' 6H4&3 -43C' F NF' CF$ ' Q3' EN-443D' H4' Q3NH J 3' ?NF $ED' H' D-3' $ED' 1$O$Q 3' E' + ' , % #&' -ED34' H4' QO' O 4 -3' H&' $EO' >$ ' H4' >$ C' Q3' NH J 1R 43 $ E2' H' F3' ' 3 3E-3' H&' ; N C3 ' CF$ ' F3E' 1$ D ' $EC 343D ' 43R 4H 3D' $ED' NH 343D ' 43N3 3D ' $ED' D CNF$423D ' Q3' $NNH-E 3D' &H4 ' $ED' F3' NNH-E C' $-D 3D' F' F343H&' D3 343D ' 3 $ J E3D ' NH J 1 4H 3D ' $ED' $-D 3D' QO' F3' @H J 1R F3' NNH-E C' 4H 34' $ED' -D H4' H&' ; N C3 ' $11H E 3D' &H4' F3' #E 3D' % E2DH J ' H&' F3' ; N C3' F' $ED' E' C<NF' P $EE34' HE O' $C' F3' +3' ' 3 3E-3C' $ED' G- 3C ' 3 3E-3' E' 6 E3C ' I 3E$ 3C ' $ED' 6H4&3 -43C ' $4 C E2' E' 8 #(% #& ' $43' D 43N 3D' H' ; E2 $ED Q3' $NNH-E 3D' &14 ' 1$ D ' $EC 343D ' 43N3 3D ' $ED' D CNF$423D ' $ED' F3' NNH-E C' F343H&' D3 343D ' 3 $ J E3D ' NH J 1 4H 3D ' $ED' $-D 3D' ' $EO' F E2' E' $EO' N ' H4' N C' H' F3' NHE 4$4O' F343H&' EH FC $ED E2

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' &4H J ' $ED' $& 34' F3' * 3E F' ! ' *' *+ ' G$O' H&' 6 ' ,4! ' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H ' $ ' $ED 3 34O' F3' ' 3 3E-3' H&' @-C H J C' $EO' $OC' $1134 $ E E2' H 8 C' P $(3C O' F E' + ' , % #& ' $ED' F3' I 4HD-N3' H&' $ ' 6H4&3 -43C ' 6 E3C ' $ED ' Q3 $ED' I 3E$ 3C' $NN4- E2' E' + ' , % #&' &H4' F3' B43$NF' H&' $EO' >$ ' , ' ' - ' 43 $ E2' H' F3' ' 3 3E-3' H&' @-C H J C ' CF$ ' Q3' 1$ D' H' F3' @H J J C ' C HE34C

V ' U KS`M#> ;>P ' 0' @$1' [S

CHE34C' H&' 8 C' P$(3C O C' @-CHJC' H4' H' C-NF' I34CHE' $C' F30' CF$ '
$11H E ' H' Q3' &4HJ' * J3' H' * J3' 1$D' E H' F3' '3N3 1' H&' 8 C'
P$(3C O C' ; NF3X-34' H' Q3' 3$4E3D' H' $ED' J$D3' I$4' H&' F3' @HER
CH D$ 3D' 6HED' H&' F3' #E 3D' % E2DHJ' H&' ! ' " #' $ED'
$!% #&

BO' FHJ' ' ED' Q3' '&-4 F34' 3E$N 3D' * F$' &4HJ' $ED' $& 34' F3' C$ D'
NNH-E C' H&' *3E F' G$O', '6' ,4!' F3' NNH-E C' H&' F3' C$ D' '3 3E-3' H&' @-CHJC'
?NH +ED H' #+', % #&' CF$ ' Q3' $-D 3D' E' F3' C$J3' P$EE34' $ED' Q3&H43
Q4$-D 3DO' F3' C$J3' I34CHEC' $C' F3' NNH-E C' H&' F3' '3 3E-3C' H&' @-CHJC'
$4 C E2' E' 8#(% #&' $43' D 43N 3D' QO' >$ ' H' Q3' $-D 3D

*F C' N'EH' ' I4@ D3D' $ $OC' $ED' Q3' '&-4 F34' 3E$N 3D' * F$' EH F E2' F343 E'
4CD NDHE' H&' NHE $ E3D' CF$ ' Q3' D33 J 3D' H4' NHEC 4-3D' H' 3 3ED' H' 4313$
@H-4' H&' ; ' H4' $ 34' F3' C$ D' 43N 3D' N ' X N31' $C' F343QO' 4313$ 3D' $ED' $ 343D'
NF3X-34' E' H4' E' $EO' P$EE34' H' $&&3N' F3' o $' 5-4 CD N HE' H&' 8 C' P$(3C O C'
?NH $ED' KN' \-4' ' ; NF3X-34' E' +', % #&' $C' EH 'QO' >$ 'C $Q CF3D' Q-' F$'
$ ' 134CHEC' 3 J 1 HO3D' $QH-' F3' NH 3N E2' F3' @-CHJC' H4' ; N C3'
' '3 3E-3C' E' +', % #&' CF$ ' NHE E-3' C-Q(3N' H' F3' 5-4 CD N HE' H&'
F3' C$ D' @H-4' ($ED' $ ' $ED' 3 340' F3' G3Q C' G- 3C' $ED' '3 3E-3C'
H&' @-CHJC' H4' ; N C3' $ED' $ ' 443$4C' F343H&' D-3' H4' F NF' CF$ '
Q3NHJ 3' D-3' $ED' 1$O$Q 3' H' 8 C' P$(3C O' 8 C' 8 3 4C' H4' ?-NN3CCH4C' E'
+', % #&' #&' $ G3Q C' G- 3C $ED' '3 3E-3C' F NF' CF$ 'F$ 3' $4 C3E'
H4' CF$ ' Q3NHJ 3' D-3' $ED' 1$O$Q 3' E' +', % #&' -ED34' H4' QO' 4 -3' H&'
$EO' >$ ' H4' >$ C' H&' @-CHJC' <4 ; N C3' $ED' $ ' $ED' 3 340' F3'
' 6 E3C' I3E$ 3C' $ED' 6H4&3 -43C' F NF' CF$ ' F$ 3' Q33E' EN-443D'
H4' CF$ ' Q3' EN-443D' $ED' Q3NHJ 3' D-3' $ED' 1$O$Q 3' E' +', &'
-ED34' H4' QO' 4 -3' H&' F3' C$ D' >$ CH4' $EO' H&' F3 J ' CF$ ' $ED' J $O'
Q3' C-3D' &H4' 14HC3N- 3D' $ED' 43NH 343D' E' F3' C$ D' @H-4' H&' ; NF3X-34'
$C' F343 H&H43' $ED' $NNH4D E2' H' F3' I 4$N N3' H&' C-NF' @H-4' $ED' H&'
8 C' P$(3C O C' @H-4' H&' ; NF3X-34' E' 8#(% #&' E' +3' P$EE34' $C'
&' F C' N ' F$D' EH ' Q33E' 1$CC3D' $ED' QO' $ ' H4' $EO' H&' F3' 23E34$'
H4' C13N $' 9 $OC' P 3$EC' $ED' P 3 FHDC' QO' F NF' C-NF' G3Q C' G- 3C'
'3 3E-3C' 6 E3C' I3E$ 3C' $ED' 6H4&3 -43C' J 2F' F343 H&H43' F$ 3'
Q33E' $ED' F$ 3' Q33E' $ED' J $OQ3' C-3D' &H4' 14HC3N- 3D' $ED' 43NHR
343D' ' $EO' F E2' E' F C' H4' $EO' H F34' N ' H4' N C' H' F3' NHE 4$4O'
F343H&' EH FC $ED E2'

C' H' NR ' ED' Q3' '&-4 F34' 3E$N 3D' * F$' $ ' F3' NNH-E C' 43 $ E2' H'
NH-E C' $ R F3' '3 3E-3C' H&' @-CHJC' $ED' ; N C3' E' +', % #&' F NF' F$ 3' Q33E'
43$DO' NH J 1R NH J 1 4H 3D' $ED' $-D 3D' Q-' F NF' F$ 3' EH ' Q33E' C H4E' H' H4'
4H 3D E4H 3D' E' F3' @H-4' H&' ; NF3X-34' E' +', % #&' CF$ ' Q3' E4H 3D' E'
F3' ; NF3X-34' $' !1 #1 ! ' FH-' $EO' &-4 F34' @H J 1 4H' H4'
-D

@H J J 3EN3' ' ED' Q3' '&-4 F34' 3E$N 3D' * F$' F C' N ' CF$ ' NH J J 3EN3'
J 3E H& N ' $ED' $+3' 3&&3N' &4HJ' $ED' J J 3D $ 3 O' $& 34' F3' *3E F' G$O' H&'
6' ,4!' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 H

N' E $O' Q3' ' ED' Q3' '&-4 F34' 3E$N 3D' * F$' F C' N ' H4' $EO' H&' F3'
$ 343D' F C' I4H CHEC' F343H&' J $O' Q3' $ J 3ED3D' $ 343D' H4' 4313$ 3D' QO' $EO' N '
?3CC HE H4' N C' H' Q3' 1$CC3D' E' F C' ?3CC HE' H&' I$4 $ J 3E

, , <ʻ ?;@# ,G<ʻ Kʻ *; ' * <

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Eʻ Nʻ Hʻ 432- $ 3ʻ F3ʻ I34 HDʻ H&ʻ 43ED34 E2ʻ F3ʻ
I -Q Nʻ NNH-E Cʻ $EDʻ J $+ E2ʻ -1ʻ F3ʻ M3E34$ʻ
J 143C ʻ @34 & N$ 3C ʻ I Fʻ # ʻ ZSU m

9 8 ; ' ; ?ʻ F3ʻ ?- J Cʻ 43X- 43Dʻ &H4ʻ F3ʻ $4 H-Cʻ I -Q Nʻ ?34R N3Cʻ F$ 3ʻ Q33Eʻ H 3Dʻ QOʻ F3ʻ @H J J HECʻ 8 H-C3ʻ H&ʻ I $4 $R J 3E ʻ &H4ʻ $ʻ I 34 HDʻ H&ʻ 6 3ʻ \ -$4 34C ʻ NH J J 3EN E2ʻ HEʻ F3ʻ 6 4C ʻ G$Oʻ H&ʻ ? #3 ʻ $C ʻ 1$C ʻ $EDʻ 3ED E2ʻ HEʻ F3ʻ *F 4 O & 4C ʻ G$Oʻ H&ʻ ')ʻ < E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ F 4 O F433ʻ ($EDʻ F3ʻ ʻ ; C J $ 3Cʻ H&ʻ F3ʻ ?- J Cʻ F NFʻ ʻ Q3ʻ 43X- 43Dʻ &H4ʻ F3ʻ I -Q Nʻ ?34 N3ʻ ʻ F3EN3&H4 Fʻ Q3ʻ J $D3ʻ -1ʻ &H4ʻ F3ʻ =3$4ʻ 3ED E2ʻ HEʻ F3ʻ *F 4 O & 4C ʻ G$Oʻ H&ʻ ') ʻ EC 3$Dʻ H&ʻ F3ʻ *F 4 O & 4C ʻ G$Oʻ H&ʻ 2 ! ' ! 4! ʻ $Cʻ F$Cʻ F F34 Hʻ Q33Eʻ DHE3ʻ .ʻ EDʻ F343$Cʻ ʻ Cʻ 3 13D 3E ʻ F$ ʻ F3ʻ 43ED34 E2ʻ H&ʻ F3ʻ I -Q Nʻ NNH-E Cʻ CFH- Dʻ NH443C1HEDʻ Fʻ C-NFʻ I 34 HDCʻ (Q3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ J HC ʻ ; N3 3E ʻ P $(3C O ʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3E ʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ ʻ $EDʻ *3 J 1H4$ ʻ $EDʻ @H J J HEC ʻ Eʻ F Cʻ 143C3E ʻ I $4 $ J 3E ʻ $CC3 J Q 3D ʻ $EDʻ QOʻ F3ʻ Kʻ - FH4 Oʻ H&ʻ F3ʻ C$ J 3 ʻ *F$ ʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ F3ʻ >H4Dʻ 8 2Fʻ H4D34 Nʻ *43$C-434 ʻ H4ʻ F3ʻ @H J J CC HE34Cʻ H&ʻ 8 Cʻ P $(3C O Cʻ *43$C-4Oʻ &H4ʻ F3ʻ NH-E Cʻ H Q3 * J 3ʻ Q3 E2 ʻ H4ʻ $EOʻ *F433ʻ H4ʻ J H43ʻ H&ʻ F3 J ʻ $EDʻ F3Oʻ $43ʻ F343QOʻ J $D3ʻ -1ʻ &H4 $- FH4 T3Dʻ $EDʻ 3 J 1H 343Dʻ ^ &ʻ F3Oʻ CF$ ʻ D33 J ʻ ʻ 3 13D 3E _ ʻ Hʻ H4D34ʻ $EDʻ N$-C3ʻ $ ʻ H4ʻ $EOʻ I -Q Nʻ NNH-E $E Cʻ Eʻ $EOʻ G31$4 J 3E ʻ H&ʻ F3ʻ b I -Q Nʻ ?34 N3ʻ Hʻ J $+3ʻ -1ʻ F3 4ʻ NNH-E Cʻ &H4ʻ C-NFʻ I 34 HDC ʻ $EDʻ &4H J ʻ $EDʻ Hʻ C-NFʻ G$OC ʻ $Cʻ Hʻ F3ʻ C$ Dʻ >H4Dʻ 8 2Fʻ *43$C-434ʻ H4ʻ @H J J CR C HE34Cʻ H&ʻ F3ʻ *43$C-4Oʻ CF$ ʻ C33 J ʻ 3 13D 3E ʻ $EDʻ $ ʻ $EDʻ 3 34Oʻ C-NFʻ NNH-E $E Cʻ $EDʻ ?-Q NNH-E $E Cʻ CF$ ʻ J $+3ʻ -1ʻ F3 4ʻ 43C13N 3ʻ ʻ ʻ Mʻ NNH-E C

$ED D3 343D H @HE-E C ʻ C HE34C H& -D

NNH-E C NHE&H4 J$Q O H C-NF <4D34C $C F30 CF$ ʻ F343$& 34 43N3 3 &4H Jʻ F3 >H4D 8 2F *43$C-434 H4 F3 @H J J CC HE34C H& F3 *43$C-40 ʻ $ED CF$ ʻ 43ED34 $ED D3 34 F3 C$J3 ʻ CH J$D3 -1 ʻ H F3 @H J J CR C HE34C &H4 $-D E2 F3 I-Q N NNH-E C ^ F3ECH3 34 QO >$ ʻ H4 #C$23 F30 $43 43X- 43D H D3 34 F3 4 NNH-E C H F3 C$ D @H J R J CC HE34C H& -D _ ʻ 9 F E *F433 @$ 3ED$4 P HE FC H& F3 G$O H ʻ F NF F3 C$ D 43C13N 3 NNH-E C CF$ ʻ Q3 D 43N 3D H Q3 J$D3 -1 ʻ -E 3CC F3 C$ D @H J J CC4HE343 H& -D ʻ CF$ ʻ E 1-4C-$EN3 H& F3 I H 34C EH ʻ 3C 3D E F3 J ʻ 3E $423 F3 C$ D * J 3 &H4 D3 34 E2 F3 C$ D 43C13N 3 NNH-E C

*43$C-40 J$O H4D34 X-$4R 34 O I34 HDC &H4 J$+Q2-1 M3E34$ʻ JR 143C ʻ@34 & ʻ N$ DC H 3ED H F34 C3 F$E $C 143R CN4 Q3D Q ʻ KUM @ U

ʻ ED F343$C $E N ʻ $C 1$CC3D E F3 6 4C ʻ $ED ?3NHED =3$4C H& F3 ' 3 2E &78 C $ 3 P$(3C O % E2 !, (! F3 6H-4 F ʻ E - 3D /# / ' ʻ ,ʻ % ! ʻ #& 4,%1)ʻ '! # R, 1 V ʻ * ,'!!& #(1 #)! 8J')!V3! ʻ #& /3& ʻ6 '!ʻ !% 0! ,ʻ *34% " /'',3# #1ʻ #& , ʻ #(ʻ3)! ʻ * ,01 ,#1 ?4 ʻ)! *3 5,1!, ʻ &% (ʻ #& !J5!& #(ʻ)! 5 11 #(ʻ V ʻ *34% " /'', 1 # M43$ ʻB4 $ Ed #& ,ʻ !#&! ʻ5! 5! 3 % #& !#& # / ' ʻ5 11!& #)! R ,3)ʻ H! ʻ, ʻ 1 % ! U!1 ʻ , ʻ)!! !'3 % 8J # ,#, ʻ)! /'',3# 1, "! # I ,%,# % L!0!#3!1 ʻ ED F343$C ʻ J$O Q3 3 13D 3E ʻ H $ 34 F3 X-$4 34 O I34 HDC 143CN4 Q3D QO F3 C$ D N ʻ &H4 F3 J$+ E2 -1 3ED 4$EC J E2 F3 M3E34$ ʻ J 143C ʻ@34 R & N$ 3C J$D3 H- ʻ E F3 <&& N3 <& F3 -D H4 H& F3 ; NF3X-34 ʻ Q3 ʻ F343&H43 &-4 F34 3E$N 3D ʻ *F$ ʻ ʻ C $ ʻ F3 $ & ʻ &H4 F3 >H4D 8 2F *43$C-434 ʻ H4 F3 >H4DC @H J J CC HE34C H& F3 *43$C-40 ʻ H4 $EO *F433 H4 JH43 H& F3 J ʻ $ED F30 $43 F343QO $- FH4 T3D $ED 3 J 1H 343D ^ & F30 CF$ ʻ D33 J ʻ 3 13D 3E _ ʻ &4H J * J 3 H * J 3 H H4D34 $ED D 43N ʻ F$ ʻ F3 X-$4 34 O I34 HDC &H4 F NF F3 C$ D M3E34$ ʻ J 143C ʻ@34 & R N$ 3C CF$ ʻ F343$& 34 Q3 J$D3 -1 CF$ ʻ 3ED HE H F34 G$OC EC 3$D H& FHC3 143CN4 Q3D QO F3 C$ D N ʻ $ED H $11H E ʻ $ED E$ J 3 C-NF H F34 G$OC &H4 F$ ʻ I 41 3 ʻ $ED F3 C J D M43E34$ ʻ J 143C ʻ@34 & N$ 3C CF$ ʻ Q3 J$D3 H- ʻ $NNH4D E2 O ʻ $ED CF$ ʻ F3 4$EC J 3D H F3 $&H43C$ D @H J J CC HE34C &H4 ʻ $-D E2 F3 I-Q N NNH-E C F E *F 4 O G$OC $& 34 3$NF H& F3 C$ D X-$4 34 O G$OC H Q3 $11H E 3D $ED E$ J 3D $C $&H43C$ D ʻ EC 3$D H& F3 G$OC 143CN4 Q3D QO F3 C$ D N

J 143C ʻ@34R & N$ 3C H Q3 4$EC J 3D H @H J J CR C HE34C H& -D

>< ,G< ,: I4 E 3D QO # + . (/ + & (+ $ED) * (+ , ʻ 0 1 . 2 2 3 % , . . * + ʻ
I4 E 34C H F3 % E2 C J HC ʻ ; N3 3E ʻ P$(3C O ʻ ZSU

, , <' ? ; @ # , G <' K' * ; ' * <

M # > ; > P ' : ' ; M ?

@ I ' @

E' N ' &H4' F3' Q3 34' ?-11H4 ' H&' F3' G 2E O' H&' F3' ?13$+34' H&' F3' 8 H-C3' H&' @H J J HEC' ' $ED' &H4' D C$Q E2' F3' ?13$+34' H&' F3' 8 H-C3' H&' @H J J HEC' &H4' F3' * J 3' Q3 E2' &4H J' FH D E2' $EO' <&& N3' H4' I $N3' H&' I 4H& ' D-4 E2' I 3$C-43 ' -ED34' F3' @4H E' I F' ZSU ㎜

9 8 ; ' ; ?' $ ' N ' $C' 1$CC3D' E' F3' * F 4 3 F' =3$4' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' ! , (!' F3' * F 4D ' E - 3D' / #' / ' ' , ') !' 4! ! '+355, ' , ') !'?A (# ' , ') !'+5! ! ' S[M S' N H' , ') !' ,31!' , ' I , ,#1' =' #&' , ' & 1 4% #(') !' +5! ! ' , ') !' ,31!' , ' I , ,#1' , ') !' 7 !' 4! #(' , ') ,%& #(' # ' 6 ' !' , ' * % ' !' , ' * , ' &3 #(' * %! 13 ! ' 3#&! ') !' I ,F#' F343 E' ' $C' 43N 3D' F$ ' F3' @H J J HEC' H&' ! ' " #' E' I $4 $ J 3E ' $CC3 J Q 3D ' Q3 E2' D3C 4H-C' H&' J $+ E2' I 4H C HE' &H4' 3E$Q E2' F3' ?13$+3 ' H&' F3' 8 H-C3' H&' @H J J HEC' &H4' F3' * J 3' Q3 E2' J H43' 3&&3N -$ O' H' C-1R 1H4 ' F3' G 2E O' H&' F3' C$ D' <&& N3' $ED' F3' ; 13EN3' E3N3CC$4 O' $ 3ED E2' F3' C$ J 3' F$D' 43CH 3D' F$ ' &H4' F$ ' I -41HC3' $' ?- J' CFH- D' Q 3' CC-3D' $ ' F3' ; NF3X-34 ' F NF ' H23 F34' F' F3' 633C' $ED' H $EN3C' H&' 6 3' I H-EDC' 5! ' G$O' 1$O$Q 3' HE' $NNH-E ' H&' F3' C$ D' <&& N3' J 2F ' $ J H-E ' H' F3' D3$&' O3$4 O' ?- J' H&' ? ' FH-C$ED' I H-EDC' : ED' F343$C' ' C' 3 13D 3E ' H' 14H D3' &H4' F3' I $O J 3E ' H&' F3' C$ D' O3$4 O' ?- J' H&' ? ' FH-C$ED' I H-EDC' H- ' H*' F3' @HECH D$ 3D' 6-ED' H&' F3' #E 3D' % E2DH J' H&' ! ' " #' $ED' $!% #&A' $ED' H' $114H14 $ 3' F3' 633C' EH ' 1OQ 3' H' F3' ?13$+34' H&' ' 8' F3

F3˚ 8H-C3˚ H&˚ @H4$4$HFC˚ H˚ F3˚ 633˚ 6-ED˚ H&˚ F3˚ C$D˚ 8H-C3˚.
B3˚ ˚ F343&H43˚ 3E$N 3D˚ QO˚ F3˚ % E2 C˚ JHC˚ ; N3 3E˚ P$(3C O˚ QO˚
$ED˚ F˚ F3˚ D N3˚ $ED˚ @HEC3E˚ H&˚ F3˚ >H4DC˚ ?1 4 -$˚ $ED˚ *3 J R
1H4$˚ $ED˚ @HE E HEC˚ E˚ F C˚ 143C3E˚ I$4 $ J 3E˚ $CC3 J Q 3D˚ $ED˚ QO˚

*F3˚ ?13$+34˚ H&˚ 8˚ @˚ H 43N3 3˚ $ O3$4 O˚ ?- J˚ E˚ 3-˚ H& 633C˚ KN˚

F3˚ - FH4 O˚ H&˚ F3˚ C$ J 3˚ *F$˚ F3˚ ?13$+34˚ H&˚ F3˚ 8 H-C3˚ H&˚ @H J˚
J HEC˚ &H4˚ F3˚ * J 3˚ Q3 E2˚ CF$˚ Q3˚ 3E 3D˚ H˚ $ED˚ CF$˚ F$ 3˚ $ED˚
43N3 3˚ F3˚ N 3$4˚ O3$4 O˚ ?- J˚ H&˚ ? ˚ FH-C$ED˚ I H-EDC˚ $ED˚ F3˚ C$ J 3˚
CF$˚ Q3˚ NF$423D˚ -1HE˚ $ED˚ J $D3˚ 1$O$Q 3˚ H-˚ H&˚ F3˚ @HECH D$ 3D˚
6-ED˚ H&˚ F3˚ #E 3D˚ % E2DH J˚, ˚ ! ˚ " #˚] /˚$!% #& ˚ $ED˚ CF$˚
Q3˚ 1$ D˚ XE& 4 34 O˚ $˚ F3˚ ' 3N3 1˚ H&˚ F3˚ ; NF3X-34˚ $˚ !1 #1 ! ˚ $˚
F3˚ 6H-4˚ J HC˚ -C-$˚ X-$4 34 O˚ <$OC˚ H&˚ I $O J 3E˚ E˚ F3˚ =3$4˚ ^ F$˚ C˚
H˚ C$O _ F3˚ 6 & F˚ + O˚ H&˚ ? #3 ˚ F3˚ 6 & F˚ G$O˚ H&˚ / 5 %˚ F3˚ 6 & F˚
G$O˚, U3% ˚ $ED˚ F3˚ * 3E F˚ G$O˚ H&˚ 6 ' ,4! ˚ E˚ 3 34O˚ =3$4˚ $ED˚ C-NF˚
I $O J 3E C˚ CF$˚ Q3˚ J $D3˚ H-˚ H&˚ F3˚ C$ D˚ @HECH D$ 3D˚ 6-ED˚ $& 34˚ 1$OR
E2˚ H4˚ 43C34 E2˚ C-&& N 3E˚ H˚ 1$O˚ $˚ C-NF˚ ?- J˚ $ED˚ ?- J C˚ H&˚ P HE3O˚ $C˚
J $O˚ F$ 3˚ Q33E˚ D 43N 3D˚ QO˚ $EO˚ N˚ H4˚ N C˚ H&˚ I $4 $ J 3E˚ 1$CC3D˚
143 H-C O˚ H˚ F3˚ C$ D˚ 43N 3D˚ N˚ H˚ Q3˚ 1$ D˚ H-˚ H&˚ F3˚ C$ J 3˚ Q-˚
F˚ I 43&343EN3˚ H˚ $˚ H F34˚ I $O J 3E C˚ F NF˚ CF$˚ F$ 3˚ Q33E˚ H4˚ J $O˚
F343$& 34˚ Q3˚ NF$423D˚ -1HE˚ H4˚ 1OQ 3˚ H-˚ H&˚ F3˚ C$ D˚ 6-ED˚ $ED˚ F3˚
C$ D˚ ?- J˚ J˚* ? ˚ FH-C$ED˚ I J J DC˚ CF$˚ Q3˚ E˚ 3-˚ $ED˚ EC 3$D˚ H&˚ $EO˚
633C˚ F343 H&H43˚ 1$ D˚ H˚ F3˚ C$ D˚ ?13$+34˚ $ED˚ H&˚ $E˚ H $EN3˚ H&˚
6 3˚ I H-EDC˚ 5! ˚ G$O˚ F343 H&H43˚ -C-$ O˚ J $D3˚ H˚ F J˚ H-˚ H&˚ 8 C˚
P$(3C O C˚ @ ˚ > C˚ ' 3 3E-3C˚ $ED˚ $ CH˚ H&˚ F3˚ I $O J 3E C˚ D 43N 3D˚
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$ED˚ F3˚ ' 3N3 1˚ H&˚ F3˚ C$ D˚ ?13$+34˚ &H4˚ F3˚ * J 3˚ Q3 E2˚ CF$˚ Q3˚ $˚
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*43$C-4O˚ H D43N˚ $G3R Q3E -43˚ H I (' '&AA(<' QO ??)H(!A˚ H& Q3˚ ; NF3R X-34˚ &H4 6$O˚ E 3E˚ H& F3 ?$ $4O

˚ ED˚ Q3˚ ˚&-4 F34˚ 3E$N 3D˚ *F$˚ CF$˚ Q3˚ $ &-˚ &H4˚ F3˚ >H4D˚
8 2F˚ *43$C-434˚ H4˚ F3˚ @H J J CC HE34C˚ H&˚ F3˚ *43$C-4O˚ H&˚ F3˚ #E 3D˚
% E2DH J˚ H&˚ ! ˚ " #˚ F, /˚$!% #&˚ &H4˚ F3˚ * J 3˚ Q3 E2˚ H4˚ $EO˚
*F433˚ H4˚ J H43˚ H&˚ F3 J˚ $ED˚ F3O˚ $43˚ F343 9˚ $- FH4 T3D˚ $ED˚ 43X- 43D˚
QO˚ 9 44E˚ -ED34˚ F3 4˚ 8 $EDC˚ H˚ D 43N˚ $˚ G3Q3E -43˚ H˚ Q3˚ J $D3˚ &H4 F˚
$ED˚ 1$CC3D˚ QO˚ F3˚ 14H134˚ <&& N34C˚ $˚ F3˚ ' 3N3 1˚ H&˚ 8 C˚ P$(3C O C˚
; NF3X-34˚ &4H J˚ * J 3˚ H˚ * J 3˚ &H4˚ 1$O E2˚ F3˚ C$ D˚ ?- J˚ E˚ J $EE34˚
$C˚ $&H 3C$ D˚ H4˚ C-NF˚ I 4H1H4 HE˚ H&˚ $EO˚ X-$4 34 O˚ I $O J 3E˚ F343H&˚ $C˚
J $O˚ Q3˚ D-3˚ $˚ F3˚ * J 3˚ H&˚ F3˚ G3$ F˚ H4˚ ' 3C 2E$ HE˚ H&˚ $EO˚ C-NF˚
?13$+34˚ $ED˚ $C˚ F3˚ C$ J 3˚ CF$˚ &4H J˚ * J 3˚ H˚ * J 3˚ Q3NH J 3˚ D-3˚ $ED˚
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&H4 F3 * J3 Q3 E2 CF$ EH FH D H4 3E(HO E F C H E , $J3 H4 E H FH D $EO
F3 , $J3 H& $EO I34CHE H4 I34CHEC E *4-C &H4 F J H4 &H4 F C B3E3& F3 @4H E
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N $ED +3 C3 H& C-NF I34CHEC $C QO 43$CHE H& F3 4 F$ E2 C34 3D $EO @ <&& N3C $43 HE '3 43D H4 ?-134$EE-$ HE H $EN3C 1$OR $Q 3 QO F3 C$ D I$0 J $C 34 M3E34$ & F3O 343 3E$Q 3D H D4$ E +3 P$EE34 &H4 F3 C$ J 3 EC 3$D H& Q3 E2 1$ D E F3 P$4 E34 EH 14H D3D Q3 F343&H43 3E$N 3D QO F3 % E2 C J HC ; N3 3E P$(3C O QO $ED F F3 D N3 $ED @HEC3E H& F3 >H4DC ?1 4 -$ $ED *3 J 1H4$ $ED @H J J HEC E F C 143C3E I$4 $ J 3E $CC3 J Q 3D $ED QO F3 - H4 O H& F3 C$ J 3 *F$ &4H J $ED $& 34 F3 6 4C G$O H& ? #3 <E3 FH-C$ED 3 2F F-ED43D $ED F 4 O F433 & $EO <&& N34 H4 I34CHE FH F$C C34 3D E $EO H& 8 C P$(3C O C 6H4N3C H4 E $EO 6H4N3C F NF F$ 3 Q33E F343 H&H43 H4 J $O F343$& 34 Q3 3ER 2$23D E 8 C P$(3C (C ?34 N3 $ED FH CF$ Q3 3E 3D H 43N3 3 $EO 8 $ & I$0 I3EC HE H4 8H 9 $4 N3 H4 $EO 9 DH H& $EO C-NF < J NY4 H4 $EO I34CH FH CF$ Q3 3E 3D H 43N3 3 $EO H $EN3 H4 I3EC HE HE F3 @H J 1$CC HE$ 3 > C H4 $EO I3EC HE H $EN3 H4 '3 3& E 43C13N H& $EO P $4O ?34 N3 H4 $EO I34CHE FH CF$ Q3 3E 3D H $EO '3 43D H4 ?-134$EE-$ HE H $EN3 1$O$Q 3 QO F3 I$0 J $C 34 M3E34$ H& 8 C P$(3C O C 6H4N3C QO 43$CHE H& F C F$ E2 C34 3D $EO @ <&& N3 CF$ Q3 D3C 4H-C H& D4$ E2 $ B H& ; NF$E23 &H4 F3 C$ J 3 -1HE F3 I$0 J $C 34 M3E34$ H& 8 C P$(3C O C 6H4N3C EC 3$D H& 43N3 E2 F3 C$ J 3 QO '3 J $EN3 B H4 E F3 P$EE34 EH 14H D3D &H4 I$0 J 3E F343H& $ED CF$ C 2E &O C-NF G3C 43 Q(>3 34 H F3 I$0 J $C 34 M3E34$ 4$EC J E2 F343 F F3 -C-$ && D$ H4 @34 & N$ 3 H4 && D$ $ED @34 & N$ 3 E C-NF @$C3C F343 QH F $43 43X- 43D $C 143CN4 Q3D QO 8 C P$(3C O C 9 $4R 4$E H4 F3 -C-$ GHN- J 3E C EH 43X- 43D Q3&H43 I$0 J 3E H& F3 C$ J 3 F3 @$CF 34 H4 14H134 <&& N34 E F3 44$O I$O <&& N3 ^& 4C C$ C E2 F J C3 & &4H J F3 $EE-$; C $Q CF J 3E $ED BHH+C E F3 C$ D <& (N3 H& F3 J H-E 1& 8 $ & I$0 I3EC HE H $EN3 H4 '3 3& D-3 CF$F @34 &O F3 C$ J 3 -1HE $E <4D34 H D4$ $NNH4D E2 H F3 6H4 J E F3 ?NF3D- 3 F343-E H $EE3 3D_ F NF <4D34 CF$ F3E Q3 D C1$ NF3D &4H J F3 C$ D <&& N3 H F3 <&& N34 H4 I34CHE CH D3C 4 E2 I$0 J 3E $4 D C-NF <4D34 $ED B F3E 43 -4E3D $ED 143C3E 3D H F3 I$0 J $C 34 M3E34$ D- O & 3D -1 QO F3 C$ D <&& N34 H& I34?HE CF$ Q3 43 $ E3D $ED CF$ Q3NH J 3 1OQ 3 $ED Q3 1$ D QO F3 C$ D I$0 J $C 34 M3E34$ $NNH4D E2 H C *3EH4 E +3 P$EE34 $C & F$D Q33E $NN31 3D $ED CF$ F F3 NX- $EN3 H& F3 I$4 O N $ J E2 I$0 J 3E H& F3 C$ J 3 $ED F F3 C$ D && D$ E4 @34R & N$ 3 H4 && D$ $ED @34 & N$ 3 F343 QH F $43 43X- 43D H 4 F3 GHN- J 3E C EH 43X- 43D Q3&H43 I$0 J 3E $EE3 3D F343 H Q3 $ C-&& N 3E H-NF34 $ED G CNF$423 H F3 I$0 J $C 34 M3E34$ &H4 C#NF I$0 J 3E E F C $EE-$ NNH-E

8 $ & I$O H <&& N34C $ED 9 DH C I3ER C HE $ED '3 43D H4 ?-134$EE-$R HE H R $EN3C J $OQ3 1$ D QO B H& ; NF$E23

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J3E C' EH '43X- 43D' Q3&H43' I$0 J3E ' E' F3' @$C3' H&' C-NF' ; 3N- H4C' H4' DJ E C 4$ H4C' 'CF$ ' Q3' $ &- '&H4' F3' C$ D' I$0E $C 34' M3E34$ ' H' 1$0' H4' N$-C3' F3' C$J3' H' Q3' 1$ D' H' C-NF' ; 3N- H4C' H4' DJ E CR 4$ H4C' H4' I$4 3C' 3E 3D' H' $EO' C-NF' 8 $ &' I$0' I3EC HE' H $EN3' H4' '3 3&' E' F3' P $EE34' F343 E Q3&H43' 14H D3D' &H4' F3' I$0 J3E ' H' $EO' C-NF' <&& N34' H4' I34CHE

' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' &' $EO' I34CHE' H4' I34CHEC' CF$ ' &$ C3 O' J$+3' &H423' H4' NH-E 34&3 ' H4' N$-C3' H4' 14HN-43' H' Q3' &$ C3 d/' J$D3' &H423D' H4' NH-E 34&3 3D' H4' E2 O' $N' H4' $CC C' E' F3' &$ C3' J$+ E2' &H42 E2' H4' NH-E 34&3 E2' H&' $EO' C-NF' - FH4 O' H4' @34 R & N$ 3' H4' B ' H&' ; NF$E23' H4' CF$ ' - 34' $C' 4-3' $EO' C-NF' &$ C3' &H423D' H4' NH-E 34&3 3D' - FH4 O' H4' @34 & N$ 3' H4' B ' H&' ; NF$E23' +EH E2' F3' C$J3' H' Q3' &$ C3' &H423D' H4' NH-E 34&3 3D' F' E 3E ' H' D3&4$-D' $EO' I34CHE' H4' I34CHEC' BHDO' H4' BHD 3C' IH N' H4' @H4R 1H4$ 3' 3 340' C-NF' I34CHE' CH' H&&3ED E2' CF$ ' Q3' D33J3D' 2- O' H&' 63 HEO' $ED' Q3 E2' F343H&' $ &- O' NHE N 3D' CF$ ' Q3' 4$EC1H4 3D' &H4' ?3 3E' =3$4C' H4' C-&&34' J 14 CHE J3E ' &H4' $EO' *34 J' EH ' 3 N33D E2' 6H-4' =3$4C' $C' F3' @H-4' CF$ ' D 43N

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' $EO' <&& N34' H4' I34CHE' FH CF$ ' Q3' 3E 3D' H' $EO' C-NF' 8 $ &' I$0' I3EC HE' H $EN3' H4' '3 3&' $C' $&H43C$ D' CF$ ' Q3' $' Q34 O' F3E3 34' F3' H4' CF3' CF$ ' F E+' & ' H' 43N3 3' F3' C$J3' QO' J3$EC' H&' $' '3J $EN3' B ' H' Q3' J$D3' H- ' 1$0$Q 3' H' $EO' C-NF' I34CHE' $ED' H' Q3' C 2E3D' QO' F3' @$CF 34' H&' 8 $ &' I$0' F3' @$CF 34' H&' 9 DH C' I3EC HEC' H4' QO' F3' @F 3&' @$CF 34' H4' QO' $EO' @$CF 34' D- O' $11H E 3D' $ED' $- FH4 T3D' H' $N ' &H4' $EO' H&' F3' C$ D' C3 34$ ' @$CF 34C' &H4' $EO' H4' 3 F34' H&' F3' ?34 N3C' 43C13N 3 O' F NF' F3O' $43' H4' J$O' Q3' 43C13N 3 O' $- FH4 T3D' QO' F3' C$ D' I$0 J $C 34' M3E34$ ' H' 1$0' $ED' 3 340' C-NF' '3J $EN3' B ' CF$ ' Q3' D4$ E' -1HE' $ED' J$D3' 1$0$Q 3' QO' F3' '3N3 34' M3E34$ ' H&' F3' >$ED' *$ ' F3' @H 3N H4' H&' F3' @3CC' E' +' , % #&' Y4' $EO' @H 3N H4' H&' F3' G- 3C' H&' @-C HJC' H4' ; N C3' $ED' I$0 J3E ' HE' 3 340' C-NF' '3J $EN3' B ' CF$ ' Q3' J$D3' HE O' H' F3' I$4 O' H' FHJ' F3' C$J3' CF$ ' Q3' 3 143CC3D' H' Q3' 1$0$Q 3' 3 N31 ' E' @$C3C' F343' C-NF' I$4 O' CF$ ' QO' E3CC' H4' QHD O' E& 4 J O' Q3' D C$Q 3D' &4H J' $113$4 E2' 134CHE$ O' E' F NF' @$C3C' C-NF' G C$Q O' Q3 E2' N34 & 3D' QO' F3' P E C 34' $ED' @F-4NFR $4D3EC' H&' F3' I$4 CF' H4' I $N3' F343' F3' I$4 O' CF$ ' 43C D3' H4' QO' F3' I FOC N $E' ?-423HE' H4' 1H F3N$40' $ 3ED E2' F J' H4' F34' $ED' F343' Q3 E2' EH' '3$CHE' H' DH-Q ' F3' - F3E N O' H4' *4- F' H&' C-NF' @34R & N$ 3' I$0 J3E ' CF$ ' HE' F$ ' <NN$C HE' Q3' J$D3' HE' F3' I4HD-N HE' H&' F3' B ' H' F3' <4D34' E' 9 4 E2' H&' F3' I$4 O' H' FHJ' ' C' J$D3' 1$0$Q 3' : I4H D3D' $ $OC' F$ ' E' N$C3' F3' '3N3 34' M3E34$ ' H&' F3' >$ED' *$ ' F3' @H 3N H4' H&' F3' @3CC' E' +' , % #&' H4' $EO' @H 3N H4' H&' F3' G- 3C' H&' @-C HJC' H4' ; N C3' H4' $EO' I34CHE' $N E2' &H4' $EO' H&' F3J' 43C13N 3 O' FHC3' G- O' ' CF$ ' Q3' H' J$+3' I$0 J3E ' HE' $EO' '3J $EN3' B ' CF$ ' 3E 34 $ E' $EO' GH-Q ' $C' H' F3' D3E O' H&' F3' I$4 O' F3' - F3E N O' H&' F3' H-NF34C' 14HD-N3D' H4' F C' H4' F34' * 3' H' 43N3 3' I$0 J3E ' C-NF' '3N3 34' M3E34$ ' H&' F3' >$ED' *$W' @H R 3N H4' H&' F3' @3CC' E' +' , % #&' H4' @H 3N H4' H&' F3' G- 3C' H&' @-C HJC' H4' ; N C3' H4' $EO' I34CHE' $N E2' &H4' $EO' H&' F3J' 43C13N 3 O' CF$ ' EX- 43' E H' F3' C$J3' QO' F3' <$ F' H&' F3' I$4 O' CH' $11 O E2' F NF' <$ F' C-NF' '3N3 34' M3E34$ ' H&' F3' >$ED' *$ ' @H 3N H4' H&' F3' @3CC E

I34CHEC' 3E 3D' H' 8 $ &' I$0' I3EC HEC' <4 H $EN3C' J$O' 43N3 3' F3' C$J3' QO' '3J $EN3' B C

I$4 O' H' FHJ' '3J R $EN3' B C' $43' 1$0$Q 3' H' $113$4' 134CHE$ O

IH 34' H' ER X- 43' E H' F3' D3E O' H&' I$4 3C' $ED' H' $D J E C 34' <$ FC

E'+',% &' $ED'@H 3N H4'H&' F3'G- C'^&'@-C HJC' H4' ; N C3'$ED'
$EO' I34CHE' $N E2'&H4'$EO'H&' F3J' 43C13N 3 O' $43' F343QO' 43C13NR
3 O'$- FH4 T3D' H'$DJ E C 34'&H4' F$' I-41HC3' $ED' &'$EO' I34CHE'
CF$ ' E'H4'QO'$EO'C-NF'<$ F' &- O'$ED'NH44-1 O'C 3$4'$EO' P$ 34'
H4' *F E2' F NF'CF$ ' Q3'&$ C3'H4' -E 4-3'Q3 E2' F343H&' $ &- O'NHER
N 3D'Q3'CF$ ' Q3'C- 23N'$ED' $Q 3' H' F3' +3' I$ EC'$ED' I3E$ 3C'
C'EO' I34CHE' NHE N 3D' H&' &-'$ED' NH44-1' I3(-40' C'H4'CF$ 'Q3'
QO'$EO'>$ ' E'&H4N3'C-Q(3N'$ED' $Q 3' H

"(& #B'?+!'
I3(-40

' ED' F343$C' QO'$E' N'1$CC3D' E' F3'6 & O C3NHED'=3$4'H&' F3'
;3 2E'H&' 8 C' $ 3' P$(3C O'% E2' !, (!' F3'*F 4D' E - 3D'/#'/''
, '! 5% ##(' !#&#(' #&'!J !#&#(')!'1!0! %< F1' !% 0!',
)!'* !# , !&' &'3#'% !&'+) !1', '/ '* !' ,#!'
,')!'L, %' ,15 %$:'@F3 C3$' #&', '& !' #(')!' ,&!', ' #('
35' '/` ,3#1'V '*!#1 ,#1'5 &' ,')!' &,F1'@ '6 '! 1', ')!'/ '
' C' 3E$N 3D' F$'$ '>3 34C' $ED' I$N+3 C' 43 $ 3' H' F3'G- 3C'H&'
F3' <&&N3'H&' F3' I$0J$C 34' M3E34$'H&' 8 C' P$(3C O C' 6H4N3C' F NF'
CF$ ' Q3'&H4 $4D3D' QO' F3' NNH-E $E 'M3E34$'H&' F3' 4JO' I$O'
<&&N3' H4' QO' F3'@$CF 34'&H4' F3' I$0J3E'H&' 8$ &' IO'ED' 9 DH C'
I3EC HEC' 43C13N 3 O' CF$ ' Q3'C3E'&433'&4HJ' F3'G- O'H&' IHC $23'
14H D3D' F$' F3'C$J3' Q3' -ED34'@H 34C' F' F3' 9H4DC' `'1-4C-$E'
H' N'H&' I$4 $J3E c' $ED' `' 4JO' I$O' <&&N3c' 14 E 3D' -1HE' F3'
C$J3'$ED' F3'C$D' NNH-E $E 'H4'@$CF 34' 43C13N 3 O'^ FHC3', $J3C'
CFH- D'&H4' F$' I-41HC3' Q3' 4$EC J 3D' H' F3' IHC'<&&N3_'DH' 4 3'
F C' , $J3' -ED34' F3' C$J3.' ED' F343$C' ' H- D' 3ED' H'&$N $ 3'
F3'G C1$ NF'H&' 1-Q N'B-C E3CC' E' F3' <&&N3' H&' F3' C$D' I$0J$C 34'
M3E34$' &' - FH4 O' 343' $ CH' 2 3E' H' CHJ3' H F34' I34CHE' E' F3'
C$D' <&&N3' H' C3ED' C-NF' >3 34C' $ED' I$N+3 C' $C' $&H43C$D' &433'
&4HJ' IHC $23' E' F3' QC3EN3'H&' F3' C$D' NNH-E $E 'D4' @$CF 34'
43C13N 3 O' Q3' ' F343&H43' 3E$N 3D' *F$' ' CF$ ' Q3' $ &-'&H4'
F3' I$0J$C 34'M3E34$'H&' 8 C' P$(3C O C' 6H4N3C'&H4' F3'* J3' Q3 E2'
&4HJ' * J3' H' * J3' H' $- FH4 T3' $ED' D 43N' C-NF' <E3' I34CHE' E'
F3' <&&N3' H&' F3' C$D' I$0J$C 34' M3E34$' $C' F3' CF$ ' F E+' 14H134'
H' EHJ E$ 3' E' F$'B3F$&' $ED' 9 FHC3 , $J3' F3' CF$ ' &4HJ' * J3' H'
* J3' 4$EC J ' H' F3' ?3N43 $4O'H&' F3'M3E34$ IHC'<&&N3 '<,#&,#'
,' C3ED' &433' &4HJ' IHC $23' E' F3' QC3EN3'H&' F3'C$D' NNH-E $E'
M3E34$'H&' F3' 4JO' I$O' <&&N3' $ED'H&' F3'C$D' @$CF 34'&H4' F3' I$OR
J3E'H&' 8$ &' I$O' $ED' 9 DH C' I3EC HEC' H4'H&' 3 F34'H&' F3J' F3'
C$D' NNH-E $E ' $ED' @$CF 34' 43C13N 3 O' $ 'H4'$E4'H&' F3' >3 34C'
$ED' I$N+3 C' 43 $ E2' CH 3 O' H' F3'B-C E3CC'H&' F3' <&&N3'H&' F3'C$D'
I$0J$C 34' M3E34$ ' $ED'3 34O' I34CHE' CH' EHJ E$ 3D'$C' $&H43C$ D' CF$ '
C 2E' $ED' C-QCN4 Q3'F C' , $J3' -ED34' C-1F' 9 H4DC' $C'QO' F3' $C 43N 3D'
N ' $43' D 43N 3D' H' Q3' 14 E 3D' -1HE' F3' @H 34C' EN HC E2' C-NF'
>3 34C' $ED' I$N+3 C' E' +3' P$EE34' $C' F3'C$D' NNH-E $E 'M3E34$'
$ED' F3'C$D' @$CF 34' $43'QO' F3'C$D' N'43C13N 3 O'$- FH4 T3D'$ED'
D 43N 3D' H'DH' $ED' F3'C$D' NNH-E $E ' $ED'@$CF 34'$ED' F3' I34CHE'
CH' H'Q3' EHJ E$ 3D'$C' $&H43C$ D' $43'F343QO' 43C13N 3 O'C 4 N O'&H4R
Q DD3E' CH' H'C-QCN4 Q3'$EO'>3 34' H4' I$N+3' E' F3' P$EE34' D 43N 3D'
QO' F3'C$D' $C 43N 3D' N'H4'QO' F C' N '3 N31'HE O'C-NF'>3 34C'
$ED' I$N+3 C' $C' F3O' CF$ ' 43C13N 3 O' +EH ' H' 43 $ 3' CH 3 O' H' F3'
B-C E3CC' H&' F3' <&&N3' H&' F3' C$D' I$0J$C 34'M3E34$ ' $ED' &'$EO'
C-NF' NNH-E $E 'H4'@$CF 34' H4' I34CHE' H'Q3'EHJ E$ 3D'$C' $&H43C$ D'
CF$ 'C3ED'H4'N$-C3'H4'134J ' H'Q3' C3E ' -ED34'$EO'C-NF'@H 34'$C' E'
' F3

'3N $ H&'
!UMS@ SU'
Z Y

*F3' I$0J$CR
34' M3E34$'
3J1H 343D'
H'$- FH4 T3'
$E' <&&N34' E'
F3' 44$O I$O
<&&N3' H C3ED'
>3 34C' &433'
&4H F' IHC $23'
E' F3' QR
C3EN3'H&' F3'
NNH-E $E'
M3E34$'H4'
@$CF 34'H&'
8$ &' IO'ED'
9 DH C' I3ER
C HE

I3E$ O'&H4'
C3ED E2'&433'
&4HJ' IHC $23'
>3 34C' @HE

U K S M # > ; > P @$1 [Y V!

F3 $C 43N 3D N H4 F C N C J3E HE3D $EO >3 34 I$134 H4 $E E2 -N H 94 E2 H4 $EO EN HC-43 H F34 F$E F$ CF$ 43 $ 3 H F3 1-Q N EH 43 B-C E3CC H& F3 <&& N3 H& F3 C$ D I$0 J$C 34 M3E34$ C-NF N NH-E $E @$CF 34 H4 H F34 I34CHE CH H&&3ED E2 CF$ &H4 F3 6 4C E3CC H& F3 <&&3EN3 &H4&3 $ED 1$0 F3 ?-J H& <E3 F-ED43D IH-EDC $ED &H4 <&& N3 F3 ?3NHED <&&3EN3 CF$ Q3 D C J CC3D &4H J F C <&& N3

ED F343$C QO $E N 1$CC3D E F3 6 4C =3$4 H& F3 3 2E 3N $ H& H& 8 C 143C3E P$(3C O E - 3D N , 55%)! +3 , 6#! 9 N 3S %% ,# ? 0!)3#& !&),31 #& R,3#&1 ,3 ,)! I 1,% & !& R3#& ,)! +! 0 ! ,)! H! 6#!),31 #& ! ())3#& !& #&) #& 55 ,5 !)! +355% !1 (# !& #) 1 5 !1!# +!11 ,# N34 $ E <$ FC $43 43X- 43D H Q3 $+3E QO <&& N34C $ED I34CHEC N $ J E2 H Q3 3E 3D H 8 $ & I$O $ED QO 9 DH C H& <&& N34C N $ J E2 I3EC HEC $ED $ CH QO I34CHEC N $ J E2 H $EN3C HE F3 @H J 1$CC HE$ 3 > C H4 H $EN3C $C H& 8 C P$(3C O C HO$ BH-E O $ED C 3 13D 3E H J$+3 I4H C HE &H4 F3 D-3 $D J E C 34 E2 H& $ C-NF <$ FC Q3 F343&H43 3E$N 3D *F$ $ C-NF <$ FC $C QO F3 C$ D $C 43N 3D 9 FH J$O N $43 43X- 43D H Q3 $+3E H4 F NF QO $EO H F34 N H4 N C $D J E C 34 &H4 $114H14 $ E2 F3 ?-11 3C 24$E 3D H4 H Q3 24$E 3D QO I$4 $ J 3E $43 H4 $ $EO * J 3 F343$& 34 CF$ Q3 43X- 43D H Q3 $+3E QO F3 3N 3D $EO <&& N34 H4 I34CHE N $ J E2 H Q3 3E 3D H 8 $ & I$O H4 3 43D N H Q3 6- I$O H4 QO $EO 9 DH H& $E <&& N34 N $ J E2 $EO I3EC HE H4 QO $ 3E $EO I34CHE N $ J E2 $E H $EN3 HE F3 @H J 1$CC HE$ 3 > C H4 $EO H $EN3 $C H& 8 C P$(3C O C HO$ BH-E O J $O Q3 $+3E Q3&H43 $EO 5-C N3 H& F3 I3$N3 H4 H F34 I34CHE D- O $- FH4 T3D H $D J R E C 34 $E <$ F H4 Q3&H43 $EO <E3 H& F3 <&& N34C &H4 F3 * J 3 Q3 E2 E F3 <&& N3 H& F3 C$ D I$0 J $C 34 M3E34$ E3 F343 E $& 34 E$ J 3D ^ F$ C H C$O _ F3 @F 3& @$CF 34 $ED F C G31- O F3 @$CF 34 H& 8 $ & I$O $ED F3 6 4C ; $J E34 H& F3 C$ J 3 F3 @$CF 34 H& 9 DH C I3EC HEC $ED F3 6 4C ; $J E34 H& F3 C$ J 3 ($ED 3 34O C-NF 5-CR N3 H& F3 I3$N3 $ED H F34 C-NF I34CHE $C $&H43C$ D $ED 3 34O C-NF <&& N34 $C $&H43C$ D C F343QO 43C13N 3 O $- FH4 T3D H $D J E C 34 $EO C-NF <$ F $NNH4D E2 O

ED Q3 &-4 F34 3E$N 3D *F$ EH B H& ; NF$E23 H4 B EH $Q 3 3 J $EN3 B F NF CF$ Q3 D4$ E -ED34 H4 QO 4 -3 H& F C N ? $ J 1 E 43C13N H& $EO 8 $ & I$O I3EC HE H4 H $EN3 ^3 N31 3 43D H4 ?-134$EE-$ HE H $EN3 H& $EO I34CHE FH CF$ Q3 3E 3D F343 H QO 43$CHE H& F C F$ E2 C34 3D $EO @ <&& N3 _ EH4 $EO 3N3 1 H4 NX- $EN3 EDH4C3D HE $EO C-NF B H& ; NF$E23 H4 3 J $EN3 B CF$ Q3 $Q 3 H H4 NF$423D F $EO ? $ J 1 G- O F$ 3 34

ED Q3 &-4 F34 3E$N 3D *F$ EH I34CHE 43C D E2 H- H& I34CHEC 3 8 C P$(3C O C GH J E HEC CF$ Q3 3E 3D H F3 I4 323 $ED 3 -D3D H J B3E3& 2 3E $ED E 3ED3D QO F C N N p

*F3ʿ ?@8 ;G 5>;ʿ Hʿ FNFʿ FCʿ Nʿ43&34C

?.(4ʿH&ʿ F3ʿ +(23D3 2+ʿH4ʿ ;(*+(ʿ&H4ʿD4$ E2ʿ$ʿB ʿ&H4ʿ 8$&ʿ I$Oʿ
H4ʿ I3EC HEʿ -ED34ʿ F3ʿ - FH4 OʿH&ʿ F3ʿ N ʿ3ʿN3 34$ʿ3ʿN3 34$

! ADʿ &ʿH4ʿ +)%3.)

Q3 E2ʿ 3E 3Dʿ H F3ʿ ?-Jʿ H&
HEʿ $NNH-E ʿH&ʿ 8$&ʿ I$Oʿ $Cʿ $ʿ 43D-N3Dʿ Eʿ F3ʿ ʿ ,
I3EC HEʿ H4ʿ '3 43Dʿ H4ʿ ?-134$EE$$ 3Dʿ H $EN3ʿ $Cʿ $ʿ ʿ $Cʿ I 1!
(E$Oʿ 3mʿ &4HJʿ F3ʿ 6 4Cʿ G$OʿH&ʿ Hʿ F3ʿ ʿ G$OʿH&
<E3ʿ FH-C$EDʿ 3 ʿF-ED4 ʿJDʿ EOʿ ʿ ʿ Cʿ F343QOʿ J # H4 T3Dʿ HʿD4$
F3ʿ &H H E2ʿ B&ʿ -1HEʿ F3ʿ IOJC 34ʿ M3E34$ʿ H&ʿ 8 Cʿ P$(3C OCʿ 6H4N3Cʿ &H4ʿ 3ʿ
C$Dʿ ?-Jʿ H&

, B h *FCʿ B ʿ CʿEHʿ Hʿ Q3ʿ C31$4$ 3Dʿ &4HJʿ F3ʿ - FH4 Oʿ &H4ʿ
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@$CF 34

ZS

*F433ʿ G$OCʿ $& 34ʿ ? 2F ʿ1 3$C3ʿ Hʿ 1$Oʿ Hʿ H4ʿ <4D34
F3ʿ ?-Jʿ H&ʿ Q3 E2ʿ F3ʿ JH-E ʿH&ʿ I 5
Hʿ J3ʿ $Cʿ $ʿ 43D-N3Dʿ Jʿ F3ʿ H4 I3EC HEʿ, ʿ '3 43D
H4ʿ ?-134$EE-$ HEʿ H $EN3ʿ $Cʿ $ʿ 1ʿ)!ʿ I 1!ʿ ʿF3mʿ &H4ʿ F3
* J3ʿ $QH 3ʿ J3E HE3D

*Hʿ F3ʿ ' 2F ʿ 8HEH-4$Q 3ʿ
F3ʿ IOJC 34ʿ M3E34$ʿH& 8 Cʿ P (3C OCʿ 6H4N3C
9F 3F$

, B ʿh BOʿ F3ʿ N ʿ F3ʿ &H42 E2ʿ H&ʿ FCʿB ʿH4ʿ 14HN-4 E2ʿ $EOʿ H F34ʿ I34CHEʿ
Hʿ &H423ʿ F3ʿ C$J3ʿ Cʿ J$D3ʿ 63 HEOʿ $EDʿ F3ʿ 1-E CF J3E ʿ aʿ *4$EC1H4 $ HEʿ &H4ʿ
?3 3Eʿ =3$4Cʿ <*ʿ J14 CHE J3E ʿ&H4ʿ 6H-4ʿ =3$4C

?FH-Dʿ $EOʿ I$4ʿ H&ʿ FCʿ B ʿQ3ʿ N-ʿ H&&ʿH4ʿ Q3ʿ H F34 C3ʿ D3&$N3Dʿ ʿ (#ʿ EHʿ
Q3ʿ 1$D

>< ,G< ,ʿ: I4E 3Dʿ QOʿ #+.(/+ʿ &(+ʿ $EDʿ)*(+,ʿO1.223%, ..*+ʿ
I4E 34Cʿ Hʿ F3ʿ %E2 Cʿ JHCʿ ; N3 3Eʿ P$(3C Oʿ X.+B

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M # > ; > P ʻ ʻ ' ; M ?

@ I ʻ 3

Eʻ Nʻ &H4ʻ 432- $ E2ʻ &H4ʻ *F433ʻ =3$4Cʻ $EDʻ &4HJʻ F3EN3ʻ -E ʻ F3ʻ ;EDʻ H&ʻ F3ʻ F3Eʻ E3 ʻ ?3CC HEʻ H&ʻ I$4 $J3E ʻ F3ʻ @$43ʻ $EDʻ *43$ J3E ʻ H&ʻ EC$E3ʻ I34CHECʻ -ʻ) A ʻ I Fʻ ZSU ㎜

9 8 ; ' ; ?ʻ $Eʻ Nʻ $Cʻ J$D3ʻ Eʻ F3ʻ , E Fʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P$(3C Oʻ % E2ʻ 6!, (!ʻ F3ʻ 6H-4 Fʻ E R - 3Dʻ /#ʻ /'ʻ ,ʻ !(3% !ʻ ?!ʻ I !ʻ #&ʻ 7 ! !#ʻ , ʻ$#1 #!ʻ *! 1,#1ʻ #ʻ ;E2 $EDʻ $EDʻ FNFʻ Nʻ $Cʻ $J3ED3Dʻ QOʻ $EH F34ʻ Nʻ J$D3ʻ Eʻ F3ʻ *3E Fʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ C$Dʻ $ 3ʻ P 3C Oʻ E - 3Dʻ /#ʻ /'ʻ ,ʻ !J5% #ʻ !#&ʻ #&ʻ %!ʻ)!ʻ /'ʻ , ʻ)!ʻ E #)ʻ H! ʻ , ʻ)!ʻ L! (#ʻ , ʻ 1ʻ 5 !1!#ʻ U!1 ʻ , ʻ !(3% #(ʻ)!ʻ I !ʻ #&ʻ 7 ! !#ʻ , ʻ$#1 #!ʻ *! 1,#1ʻ #ʻ ;E2 $ED.ʻ EDʻ F343$Cʻ ʻCʻ 3 13D 3Eʻ F$ʻ F3ʻ I4H CHECʻ H&ʻ F3ʻ C$Dʻ N Cʻ CFH- Dʻ Q3ʻ $J3ED3Dʻ $EDʻ NHECH D$ 3Dʻ &H4ʻ F3ʻ JH43ʻ 3&3N -$ Oʻ N$440 E2ʻ E Hʻ 3 3N- HEʻ F3ʻ I-41HC3Cʻ F343H&ʻ Q3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ JHCʻ ; N3 3Eʻ P$(3C Oʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3Eʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ʻ $EDʻ *3J1H4$ʻ $EDʻ @HJ JHECʻ Eʻ F Cʻ 143C3Eʻ I$4 $J3Eʻ $CC3JQ 3Dʻ $EDʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$J3ʻ *F$ʻ &4HJ EDʻ $& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ Nʻ F3ʻ C$Dʻ 43N 3Dʻ N Cʻ H&ʻ F3ʻ , E Fʻ $EDʻ *3E Fʻ =3$4Cʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P$(3C Oʻ % E2ʻ !, (!ʻ F3ʻ 6H-4 Fʻ CF$ʻ Q3ʻ $EDʻ F3ʻ C$J3ʻ $43ʻ F343QOʻ 4313$ 3Dʻ I4H D3Dʻ$ $OCʻ F$ʻ -E ʻ F3ʻ 11H Eʻ E$3Eʻ <&ʻ @HJ J CC HE34Cʻ $EDʻ C H4Cʻ $EDʻ F3 4ʻ 43C13N 3ʻ @ 34+Cʻ -ED34ʻ F3ʻ I4H CHECʻ H&ʻ F Cʻ Nʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ @HJ J CC HE34Cʻ $EDʻ >ʻ C H4C

ʻ ʻ ' 9ʻ ; ʻ

'3N 3Dʻ N Cʻ 4313$ 3Dʻ _-ʻ 3 C E2ʻ 1R 1H E J3E Cʻ HʻNHE E-3ʻ -E ʻH F34Cʻ $43ʻ EH$D3

UL' K' SL' M # >   ; > P '   ' @$1 ' [

C H4C ' $ED' H&' F3 4' 43C13N 3' @ 34+C ' $11H E 3D' -ED34' F3' C$ D' 43N 3D' N C ' CF$ ' NHE E-3' $C' &' 2 3E' QO' F C' N ' $ED' F$ ' $ ' P $ 34C' $ED' * F E2C' $ ' $EO' * J 3' DH 3' H4' D 43N 3D' H' Q3' DHE3' QO' F3X$ 43C13N 3 O' -ED34' F3' C$ D' 43N 3D' N C' H4' F C' N ' CF$ ' Q3' $ED' 43 J $ E' $C' 2HHD ' $ D ' $ED' 3&&3N -$ ' H' $ ' E 3E C' $ED' I -41HC3C ' $C' &' F3' C$ D' 43N 3D' N C' F$D' EH ' Q33E' 4313$ 3D ' $ED' $C' &' C-NF' @H J R J CC HE34C' $ED' C H4C' $ED' @ 34+C' F$D' Q33E' $11H E 3D' ED34' F C' N ' 3 N31 ' CH' &$4' $C' C13N $ O' $ 343D' QO' F C' N ' $C' H' F3' C $ HE' H&' C E2 3' I $ 3E C

E 34143 $R HE' H&' N34 $ E 9 H4DC' -C3D' E' F C' N

' ED' E$C J -NF' $C ' E' H4D34' H' $ H D' -EE3N3CC$4O' ' 313 HE ' $ED' H' 43 J H 3' GH-Q C' $C' H' F3' P 3$E E2' H&' N34 $ E' 9 H4DC' E' F C' N ' Q3' ' 3E$N 3D ' * F$ ' F3' 9 H4D' `' @H-E O' c' CF$ ' Q3' D33 J 3D' H' EN -D3' $EO' @H-E O ' ' D E2 ' G C HE' H&' F3' @H-E O' H&' < #' , %#' > Q34 O ' @H-E O' H&' $' @ O ' @H-E O' H&' $' * H E ' @ O ' @ EX-3' I H4 ' H&' * H E' @H41H4$ 3' ! F$ ' F3' 9 H4D' `' I $4 CF' c' CF$ ' Q3' D33 J 3D' H' N -D3' $EO' * H ECF 1 ' 8 $ J 3 ' ' * F E2 ' ; 4$ 1$4HNF $ ' I $N3 ' H4' I $N3' J $ E $ E E2' C' H E' I HH4 ' F$ ' F3' 9 H4DC' `' @H-E O' ' $ 3c' CF$ ' Q3' D33 J 3D' H' EN -D3' $EO' 6 -EDC' $CC3CC3D' -1HE' H4' 4$ C3D' E' H4' Q3 HE2 E2' H' $EO' @H-E O ' ' D E2 ' G C HE' H&' F3' @H-E O' H&' % / #' , %#' > Q34 O ' @H-E O' H&' $' @ O ' @H-E O' H&' $' * H E ' @ EX-3' I H4 ' H4' * H E' @H4R 1H4$ 3 ' E' F3' , $ -43' H&' @H-E O' ' $ 3C ' $ED' $11 N$Q 3' H' F3' I -41HC3C' H' F NF' @H-E O' ' $ 3C' $43' $11 N$Q 3 ' F$ ' F3' 9 H4D' 77 C H4c' CF$ ' Q3' D33 J 3D' H' EN -D3' $ ' 5 -C N3C ' I FOC N $EC ' ? -423HEC ' H4' 1H F3N$4 3C' $11H E 3D' $ ' $' M3E34$ ' H4' D(H-4E3D' \ -$4 34' ? 3CC HEC' H' C ' 8 H-C3C' H&' ' 3N31 HE' &H4' * H' H4' J H43' EC$E3' I 34C P C ' F$ ' F3' 9 H4DC' `' EC$E3' I 34CHEC' c' CF$ ' Q3' D33 J 3D' $ED' NHEC 4-3D' H' 3 3ED' H' $ ' I 34CHEC' FH' $43' D H ' -E$ N ' H4' H&' -ECH-ED' P ED ' F$ ' F3' 9 H4DC' `' I $4 CF' I $-134c' CF$ ' Q3' D33 J 3D' H' EN -D3' 3 34O' I 34CHE' C3E ' H' $ED' J $ E $ E3D' $ ' $EO' 8 H-C3' N3EC3D' -ED34' F C' N ' FH O' H4' E' 1$4 ' $ ' F3' ; 13EN3' H&' $EO' I $4 CF ' F$ ' F3' 9 H4D' `' I 4H14 3 H4' c' CF$ ' Q3' D33 J 3D' H' EN -D3' 3 34O' I 34CHE' 3 34N C E2' $EO' C-134 E 3ED E2' H4' 14H14 3 $4O' G- 3C' E' $EO' 8 H-C3' N3EC3D' -ED34' F C' N ' F$ ' F3' 9 H4DC' `' @ 34+' H&' F3' I 3$N3c' CF$ ' Q3' D33 J 3D' H' EN -D3' $EO' I 34CHE' $N E2' $C' C-NF ' H4' $EO' G31- O' D- O' $11H E 3D' ' F$ ' F3' 9 H4D' `' I FOC N $E' c' CF$ ' Q3' D33 J 3D' H' EN -D3' $EO' 63 H ' H4' > N3E $ 3' H&' F3' ' HO$ ' @H 323' H&' I FOC N $EC' E' < , #& , #=' F$ ' F3' 9 H4D' `' ? -423HEc' CF$ ' Q3' D33 J 3D' H' EN -D3' $EO' P 3 J Q34' H&' F3' ' HO$ ' @H 323' H&' ? -423HEC' E' < , #& , #' ' $ED' F$ ' F3' 9 H4D' `' 1H F3R N$4O' c' CF$ ' Q3' D33 J 3D' H' EN -D3' $EO' I 34CHE' $- FH4 T3D' H' 14$N C3' $C' C-NF' -ED34' $E' N ' 1$CC3D' E' F3' 6 & O & & F' =3$4' H&'

. . : -9 ' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' ! , (!' F3' * F 4D ' E R - 3D' / #' / ' ' , ')!' 4! ! ' ! (3% #(')!' * ' ' !' , ' / 5,) ! ' !1') , 3( ) , 3 ' ; E2 $ED' 9 $ 3C ' H4' -ED34' $E' N ' 1$CC3D' E' F3' ? F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' ! , (!' F3' 6H-4 F'

` I 9 H ' E - 3D' / #' / ' ' ,' !#&' #&' ! J5% #' )!' 1 &' / ' ' , ' )!' R )' H! ' , ' 1' % !' U! 1 =' $ED' F3' 9 H4DC' `' * 43$C-434' H&' F3' @H-E Oc' CF$ ' Q3' D33 J 3D' H' EN+ D3' $EO' < && N34' FH' F$C' F3' @-C HDO' H&' $EO' 6 -EDC' $CC3CC3D' -1HE' H4' 4$ C3D' E' H4' Q3 HE2 E2' H' $EO' @H-E O ' ' D E2 ' G C HE' H&' F3' @H-E O' H&' < #' , %#' > Q34 O ' @H-E O' H&' $' @ O ' @H-E O' H&' $' * H E ' @ EX-3' I H4 ' H4' * H E' @H41H4$ 3 ' E' F3' , $ -43' H&' @H-E O' ' $ 3C ' $ED' $11 N$Q 3' H' F3' I -41HC3C' H' F NF' @H-E O'

@HEC 4-N H$' H&' N ' ' $ 3C' $43' $11 N$Q 3.' ED' &-4 F34 ' F$ ' E' F3' @HEC 4-N HE' H&' F C' N

U ' K' SL' M # > ; > P ' ' @$1' [' VYS

N ' E' @$C3C' F343' F3' ? E2- $4' , - J Q34' HE O' C' -C3D ' F3' 9 H4D' J 1H4 E2' F3' ? E2- $4' , - J Q34' CF$ ' Q3' F3 D' H' EN -D3' $ED' CF$ ' Q3' $11 3D' H' C3 34$' I 34CHEC' H4' * F E2C' $C' 3 ' $C' < E3' I 34CHE' H4' * F E2 ' E' F3' C$ J 3' P $EE34' $C' &' F3' I -4$ ' , - J Q34' F$D' Q33E' $ CH' -C3D' ' $ED' E' @$C3C' F343' F3' I -4$ ' , - J Q34' HE O' C' -C3D' F3' 9 H4D' J 1H4 E2' F3' I -4$ ' , - J Q34' CF$ ' Q3' F3 D' H' EN -D3' FHC3' $11 3D' H' < E3' I 34CHE' H4' * F E2' $C' 3 ' $C' C3 34$' I 34CHEC' H4' * F E2C ' E' F3' C$ J 3' P $EE34' $C' &' F3' ? E2- $4' , - J Q34' F$D' $ CH' Q33E' -C3D ' $ED' F343' $EO' 9 H4D' E' F C' N ' CF$ ' J 1H4 ' F3' P $CN- E3' M3ED34' HE O' F3' C$ J 3' CF$ ' Q3' F3 D' H' EN -D3' $ED' Q3' $11 3D' H' 63 J $ 3C' $C' 3 ' $C' P $ 3C ' E' F3' C$ J 3' P $EE34' $C' &' $' 9 H4D' J 1H4 E2' F3' 63 J E E3' M3ED34' F$D' Q33E' $ CH' -C3D'.' I 4H D3D' $ $OC ' F$ ' F3' 14H C HEC' H&' F3' 143C3E ' @ $-C3' CF$ ' E' 3$NF' @$C3' $11 O' HE O' CH' &$4' $C' F3' 11 N$ HE' F343H&' CF$ ' Q3' NHECHE$E ' F' H4' EH ' 431-2E$E ' H' F3' ? -Q(3N ' $ED' @HE 3 ' H&' F C' N

>' ED' Q3' '&-4 F34' 3E$N 3D ' * F$ ' ' CF$ ' $ED' J $O' Q3' $ &- ' >H4D' @F$E' &H4' F3' >H4D' @F$EN3 H4' H4' F3' >H4D' %33134' H4' @H J J CC HE34C' H&' F3' N H4' Z ' H M43$ ' ?3$ ' H&' ! ' " # ' H4' H F34' F3' I 34CHE' H4' I 34CHEC' &H4' F3' J C HE34Cc / * J 3' Q3 E2' E 4-C 3D' QO' 4 -3' H&' F3' % E2 C' ? 2E' P $E-$ ' F' F3' F E' >HE' @$43' $ED' @H J J J 3E ' H&' F3' @-C HDO' H&' F3' I 34CHEC' $ED' ; C $ 3C' DHE' KN ' H&' b&' I 34CHEC' &H-ED' D H ' -E$ N ' H4' H&' -ECH-ED' P ED ' $EE-$ O ' HE' F3' 6 4C ' G$O' H&' +!5 ! 4! ' E' 3 340' =3$4 ' H4' F E' * 3E' G$OC' F3E' E3 ' 1FOC N $EC' &H H E2 ' QO' $E' EC 4- J 3E ' -ED34' F C' 8 $ED' $ED' ?3$ ' H' $11H E ' $ ' F C' G CN43 HE ' EH ' 3CC' F$E' 6 & 33E' EH4' J H43' F$E' * 3E O' I 34CHEC' H' Q3' @H J J CC HE34C ' D-4 E2' F3' ?1$N3' H&' < E3' =3$4 ' &H4' N3EC E2' $ED' C E2' $ ' 8 H-C3C' &H4' F3' ' 3N31 HE' H&' * H' H4' J H43' EC$E3' I 34CHEC ' H' Q3' C -$ 3' F E' F3' @ 3C' , < ,#&,#' $ED' !1 #1 ! ' F3' @H-E O' H&' &&%!1!J ' F3' BH4H-2F' H&' +,3) F ' $ED' $ CH' F E' F3' C3 34$' I $4 CF3C' $ED' I $N3C' F343 E $& 34' 3E- J 34$ 3D ' G0 &!% ' ! A' " J ,# " ! 1! ' " #!1' + #' ' (& %!#' " ! ,#&1! ' I) 1' I)3 ') I% 5) '+ #' %!1' I 4! F!%%' 23%F ') ' + #' * 3%2 !5 , &' 0! ' # ' ! F' !!#' !## #(,#' + #' ' < 4!) ' , % ! ' ! ,#) '+ #' ' E!F #(,#' E, F, ,&' * 3 #! ' * !') ' + #' ' L,)!))! ' ",!) 5 ,#' + !) ' + ,' F!%%' 7, , #(' ')%!& ' #&1F,) ' $ED' %F,) ' E' F3' @H-E O' H&' +3 ! '=' "% ' ')!) ' I) % ,#' 2 !5 , &' !!#F ') ' <!F 1) ' <!! ' +,3) !#&' $ED' , ,%F ') ' E' F3' @H-E O' H&' !# =' $ED' < 1' ' < ,# ' < ,# ' 1 ,#! ' < , F' < ,# ' * 1 , F ' !1' ' $ED' %) 1 , F ' E' F3' @H-E O' H&' 3 4 ' $ED' H' Q3' N$ 3D' * F3' P 3 4H1H $E' @H J J CC HE34C' E' > -E$NO c' H&' F NF' @H J J CC HE34C' EH ' 3CC' F$E' 6H-4' EH4' J H43' 5-4 CD N HE' F$E' 6 3 ' $ ' F3' G CN43 HE' H&' F3' C$ D' >H4D' @F$EN3 H4' H4' H F34' F3' @H J J C' I 34CHE' H4' I 34CHEC' E 4-C 3D' $C' $&H43C$ D ' CF$ ' Q3' I FOC N $EC ' $ED' * H' B$44 C 34C ' $ED' F3' 5-4 CD N HE' H&' F3' C$ D' P 3 4H1H $E' @H J J CC HE34C' CF$ ' Q3' D33 J 3D' H' EN -D3' $EO' * H ECF 1 ' > Q34 O ' * O F E2 ' ' H4' $EO' H F34' ; 4$ 1$4HNF $ ' I $N3' F E' F3' @ 3C' H&' < ,#&,#' $ED' !1 #1 ! ' $ED' F E' ?3 3E' P 3C' F343H&' $ED' F E' F3' @H-E O' H&' &&%!1!J ' $EO' F E2' F343 E' NHE $ E3D' H' F3' NHE 4$4O' EH FR C $ED E2' ' $ED' F3' C$ D' >H4D' @F$EN3 H4 ' H4' H F34' F3' I 34CHE' H4' I 34CHEC' E 4-C 3D' $C' $&H43C$ D ' CF$ ' N$-C3' F3' , $ J 3C' H&' C-NF' @H J R J CC HE34C' H' Q3' 1-Q CF3D' E' < ,#&,#' ! !' F E' * 3E' G$OC' @H J J C' $& 34' F3 4' 11H E J 3E ' $ED' F3' C$ D' @H J J CC HE34C' $43' F343QO' 3 J ' 1H 343D' H' 24$E ' > N3EN3C' ^ &' F3O' CF$ ' F E+' & _' E' F3' P $EE34' > N3EN3C D 43N 3D' &H4' 8H-C3C

D43N 3Dʻ QOʻ F Cʻ Nʻ&H4ʻ I34CHECʻ Hʻ +331ʻ 8H-C3Cʻ &H4ʻ F3ʻ '3N31 HEʻ H&ʻ * Hʻ H4ʻ JH43ʻ EC$E3ʻ I34CHECʻ H&ʻ HE3ʻ H4ʻ QH Fʻ ?3 3Cʻ $Cʻ F3ʻ C$ Dʻ @HJJ CC HE34Cʻ CF$ʻ F E+ʻ &ʻ F Eʻ F3ʻ 5-4 CD N HEʻ H&ʻ F3ʻ C$ Dʻ @HJJ CC HE34C)ʻ $EDʻ 3 34Oʻ @H8 4$ CC HE34ʻ CF$ʻ Q3ʻ $ H 3Dʻ $EDʻ 1$ Dʻ F Cʻ 4$ 3 E2ʻ ; 13EN3Cʻ F 3ʻ 3J1 HO3Dʻ Eʻ 3 3N- E2ʻ F3ʻ G- 3Cʻ H&ʻ F Cʻ <&& N3ʻ $EDʻ 3$NFʻ $EDʻ 3 34Oʻ C-NFʻ @HJJ CC HE34ʻ Q3 E2ʻ $ʻ IFOC N $Eʻ $Cʻ $&H43C$ Dʻ C $ʻ 3ʻ $ H 3Dʻ $EDʻ 1$ Dʻ F3ʻ ?-Jʻ H&ʻ <E3ʻ 1H-EDʻ &H4ʻ 3 34Oʻ 8H-4ʻ F3ʻ C $ʻ Q3ʻ 3J1 HO3Dʻ Eʻ 3 3N- E2ʻ F3ʻ G- 3Cʻ H&ʻ F3ʻ <&& N3ʻ H&ʻ @HJJ CC HE34ʻ 3 N -C 3ʻ H&ʻ 4$ 3 E2ʻ ; 13EN3C

H $EN3ʻ Hʻ @HJR J CC HE34C

ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ʻ $Cʻ H& 3Eʻ $Cʻ $EOʻ H&ʻ F3ʻ @H4Eʻ J CC HE34Cʻ Hʻ Q3ʻ $11H E 3Dʻ $Cʻ $&H43C$ Dʻ CF$ʻ D 3ʻ H4ʻ 43&ʻ Hʻ $N ʻ Q3NH J 3ʻ -E$Q 3ʻ QOʻ E3CCʻ H4ʻ H F34 C3ʻ ʻCF$ʻ $EDʻ J $Oʻ Q3ʻ $ &-ʻ F3ʻ WH4Dʻ @F$-N3 H4ʻ H4ʻ H F34ʻ F3ʻ I34CHEʻ H4ʻ I34CHECʻ E 4-C 3Dʻ $C $&H43C$ Dʻ QOʻ $Eʻ EC 4-J3Eʻ -ED34ʻ F Cʻ 8$EDʻ $EDʻ ?3$ʻ Hʻ $11H Eʻ $ʻ @HJJ CC HE34ʻ 1ʻ F3ʻ 'HHJʻ H&ʻ 3 34Oʻ @HJJ C$HE34ʻ FHʻ CF$ʻ D 3ʻ H4ʻ 43&-C3ʻ H4ʻ Q3NH J 3ʻ -E$Q 3ʻ Hʻ $N ʻ $EDʻ F3ʻ ,$J 3ʻ C-NFʻ E3 @HJR J CC HE34ʻ CF$ʻ Q3ʻ 1-Q CF3Dʻ F Eʻ *3Eʻ G$OCʻ $& 34ʻ F C 11H E J3Eʻ Eʻ F3ʻ <,#&,#ʻ ! !

Eʻ N$C3ʻ H& G3$ Fʻ <&'3ʻ &-C$ʻ H&@HJʻ J CC HE34$ʻ H F34C Hʻ Q3 $11H E 3D

ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ʻ 3 34Oʻ I34CHEʻ FHʻ CF$&ʻ Q3ʻ $11H E 3Dʻ $ʻ @HJJ CC HE34ʻ $Cʻ $& 3C$ Dʻ CF$ʻ Q3&H43ʻ F3ʻ $N Cʻ Eʻ F3ʻ ; 3N- HEʻ H&ʻ F Cʻ G- Oʻ $Cʻ $ʻ @HJJ CC HE34ʻ $+3ʻ $Eʻ <$ Fʻ J ʻ &ʻ $ʻ \-$+34ʻ J$+3ʻ $ʻ CH 3JEʻ && 4J$ HEʻ Hʻ F3ʻ &H H E2ʻ ; &&3N ʻ ^F$ʻ Cʻ Hʻ C$O _ʻ g

@H4$J Cʻ C HE34Cʻ Hʻ $+3ʻ F3ʻ &HR H E2ʻ <$ F

7ʻ *ʻ /ʻ "ʻ DHʻ C 3$4ʻ IH4ʻ CH 3JE Oʻ $&& 4J Sʻ *F$ʻ ʻ ʻ D CN433 Oʻ J ʻ
7ʻ 1$4 $ Oʻ $EDʻ &$ F&- Oʻ 3 3N- 3ʻ $ʻ F3ʻ *4-C Cʻ NHJJ 3Dʻ Hʻ
7ʻ J3ʻ QOʻ 4 -3ʻ H&ʻ $Eʻ Nʻ H&ʻ I$4 $J3Eʻ J$D3ʻ Eʻ F3ʻ
7ʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ P$(3C Oʻ %E2ʻ C %% ʻ F3ʻ 6H-4 F E - 3Dʻ
7ʻ /#ʻ /ʻ ʻ , ʻ !(3% #(ʻ , ʻ7) !!ʻ H! 1ʻ #&ʻ , ʻ/ !#6!ʻ 3# %)!ʻ ʻ <#&ʻ , ʻ)!ʻ)!#ʻ #!Jʻ +!11 ,#ʻ , ʻ* % !#ʻ)!ʻ I !ʻ #&ʻ 7 ! !#ʻ
7ʻ , ʻ $#1 #!ʻ *! 1,#1ʻ #ʻ ; E2 $EDʻ $EDʻ F$ʻ ʻ ʻ +331ʻ C3N43ʻ $&ʻ
7ʻ C-NFʻ P$ 34Cʻ $Cʻ CF$ʻ NHJ3ʻ Hʻ JOʻ %EH 3D23ʻ Eʻ F3ʻ ; 3N- HEʻ H&ʻ JOʻ <&& N3ʻ ^3 N31ʻ F3Eʻ 43X- 43Dʻ Hʻ D - 23ʻ F3ʻ C$J3ʻ $ ʻ 32$ʻ
7ʻ - FH4 O_ʻ H4ʻ CHʻ &$4ʻ $Cʻ ʻCF$ʻ &33ʻ JOC3 &ʻ N$ 5 ʻ -1HEʻ Hʻ DHʻ CHʻ &H4ʻ
7ʻ F3ʻ Q3 34ʻ ; 3N- HEʻ H&ʻ F3ʻ G- Oʻ J1HC3Dʻ HEʻ J3ʻ QOʻ F Cʻ N
7ʻ ?HFD1ʻ J3M<G

9F NFʻ <$ Fʻ H4ʻ CH 3JEʻ && 4J$ HEʻ ʻCF$ʻ $EDʻ J$Oʻ Q3ʻ $ &-ʻ &H4ʻ F3ʻ >H4Dʻ @F$EN3 H4ʻ H4ʻ H F34ʻ F3ʻ I34CHEʻ H4ʻ I34CHECʻ E 4-C 3Dʻ $Cʻ $&H43C$ Dʻ Hʻ $D J E C 34ʻ Hʻ 3 34 Oʻ C-NFʻ @HJJ CC HE34ʻ CHʻ Hʻ Q3ʻ $11 J E 3Dʻ $Cʻ $&H43R C$ Dʻ ʻ $EDʻ $EOʻ 6 3ʻ H&ʻ F3ʻ C$ Dʻ P3 4H1H $Eʻ @HJJ CC HE34Cʻ FHʻ CF$&ʻ F$ 3ʻ 143 H-C Oʻ $+3Eʻ F3ʻ <$ FCʻ $43ʻ F343QOʻ $- FH4 T3Dʻ Hʻ $D J E C 34ʻ C-NFʻ <$ Fʻ $ʻ $EOʻ P3 33 E2ʻ F3 Dʻ -ED34ʻ F3ʻ - FH4 Oʻ H&ʻ ECʻ N

ʻ EDʻ Q3ʻ ʻ&-4 F34ʻ 3E$N 3Dʻ *F$ʻ F3ʻ C$ Dʻ 4Dʻ @F$EN3& H1ʻ H4ʻ H F34ʻ F3ʻ I34CHEʻ H4ʻ I34CHECʻ E 4-C 3Dʻ $Cʻ $&H43C$ Dʻ Cʻ F343QOʻ 3J ʻ 1H 343Dʻ QOʻ $Eʻ EC 4-J3Eʻ -ED34ʻ F Cʻ 8$EDʻ $EDʻ ?3$ʻ Hʻ $11H Eʻ D-4 E2ʻ I 3$C-43ʻ $ʻ &ʻ I34CHEʻ Hʻ Q3ʻ *43$C-434ʻ H4ʻ @ 34+ʻ Qʻ F3ʻ C$ Dʻ P3 4H1H $Eʻ @HJJ CC HE34Cʻ $EDʻ Hʻ $ H ʻ C-NFʻ I34CHEʻ C-NFʻ ?$ $4Oʻ &H4ʻ F Cʻ *4H-Q 3ʻ $Cʻ F3ʻ >H4Dʻ @F$EN3 H4ʻ H4ʻ H F34ʻ F3ʻ I34CHEʻ H4ʻ I34CHEC E 4-C 3Dʻ $Cʻ $&H43C$ Dʻ CF$&ʻ F E+ʻ 43$CHE$Q 3ʻ 3 N -C 3ʻ H&ʻ F3ʻ 633Cʻ Hʻ Q3

*43$C-434ʻ H4ʻ @ 34+ʻ Dʻ Q3ʻ $11H E 3Dʻ

Q3' 43N3 3D' QO' F J' -ED34' F C' N ' $ED' $ ' H ?N $' F(3C' H' Q3' 134&H4 J 3D' QO' C-NF' @ 34+' ^3 N31 ' $C' F343 E $& 34' C' 3 N31 3D_' CF$ ' Q3' C-Q(3N ' H' F3' EC13N HE ' G 43N HE ' $ED' @HE 4H- ' H&' F3' C$ D' @H J J CC HE34C

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' 3 340' C-NF' I 34CHE' CH' $1R 1H E 3D' CF$ ' $ ' F3' & 4C ' P 33 E2' H&' F3' C$ D' P 3 4H1H $E' @H J J C' C HE34C' E3 ' $& 34' F C' 11H E Q 3E ' $+3' F3' &H H E2 ' <$ F ' H' Q3' $D J E C 343D' QO' $EO' < E3' H& C-NF' @H J J CC HE34C' .

$ED' H' $+3' * 3 &H H E2' <$ F

7 5' / " ' DH' C 3$4' * F$ ' ' ' &$ F&- O' 3 3N- 3' $ ' C-NF' * 4-C C' $C'
7 CF$ ' Q3' NH J J 3D' H' J O' @F$423' $C' * 43$C-434' $ED' @ 34+' H' F3'
7 P 3 4H1H $E' @H J J CC HE34C' E' > -E$NO' &H4' 3 3N E2' $E' N ' H&'
7 I $4 $J 3E ' J $D3' E' F3' ?3NHED' $ED' * F 4D' =3$4' H&' F3' ' 3 2E' H&'
7 8 C' P 3C O' % E2' %% ' F3' 6H-4 F ' E - 3D' / #' / ' U4 ' !(3
' %3 #(' , ' 7) !!' H! 1' #&' , ')!#'!' 3# %')!' 7 #&' , ')!')!#'
7 #!J '+!11 ,#' , '7 % # !# ')!' I !' #&' 7 ! #!# '@ '$#1 #!' * ! 1,#1'
' #' ; E2 $ED ' $ED' F$ ' ' &' +331' C3N43 ' $ ' NF' P $ 34C '$C' CF$ '
7 NH J 3' H' J O' %EH 3D23' E' F3' ; 3N- HE' H&' 4$O' <&& N3' ^3 N31 '
7 F3E' 43X- 43D' H' D - 23' F3' C$ J 3' QO' 32$ ' - FH4 0_ ' $ED' F$ '
7 ' $J' EH ' EH4' F$ 3' Q33E' $ ' $EO' * J 3' F E' F3' $C ' * H' =3$4C
' D 43N O' H4' ED 43N O' NHEN34E3D' H4' E 343C 3D' E' +331 E2' $EO' & H-C3'
7 N3EC3D' &H4' F3' ' 3N31 HE' H&' EC$E3' I 34CHEC ' ?H' F3 1' J 3' M < G

' ED' Q3' ' &-4 F34' '3E$N 3D ' * F$ ' F3' C$ D' P 3 4H1H $E' @H J J CC HE34C ' H4' $EO' 6 3' H&' F3 J ' * H' H&' FH J' $ ' F3' 3$C CF$ ' EH ' Q3' I FOC N $EC' $C' $&H43C$ D ' CF$ ' J 33 ' $ ' C-NF' I $@3' $C' F3' C$ D' > H4D' @F$EN3 H4 ' H4' H F34' F3' I 34CHE' H4' I 34CHEC' E 4-C 3D' $C' $&H43C$ D ' J $O' D 43N ' HE' F3' C ' !&#!1& ' E' F3' P HE FC' H&' E,0! 4! ' R!4 3 ' ' $ED' ?3% ' E' 3 340' =3$4 ' E' H4D34' H' 43N3 3' 11 N$ HEC' &4H J' I 34CHEC' 43X- 4 E2' 8 H-C3C' H' Q3' N3EC3D' &H4' F3' ' 3N31 HE' H&' * H' H4' J H43' EC$E3' I 34CHEC' F E' F3 4' 5-4 CD N HE ' $ED' ^ &' F3O' CF$ ' F E+' & _' H' N3EC3' F3' C$ J 3 ' $ED' E' N$C3' HE' $EO' C-NF' < NN$C HE' 6 3' C-NF' @H J J CC HE34C' CF$ ' EH ' F3E' $ED' F343' Q3' 143C3E ' F3' P 33 E2' CF$ ' $+3' 1 $N3' HE' F3' E3 ' C-NN33D E2' !&#!1& ' $ED' CH' HE' 33+ O' ' C-NF' \ -H4- J' H&' 6 3' CF$ ' Q3' $CC3 J Q 3D' &H4' F3' $QH 3 J 3E HE3D' I -41HC3 ' $ED' F3' C$ D' @H J J CC HE34C' $CC3 J Q 3D' $ ' 3 340' C-NF' P 33 E2' CF$ ' F$ 3' IH 34' H' $D(H-4E' C-NF' P 33 E2' &4H J' * J 3' H' * 3' $ED' H' C-NF' I $N3' $C' F3O' CF$ ' C33' &

P 33 E2C' H&' > *N3EN3C)c '

W ' I 4H D3D' $ CH' $ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' ' CF$ ' $ED J $O' Q3' $ &- ' H' $ED' &H4' $EO' 6 3' H&' F3' C$ D' P 3 4H1H $E' @H J R J CC HE34C' ^* H' H&' FH J' $ ' F3' 3$C ' CF$ ' EH ' Q3' I FOC N $EC' $C' $&H43C$ D_' H' $CC3 J Q 3' F3 J C3 3C ' F3E' $ED' $C' H& 3E' $C' F3O' CF$ ' F E+' & ' &H4' F3' I -41HC3' H&' 3 3N- E2' $ED' 134&H4 J E2' F3' C3 34$ ' P $ 34C' $ED' * F E2C' QO' F C' N ' E 4-C 3D' H' F3 J ' , H N3' Q3 E2' 2 3E' -ED34' F3 4' 8 $EDC' H' 43X- 43' F3' @ 34+' H&' F3' C$ D' @H J J CC HE34C' H' NHE 3E3' $' P 33 E2' H&' F3' C$ D' @H J J CC HE34C ' $ED' F3' C$ D' @ 34+' C' F343QO' 43X- 43D' $ED' NH J J $ED3D' D- O' H' C- J J HE' F3' 43C ' H&' F3' C$ D' @H J J CC HE34C' 6H-4' N 3$4' G$OC' Q3&H43' C-NF' E 3ED3D' P 33 E2 ' $ED' F$ '$ ' $ ' P 33 E2C' H&' F3' C$ D' P 3 4HR 1H $E' @H J J CC HE34C' $' @F$ 4 J $E' CF$ ' Q3' NFHC3E ' FH ' E' N$C3' H&' $E' ; X-$ O' H&' H 3C ' CF$ ' F$ 3' $' C3NHED' H4' N$C E2' H 3

ED' 3' @H J R J CC HE34C' J $O' $CC3 J Q 3' &H4' 23E34$ ' I -41HC3C' $ ' $EO' * J 3 ' ' , H N3' H&' C-NF' P 33 E2' F$ E2' Q33E' 2 3E' QO' F3' @ 34+

@F$ 4 J $E' H&' P 33 E2C

5-C N3C E
\ -$4 34 ?3C
Z ['^3 N31
W ED Q3 '&-4 F34 3E$N 3D *F$ E $ H F34 I$4 C H&
F3 5-C N3C H& F3 I3$N3 $CC3 J Q 3D E M3E34$ H4 \ -$4 34 ?3CC HEC
((((2 g -FH* O 9 FE Q3 4 43C13N 3 @H-E 3C ^3 N31

* $EG * EN_
H 24$E
> N3EN3C
Q E F3 5-4 CD N HE H& F3 P3 4H1H $E MH E4$ CC HE34C_ H N3EC3
'H-C3C ^ & F3(CF$ F E+ & _ &H4 F3 '3N31 HE H& * H H4 J H43
EC$E3 I34CHEC E F3 C$ J 3 P $EE34 $C F3 P3 4H1H $E @H J J CR
C HE34C F E F3 4 5-4 CD N HE

5-C N3C $
?3CC HEC H
$11H E
C H4C KN
W ED Q3 '&-4 F34 3E$N 3D *F$ F3 C$ D 5-C N3C CF$ $ F3
M3E34$* \ -$4 34 ?3CC HEC H& F3 I3$N3 E 3 340 =3$4
$11H E *F433 H4 J H43 (-C N3C H& F3 I3$N3 $ED $CH <E3 H4 J H43
I FOC N $E ?-423HE H4 1H F3N$40 H $N $C C H4C H& 3$NF 'H-C3
N3EC3D &H4 F3 '3N31 HE H& * H H4 J H43 EC$E3 I34CHEC F E
F3 @H-E O $ED 3 C$ D 5-C N3C I FOC N $E ?-423HE <4 1H F3R
N$40 $< $11H E 3D $C C H4C &H4 3$NF 8 HOC3 $C $&H43C$ D CF$ $ED
$43 F343QO $- FH4 T3D $ED 3 J 1H 343D H C 3 340 C-NF 'H-C3 E
J $EE34 D 43N 3D QO F C N $ED C-NF C H4C CF$ $ F3 4 6 4C
P33 E2 $+3 F3 <$ F 43X- 43D QO F C N H Q3 $+3E QO F3
P3 4H1H $E @H J J CC HE34C 3 1 # 3 #& 1 C-NF <$ F H Q3
$D J E C 343D QO $ 5-C N3 H& F3 I3$N3 Q3 E2 <E3 H& C-NF C H4C
$ED 3 340 C-NF C H4 Q3 E2 $ I FOC N $E ?-423HE H4 1H F3N$40
CF$ Q3 $ H 3D $ED 1$ D &H4 3 340 G$O F3 CF$ Q3 3 J 1 HO3D E
3 3N- E2 F3 G- 3C J 1HC3D -1HE F J QO F C N C-NF ?-4$ $C
F3 5-C N3C E M3E34$ \ -$4 34 ?3CC HEC CF$ Q3 1 3$C3D H D 43N
H Q3 1$ D F J QO F3 @ 34+ H& F3 I3$N3 H- H& F3 PHE 3C H Q3
43N3 3D QO F J &H4 > N3EN3C 24$E 3D -ED34 F C N $ED E N$C3
H& G3& N 3ENO F3E H- H& F3 @H-E O $ 3C . I4H D3D $ CH F$ E
N$C3 H& F3 G3$ F H& $EO 5-C N3 I FOC N $E ?-423HE H4 1H F3N$ O
CH $11H E 3D C H4 $C $&H43C$ D H4 H& F C '3&-C$ H4 E$Q O QO
43$CHE H& E3CC H4 H F34 C3 H $N $C C-NF CF$ $ED J $O Q3
$ &- &H4 F3 C$ D 5-C N3C $ $EO M3E34$ H4 D(H-4E3D ?3CC HEC
H& F3 I3$N3 H $11H E $ C H4 E F3 'HH J H& C-NF 5-C N3
I FOC N $E ?-423HE H4 1H F3N$4O FH CF$ D 3 H4 43&-C3 H4 Q3NH J 3
-E$Q 3 H $N $C $&H43C$ D $ED F3 , $ J 3C H& $ C-NF C H4C CH
$11H E 3D $ F3 ') !% 1 \ -$4 34 ?3CC HEC H4 $EO M3E34$ H4
D(H-4E3D ?3CC HEC H& F3 I3$N3 CF$ F E ?3 3E N 3$4 G$OC $& 34
C-NF 11H E J 3E Q3 1-Q CF3D E CH J 3 , 3 C1$134 N 4N- $ 3D E
F3 @H-E O F343 E C-NF N3EC3D 8 H-C3 C $ Q3 C -$ 3 $ED F3
11H E J 3E H& C-NF C H4C CF$ F E * 3E O HE3 N 3$4 G$OC
Q3 NH J J -E N$ 3D QO F3 @ 3 + H& F3 I3$N3 H F3 @ 34+ H& F3
P3 4H1H $E @H J J CC HE34C FH CF$ 432 C 34 F3 C$ J 3 E $ BHH+
H Q3 +31 &H4 F$ I -41HC3 $ED E N$C3 H& G3&$- H& C-NF
@H J J -E N$ HE F3 @ 34+ H& F3 I3$N3 CF$ &H4&3 $ED 1$O
$ I3E$ O H& 6 3 IH-EDC H Q3 43NH 343D $C C F343 E $& 34
D 43N 3D

@H J J CR
C HE34C H4
C H4C EH
H +331 $EO
N3EC3D
8 H-C3 KN
EH4 P3D N$
@H J J CR
C HE34C H4
W ED Q3 '&-4 F34 3E$N 3D *F$ EH I34CHE CF$ Q3 3 2 Q 3 H
Q3 $11H E 3D @H J J CC HE34 H4 C H4 $C $&H 3C$ D EH4 CF$ $EO 5-C N3
H& F3 I3$N3 $N E 24$E E2 $EO > N3EN3 FH CF$ Q3 H4 FH CF$
F$ 3 Q33E F E * H =3$4C F3E E3 143N3D E2 D 43N O H4 ED 43N O
E 343C 3D E F3 +331 E2 $EO 8 H-C3 N3EC3D &H4 F3 '3N31 HE H&
EC$E3 I34CHEC $ED EH I FOC N $E $C $ &H43C$ D $11H E 3D $ @H J J CR
C HE34 $ED EH I FOC N $E ?-423HE H4 1H F3N$4O $11H E 3D $ C H4

CF$ ' 14H&3CC HE$ O' $ 3ED' -1HE F3' I$ 3E C' E' $EO' ?-NF' N3EC3D' 8H-C3' -E 3CC' F3' Q3' C13N $ O' D 43N 3D' H' C ' $EO' I$ 3E ' QO' $EO' '3 $ HE' D4' 64 3ED' -ED34' FHC3' <4D34' C-NF' 3E 'F$C' Q33E' $D J 3D' E H' $EO' C-NF' N3EC3D' 8H-C3' H4' QO' $' @H J J 33' $11H E 3D' QO' F3' >H4D' @F$EN3 H4' H4' QO' F3' >H4D' %33134' H4' @H J J CC HE34C' H&' F3' M43$ ' ?3$' H&' ! ' " #' H4' H F34' F3' I34CHE' H4' I34CHEC' &H4' F3' * J 3' Q3 E2' E 4-C 3D' QO' 4 -3' H&' F3' % E2 C' ? 2E' P$E-$' F' F3' @$43' $ED' @H J J J 3E ' H&' F3' @-C HDO' H&' F3' I34CHEC' $ED' ; C $ 3C' H&' I34CHEC' &H-ED' D H ' -E$ N' H4' H&' -ECH-ED' P ED' $ED' &' $EO' C-NF' @H J J CC HE34' H4' C H4' CF$ ' $& 34' F C' 11H E J 3E ' Q3NH J 3' CH' E 343C 3D' H4' CF$ ' 14H&3CC HE$ O' $ 3ED' -1HE' F3' I$ 3E C' E' $EO' N3EC3D' 8H-C3' ^3 N31 ' $C' $&H43C$ D_' C-NF' @H J J CC HE34' H4' C H4' CF$ ' 43C13N 3 O' C 2E &O' F3' C$JD' E' 9 4 E2' H' F3' >H4D' @F$EN3 H4' H4' H F34' F3' I34CHE' H4' I34CHEC' E 4-C 3D' $C' $&H43C$ D' H4' H' F3' @ 34+' H&' F3' I3$N3' $C' F3' @$C3' J $O' 4 32- 43' $4 D' F3' 11H E J 3E ' H&' C-NF' @H J J CC HE34' H4' C H4' CF$ ' F3EN3&H4 F' Q3NH J 3' E- ' $ED' H D' $ED' ' CF$ ' EH ' Q3' $ &-' &H4' F J' H' $N ' $C' C-NF' @H J J CC HE34' H4' C H4

C H4C' H' $ 3ED' I $R 3E C' E' $EO' N3EC3D' 8H-C3 3 N31 ' QO' <4D34' KN

@H J J -E N$R HE' F343H&' H' Q3' J $D3' H' >H4D' @F$E ' N3 H4H4' @ 34+' H&' F3' I 3$N3

$ED' 11H E R J 3E ' H' Q3' H D

W ' ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' F3' @ 34+' H&' F3' I3$N3' H4' CH J 3' H F34' I34CHE' H' Q3' $11H E 3D' QO' F3' 5-C N3C' $' \-$4 34' ?3C ' C HEC' CF$ ' $N ' $C' @ 34+' H' F3' C H4C' CH' $11H E 3D' $C' $&H43C$ D' ($ED C-NF' @ 34+' CF$ ' C- J J HE' F3' C$ D' C H4C' H' J 33 ' $ ' C-NF' * J 3' $ED' I $N3' &H4' F3' I -41HC3' H&' 3 3N- E2' F3' G- 3C' J 1HC3D' -1HE' F3 J' QO' F C' N ' $C' F3' C$ D' 5-C N3C' E' ?3CC HEC' CF$ ' $11H E ' ($ED' C-NF' @ 34+' H' F3' C H4C' CF$ ' $ ' F3 4' 6 4C ' P 33 E2' $+3' F3' <$ F' 43X- 43D' QO' F C' N ' H' Q3' $+3E' QO' F3' @ 34+' H&' F3' P3 4H1H $E ' @H J J CC HE34C ' 3 1' 3 #& 1' C-NF' <$ F' H' Q3' $D J E C 343D' QO' <E3' H&' C-NF' C H4C' ($ED' F3' C$ D' @ 34+' H&' F3' I3$N3' H4' H F34' I34CHE' CH' $11H E 3D' CF$ ' Q3' 1$ D' H- ' H&' F3' @H-E O' '$ 3 ' &H4' Q C' ?34 N3C' E' $ 3ED E2' F3' C$ D' C H4C ' C-NF' '3 J -E34$ HE' $C' F3' 5-C N3C' E' \-$4 34' ?3CC HEC' $CC3 J Q 3D' CF$ ' F E+' & ' $ED' F3' 1R 1H E J 3E ' H&' $EO' C-NF' G31- O' @ 34+' CF$ ' F E' * 3E O HE3' N 3$4' G$OC' Q3' NH J J -E N$ 3D' QO' F3' @ 34+' H&' F3' I3$N3' H' F3' @ 34+' H&' F3' P3 4H1H $E' @H J J CC HE34C ' -ED34' F3' +3' I3E$ O' &H4' H J E2' H' DH' CH ' $ED' H' Q3' 43NH 343D' E' +3' P $EE34 ' $C' C' D3N $43D' E' D3&$- ' H&' F3' @H J J -E N$ HE' H&' F3' 11H E J 3E ' H&' C H4C

F3' 5-C N3C ' H' Q3' @ 34+' H F3' C H4C '

W ' ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' &' F3' @ 34+' H&' F3' @H J ' J CC HE34C' H4' F3' @ 34+' H&' F3' I3$N3' H4' H F34' I34CHE' $11H E 3D' $C' $&H43C$ D' CF$ ' $ ' $EO' * J 3 ' E' F3' D-3' ; 3N- HE' H&' F C' N ' & ED ' E3N3CC$4O' H' 3 J 1 HO' $EO' CC C $E ' E' F3' NH1O E2' $EO' H&' F3' <4D34C' @34 & N$ 3C' '32 C 34C' '3 -4EC' !' 4 3E' I$134C' H4' GHN-R J 3E C' F NF' CF$ ' NH J 3' E H' F3' IHCC3CC HE' H&' C-NF' @ 34+' E' 1-4C-R $EN3' H&' F C' N ' H4' E' $EO' H F34' P$ 34C' 43 $ E2' H' F3' ; 3N- HE' F343H&' F3E' F3' @ 34+' H&' F3' P3 4H1H $E' @H J J CC HE34C' C' F343QO' 43X- 43D' H' N34 &O' C-NF' , 3N3CC O' $ED' F3' , $ J 3' H&' C-NF' CC C $E ' H' F3' $$ D' @H J J CC HE34C ' $ED' F3' @ 34+' H&' F3' I3$N3' H4' H F34' I34CHE' $11H E 3D' $C' $&H43C$ D' CF$ ' N34 &O' C-NF' , 3N3CC O ' $ED' F3' , $ J 3' H&' C-NF' CC C $E ' H' <E3 H&' F3' C H4C ' Q3 E2' $' 5-C N3' H&' F3' I3$N3C' $ED' &' F3O' 43C13N 3 O' CF$ ' $114H 3' F343H&' F3O' $43' F343QO' 43C13N 3 O' 3 J 1H 343D' $ED' 43X- 43D' H' $D J E C 34' F3' &H H E2' <$ F' H' C-NF' CC C $E ' 143 H-C O' H' F C' Q3 E2' 3 J 1 HO3D' $C' $&H43C$ D.

CC C $E ' H' F3' @ 34+'

<$F H Q3' $+3E' QO' CC C $E

' X' / ' " ' DH' CH 3 J E O' C 3$4' * F$' ' ' &$ &- O' +331' C3N43 ' % '
7 C-NF' P$ 34C' $ED' * F E2C' $C' CF$ ' XH J 3' H' J O' %EH 3D23' E'
7 NHEC3X-3EN3' H&' J O' ; J 1 HO J 3E ' $C' CC C $E ' E' F3' <&& N3' H&' F3'
7 @ 34+' H' F3' @H J J CC HE34C' bUA ' @ 34+' H&' F3' C H4C ' 1')!' I 1!'
7 ' %! U' $11H E 3D' QO' 4 -3' H&' $E' N ' H&' I $4 $ J 3E ' J $D3' E' F3'
7 ?3NHED' $ED' * F 4D' =3$4' H&' F3' ' 3 2E' H&' 8 C' P $(3C O' % E2' %% '
7 F3' 6H-4 F') / ' / #' / ' ' , ' ! (3% (' , ' 7) !!' H! 1' #&'
' , ')!#' !' 3# %')!' 8 #&' , ')!')!#' #!J ' +!11 ,#' , ' * % !# ')!'
7 I !' #&' 7 ! !# ' , '$#1 #!' * ! 1,#1' #' & J 2 $ED ' -E 3CC' 43X- 43D'
7 1' D - 23' F3' C$ J 3' QO' 32$ ' - FH4 O ' ?H' F3 1' J 3' M< _

,H N3' H&' 11 N$ HE' &H4' $ED' I $E' H&' N3EC3D' 8H-C3' H Q3' 2 3E' H' F3' @ 34+' H&' F3' @H J J CR C HE34C' H4' @ 34+' H&' F3' I 3$N3' ' G$OC143 H-C H' F3 4' P33 E2

' W ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$' $ ' I 34CHEC' FH' CF$ ' $11 O' H4' E 3ED' H' $11 O' H' F$ 3' $' 8H-C3' N3EC3D' &H4' F3' ' 3N31 HE' H&' EC$E3' I 34CHEC' CF$ ' 2 3' ,H N3' H' F3' @ 34+' H&' F3' P 3 4H1H $E' @H J J CC HE34C' H4' H' F3' @ 34+' H&' F3' I 3$N3 ' $C' F3' @$C3' J $O' F3' 6H-4 33E' N 3$4' G$OC' $ ' F3' 3$C ' 14 H4' H' $EO' X &$4 34 O' H4' < F34' P 33 E2' H&' F3' P 3 4H1H $E' @H J J CC HE34C ' H4' H' $EO' M3E34$ ' H4' \ -$4 34' ?3CC HE' H&' F3' I 3$N3' &H4' F3' @H-E O' F343' 83' CF$ ' $11 O' &H4' $' > N3EN3' 43C13N 3 O ' F NF' ,H N3' CF$ '@HE $ E' F3' 4-3' @F4 C $E' $ED' ?-4E$ J 3' $ED' I $N3' H&' QHD3' H&' F3' I 34CHE' CH' $11 O E2' $ED' E 3ED E2' H' +331' C-NF' 8H-C3' $ED' E' N$C3' ?-NF' I 34CHE' ?H' $11 O E2' DH3C' EH ' 14H1HC3' H' 43C D3' F J C3 &' E' F3' N3EC3D' 8H-C3 ' F3' @F4 C $E' $ED' ?-4E$ J 3' $ED' 143 H-C' <NN-1$ HE' H&' F3' ?-134 E 3E ' D$E ' FH' C' H' 43C D3' F343 E' ' $ED' C-NF' ,H N3 ' F3E' 2 3E' &H4' $EO' 8H-C3' F NF' CF$ 'EH ' F$ 3' Q33E' 143 H-C O' N3EC3D ' CF$ ' Q3' $NNH J R 1$E 3D' QO' $' I $E' H&' 3 34O' C-NF' 8H-C3 ' H' Q3' D4$ E' -1HE' $' ?N$ 3' H&' EH ' 3CC' F$E' <E3' ; 2F F' H&' $E' ENF' H' $' 6HH ' F' $' G3CN4 1 HE' H&' F3' ? -$ HE' F343H&' $ED' F3' >3E2 F ' B43$D F ' $ED' 8 3 2F ' H& ' $ED' $' ' 3&343EN3' QO' $' 6 2-43' H4' >3 34' H ' 3 34O' ' HH J ' $ED' 1$4 R J 3E ' F343 E ' $ED' $' ? $ 3 J 3E ' H&' F3' 243$ 3C ' , - J Q34' H&' I $ 3E C' 14H1HC3D' H' Q3' 43N3 3D' E H' C-NF' 8H-C3 ' F NF' ,H N3' $ED' I $E' CF$ ' Q3' $ D' QO' F3' @ 34+' H&' F3' P 3 4H1H $E' @H J J CC HE34C ' Q3&H43' F3' C$ D' @H J J CC HE34C ' H4' QO' F3' @ 34+' H&' F3' I 3$N3' Q3&H43' F3' 5-C N3C' 43C13N 3 O ' $ ' C-NF' * J 3' $C' F3O' CF$ ' $+3' E H' F3 4' @HEC D34$ HE' F3' 11 N$ HE' &H4' C-NF' > N3EN3

$ (#&H J (<' B- D E2C' H' I $4 ' H&' F4L' 8H-C3'

W ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$' &' F343' Q3' $EO' I $N3' E4' B- D E2' D3 $NF3D' &4H J ' $EO' 8H-C3 ' N3EC3D' <4 H' Q3' N3EC3D ' Q- ' Q3 HE2 E2' H' H4' E' $EO C3' $1134 $ E E2' H' C-NF' 8H-C3 ' C-NF' I $N3' H4' B- D E2' CF$ ' Q3' NHEC D343D' I $4 ' H&' C-NF' N3EC3D' 8H-C3' &H4' $ ' F3' I -41HC3C' H&' F C' N

#1HE' 34$ ' HEH&8H-C3 ' ,H N3' $ED' $ J 3ED3D' I $E' H Q3' 2 3E' H' @H J J CR C HE34C ' KN

W ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$' ,H N3' H&' $EO' DD HEC' H4' 34$ HEC' F NF' CF$ ' &4H J ' * J 3' H' * J 3' Q3' J $D3' H' $EO' 8H-C3' N3EC3D' -ED34' F C' N ' CF$ ' Q3' 2 3E ' QO' F3' I 34CHE' H' FH J ' F3' > N3EN3' CF$ ' F$ 3' Q33E' 24$E 3D ' H' F3' @ 34+' H&' F3' @H J J CC HE34C' H4' H' F3' @ 34+' H&' F3' I 3$N3 ' $C' Fa' @$C3' J $O' 43X- 43 ' F E' <E3' @$ 3ED$4' P HE F' E3 ' $& 34' F3' @H J 1 3 HE' F343H&' $NNH J 1$E 3D' F' $ I $E' H&' $ ' F3' DD HEC' $ED' 34$ HEC ' H' Q3' D4$ E' -1HE' F3' ?N$ 3' $&H43C$ D ' $ED' &' $EO' I 34CHE' CF$ ' ^ &- O' $ED' F' ER 3E HE' H' D3N3 3_'EH ' 2 3' $ &- ' $ED' NH J 1 3 3' I $E' H&' F3' FH 3' H&' F3' 8H-C3' H' Q3' N3EC3D ' H4' ,H N3' H&' $EO' $ED' $ ' C-NF' DD HEC' $ED' 34$ HEC' $C' CF$ ' F$ 3' Q33E' J $D3 ' F3' CF$ ' Q3' D33 J 3D' 2- O' H&' $' P CD3 J 3$EH4

W ' FD

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ '3 340' C-NF' > N3EN3' CF$ ' Q3' J$D3' H- ' QO' F3' @ 34+' H&' F3' P3 4H1H $E' @HJJ CC HE34C' H4' F3' @ 34+' H&' F3' I3$N3 '$C' F3' @$C3' J$O' 43X- 43 ' $NNH4D E2' H' F3' 6H4J' E' ?NF3D- 3' ^ _ ' $EE3 3D' H' F C' N '&H4' C-NF' * J3 ' EH ' 3 N33D E2' *F 4 33E' @$ 3ED$4' PHE FC ' $C' F3' C$D' P3 4H1H $E' @HJJ CC HE34C' H4' 5-C N3C' CF$ ' F E+' & ' $ED' &H4' 3 340' > N3EN3' H' Q3' 24$E 3D' H' $EO' I34CHE' &H4' +331 E2' $' 8H-C3' &H4' F3' ' 3N31 HE' H&' EC$E3' I34CHEC' F343' CF$ ' Q3' 1$D' H' F3' @ 34+' H&' F3' @HJJ CC HE34C' H4' @ 34+' H&' F3' I3$N3 ' 3 N-C 3' H&' F3' ?-J' H' Q3' 1$D' &H4' F3' ? $J1 ' F3' ?-J' H&' *3E' ?F E2C' &H4' 3 340' E E3' I34CHE' EH ' Q3 E2' $' I$4 CF' I$-134 ' $ED' F3' ?-J' H&' * H' ?F E2C' $ED' ? 13EN3' &H4' 3 340' I$4 CF' I$-134 ' 14H1HC3D' H' Q3' 43N3 3D' E H' C-NF' 8H-C3 ' Q- ' &H4' EH' > N3EN3' H' Q3' CH' 24$E 3D' CF$ ' Q3' 1$D' 3CC' F$E' 6 & 33E' IH-EDC ' $ED' C-NF' > N3EN3' CF$ ' EH ' Q3' D3 343D' EH4' Q3' H&' $EO' $ ' -E ' F3' ?-J' D-3' HE' C-NF' > N3EN3' CF$ ' Q3' 1$D' : I4H D3D' $ $OC ' F$ ' &' F3' I34 HD' &H4' F NF' C-NF' > N3EN3' CF$ ' Q3' 24$E 3D' Q3' 3CC' F$E' *F 4 33E' @$ 3ED$4' PHE Fa ' H4' &' &4HJ ' F3' @F$E23' H&' F3' I4H14 3 H4' H4' H&' F3' 8H-C3' H' Q3' N3EC3D ' H4' $EO' N$C-$ ' @ 4N- JC $EN3' F$113E E2' Q3&H43' F3' ; 14$ ' HE' H&' F3' H4 2 E$ ' > N3EN3 ' ' CF$ ' Q3' 43X- C 3' H' 24$E ' H4' 43E3 ' $' > N3EN3' &H4' $' 3CC' I34 HD' H&' * J3' F$E' *F 4 33E' @$ 3ED$4' PHE FC ' F3E' $ED' E' $EO' H&' F3' C$D' @$C3C' ' CF$ ' $ED' J$O' Q3' $ &- ' &H4' F3' C$D' @HJJ CC HE34C' $ED' 5-C N3C ' &' F3O' F E+' & ' H' 43D-N3' F3' I$OR J3E C' H' Q3' J$D3' HE' C-NF' > N3EN3' H' EH ' 3CC' F$E' 6 3' IH-EDC' E' F3' FH 3

> N3EN3C' H' Q3' J D3' H- ' QO' F3' @ 34+' H&' F3' @H4$ ' # CC HE34C' H4' @ 34+' <& F3' I3$N3 ' $ED' H' Q3' H$3 3D' O3$4 O

@F$4 ' &H4' > N3 ?B3

@H ((J C' C HE34C' J$O' 43D-N3' I33C' H1' > N3EN3' E' @34 $ E' @$C3C

W W ' I4H D3D' $ $OC ' $ED' ' C' F343QO' 3E$N 3D' *F$ ' P ' > N3EN3C' > N3C H' 24$E 3D' QO' F3' P3 4H1H $E' @HJJ CC HE34C' H4' 5- N3C' CF$ ' Q3' D O' Q3C $J D' C $J13D' F' $' *3E' ?F E2C' ? $J1 ' $ED' CF$ ' Q3' -ED34' F3' 8$EDC' 2 ' $ED' ?3$ C' H&' 6 3' H4' JH43' H&' F3' P3 4H1H $E' @HJJ CC HE34C ' * H H&' FHJ ' CF$ ' EH ' Q3' IFOC N $EC ' $C' $&H43C$ D ' H4' H&' *F433' H4' JH43' H&' F3' C$D' 5-C N3C' E' \ $4 3 ?3CC HEC' $CC3 JQ 3D

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' $ ' PHE 3C' H' Q3' 43N3 3D' &H4' C-NF' > N3EN3C' CF$ ' Q3' 43 $ E3D' QO' F3' @ 34+' H&' F3' P3 4H1H $E' @HJJ CC HE34C' H4' @ 34+' H&' F3' I3$N3 ' $C' F3' @$C3' J$O' Q3 ' $ED' &4HJ ' C-NF' PHE 3C' $ ' F3' ; 13EN3C' 43X- 43D' H' Q3' D CQ-4C3D' E' F3' ; 3R N- HE' H&' F C' N ' CF$ ' Q3' 1$D' ($ED' C-NF' @ 34+' H&' F3' @HJJ CR C HE34C' CF$ ' +331' $' 4-3' NNH-E ' H&' $ ' ' 3N3 1 C' $ED' I$OJ3E C' F NF' NNH-E ' CF$ ' Q3' J$D3' -1' H' F3' 6 4C ' G$O' H&' / 3(31 ' E' 3$NF' =3$4 ' $ED' CF$ ' Q3' C 2E3D' QO' 6 3' $ ' 3$C ' H&' F3' C$D' @HJJ CC HE34C ' $ED' C-NF' NNH-E ' CF$ ' C13N &O' F3' C3 34$ ' 8 3$DC' H&' ; 13ED -43 ' $ED' CF$ ' Q3' $D' Q3&H43' I$4 $J3E ' HE' H4' Q3&H43' F3' * 3E O & & F' G$O' H&' ')' E' 3$NF' =3$4 ' &' I$4 $J3E ' CF$ ' Q3' F3E' C E2 ' H4' &' I$4 $J3E ' CF$ ' EH ' Q3' F3E' C E2 ' F E' <E3' PHE F' $& 34' F3' F3E' E3 ' ? E2' H&' I$4 $J3E ' $ED' F3' +3' NNH-E ' CF$ ' Q3' 4$ECR J 3D' H' F3' @HJJ CC HE34C' H&' 8 C' P$(3C O C' *43$C-40 ' / F3 CF$ ' F343-1HE ' &' F3O' CF$ ' D33 ' ' E3N3CC$4O ' D 43N ' F3' B$ $EN3' $' Q3' 1$D' E H' F3' ; NF3X-34' H' F3' NNH-E ' H&' F3' @HECH D$ 3D' 6-ED ' ' $ED' &' $ ' $EO' * J3' F343' CF$ ' Q3' $EO' B$ $EN3' D-3' H' F3' C$D' @ 34+' H' F3' @HJJ CC HE34C ' HE' $NNH-E ' H&' ; 13EN3C' H4' > $Q 3C' EN-443D' E' F3' ; 3N- HE H&' H4' EN D3E $ ' H' F C' N ' ' CF$ ' Q3' $ &- ' &H4' F3' @HJJ CC HE34C' H&' 8 ?C P$(3C O C' *43$C-40 ' H4' $EO' *F 33' H4' JH43' H&' F3J ' $ED' F3O' $43' F343QO' 3J1H 343D ' &4HJ ' * J3' H' * J3 &' F3O' CF$ ' ', '

H' Q3' NNH-E ' H&' PHE 3C

@ 34+' H' +331' $E' NNH-E ' H&' ' 3N3 1 ' $ED' ; 13E ' D -43' F NF' CF$ ' Q3' J$D3' -1' O3$4 O

NNH-E ' H' Q3' 4$ECR J 3D' H' F3' *43$C-40 ' FH' J$O' $11 O' H4' J$+3' -1' F3' B$R $EN3 ' $ED' CC-3' C-NF' ?-JC' $C' CF$ ' Q3' 43X- C 3' H' D3&4$O' F3

; 13EN3C -ED34 F C N

CF$ ' F E+' & '^HE $E 11 N$ HE H F3 J' &H4 C-NF $?-4$ H&' P HE3O $C CF$ ' F$ 3 Q33E $2433D -1HE $' CH J 3 X-$4 34 O H4 H F34 P 33 E2 H&' F3 P3 4H1H $E @H J J CC HE34C' $ 3ED3D QO ?3 3E $' F3 3$C ' H&' F3 C$ D @H J J CC HE34C' $ED H Q3 N34 & 3D -ED34 F3 4 8 $EDC_' H N$-C3 H Q3 CC-3D $ED 1$ D' H- ' H&' F3 24H E2 I 4HD-N3 H&' F3 @HECH D$ 3D 6-ED' &H F3 @ 34+' H&' F3 C$ D P 3 4H1H $E @H J R J CC HE34C' C-NF $?-4$' H&' P HE3O $C F3 C$ D P 3 4H1H $E @H J J CR C HE34C CF$ ' F$ 3 CH N34 & 3D $C 43X- C 3 H D3&4$O F3 ; 13EN3C EN-443D -ED34 F3 I 4H C HEC H&' H4 EN D3E $' H F C N

@ 34+' [&' F3 I 3$N3 H +331' NNH-E C

WW ' ED Q3 ' &-4 F34 3E$N 3D ' *F$ ' F3 @ 34+' H&' F3 I 3$N3 H4 H F34 I 34CHE $11H E 3D $C $&H43C$ D CF$ ' +331' +3 NNH-E C H&' $ ' ' 3N3 1 C $ED I $O J 3E C E 43C13N ' H&' F C N ' $ED F NF NNH-E C CF$ ' 43C13N 3 O Q3 J $D3 -1' H F3 * F$ ' G$O H&' ?3(3 ' E 3 34O =3$4' $ED CF$ ' Q3 $114H 3D QO * H $' 3$C ' H&' F3 C H4C ' $ED C 2E3D QO F3 J' E 3C J HEO F343H&' ($ED F3 C$ D NNH-E C' F3E CH J $D3 -1' CF$ ' Q3 $ D QO F3 @ 34+' H&' F3 I 3$N3 ' H4 H F34 I 34CHE $11H E 3D $C $&H43C$ D' Q3&H43 F3 5-C N3C ')! ' ') !% 1' \ -$4 34 ?3CC HEC ' $ED &' ' CF$ ' $113$4 QO F3 C$ D NNH-E C F$ '

B$ $EN3C -' F$ED H&' H4 D-3 H @ 34+' H&' F3 I 3$N3

F343 C $ B$ $EN3 E F3 8 $EDC H&' F3 @ 34+' H&' F3 I 3$N3 H4 H F34 I 34CHE $11H E 3D $C $&H43C$ D' F3 C$ J 3 CF$ ' F E * 3E O HE3 N 3$4 G$OC Q3 1$ D' QO $E <4D34 H&' F3 C$ D C H4C ' H F3 * 43$C-434 H&' F3 @H-E O ' E $ D H&' F3 @H-E O ' $ 3 ' $ED F3E F343 CF$ ' Q3 &H-ED H' Q3 $EO B$ $EN3 D-3 H' C-NF @ 34+' H&' F3 I 3$N3 <4 H F34 I 34CHE $11H E 3D $C $&H43C$ D' C-NF B$ $EN3 CF$ ' Q3 1$ D H F J' QO F3 * 43$C-434 H&' F3 @H-E O H- ' H&' F3 @H-E O ' $ 3 ' -1HE $E <4D34 &H4 C-NF I $O J 3E ' Q3 E2 J $D3 $ED C 2E3D QO * H H4 J H43 5-C N3C E \ -$4 34 ?3CC HEC $CC3 J Q 3D

, H 8H-C3 H Q3 +31' FR H- ' Q3 E2 N3EC3D

WW ' ED Q3 ' &-4 F34 3E$N 3D ' * F$ ' &4H J' $ D $& 34 F3 @H J R J 3EN3 J 3E ' H&' F C N ' ' CF$ ' EH ' Q3 $ &- ' &H4 $EO I 34CHE H +331' $' 8H-C3 &H4 F3 ' 3N31 HE H&' * H H4 J H43 EC$E3 I 34CHEC ' -E 3CC F3 C$ J 3 CF$ ' F$ 3 Q33E & 4C ' D- O N3EC3D E F3 P $EE34 D 43N 3D QO F C N ' (ED 3 34O I 34CHE +331 E2 $ 8H-C3 &H4 F3 ' 3N31 HE H&' * H H4 J H43 EC$E3 I 34CHEC ' EH ' D- O N3EC3D ' CF$ ' Q3 D33 J 3D 2- O H&' $ P CD3 J 3$EH4.' I 4H D3D $ $OC ' F$ ' EH <E3 > N3EN3 CF$ ' $- FH4 T3 $EO I 34CHE H +331' J H43 F$E <E3 8 H-C3 ' Q- ' $ ' > N3EN3C F NF CF$ ' F$ 3 Q33E F343 H&H43 24$E 3D CF ' 43 J $ E E &- ' 6H4N3 -E ' F3 I 34 HD &H4 F NF F3O $ ' F$ 3 Q33E 24$E 3D CF$ ' F$ 3 3 1 43D ' -E 3CC 43 H+3D $C F343 E $& 34 D 43N 3D ' $ED $ ' I $EC F343 H&H43 D3 343D CF$ ' Q3 D33 J 3D C-& ?N 3E ' &H4 F3 I -41HC3C H&' F C N ' &' F3 @H J J CC HE34C H4 5-C N3C CF$ ' CH F E+' &

> N3EN3C 24$E 3D -ED34 -: 9 ' 9 ' H Q3 $ D' $ED 6 $EC C-&& N 3E

I 4H C HE E ' N$C3H&' G3$ O H&' ' N3EC3D (I 4H14 3 H4

WW 8 ' I 4H D3D $ $OC ' $ED Q3 ' 3E$N 3D ' * F$ ' &' $EO I 34CHE H FH J' $' > N3EN3 &H4 +331 E2 $ 8H-C3 CF$ ' F$ 3 Q33E D- O 24$E 3D -ED34 F C N ' CF$ ' D 3 Q3&H43 ' F3 ; 1 4$ HE H&' F3 C$ D > N3EN3 ' $ED F3 32$' ' 3143C3E $ 3C H&' C-NF D3N3$C3D I 34CHE CF$ ' F E *3E G$OC E3 ' $& 34 C-NF G3$ F ' 2 3 , H N3 F343H&' H F3 @ 34+' H&' F3 P3 4H1H $E @H J J CC HE34C H4 H F3 @ 34+' H&' F3 I 3$N3 ' $C F3 @$C3 J $O Q3 ' ' CF$ ' Q3 $ &- ' &H4 F3 C$ D P 3 4H1H $E @H J R J CC HE34C $' $EO P 33 E2 D- O $CC3 J Q 3D ' H4 &H4 F3 ?$ D 5-C N3C H&' F3 I 3$N3 $' F3 E3 ' M3E34$' \ -$4 34 ?3CC HEC 43C13N 3 O ' & F3O

U ʿ K ʿ S ¢ M # > ; > P ʿ ʿ @$1 ʿ [V

F3O ʿ CF$ ʿ F E+ ʿ & ʿ QO ʿ $E ʿ <4D34 ʿ E ʿ 9 4 E2 ʿ -EDX4 ʿ F3 ʿ 8 $EDC ʿ H& ʿ
6 3 ʿ H& ʿ F3 ʿ C$ D ʿ @H J J CC HE34C ʿ H4 ʿ * F433 ʿ H& ʿ F3 ʿ C$ D ʿ 5 - C N3C ʿ H ʿ
NHE& 4 J ʿ F3 ʿ C$ D ʿ > N3EN3 ʿ F ʿ $ ʿ F3 ʿ @HED HEC ʿ $ED ʿ > $Q 3C ʿ
$EE3 3D ʿ F343 H ʿ &H4 ʿ F3 ʿ * 34 J ʿ -E3 1 43D ʿ H ʿ C - NF ʿ I 34CHE ʿ $C ʿ CF$ ʿ $ ʿ
F3 ʿ * J 3 ʿ H& ʿ C - NF ʿ G3$ F ʿ Q3 ʿ F3 ʿ ? - 134 E 3ED$E ʿ H& ʿ C - NF ʿ 8 H - C3 ʿ H4 ʿ
F$ 3 ʿ F3 ʿ @$43 ʿ H& ʿ F3 ʿ I $ 3E C ʿ F343 E ʿ H4 ʿ H ʿ C - NF ʿ H F34 ʿ I 34CHEC ʿ $C ʿ
F3 ʿ C$ D ʿ @H J J CC HE34C ʿ H4 ʿ 5 - C N3C ʿ 43C13N 3 O ʿ CF$ ʿ F E+ ʿ & ʿ $ED ʿ E ʿ
F3 ʿ J 3$E J 3 ʿ C - NF ʿ 143 H - C ʿ > N3EN3 ʿ CF$ ʿ EH FC $ED E2 ʿ F3 ʿ G3$ F ʿ
H& ʿ C - NF ʿ I 34CHE ʿ 43 J $ E ʿ E ʿ & - ʿ 6H4N3

WW ʿ ED ʿ Q3 ʿ ʿ & - 4 F34 ʿ 3E$N 3D ʿ * F$ ʿ & ʿ $EO ʿ I 34CHE ʿ D - O ʿ N3EC3D ʿ @H J J C ʿ
- ED34 ʿ F C ʿ N ʿ CF$ ʿ QO ʿ ? N+E3CC ʿ H4 ʿ H F34 ʿ C - && N 3E ʿ ʿ 3$CHE ʿ Q3NH J 3 ʿ C HE34C ʿ J $O ʿ
EN1Q 3 ʿ H& ʿ +331 E2 ʿ C - NF ʿ 8 H - C3 ʿ H4 ʿ & ʿ $EO ʿ N3EC3D ʿ 8 H - C3 ʿ CF$ ʿ Q3 ʿ
1 - 3D ʿ DH E ʿ H4 ʿ HNN - 1 3D ʿ - ED34 ʿ F3 ʿ I 43 C HEC ʿ H& ʿ $EO ʿ N ʿ &H4 ʿ 1 - Q N ʿ H F34 ʿ I 34CHEC ʿ
I - 41HC3C ʿ H4 ʿ CF$ ʿ QO ʿ 6 43 ʿ * 3 J 13C ʿ H4 ʿ H F34 ʿ - E$ H D$Q 3 ʿ @$ $E O ʿ H4 ʿ &H4 ʿ H F34 ʿ
Q3 ʿ 43ED343D ʿ - E& ʿ &H4 ʿ F3 ʿ NNH J J HD$ HE ʿ H& ʿ EC$E3 ʿ I 34CHEC ʿ ʿ CF$ ʿ
$ED ʿ J $O ʿ Q3 ʿ $ & - ʿ &H4 ʿ F3 ʿ C$ D ʿ P 3 4H1H $E ʿ @H J J CC HE34C ʿ H4 ʿ $EO ʿ
6 3 ʿ H& ʿ F3 J ʿ * H ʿ H& ʿ FH J ʿ CF$ ʿ EH ʿ Q3 ʿ I FOC N $EC ʿ $ ʿ $EO ʿ X - $4 34 O ʿ
H4 ʿ H F34 ʿ P 33 E2 ʿ NHE 3E3D ʿ $C ʿ $&H43C$ D ʿ H& ʿ &H4 ʿ F3 ʿ C$ D ʿ 5 - C N3C ʿ $ ʿ
$EO ʿ M3E34$ ʿ H4 ʿ \ - $4 34 ʿ ?3CC HEC ʿ - 1HE ʿ F3 ʿ I $O J 3E ʿ H& ʿ EH ʿ 3CC ʿ F$E ʿ
< E3 ʿ I H - ED ʿ &H4 ʿ 3$NF ʿ > N3EN3 ʿ 3 N - C 3 ʿ H& ʿ F3 ʿ ? - 4$ ʿ H ʿ Q3 ʿ 1$ D ʿ &H4 ʿ
F3 ʿ ? $ J 1 ʿ H ʿ 24$E ʿ $ ʿ E3 ʿ > N3EN3 ʿ H ʿ C - NF ʿ H F34 ʿ I 34CHE ʿ $C ʿ F3O ʿ
CF$ ʿ F E+ ʿ & ʿ $ED ʿ $ CH ʿ H ʿ 24$E ʿ H ʿ F3 ʿ I 34CHE ʿ FHC3 ʿ 8 H - C3 ʿ F$C ʿ
Q33E ʿ CH ʿ 43ED343D ʿ - E& ʿ $ ʿ > N3EN3 ʿ H ʿ +331 ʿ C - NF ʿ H F34 ʿ 8 H - C3 ʿ &H4 ʿ F3 ʿ
NNH J J HD$ HE ʿ H& ʿ EC$E3 ʿ I 34CHEC ʿ $C ʿ F3 ʿ C$ D ʿ @H J J CC HE34C ʿ H4 ʿ F3 ʿ
C$ D ʿ 5 - C N3C ʿ CF$ ʿ F E+ ʿ & .ʿ I 4H D3D ʿ $ $OC ʿ F$ ʿ F3 ʿ , H N3 ʿ H& ʿ
C - NF ʿ E 3ED3D ʿ @F$E23 ʿ H& ʿ I 34CHEC ʿ $ED ʿ $ ʿ I $EC ʿ $ED ʿ ? $ 3 J 3E C ʿ H& ʿ
C - NF ʿ E3 ʿ 8 H - C3 ʿ CF$ ʿ Q3 ʿ 2 3E ʿ $C ʿ $43 ʿ 43X - 43D ʿ F3E ʿ 11 N$ HE ʿ C ʿ
J $D3 ʿ &H4 ʿ $ ʿ > N3EN3 ʿ &H4 ʿ F3 ʿ & 4C ʿ * J 3 .ʿ I 4H D3D ʿ $ CH ʿ F$ ʿ F3 ʿ
@$ - C3 ʿ H& ʿ C - NF ʿ @F$E23 ʿ H& ʿ 8 H - C3 ʿ CF$ ʿ Q3 ʿ D - O ʿ C13N & 3D ʿ E ʿ 9 4 E2 ʿ H ʿ
F3 ʿ @ 34+ ʿ H& ʿ F3 ʿ @H J J CC HE34C ʿ H4 ʿ @ 34+ ʿ H& ʿ F3 ʿ I 3$N3 ʿ $C ʿ F3 ʿ @$C3 ʿ
J $O ʿ Q3 ʿ F E ʿ * F433 ʿ N 3$4 ʿ G$OC ʿ $& 34 ʿ F3 ʿ F$113E E2 ʿ F343H&

WW ʿ ED ʿ Q3 ʿ ʿ & - 4 F34 ʿ 3E$N 3D ʿ * F$ ʿ E ʿ N$C3 ʿ F3 ʿ P 3 4H1H $E ʿ 9 F3E ʿ @H J R
@H J J CC HE34C ʿ H4 ʿ 5 - C N3C ʿ CF$ ʿ F E+ ʿ & ʿ H ʿ 43& - C3 ʿ H ʿ 43E3 ʿ $EO ʿ J CC HE34C ʿ
> N3EN3 ʿ &H4 ʿ +331 E2 ʿ $ ʿ 8 H - C3 ʿ &H4 ʿ EC$E3 ʿ I 34CHEC ʿ , H N3 ʿ H& ʿ C - NF ʿ H4 ʿ 5 - C N3C ʿ
ʿ 3& - C$ ʿ CF$ ʿ Q3 ʿ 2 3E ʿ E ʿ J $EE34 ʿ F343 E$& 34 ʿ E$3E HE3D ʿ E ʿ F3 ʿ @$C3 ʿ CF$ ʿ 43& - C3 ʿ H ʿ
H& ʿ 43 H+ E2 ʿ $EO ʿ C - NF ʿ > N3EN3 ʿ $ED ʿ F3 ʿ >H4D ʿ @F$EN3 H4 ʿ ! H F34 ʿ F3 ʿ 43E3 ʿ $EO ʿ
I 34CHE ʿ H4 ʿ I 34CHEC ʿ E 4 - C 3D ʿ $C ʿ $&H43C$ D ʿ &H4 ʿ F3 ʿ * J 3 ʿ Q3 E2 ʿ C ʿ F343QO ʿ > N3EN3 ʿ
3 J 1H 343D ʿ - 1HE ʿ F3 ʿ 3143C3E $ HE ʿ H& ʿ F3 ʿ C$ D ʿ @H J J CC HE34C ʿ 14 ʿ , H N3 ʿ
5 - C N3C ʿ 43C13N 3 O ʿ QO ʿ $E ʿ EC 4 - J 3E ʿ - ED34 ʿ F C ʿ 8 $ED ʿ $ED ʿ ?3$ ʿ H ʿ F343H& ʿ H ʿ Q3 ʿ
Q3 ʿ D3 343D ʿ F E ʿ < E3 ʿ P HE F ʿ $& 34 ʿ 43N3 E2 ʿ C - NF ʿ 3143C3E $ HE ʿ 2 3E ʿ H ʿ F3 ʿ
H ʿ C$EN HE ʿ $ED ʿ NHE& 4 J ʿ F3 ʿ 3& - C$ ʿ H& ʿ F3 ʿ C$ D ʿ @H J J CC HE34C ʿ H4 ʿ ?3N43 $4O ʿ H& ʿ
5 - C N3C ʿ H ʿ 43E3 ʿ C - NF ʿ > N3EN3 .ʿ I 4H D3D ʿ E3 34 F3 3CC ʿ F$ ʿ C - NF ʿ ? $ 3 ʿ &H4 ʿ F3 ʿ
ʿ 3& - C$ ʿ QO ʿ F3 J ʿ CF$ ʿ Q3 ʿ 3&&3N - $ ʿ - E 3CC ʿ F3 ʿ C$ D ʿ >H4D ʿ @F$EN3 H4 ʿ 8 H J 3 ʿ G3R
H4 ʿ H F34 ʿ F3 ʿ I 34CHE ʿ H4 ʿ I 34CHEC ʿ E 4 - C 3D ʿ $C ʿ $&H43C$ D ʿ CF$ ʿ F E ʿ 1$4 J 3E
< E3 ʿ @$ 3ED$4 ʿ P HE F ʿ &4H J ʿ F3 ʿ * J 3 ʿ H& ʿ F3 ʿ 3N3 1 ʿ H& ʿ F3 ʿ C$ D ʿ 3R
143C3E $ HE ʿ H& ʿ F3 ʿ C$ D ʿ @H J J CC HE34C ʿ H4 ʿ 5 - C N3C ʿ 43& - C3 ʿ H ʿ NHE& 4 J ʿ
F3 ʿ G3 34 J E$ HE ʿ H& ʿ F3 ʿ C$ D ʿ P 3 4H1H $E ʿ @H J J CC HE34C ʿ H4 ʿ 5 - C N3C

WW ʿ ED ʿ Q3 ʿ ʿ & - 4 F34 ʿ 3E$N 3D ʿ * F$ ʿ & ʿ $ ʿ $EO ʿ P 33 E2 ʿ - ED34 ʿ 3 H+ E2 ʿ
F C ʿ N ʿ $ P$(H4 O ʿ H& ʿ F3 ʿ P 3 4H1H $4 ʿ @H J J CC HE34C ʿ F3E ʿ $ED ʿ > N3EN3C ʿ
F343 ʿ 143C3E ʿ H4 ʿ $EO ʿ * F433 ʿ C H4C ʿ CF$ ʿ F E+ ʿ & ʿ H ʿ 43NH J J 3ED ʿ H
F3

F3' >H4D' @F$EN3 H&' H4' H F34' F3' I34CHE' H4' I34CHEC' E 4-C 3D' $C' $&H43C$ D' &H4' F3' * J3' Q3 32' Q$ '$EO' > N3EN3' 24$E 3D' QO' F3' C$ D' @H J J CC HE34C' H4' 5-C N3C' 43C13N 3 O' CFH- D' Q3' 43 H+3D' ' CF$ ' $ED' J$O' Q3' $ &-' &H4' C 3F' >H4D' @F$E33 H4' H4' H F34' F3' I34CHE' H4' I34CHEC' E 4-C 3D' $C' $&H43C$ D' $& 34' J$+ E2' C-NF' EX- 4 3C' $C' F3' CF$ ' F E+' E3N3CC$4O' H' 43 H+3' F3' C$ 13' QO' $E' EC 4- J 3E '-ED34' F C' 8$ED' $ED' ?3$ ' C-NF' '3 HN$ HE' H' $+3' 3&&3N '$' $' I34 HD' EH' 3 N33D E2' *F433' @$ 3ED$4' PHE FC' &4H J' F3' * J3' , H N3' F343H&' CF$ ' F$ 3' Q33E' 2 3E' E' F3' <,#&,#' ! !' ' $ED' $' @H1O'H&' C-1F' EC 4- J 3E ' H&' ; HN$ HE' CF$ ' Q3' 4$EC J 3D' H' F3' I34CHE' H' FH J' C-NF' > N3EN3' CF$ ' F$ 3' Q33E' 24$E 3D ' F C' ; 3N- H4C' H4' DR J E C 4$ H4C' H4' H' F3' ?E134 E 3ED$E ' E' N$C3' F3' 4CHE' H' FH J' C-NF' > N3EN3' CF$ ' F$ 3' Q33E' 24$E 3D' CF$ ' EH '43C D3' E' F3' N3EC3D' 8H-C3' Q3&H43' $EO' C-NF' 1$F N$ HE' CF$ ' $+3' 1 $N3 ' F- ' &' F3' >H4D' @F$EN3 H4 ' H4' H F34' F3' I34CHE' H4' I34CHEC' E 4-C 3D' $C' $&H43R C$ D' CF$ ' EH ' F E+' & ' H' NH J 1 O' F' C-NF' '3@H J J 3ED$ H ' F3' CF$ ' NH J J -E N$ 3' F C' '3&-C$' H' F3' C$ D' @H J J CC HE34C' H4' 5-C N3C' 43C13N 3 O' $C' CH<E' $C' NHE 3E 3E O' N$E' F3 .' I4H D3D' $ $OC' F$ ' E' N$C3' H&' C-NF' '3 HN$ HE' Q3 E2' 43NH J J 3ED3D' H' F3' >H4D' @F$ER N3 H4' H4' H F34' F3' I J E' H4' I J C3EC' E 4-C 3D' $C' $&H43C$ D' , H N3' E' 9 4 E2' F343H&' CF$ 'Q3' 2 3E' H' F3' 1$4 3C' C< NH J 1 $ E3D' H&' ?3 3E' N 3$4' G$OC' 143 H-C' H' F3' *4$EC J CC HE' H&' C-NF' '3NH J R J 3ED$ HE' H' F3' >H4D' @F$EN3 H4' H4' H F34' F3' I34CHE' H4' I34CHEC' E -C 3D' $C' $&H43?$ D' -')

EC$E3' I34' CHEC' EH' H Q3' 43N3 3D' E H' $' R N3EC3D' 8H-C3' H- '$E' <4D34' $ED' P 3D N$' @34 & N$ 3

WW ' ED' F3' '&-4 F34' 3E$N 3D' *F$ ' EH' I34CHE' ^EH ' Q3 E2' $' I$4 CF' I$-134_' CF$ ' Q3' 43N3 3D' E H' $EO' 8H-C3' N3EC3D' &H4' F3' '3N31 HE' H&' EC$E3' I34CHEC' E' F$ ' I$4 ' H&' F3' [E 3D' % oDH J' N$ 3D' 8#(% #&' 9 FH- '$E' <4D34' -ED34' F3' 8$ED' H&' F3' I34CHE' QO' FHC3' G 43N HE' C-NF' EC$E3' I34CHE' C' E ' 9F NF' @&4D34' DQ$ ' Q3' $NNH4D E2' < F3' 6H4 J' E' ?NF3D- 3' ^B_' $EE3 3D' H' F C' N '$ED' E' ' CF$ ' Q3' C $ 3D' F3' @F4 C $E' $ED' ?-4E$ J 3' $ED' I $N3' H&' QHD3' $ED' F3' G32433' H&' '3 $ HECF 1'D4' H F34' @ 4N- J C $EN3' <&' @HEE3N HE' Q3 33E' C-NF' I34CHE' $ED' F3' EC$E3' I34CHE '$ED' F3' 4-3' , $ J 3' 23 ' I $N3' H&' '3C D3EN3' &H4 J 34' <NN-1$ HE' $ED' F3' CO - J' H4' H F34' I $N3' ^ &' $EO_' E' F NF' F3' EC$E3' I34CHE' CF$ ' F$ 3' Q33E' 143 H-C O' NHE& E3D' $ED' F3 F34' C-NF' I34CHE' CF$ 'F$ 3' Q33E' &H-ED' -E$ N' H4' H&' -ECH-ED' P ED' -ED34' $' @H J J CC HE' CC-3D' &H4' F$ ' I -4 C3' QO' F3' >H4D' @F$EN3 H4' H4' < F34' F3' I34CHE' H4' I34CHEC' E 4-C 3D' $C' $&H43C$ D' EH4' CF$ ' $EO' C-NF' I34CHE' Q3' 43N3 3D' E H' $EO' C-NF' 8H-C3' FH- ' $' P 3D N$' @34 & N$ 3' H&' * H' I FOC N $EC' ?-423HEC' H4' 1H F3N$4 3C' E' F3' P $EE34' D 43N 3D' QO' F C' N '(' $ED' &' $EO' I34CHE' CF$ ' +EH E2 O' $ED' &- O' 43N3 3' $EO' EC$E3' I34CHE' H4' I34CHE' 43143C3E 3D' H4' $ 323D' H' Q3' EC$E3 ' H' Q3' $+3E' N$43' H&' H4' NHE& E3D' E' $EO' 8H-C3' N3EC3D' -ED34' F C' N ' FH- ' C-NF' <4D34' $ED' P 3D N$ '@34 & N$ 3 '$ED' FH- ' J $+ E2' F E' *F433' N 3$4' G$OC' $& 34' F3' '3N31 HE' H&' C-NF' I$ 3E ' $' P E- 3' H4' ; E 4O' E' 9 4 E2' E' $ BHH+' H' Q3' +31 ' &H4' F$ ' I -41HC3 '$NNH4D E2' H' F3' 6H4 J' E' ?NF3D- 3' ^P _' $EE3 3D' H' F C' N '<&' F3' 4-3' , $ J 3' H&' F3' I$ 3E ' $ED' $ CH' F3' @F4 C $E' $ED' ?-4E$ J 3' <NN-1$ HE '$ED' I $N3' H&' QHD3' H&' F3' I34CHE' QO' FH J' C-NF' I$ 3E 'CF$ 'Q3' Q4H-2F '3 34O' I34CHE' CH' H&&3ED E2' CF$ ' Q3' D33 J 3D' 2- O' H&' $' P CD3 J 3$EH4

' K S/' M # > ; > P ' ' @$1' [V S

WW ' ED' Q3' '&-4 F34' 3E$N 3D' * F$ '3 340' P 3D N$ '@34 & N$ 3' -1HE' F NF' $EO' <4D34' CF$ ' Q3' 2 3E' &H4' F3' @HE& E3 J 3E ' H&' $EO' I 34CHE' ^EH ' $' I $4 CF' I $-134_' E' $' 8 H-C3' N3EC3D' -ED34' F C' N ' CF$ ' Q3' $NNH4D E2' H' F3' 6H4 J' E' ?NF3D- 3' ^@ _' $EE3 3D' H' F C' N ' $ED' CF$ ' Q3 C 2E3D' QO' * H' P 3D N$ ' I $N HE34C' FH ' Q3 E2' E' I $4 E34CF 1' $ED' 3$NF' H&' F3 J' Q3 E2' $' I FOC N $E' ?H423<E' H4' 1H F3N$40' FH' CF$ 'F$ 3' C 4 3 O' C 3D' $ED' 134CHE$ O'3 $ J E3D' F3' I $ 3E ' H' FH J' '43 $ 3C' EH ' J H43' F$E' ?3 3E' N 3$4' <O& 43 H J' H' C-NF' @HE& E3 J 3E ' $ED' C-NF' @34 & N$ 3' CF$ ' Q3' C 2E3D' $ED' D$ 3D' HE' F3' G$O' HE' F NF' F3' H4' CF3' CF$ ' F$ 3' Q33E' CH' 3 $ J E3D' $ED' CF$ ' C $ 3' F$ ' C-NF' I 34CHE' C' EC$E3' $ED' 14H134' H' Q3' NHE& E3D ' $ED' 3 340' C-NF' @34 & N$ 3' &H4' F3' @HE& E3 J 3E ' H&' $EO' 634CHE' E' $' 8 H-C3' N3EC3D' -ED34' F C' N ' CF$ (&' F3' C$ J 3' Q3' EH ' C 2E3D' QO' * H' P 3D N$ ' I 4$N HE34C' C $ 3' F3' C13N $ ' @ 4N- J C $EN3' F NF' CF$ ' F$ 3' 143 3E 3D' F3' I $ 3E ' Q3 E2' C 3D' QO' * H' P 3D N$ ' I 4$N HE34C' ' $ED' $EO' I $ 3E ' J $(' $ D34' CENF' C13N $ ' @ 4N-$ C $EN3' Q3' $D J 3D' E H' $EO' C-NF' 8 H-C3' -1HE' F3' @34 & N$ 3' H&' < E3' P 3D N$ ' I 4$N HE34 ' 14H D3D' C-NF' @34 & N$ 3' CF(D ' Q3' &-4 F34' C 2E3D' QO' CH J 3' H F34' P 3D N$ ' I 4$N HE34' F E' ?3 3E' G$OC' E3 '$& 34' F3' D J CR C HE' H&' C-NF' I $ 3E ' E H' $EO' C-NF' 8 H-C3' $C' $&H43C$ D' ($ED' $EO' I 34CHE' FH' CF$ ' +EH E2 O' $ED' F' E 3E HE' H' D3N3 3' C(2E' $EO' C-NF' P 3D N$ ' @34 & N$ 3 ' -E 4- O' C3 E2' &H4 F' $EO' H&' F3' I $4 N- $4C' 43X- 43D' QO' F C' N ' CF$ ' Q3' D33 J 3D' 2- O' H&' $' P CD3 J 3$EH4. I 4H D3D' $ $OC' F$ ' EH' I FOC N $E' ?-423HE ' H4' 1H F3N$40' CF$ ' C 2E' $EO' @34 & N$ 3' H&' D J CC HE' H&' $' I $ 3E ' H' $EO' N3EC3D' 8 H-C3' FH' C' FH O' H4' 1$4 O' F3' I 4H14 3 H4' H4' F3' 432- $4' 14H&3CC HE$ ' 3ED$E ' H&' C-NF' N3EC3D' 8 H-C3 ' EH4' CF$ ' $EO' I FOC N $E ' ?-423HE ' H4' 1H F3N$40' C 2E' $EO' @34 & N$ 3' &H4' F3' ' 3N31 HE' H&' $' I $ 3E ' E H' $EO' C-NF' 8 H-C3 ' H&' F NF' F C' 6$ F34 ' ?HE ' B4H F34 ' H4' I $4 E34' C' FH O' H4' E' 1$4 ' I 4H14 3 H4' H4' F3' 432- $4' 14H&3CC HE$ ' 3ED$E 'HE' 1$ E' H&' Q3 E2' D33 J 3D' 2- O' H&' $' P CD3 J 3$EH4

P 3D N$ ' @34R & N$ 3' H&' EC$E O

I FOC N $EC' KN' EH ' H' C 2E' @34 R & N$ 3C' H&' D J CC HE' &' E 343C 3D

WW W' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' EH' I $4 CF' I $- 4' CF$ ' Q3' I$-134' 43N3 3D' E H' $EO' 8 H-C3' N3EC3D' &H4' F3' ' 3N31 HE' H&' EC$E3' I 34 ' CHEC' FH- ' $E' <4D34' $NNH4D E2' N' F3' 6H4 J' E' ?NF3D- 3' ^G _' $EE3 3D' H' F C' N ' -ED34' F3' 8 $ED' $ED' ?3$ ' H&' < E3' 5- C N3' H&' F3 I 3$N3 ' H4' $E' <4D34' $NNH4D E2' H' F3' 6H4 J' E' ?NF3D- 3' ^ ; _' $EE3 3D' H' F C' N ' C 2E3D' QO' F3' H& ?N $ E2' @ 3420 J $E' $ED' < E3' H&' F3' < 34C334C' H&' F3' I HH4' H&' F3' I $4 CF' H' F NF' C-NF' I $-134' CF$ ' Q3 HE2 ' $ED' $ CH' $' P 3D N$ ' @34 & N$ 3' $NNH4D E2' H' F3' 6H4 J' E' ?NF3D- 3' ^6 _' $EE3 3D' H' F C' N ' C 3D' QO' < E3' I FOC N $E ' ?-4 ' 23HE ' H4' 1H F3N$40 ' F$ ' C-NF' I $4 CF' I $-134' C' EC$E3 ' $ED' $' 14HR 134' I 34CHE' H' Q3' NHE& E3D ' $ED' &' $EO' I 34CHE' CF$ ' +EH E2 O' $ED' &- O' 43N3 3' $EO' I $4 CF' I $-134' 431 3C3E 3D' H4' $ 323D' H' F3' EC$E3' E H' $EO' N3EC3D' 8 H-C3 ' FH- ' C-NF' <4D34' $ED' P 3D N$ ' @3 ' & N$ 3 ' 3 3 O' I 34CHE' CH' H&&3ED E2' CF$ ' Q3' D33 J 3D' 2- O' H&' $' P CD3 J 3$EH4

>-E$ NCO' $D J CC '

WWW ' ED' E' H4D34' F$ ' F3' C$ D' P 3 4H1H $E' @H J J CC HE34C' , H N3' H' Q3' $ED' C H4C' J $O' +EH ' F3E' $EO' I $ 3E ' C' 43N3 3D' E H' $EO' 8 H-C3' 2 3E' H' @ 34+' N3EC3D' &H4' F3' ' 3N31 HE' H&' EC$E3' I 34CHEC ' Q3' ' &-4 F34' 3E$N 3D * F$ ' F3' I 4H14 3 H4' H4' 43C D3E ' ?-134 E 3ED$E ' H&' 3 340' 8 H-C3' K ' F E

' <' N3EC3D' /* H' G$OC

$& 34 F3 DJ CC HE H& 3 340 I$ 3E '

N3EC3D -ED34 F C N ' F3 F34 Q ' F3 C$ D P3 4<1H# $E @H J J CR C HE34C H4 QO F3 C$ D 5-C N3C 'CF$ ' F E F3 ?1$N3 H& * H N 3$4 G$OC E3 ' 34 F3 G$O HE F NF $EO I 34CHE CF$ ' F$ 3 Q33E 43R N3 3D E H C-NF 8H-C3 ' 4$EC J ' $ @H1O H& C-NF <4D34 $ED P 3D N$ ' @34 & N$ 3C $C $&H43C$ D ' F $, H N3 $NNH4D E2 H F3 6H4 J ' E ?NF3D- 3 ^M _' $EE3 3D H F C ' N ' H F3 @ 34+ H& F3 @H J J CR C HE34C ' $ED F3 I 4H14 3 H4 H4 43C D3E ' ?-134 E 3ED$E ' H& 3 340 8H-C3 N3EC3D F E F3 5-4 CD N HE H& F3 C H4C CF$ ' $ CH F E F3 C$ J 3 ?1$N3 H& G J 3 4$EC J ' $ G-1 N$ 3 @H1O F343H& H F3 @ 34+ H& F3 I 3$N3 ' $ED 3 340 I 4H14 3 H4 H4 43C D3E ' ?-134R E 3ED$E ' H& $EO C-NF 8H-C3 FH CF$ ' +EH E2 O $ED &- O E32 3N ' CH H DH CF$ ' Q3 D33 J 3D 2- O H& $ P CD3 J 3$EH4 ' F NF @H1 3C F3 C$ D @ 34+ H& F3 @H J J CC HE34C H4 @ 34+ H& F3 I 3$N3 C F343QO 3X- 43D H 143C34 3 ' $ED $ CH F E 6 3 D3$4 G$OC H 3E 34 E $ ' 32 C 34 H Q3 14H D3D &H4 F$ ' I -41HC3 F3 @F4 C $E $ED ?-4E$J 3 H& 3$NF EC$E3 I 34CHE CH 43 -4E3D H F J ' $ED H& F3 I 34CHEC QO FHC3 <4D34 $ED -1HE FHC3 P 3D N$ ' @34 & N$ 3C C-NF EC$E3 I 34CHEC CF$ ' Q3 NHE& E3D ' $ED F3 8N-C3 E F NF C-NF EC$E3 I 34CHE C NHE& E3D ' $NNH4D E2 H F3 6H4 J ' E ?NF3D- 3 ^P _' $EE3 3D H F C N ' $ED F3 @ 34+ H& F3 @H J J CC HE34C $ED @ 34+ H& F3 I 3$N3 CF$ ' &H4 3 340 < J CC HE H4 , 32 3N ' E F C I $4 N- $4 &H4&3 ' $ED 1$O ' HE @HE N HE Q3&H43 $EO <E3 H& 8 C P $(3C O C 5-C N3C H& F3 13$N3 ' F3 ?- J ' H& P 3 I H-EDC ' H Q3 43NH 343D $ED $11 3D $C F343 E $& 34 J 3E HE3D

*F3 +3 , H N3 H Q3 2 3E HE F3 '3 J H $ ' H4 G3$ F H& $ I $ 3E

WWW ' ED Q3 ' &-4 F34 3E$N 3D ' *F$ ' F3E3 34 $EO I $ 3E 'NHER & E3D E $EO 8H-C3 ' N3EC3D &H4 F3 ' 3N31 HE H& EC$E3 I 34CHEC CF$ ' Q3 '3 J H 3D F343&4H J 'H4 CF$ ' D 3 ' F3 I 4H14 3 H4 H4 43C D3E '?-& J 4 E ' 3ED$E ' H& C-NF 8H-C3 CF$ ' F E * H N 3$4 G$OC E3 ' $& 34 C-NF '3 J H $ ' H4 G3$ F ' 4$EC J ' $ 9 4 3E , H N3 343H& H F3 @ 34+ H& F3 P 3 4H1H# $E @H J J CC HE34C H4 @ 34+ H& F3 I 3$N3 ' $NNH4D E2 H F3 6H4 J ' E ?NF3D- 3 ^8 _' $EE3 3D H F C N ' $ED E @$C3C H& '3 J H $ ' C-NF , H N3 CF$ ' C $ 3 QO FH J ' 43 J H 3D ' $ED E F$ ' ? $ 3 H& P ED C-NF I 34CHE CF$ ' F$ 3 Q33E F3E 43 J H 3D '$ED ^ & F E F C %EH 3D23_ H F$ ' I $N3 43 J H 3D ' F NF , H N3C CF$ ' E +3 P $EE34 Q3 143C34 3D $ED 3E 343D QO F3 @ 34+ H& F3 @H J J CC HE34C H4 @ 34+ H& F3 I 3$N3 $C C 43X- 43D E F3 @$C3 H& F3 , H N3 H& F3 DJ CC HE H& $EO I $ 3E ' E H C-NF N3EC3D 8H-C3 ' $ED 3 340 I 4H14 3 H4 H4 43C D3E '?-134 E 3ED$E ' H& $EO NF ' 8H-C3 9 ' CF$ ' +EH E2 O $ED &- O E32 3N ' CH H DH CF$ ' Q3 D33 J 3D 2- O H& $ P CD3 J 3$EH4

? $ 3 J 3E ' H& I $-134 I $ 3E C DO E2 H Q3 4$EC J 3D H @ 34+ H& @H J J CR C HE34C H4 @ 34+ H& C H4C

WWW ' ED Q3 ' &-4 F34 3E$N 3D ' *F$ ' E N$C3 H& F3 G3$ F H& $EO I $4 CF I $-134 I $ 3E ' E $EO N3EC3D 8H-C3 ' $? $ 3 J 3E ' H& F3 @$-C3C H& F3 G3$ F H& C-NF I $ 3E ' CF$ ' F3 D4$ E #1 $ED C 2E3D QO F3 P 3D N$ ' 3ED$E ' H& C-NF 33-C3D 8H-C3 ' $ED $ @H1O F343H& ' D- O N34 & 3D QO F3 I 4H14 3 H4 H4 43C D3E '?-134 E 3E ' D$E ' H& C-NF 8H-C3 ' CF$ ' Q3 QO F J ' 4$EC J 3D H F3 @ 34+ H& F3 P 3 4H1H $E @H J J CC HE34C H4 F3 @ 34+ H& F3 C H4C 43C13N 3 O F E * H N 3$4 G$OC H& F3 G3$ F H& C-NF I $ 3E ' $ED 3 340 P 3D N$ ' 3ED$E ' $ED I 4H14 3 H4 ' H4 43C D3E ' ?-134 ' E 3ED$E ' FH CF$ ' +EH E2 O H4 &- O E32 3N ' H D4$ ' -1 ' C 2E

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F3' ?-J' H&' * 3E' I H-EDC ' H' Q3' 43NH 343D' $C' F343 E $& 34' D 43N 3D

WWW ' ED' Q3' '&-4 F34' 3E$N 3D ' * F$ ' E' 3 340' 8 H-C3' N3EC3D' -ED34' F C' N ' F343' CF$ ' ^ &' ' NHE $ E' <E3' F-ED43D' I $ 3E C_' Q3' $' 43C D3E ' I FOC N $E ' ?-423HE ' H4' 1H F3N$40' ' $ED' 3 340' C-NF' 8 H-C3' NHE $ E E2' 3CC' F$E' <E3' F-ED43D' I $ 3E C' ^ E' N$C3' C-NF' 8 H-C3' CF$ ' EH ' Q3' +31 ' QO' $' I FOC N $E ' ?-423HE ' H4' 1H F3N$40_' CF$ ' Q3' C 3D' * N3' E' 3 340' 9 33+' QO' $' I FOC N $E ' ?-423HE ' H4' 1H F3N$40' ($ED' C-NF' 43C D3E ' 3ED$E ' H4' C E2' I FOC N $E ' ?-423HE ' H4' 1H F3N$40' C' F343QO' 43C13N 3 O' 43X- 43D' <EN3' E' 3 340' 9 33+' H' J $+3' $ED' C 2E' $' ? $ 3 J 3E ' H&' F3' 8 3$ F' H&' $ ' F3' I $ 3E C ' $ED' F3' @HED HE' H&' F3' 8 H-C3 ' $NNH4D E2' H' F3' 6H4 J' E' ?NF3D- 3' ^ _' $EE3 3D' H' F C' N ' $ED' C-NF' ? $ 3 J 3E ' CF$ ' Q3' 3E 343D' E' $' BHH+' H' Q3' +31 ' $ ' C-NF' 8 H-C3' $ED' Q3' 432- $4 O' $ D' Q3&H43' F3' C E2' P 3 4H1H $E' @H J J CC HE34C' H4' C H4C ' &H4' F3 4' EC13N HE' $ED' ? 2E$ -43

> N3EC3D'
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WWW ' I 4H D3D' $ $OC ' $ED' Q3' '&-4 F34' 3E$N 3D ' * F$ ' F3E' $EO' 8 H-C3' CF$ ' Q3' N3EC3D' H' 43N3 3' 3CC' F$E' ; 3 3E' EC$E3' I 34CHEC ' F3E' $ED' E' C-NF' @$C3' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' $' P $(H O' H&' F3' C$ D' @H J J CC HE34C' $ ' $EO' P 33 E2' -ED34' F C' N ' H4' $EO' * F433' H&' F3' C$ D' C H4C ' &' F3O ' CF$ ' CH' F E+' & ' H' D 43N ' $ED' 134 J ' F$ ' C-NF' 8 H-C3' CF$ ' Q3' C 3D' QO' F3' I FOC N $E ' ?-423HE ' H4' 1H F3N$40' <EN3' $ ' F3' 3$C ' E' 6H-4' 9 33+C ' EC 3$D' H&' * N3' E 3 340' 9 33+' : I 4H D3D' $ $OC ' F$ ' C-NF' I 34 J CC HE' CF$ ' Q3' E' 9 4 E2' -ED34' F3' 8 $EDC' $ED' ?3$ C' H&' 6 3' H&' F3' C$ D' @H J J CC HE34C' H4' * F433' H&' F3' C$ D' C H4C ' $C' F3' @$C3' J $O' 43X- 43 ' $NNH4D E2' H' F3' 6H4 J' E' ?NF3D- 3' ^% _' $EE3 3D' H' F C' N ' $ED' CF$ ' Q3' C-Q(3N ' ' H' C-NF' 34$ HE' H4' ' 3 HN$ HE' $C' F3' C$ D' @H J J CC HE34C' H4' 5-C ' ' N3C' 43C13N 3 O' C $ ' F E+' & ' $ED' F$ ' C-NF' I FOC N $E ' ?-423HE ' H4' 1H F3N$40' CF$ ' 3E 34' E' $' BHH+' H' Q3' +31 ' &H4' F$ ' I -41HC3' F3' G$ 3' H&' F C' C ' $ED' F3' @HED HE' H&' F3' 8 H-C3 ' $ED' ? $ 3' H&' 8 3$ F' H&' F3' I $ 3E C' F343 E

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WWW ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' 3 340' N3EC3D' 8 H-C3 F E' F3' 5-4 CD N HE' H&' F3' C$ D' C H4C' $11H E 3D' $ ' \ -$4 34' ?3CC HEC' CF$ ' Q3' C 3D' QO' * H' $ ' 3$C ' H& F3' C$ D' C H4C' * F 33' * J 3C' $ '

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=3$4' $
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Q-'EH'QO' F3'@34+'H&' F3'@HJJC' CHE34C'H4' 5-C N3C

F3' 3$C' E' 3 340' =3$4' E' +3' P$EE34' $ED' F' 8+3' I H 34C' $C' C' F343 E Q3&H43' D 43N 3D' $ED' 2 3E' H' F3' P3 4H1H $E' @HJJ CC HE34C' I4H D3D' $ $OC' F$' 'CF$' EH' Q3' $ &-' &H4' F3' @ 34+' H&' F3' C$ D' P3 4H1H $E' @HJJ CC HE34C' H4' @ 34+' H&' F3' I 3$N3' H4' H F34' I 34CHE' $11H E 3D' $C' $&H43C$ D' H' $3N J E1$EO' F3' C$ D' @HJJ CC HE34C' H4' C H4C' HE' $EO' C' H&' EC13N HE' H' $EO' H&' F3' C$ D' 8H-C3C' -E 3CC' F3' Q3' 43 (- 43D' &H4' $EO' C13N $' I -41HC3' QO' C-NF' @HJJ CC HE34C' H4' C H4C

@HJJ CR CHE34C' $ED' C H4C' H EX- 43' $ED' C$ 3' F3 F34' G E3' ?34R N3' C' 134R &H4 J 3D

WWW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' P3 4H1H $E' @HJR J CC HE34C' H&' C H4C' -1HE' F3 4' C3 34$' C $ HEC' F343 E Q3&H43' J 3ER HE3D' CF$' EX- 43' F3 F34' $EO' $ED' $' F$' * J 3C' G E3' ?34 N3' C' 43$D' $ED' 134&H4 J 3D' &H4' F3' Q3E3& ' $ED' @HECH $ HE' H&' $EO' H&' F3' I$ 3E C' H4' F$' ' 3 2H-C' D' F3O' 43N3 3' -ED34' $EO' @ 4N- J C $EN3C' H&' E 3 3N -$' J 14H 3 J 3E ' $ED' F$' G3CN4 1 HE' H&' ; J 1 HO J 3E ' J -C3 J 3E 'H4' ' 3N43$ HE' ^ &' $EO_' C' 14H D3D' &H4' F3 J' ' $ED' C-NF' @HJJ CC HE34C' H4' C H4C' CF$' '$' F3' * J 3' H&' C-NF' C $ HE' C $ 3' E' F3' BHH+' D 43N 3D' QO' F C' N' H' Q3' +31' &H4' 43NH4D E2' F3' C C' H&' F3' P3 4H1H $E' @HJJ CC N$ 34?' H4' C H4C' 43C13N 3 O' F3' ' 3C- ' H&' C-NF' F3 4' EX- 40' F' C-NF' <QC34 $ HEC' $C' F3O' CF$' F E+' -C3&-' H4' E3N3CC$4O' $ED' E' FHC3' 8H-C3C' F343' 'CF$' $113$4' F$' G E3' ?34 N3' C' EH' 134&H4 J 3D' H4' F$' ' 3 2H-C' @HJJ -E N$ HE' F' $EO' P E C 34' C' EH' 134 J 3D' F3' 14H14 3 H4' H4' 43C D3E' ?-134' E 3ED$E' H&' C-NF' 8H-C3' CF$' C $ 3' E' F3' C$ D' BHH+' F3' ' 3$CHE' F343H&

&' EH' 134' H4 J 3D' Q3' I4H14 3 H4' H' C $ 3' F3' ' 3$CHE

I $E' H&' 8H-C3' H' Q3' Q-E2' -1' $ED' @H1O' H&' N' +31 ' $ED' $' 3$NF' C $ HE' @HJJ CC HER 34C' H' J$+3' P E- 3C

WWW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F343' CF$ ' Q3' F-E2' -1' E' CH J 3' NHEC1 N-H-C' I$4' H&' 3 340' N3EC3D' 8H-C3' $' @H1O' H&' F3' I $E' D3 343D' H' F3' P3 4H1H $E' @HJJ CP<E34C' H4' 5-C N3C' $ED' F343' CF$ ' $ CH' Q3' +31' E' 3 340' C-NF' 8H-C3' $' @ E C' I4 E 34 C' @H1O' H&' F C' N' QH-ED' -1' E' $' BHH+' E' F NF' BHH+' F3' C$ D' @HJJ CC HE34C' H4' C H4C' F E' F4 4' 5-4 CD N HEC' $43' F343QO' 43X- 43D' $' 3 340' C#NF' C $ HE' H' J$+3' P E- 3C' E' 9 4 E2' H&' F3' @HED HE' H&' C-NF' 8H-C3' $C' H' F3' @$43' H&' F3' I$ 3E C' F343 E' $ED' $' C-NF' H F34' I$ N- $4C' $C' F3O' CF$' F E+' D3C34 E2' 1&' F3 4' , H N3' H23 F34' F' F3 4' <QC34 $ HEC' F343-1HE' ' $ED' F3' C$ D' P3 4H1H $E' @HJJ CC HE34C' H4' C H4C' CF$' 4$EC J ' $' @H1O' H&' C-NF' P E- 3' H' F3' 43C13N 3' @ 34+' H&' F3' @HJJ CC HE34C' H4' @ 34+' H&' F3' I 3$N3

P E- 3 HQ3' 4$ECN4 Q3D' E H' $ BHH+

WWW W' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' @ 34+' H&' F3' P3 4H1HR $E' @HJJ CC HE34C' $ED' F3' @ 34+' H&' F3' I 3$N3' 43C13N 3 O' H4' H F34' I 34CHE' $11H E 3D' $C' $&H43C$ D' CF$ ' 3E 34' C-NF' @H1O' H&' P E- 3' E' $' BHH+' H' Q3' +31' QO' F3 J' &H4' F$' I -41HC3' $ED' $ ' C-NF' P E- 3C' CF$ ' Q3' $ D' Q3&H43' F3' C$ D' @HJJ CC HE34C' H4' 5-C N3C' 43C13N 3 O' 143 H-C' H' F3' @HEC D34$ HE' H&' $EO' ' 3E3 $' H&' F3' > N3EN3' H' F3' 8H-C3' H' F NF' C-NF' P E- 3C' CF$ ' 43 $ 3

@HEN3$ E2' I34CHEC' &4H J' D' $P CD3 / ' J 3$EH4

W> ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' &' F3' I4H14 3 H4' H4' 43C D3E ' ?-134 E 3ED$E' H&' $EO' N3EC3D' 8<-C3' CF$ ' &4$-D- 3E O' 3HEQ3$' H&' NHEN3$' $EO' I$4' H&' C-NF' 8H-C3' H4' I43 J C3C' H&' $EO I34CHE' D3 $ E3D' F343 E' $C' EC$E3' &4H J' $EO' C-NF' @HJJ CC HE34C' H4' C H4C' H4' &4H J' $EO' P3D N$' H4' H F34' I34CHE' $- FH4 T3D' -ED34' F3 I4H C HEC

U ʽ Kʽ SLʽ M#> ; > P ʽ ʽ @$1ʽ [ʽ V

I4H C HECʽ H&ʽ F Cʽ N ʽ Hʽ C ʽ $EDʽ EC13N ʽ $EOʽ C-NFʽ 8 H-C3ʽ $EDʽ F3ʽ I$ 3E Cʽ NHE& E3Dʽ 343 E ʽ 3 34Oʽ I 34CHEʽ CHʽ H&&3ED E2ʽ CF$ ʽ Q3ʽ D33 J 3Dʽ 2- Oʽ H&ʽ $ʽ P CD3 J 3$EH4

W> ʽ EDʽ Q3ʽ ʽ &-4 F34ʽ 3E$N 3D ʽ * F$ ʽ &ʽ ʽ CF$ ʽ $113$4 ʽ $& 34ʽ * F433ʽ C31$4$ 3ʽ $EDʽ D C EN ʽ C Cʽ Hʽ Q3ʽ J $D3ʽ QOʽ * F433ʽ $ ʽ F3ʽ 3$C ʽ H&ʽ F3ʽ C$ Dʽ P 3 4H1H $Eʽ @H J J CC HE34C ʽ H4ʽ * F433ʽ $ ʽ F3ʽ 3$C ʽ H&ʽ F3ʽ C$ Dʽ C H4C ʽ F Eʽ F3 4ʽ 43C13N 3ʽ 5-4 CD N HEC ʽ * Hʽ H&ʽ F NFʽ @H J J CR C HE34Cʽ $ ʽ F3ʽ 3$C ʽ CF$ ʽ Q3ʽ I FOC N $EC ʽ H4ʽ < E3ʽ H&ʽ F NFʽ C H4C CF$ ʽ Q3ʽ $ʽ P 3D N$ ʽ I 4$N HE34 ʽ 6H-4 33Eʽ G$OCʽ $ ʽ F3ʽ 3$C ʽ Hʽ E 34 3E3ʽ Q3 33Eʽ 3$NFʽ C ʽ F$ ʽ $EOʽ I 34CHEʽ Cʽ D3 $ E3Dʽ Eʽ $EOʽ C-NFʽ 8 H-C3ʽ FH- ʽ C-&& N 3E ʽ @$-C3 ʽ $EDʽ , H N3ʽ F343H&ʽ Eʽ 9 4 E2ʽ CF$ ʽ F$ &3ʽ Q33Eʽ 2 3Eʽ QOʽ F3ʽ @ 34+ʽ H&ʽ C-NFʽ @H J J CC HE34Cʽ H4ʽ C H4Cʽ Hʽ F3ʽ I 4H14 3 H4ʽ H4ʽ 43C D3E ʽ ?-134 E 3ED$E ʽ H&ʽ C-NFʽ 8 H-C3 ʽ $EDʽ Hʽ F3ʽ I 34CHEʽ QOʽ FHC3ʽ - FH4 Oʽ C-NFʽ EC$E3ʽ I 34CHEʽ $Cʽ C3E ʽ ʽ CF$ ʽ $EDʽ J $Oʽ Q3ʽ $ &- ʽ &H4ʽ F3ʽ C$ Dʽ @H J J CC HE34C ʽ $ ʽ < E3ʽ H&ʽ F3 4ʽ X-$4 34 Oʽ P 33 E2C ʽ H4ʽ $ ʽ $ʽ P 33 E2ʽ C13N $ Oʽ C- J J HE3Dʽ $ ʽ 6H-4ʽ N 3$4ʽ G$OCʽ , H N3 ʽ H4ʽ &H4ʽ F3ʽ 5-C N3Cʽ Eʽ \ -$4 34ʽ ?3CC HEC ʽ Hʽ C3 ʽ C-NFʽ I 34CHEʽ $ ʽ Q34 O ʽ H4ʽ H F34 C3ʽ Hʽ $N ʽ -ED34ʽ F3ʽ @ 4N- J C $EN3Cʽ $Cʽ F3ʽ @$C3ʽ J $Oʽ C33 J ʽ Hʽ 43X- 43.ʽ I 4H D3Dʽ $ $OC ʽ F$ ʽ Eʽ N$C3ʽ H&ʽ E3CCʽ H4ʽ H F34ʽ 43CHEQ 3ʽ @$-C3ʽ 143 3E E2ʽ F3ʽ C-QC3X-3E ʽ C $ HECʽ Hʽ Q3ʽ J $D3ʽ QOʽ F3ʽ C$ J 3ʽ P 3D N$ ʽ @H J J CR C HE34Cʽ H4ʽ P 3D N$ ʽ C H4C ʽ F3Eʽ C-NFʽ C-QC3X-3E ʽ C $ HEʽ J $Oʽ Q3ʽ J $D3ʽ QOʽ $EOʽ H F34ʽ P 3D N$ ʽ @H J J CC HE34ʽ H4ʽ P 3D N$ ʽ C H4 ʽ Q- ʽ C-NFʽ I H 34ʽ H&ʽ > Q34$ HEʽ CF$ ʽ EH ʽ 3 3EDʽ Hʽ F3ʽ @$C3ʽ H&ʽ $EOʽ I 34CHEʽ FHʽ CF$ ʽ F$ 3ʽ Q33Eʽ &H-EDʽ D H ʽ -E$ N ʽ H4ʽ H&ʽ -ECH-EDʽ P EDʽ -ED34ʽ $ʽ @H J J CC HEʽ CC-3Dʽ &H4ʽ F$ ʽ I -41HC3ʽ QOʽ F3ʽ > H4Dʽ @F$EN3 H4ʽ H4ʽ H F34ʽ F3ʽ I 34CHEʽ H4ʽ I 34CHECʽ E 4-C 3Dʽ $Cʽ $&H43C$ D ʽ EH4ʽ Hʽ $EOʽ EC$E3ʽ I 34CHEʽ NHE& E3Dʽ -ED34ʽ $EOʽ < 4D34ʽ H4ʽ - FH4 Oʽ H&ʽ 8 Cʽ P $(3C O Cʽ I 4 EN 1$ ʽ ?3N43 $4Oʽ H&ʽ ? $ 3ʽ &H4ʽ F3ʽ 8 H J 3ʽ G31$4 J 3E& ʽ Q- ʽ ʽ CF$ ʽ $EDʽ J $Oʽ Q3ʽ $ &- ʽ &H4ʽ F3ʽ C$ Dʽ P 3 4H1H $Eʽ @H J J CC HE34Cʽ H4ʽ C H4C ʽ &ʽ F3Oʽ CF$ ʽ F E+ʽ & ʽ Hʽ 3 $J E3ʽ E Hʽ F3ʽ ? $ 3ʽ H&ʽ P EDʽ H4ʽ @HED HEʽ H&ʽ $EOʽ C-NFʽ I 34CHE ʽ $EDʽ Hʽ 431H4 ʽ F3 4ʽ < 1 E HEʽ Eʽ 9 4 .ʽ E2ʽ H&ʽ F3ʽ ? $ 3ʽ H&ʽ P EDʽ H4ʽ @HED HEʽ H&ʽ C-NFʽ I 34CHEʽ Hʽ F3ʽ > H4Dʽ @F$EN3 H4ʽ H4ʽ H F34ʽ F3ʽ I 34CHEʽ H4ʽ I 34CHECʽ E 4-C 3Dʽ $Cʽ $&H43C$ D ʽ H4ʽ Hʽ 8 Cʽ P $(3C O Cʽ I 4 EN 1$ ʽ ?3N43 $4Oʽ H&ʽ ? $ 3ʽ &H4ʽ F3ʽ 8 H J 3ʽ G31$4 R J 3E ʽ $Cʽ F3ʽ @$C3ʽ J $Oʽ Q3

MH J J CC HE ʽ 34Cʽ J $Oʽ C3 ʽ $ ʽ Q34 Oʽ I 34CHG? J 14H134 Oʽ NHE& E3D

>

; N31 HEʽ

W> >ʽ EDʽ Q3ʽ ʽ &-4 F34ʽ 3E$N 3D ʽ * F$ ʽ ʽ CF$ ʽ $EDʽ J $Oʽ Q3ʽ $ &- ʽ Hʽ $EDʽ &H4ʽ $EOʽ * Hʽ H4ʽ J H43ʽ H&ʽ F3ʽ C$ Dʽ @H J J CC HE34Cʽ H4ʽ C H4C 43C13N 3 O ʽ -1HEʽ 43N3 E2ʽ E&H4 J $ HEʽ -1HEʽ < $ Fʽ ^ F NFʽ < $ Fʽ F3Oʽ $43ʽ H4ʽ $EOʽ < E3ʽ H&ʽ F3 J ʽ Cʽ F343QOʽ 3 J 1H 343Dʽ Hʽ $D J E C 34_ F$ ʽ F3ʽ I $4 Oʽ J $+ E2ʽ C-NFʽ < $ Fʽ F$ Fʽ @$-C3ʽ Hʽ C-C13N ʽ $EDʽ DH Fʽ 34 Oʽ Q3 3 3ʽ F$ ʽ CH J 3ʽ P $ 14$N N3Cʽ F$ 3ʽ $+3Eʽ 1 $N3ʽ Eʽ $EOʽ 8 H-C3ʽ N3EC3Dʽ -ED34ʽ F Cʽ N ʽ F NFʽ P $ 14$N N3Cʽ N$EEH ʽ Q3ʽ $CN34 $ E3Dʽ QOʽ ; $ J E$ HEʽ $EDʽ EC13N HEʽ D-4 E2ʽ F3ʽ G$O ʽ Hʽ C ʽ $EDʽ Hʽ EC13N ʽ $EOʽ C-NFʽ 8 H-C3ʽ $ ʽ C-NFʽ 8 H-4ʽ H&ʽ F3ʽ , 2F ʽ $Cʽ F3Oʽ CF$ ʽ F E+ʽ &

@H J J CR C HE34C ʽ -1HEʽ E&H4 J $ HEʽ H&ʽ P $ R 14$N N3Cʽ Eʽ $EOʽ N3EC3Dʽ 8 H-C3 ʽ J $Oʽ C ʽ F3ʽ C$ J 3ʽ $ ʽ , 2F

W> ʽ EDʽ Q3ʽ ʽ &-4 F34ʽ 3E$N 3D ʽ * F$ ʽ &ʽ $EOʽ I 34CHEʽ CF$ ʽ $11 Oʽ Hʽ Eʽ N$C3ʽ H&ʽ < E3ʽ H&ʽ F3ʽ P 3 4H1H $Eʽ @H J J CC HE34Cʽ H4ʽ $EOʽ C H4ʽ F Eʽ F3 4ʽ F3 43C13N 3ʽ 5-4 CD N HEC ʽ Eʽ H4D34ʽ Hʽ Q3ʽ E&H4 J 3Dʽ F3 F34ʽ $EOʽ 1$4 ʽ 1$4 NW4ʽ N- $4ʽ I 34CHEʽ Cʽ NHE& E3Dʽ F343 E ʽ $EDʽ F3ʽ C$ Dʽ @H J J CC HE34ʽ H4ʽ I$ 3E ʽ Cʽ Eʽ C H4ʽ @HE& E3 J 3E

ʽ Iʽ

F3 @H J J C C HE34C KN J$O 2 3 $E <4D34 H F3 @ 34+ FH CF$ &-4E CF F3 E&H4 J $R HE

C H4 CF$ F E+ 43CHEF 3 H 134 J C-NF EX- 4O H Q3 J $D3 $ED CF$ C 2E $E <4D34 D 43N 3D H F3 @ 34+ H& F3 @H J J CC HE34C H4 @ 34+ H& F3 (I3$N3 H4 H F34 I34CHE $11H E 3D $C $&H43C$ D &H4 F$ I -41HC3 F3 C$ D @ 34+ H& F3 @H J J CC HE34C H4 @ 34+ H& F3 I3$N3 H4 H F34 134CN $11H E 3D $C $&H43C$ D C F343QO 43X- 43D -1HE F3 ' 3N3 1 H& C-NF <4D34 $ED -1HE I $0 J 3E H& F3 ?- J H& ?3 3E ?F E2C $ED EH J H43 &H4 Q C * 4H-Q 3 H J $+3 ?3$4NF $ED & CF$ $113$4 -1HE ?3$4NF F$ F3 I34CHE CH EX- 43D $& 34 C H4 F$C F E F3 $C * 3 3 PHF FC Q33E NHE& E3D E $EO H& F3 C$ D 8H-C3C F3 C$ D @ 34+ H& F3 @H J J CC HE34C H4 @ 34+ H& F3 I3$N3 H F34 I34CHE $11H E 3D $C $&H43C$ D CF$ D3 O34 H F3 I34CHE CH $11 O E2 E 9 4 E2 F3 , $ J 3 H& F3 I4H14 3 H4 H4 43C D3E ?-134 E 3ED$E E FHC3 8H-C3 F3 I34CHE CH EX- 3D $& 34 C H4 F$C Q33E NHE& E3D F3 ? -$ HE H& C-NF 8H-C3 $ED ^ & 43X- 43D_ $ @H1O H& F3 <4D34 $ED P3D N$ @34 & N$ 3C -1HE F NF C-NF I34CHE $C 43N3 3D E H C-NF 8H-C3

EE-$ '31H4 H& 8H-C3C H Q3 J$D3 H F3 >H4D @F$ER N3 H4 KN

W> ED Q3 &-4 F34 3E$N 3D * F$ F3 P3 4H1H $E @H J J CR C HE34C CF$ E F3 PHE F H& 5* 3 E 3 34O =3$47J $+3 $ '31H4 H& F3 ? $ 3 $ED @HED HE H& &H3 C3 34$ 8H-C3C N3EC3D QO F3 J -ED34 F C N $ED $ CH $? H F3 @$43 H& F3 I$ 3E C F343 E $ED C-NF H F34 I$4 N- $4C $C F3O CF$ F E+ D3C34 E2 H& , H N3 H F3 >H4D @F$EN3 H4 H4 H F34 F3 I34CHE H4 I34CHEC E 4-C 3D $C $&H43C$ D

*4$ECN4 1 H& P E- 3C H& C H4C H $ 8H-C3C H Q3 C3E H F3 @ 34+ H& F3 @H J J CR C HE34C QO F3 @ 34+ H& F3 I3$N3 KN

W> ED Q3 &-4 F34 3E$N 3D * F$ &H3 @ 34+C X& F3 I3$@3 F E F3 4 43C13N 3 5-4 CD N HEC CF$ E F3 PHE F H& ? ! E 3 34O =3$4 1431$43 $ NH J 1 3 3 *4$ECN4 1 H& F3 P E- 3C H& F3 C$ D C H4C HE FA 4 C3 34$ C $ HEC H F3 C3 34$ 8H-C3C F E F3 4 43C13N 3 5-4 CD N HEC N3EC3D -ED34 F C N F NF *4$ECN4 1 CF$ Q3 4$EC4 3D QO F3 43C13N 3 @ 34+C H& F3 I3$N3 HE H4 Q3&H43 F3 6 4C G$O H& / 3(31 +] , F3 @ 34+ H& &H3 P3 4H1H $E @H J J CC HE34C FH CF$ 143C34 3 F3 C$ J 3 &H4 F3 EC13N HE H& F3 C$ D P3 4H1H $E @H J J CC HE34C 8 C P$(3C O C I4 EN 1$?3N43 $4O H& ? $ 3 &H4 F3 8H4$3 G31$4 J 3E &H3 >H4D @F$EN3 H4 H4 H F34 F3 I34CHE H4 I34CHEC E 4-C 3D $C $&H43C$ D $ED $EO H F34 I34CHE F$ E2 - FH4 O &4H J F3 J 43C13N 3 O

, H I34CHE H 43N3 3 $EO EC$E3 I34CHE E H $E -E N3EC3D 8H-C3 FH- $E <4D34 $ED P3D N$ @34 & N$ 3C

W> ED Q3 &-4 F34 3E$N 3D * F$ EH I34CHE ^3 N31 F3 Q3 $ M-$4D $E H4 '3 $ 3 FH DH3C EH D3 8 3 $-O I4H& &4H J F3 @F$423 H4 $ @H J J 33 1H E 3D QO F3 J 4D @F$EN3 H4 H4 H F34 F3 I34CHE H4 I34CHEC E 4-C 3D $C $&H43C$ D_ CF$ -ED34 1$ E H& Q3 E2 D33&E3D 2- O H& P CD3 J 3$EH4 43N3 3 H QH$4D H4 HD23 E $EO 8H-C3 EH N3EC3D -ED34 F C N H4 $+3 F3 @$43 H4 @F$423 H& $EO EC$E3 I34CHE FH- & 4C F$ E2 F3 +3 <4D34 $ED P3D N$ @34 & N$ 3C $C $43 43X- 43D X &H3 D J CC HE H& $E] C$E3 I34CHE ^EH Q3 E2 $ I$4 CF I$-134 I$ 3E_ E H $ N3EC3D 8H-C3

@H1O H& C-NF <4D34 $ED @34 & N$ 3C H Q3 C3E H @ 34+ H&

W> ED Q3 &-4 F34 3E$N 3D * F$ 3 34O I34CHE ^3 N31 $C $&H43C$ D_ FH CF$ 4&3N&3 3 H QH$4D <4 HD23 E $EO 8H-C3 EH N3EC3D -ED34 F C N <4 $+3 &H3 @$43 H4 @F$423 H& $EO EC$E3 P$ 3 H4 63 J $ 3 I&34?HE CF$ F E * 3 3 @$ 3ED$4 PHE FC E3

$& 34' &' C-NF' EC$E3' I34CHEC' 43C13N 3 O' CF$ ' EH ' 143 H-C O' F$ 3' 43 -4E3D' H' F3 4' H E' H4' -C-$' I $N3' H&' QHD3' 4$EC J ' H' F3' @ 34+' H&' F3' P 3 4H1H $E' @H J J CC HE34C' $' @H1O' H&' C-NF' <4D34' $ED' P 3D N$' @34 & N$ 3C' C3$ 3D' $ED' EDH4C3D' ` I4 $ 3' $ L]' $HD EH ' H' Q3' EC13N 3D' QO' $EO' I34CHE' 3 N31 ' QO' F3' C$ D' @ 34+' H4' H F34' I34CHE' $- FH4 T3D' QO' F3' >H4D' @F$EN3 H4' H4' 8 C' P $(3C O C' ?3N43 $4O' H&' ? $ 3' &H4' F3' 8 H J 3' G31$4 J 3E ' $ED' 3 34O' C-NF' I34CHE' ^3 N31 ' $C' $&H43C$ D_' CF$ ' $ CH' ^ &' C-NF' EC$E3' P $ 3' H4' 63 J $ 3' I34CHE' CF$ ' EH ' F$ 3' Q33E' 43 J H 3D_' HE' F3' 6 4C ' G$O' H&' ? #3 ' 1' 3 34O' C-NR N33D E2' =3$4' H4' F E' ?3 3E' N 3$4' G$OC' $& 34' 4$ECE$ ' H' -NF' @ 34+' $' @34 & N$ 3' C 2E3D' QO' * H' I FOC N $EC' ?-423HEC' H4' 1H F3R N$4 3C' D3CN4 Q E2' F3' F3E' $N -$' ? $ 3' H&' P ED' H&' C-NF' EC$E3' I34CHE' $ED' H' Q3' EDH4C3D' `' I4 $ 3' ' 3 - 4 E $ E D' $ ' C-NF' <4D34C P 3D N$' @34 & N$ 3C' $ED' ' 3 -4EC' CF$ ' Q3' 143C34 3D' QO' F3' C$ D' @ 34+' $ED' CF$ ' Q3' H13E' HE O' H' F3' EC13N HE' H&' 8 C' P $(3C O C' I4 EN 1$' ?3N43 $4O' H&' ? $ 3' &H4' F3' 8 H J 3' G31$4 J 3E ' $ED' H&' F3' >H4D' 8 2F' @F$EN3 H4' H4' H F34' F3' I34CHE' H4' I34CHEC' E 4-C 3D' $C' $&H43C$ D ' $ED' H&' C-NF' H F34' I34CHEC' $C' CF$ ' Q3' $- FH4 T3D' H' EC13N ' F3' C$ J 3' QO' $E' <4D34' -ED34' F3 4' 43C13N 3' 8 $EDC' $ED' ?3$ C ' $ED' 3 34O' I34CHE' ^3 N31 ' $C' $&H43C$ D_' FH' CF$ ' 43N3 3' &H' QH$4D' H4' HD23' E' $EO' 8 H-C3' EH ' N3EC3D' -ED34' F C' N ' <4 $+3' F3' @$43' H4' @F$423' H&' $EO' EC$E3' I34CHE' E' $EO' C-NF' 8 H-C3 ' $ED' FH' CF$ ' H J ' H' 4$EC J ' C-NF' @H1 3C' H&' <4D34C' $ED' @34 & N$ 3C' CF$ ' Q3' D33 J 3D' 2- O' H&' $' P CD3 J 3$EH4 ' $ED' F3' @ 34+' H&' F3' P 3 4H1H $E' @H J J CC HE34C' E' >-E$NO' F' F3' ?$EN HE' E' 9 4 E2' H&' 8 C' P $(3C O C' I4 EN 1$' ?3N43 $4O' H&' ? $ 3' &H4' F3' 8 H J 3' G31$4 J 3E ' C' F343QO' 43X- 43D' H' 3E&H4N3' F3' D-3' ; 3N- HE' H&' F C' I4H C HE' H&' >$ ' ' $ED' F3' CF$ ' Q3' 1$ D' H4' $ H 3D' C-NF' $' ?- J' H&' P HE3O' &H4' $EO' I4HN33D E2C' F343$QH-' $C' 8 C' P $(3C O C' I4 EN 1$' ?3N43 $4O' H&' ? $ 3' &H4' F3' 8 H J 3' G31$4 J 3E ' CF$ ' F E+' & ' $ED' H' Q3' NF$423D' -1HE' F3' @HE E23ENO' 6-ED' H&' F3' 8 H J 3' <&& N3

: " ' @HJEEC' &E H4C3D '14 $3' ? + NN

W> ' I4H D3D' $ $OC' $ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' ' CF$ ' $ED' J $O' Q3' $ &-' &H4' F3' >H4D' 8 2F' @F$EN3 H4' H4' H F34' F3' I34CHE' H4' I34CHEC' E 4-C 3D' $C' $&H43C$ D' H4' &H4' 8 C' P $(3C O C' I4 EN 1$' ?3N43R $4O' H&' ? $ 3' &H4' F3' 8 H J 3' G31$4 J 3E ' E' N$C3' H&' $EO' I34CHE' Q3 E2' NHE& E3D' $C' $' ? $ 3' >-E$ N' H4' -ED34' F3' <4D34' H&' $"O' @4 J E$' @H-4' H&' 5-C N3' &' F3O' CF$ ' F E+' & ' $' $EO' * J 3' H4' * J 3C' QO' $E' <4D34' QO' 3 F34' H&' F3 J' D 43N 3D' H' F3' C$ D' P 3 4H1H $E' @H J J CR C HE34C' H4' H' $EO' H F34' I34CHE' FH J' F3O' CF$ ' F E+' & ' H' $11H E ' H' 43X- 43' F3' C$ D' P 3 4H1H $E' @H J J CC HE34C' H4' H F34' I34CHE' CH' H' Q3' $11H E 3D' H' C ' $4 D' 3 $ J E3' $EO' I34CHE' NHE& E3D' $C' $E' EC$E3' I34CHE' FH' CF$ ' Q3' NHE& E3D' E' F3' @$43' H&' $EO' M-$4D $E' H4' '3 $ 3' H4' H&' $EO' H F34' I34CHE' $ED' H' J $+3' $' '31H4' H' F3' >H4D' @F$EN3 H4' H4' H F34' F3' I34&HE' H4' I34CHEC' E 4-C 3D' $C' $&H43C$ D' H4' H' 8 C' P $(3C O C' I4 EN 1$' ?3N43 $4O' H&' ? $ 3' &H4' F3' 8 H J 3' G31$4 R J 3E ' H&' C-NF' P $ 34C' $C' F3O' CF$ ' Q3' D 43N 3D' H' EX- 43' E H. I4H D3D' $ $OC' F$ ' F3' C$(D' ?3N43 $4O' H&' ? $ 3' CF$ ' F$ 3' EH' - FHR 4 O' -ED34' F C' N ' H' H4D34' $' C $ HE' H4' ; $ J E$ HE' H&' $EO' I$ 3E ' -ED34' F3' @$43' H&' $' @H J J 33' $11H E 3D' QO' F3' >H4D' 8 2F' @F$EN3 H4' H4' H F34' F3' I34CHE' H4' I34CHEC' E 4-C 3D' $C' $&H43C$ D

G #' ' * ' ' #) !' 2 $)!'! ' 5 '2 # ' 9 !'* ! ' $<'* ! !' ' ' ' $= '!(' B /

Q- ' EH ' I$ 3E C' -ED34' $' @H J J 33

VZ[UĉK' SĉM#> ;>P ' ' @$1 [

G #' ' *) !' 2 $)! '! ' 5'2 # ' 5* 5 ' B '! '(!' G '! 2 5' ' # < - ' ; !'

W> W' ED' Q3' '&-4 F34' 3E$N 3D' *F$' 'CF$ '$ED' J$O' Q3' $ &-' &H4' F3' >H4D' @F$EN3 H4' 34' H F34' F3' I34CHE' H4' I34CHEC' E 4-C 3D' $C' $&H43C$ D' H4' 8 C' P$(3C O C' I4 EN 1$' ?3N43 $4O' H&' ? $ 3' &H4' F3' 8HJ3' G31$4 J3E ' &' F3' CF$ ' F E+' & ' H' 3J1 HO' $EO' P3 4H1H $E' @HJR J CC HE34' $11H E 3D' -ED34' F C' N ' H4' P3D N$' H4' H F34' I34CHE ' H' EC13N ' $ED' EX- 43' E H' F3' ? $ 3' H&' $EO' >-E$ N' CO -J ' I-Q N' 8HC1 $ ' H4' H F34' 8H-C3' H4' I $N3' F343 E' $EO' EC$E3' I34CHE ' H4' I34CHE' 43143C3E 3D' H' Q3' EC$E3' CF$ ' Q3' NHE& E3D' $ED' H' 431H4' H' F J' F3' '3C- ' 3D' C-NF' EC13N HE' $ED' EX- 4O' $ED' 3 34O' C-NF' @HJ J CC HE34' P3D N$' H4' H F34' I34CHE' 3J1 HO3D' H' C '$EO' I34CHE' H' EC13N ' $EO' I $N3' $C' $&H43C$ D' CF$ 'Q3' 1$ D' H4' $ H 3D' C-NF' ?-J' H&' PHE3O' &H4' F C' 3ED$EN3' $ED' *4H-Q 3' $C' H' F3' >H4D' @F$EN3 H4' H4' H F34' F3' I34CHE' H4' I34CHEC' E 4-C 3D' $C' $ Q43C$ D' 14' 8 C' P$(3C O C' ?3N43 $4O' H&' &H4' F3' 8HJ3' _31$4 J3E ' CF$ ' C33J' H' Q3' $E' $D3X-$ 3' $ED' 43$CH $Q 3' H $EN3' $ED' C-NF' ; 13EN3O' CF$ ' Q3' NF$423D' HE' F3' @HE E23ENO' 6-ED' H&' F3' 8HJ3' <&& N3

<4D34C' KN' I343 ECDc E' $4CHEC' # O' 2

> ' I4H D3D' $ $OC' $ED' Q3' '&H4 Q34' 3E$N 3D' *F$' E' $ '@$C3C' & NF' $EO' I$ 3E' CF$ ' D 3' H4' F$ 3' Q33E' D CNF$423D' $C' N-43D' PND N$' @34 & N$ 3C' $ED' , H N3C' 43X- 43D' -ED34' F C N ' H4' -ED34' F3' C$ D' 43N 3D' N' H&' F3' , E F' =3$4' H&' F3' ' 3 2E' H&' 8 C' C$ D' $ 3' P$(3C O' J$O' Q3' D3 343D' -1' H' F3' >H4D' @F$EN3 H4' H4' H F34' F3' I34CHE' H4' I34CHEC' E 4-C 3D' $C' $&H43C$ D' H' Q3' N$EN3 3D' $ED' F3' , $J3' H&' ?-NF' I34CHE' H' Q3' FH O' 34$C3D' &4HJ' F3' ' 32 C 34' F343H&' F E' <E3' =3$4' $& 34' F3' I34 HD' H&' C-NF' G3$ F' H4' G CNF$423

-'# (# '! '! ' G #' ' *

!! % ! ' $ ('! ' S<'! !' ! ' -'# (# '! '! ' G #' ' *

> ' I4H D3D' $ $OC' $ED' Q3' ' &-4 F34' 3E$N 3D' *F$' $& 34' F3' 1$CC E2' H&' F C' N ' F3' @ 34+' H' F3' P3 4H1H $E' @HJ J CC HE' $1R 1H E 3D' -ED34' F3' &H4 J 34' N ' &H4' N3EC E2' 8H-C3C' &H4' F3' ' 3N31 HE' H&' EC$E3' I34CHEC' CF$ ' &H4 F F' D3 34' -1' $EO' ' 32 C 34' H&' 14 $ 3' I$ 3E C' F NF' J$O' Q3' E' F C' IHCC3CC HE' H' F3' >H4D' @F$EN3 H4' H4' H F34' I34CHE' H4' I34CHEC' E 4-C 3D' $C' $&H43C$ D' E' H4D34' F$' F3' C$J3' J$O' Q3' N$EN3 3D

5 ' 0 ' 5'2 55 ' ! ' ' ' - ' -? !! ' < ' !2$ ' & % !

> ' ED' &H4' F3' Q3 34' 3E$Q E2' F3' P3 4H1H $E' @HJ J CC HE34C' D' C H4C' 3 3N- E2' F C' N ' H' EX- 43' E H' F3' ?3 34$' P$ 34C' $ED' *F E2C' QO' F C' N ' 43&3443D' H' F3J' Q3' ' 3E$N 3D' *F$' ' CF$ ' Q3' $ &- ' H' $ED' &H4' $EO' *F433' H&' F3' C$ D' @HJ J CC HE34C' <E3' H&' FHJ' CF$ ' EH ' Q3' $' I FOC N $E' H4' F3' C$ D' C H4C' &4HJ' * J3' H' * J3' $C' F3O' CF$ ' C33' <NN$C HE' H' 43X- 43' QO' ?-J JHEC' ^$NNH4D E2' H' F3' 6H4J' E' ?NF3D- 3' ^, _' $EE3 3D' H' F C' N _ ' $EO' I34CHE' H' $113$4' Q3&H43' F3J' H' 3C &O' F3' *4- F' H-NF E2' $EO' P$ 34C' 43R $ E2' H' F3' ; 3N- HE' H&' F3' IH 34C' 2 3E' QO' F C' N ' HE' <$ F' H4' && 4J$ HE' F NF' <$ F' H4' && 4J$ HE' F3' C$ D' @HJ J CC HE34C' H4' C H4C' $43' F343QO' 3J1H 343D' H' $D J E C 34' $ED' 3 34O' I34CHE' FH' CF$ ' EH ' $113$4' Q3&H43' F3' C$ D' @HJ J CC HE34C' H4' C H4C' 1-4C-$E ' H' C-NF' ?-J JHEC' FH- '$CC 2E E2' CHJ3' 43$CHE$Q 3' ; N-C3' &H4' EH ' $113$4 E2' H4' $113$4 E2' CF$ ' 43&-C3' -' Q3' C H4E' @4' 3 $J E3D' $ED' Q3 E2' F343H&' NHE N 3D' Q3&H43' <E3' H&' 8 C' P$(3C O C' 5-C N3C' N & F3' I3$N3' -1HE' E&H4J$ HE' F343H&' -1HE' <$ F' Q3&H43' $EO' C-NF' 5-C N3 ' CF$ ' &H4' 3 34O' C-NF' , 32 3N ' H4' ' 3&-C$' &H4&3 ' $ED' 1$O' C-NF' ?-J' H& PHE3O

U`KS M#> ;>P ' ' @$1' [VZ

PHE30' EH' 3 N33D E2' 6 & O' I H-EDC' EH4' 3CC' F$E' *3E' I H-EDC' $C'
C-NF' 5-C N3' CF$ ' F E+' & '$ED' H4D34

> ' ED'&H4' F3' J H43' 3&&3N -$' I 4HC3N- HE' H&' <&&3EN3C' 1EE CF$F 3' ?-1E$$4O'
QO' C-J J$4O' @HE N HE' -ED34' F C' N ' Q3' ' 3E$N 3D' *F$' F343' @(E N H$'
$EO' I 34CHE' CF$ ' Q3' NF$423D' -1HE' F3' <$ F' H&' $' N43D Q 3' 9 E3CC'
Q3&H43' $' 5-C N3' H&' F3' I 3$N3' &H4' $EO' <&&3EN3' 2 EC' F3' I 4H C HEC'
H&' F C' N ' F3' 5-C N3' J$O' C-J J HE' F3' I 34CHE' NF$423D' H' $113$4'
$'$ * J 3' $ED' I $N3' H' Q3' E$J 3D' E' C-NF' ?-J J HEC' ' $ED' &' F3' CF$ '
EH' $113$4' $NNH4D E2 O' $ED' -1HE' I 4HH&' H&' F3' D-3' ?34 N3' H&' F3'
?-J J HEC' ^QO' 3$ E2' F3' C$J 3' $' F C' $C' H4' -C-$' I $N3' H&' QHD3 _'
F3' C$ D' 5-C N3' F' $EH F34' 5-C N3' J$O' 3 F34' 14HN33D' H' F3$4' $ED'
D3 34J E3' F3' @$C3' H4' CC-3' F C' 9 44E' &H4' $1143F31D E2 C-NF'
I 34CHE' $ED' Q4 E2 E2' F J' Q3&H43' F J' H4' CH J 3' H F34' 5-C N3C' H&' F3'
I 3$N3' $ED' F3' 5-C N3C' Q3&H43' FH J' F3' I 34CHE' CH' NF$423D' CF$ '
$113$4' H4' Q3' Q4H-2F' CF$ ' 14HN33D' H' F3$4' $ED' D3 34J E3' F3' @$C3

> ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' 5-C N3C' Q3&H43' FH J' $EO' ?H 4$' H&'
I 34CHE' CF$ ' Q3' NHE N 3D' H&' $EO' <&&3EN3' 2 EC' F C' N ' J$O' N$-C3'
F3' @HE N HE' H' Q3' D4$ E' -1' E' F3' &H H E2' 6H4 J' H&' 9 14DC' 1 '
E' $EO' H F34' 6H4 J' H&' 9 H4DC' H' F3' C$J 3' ;& 3N ' $C' F3' @$C3' J$O'
43X- 43' $ED' F$' EH' @HE N HE' -ED34' F C' N ' CF$ ' Q3' H D' F4H-2F'
9 $E' H&' 6H4 J .

' * ;' '43 J 34$Q343D(' *F$' HE' F3' G$O' H&
7 E' F3' =3$4' H&' H-4' >H4D
7 $' E' F3' @H-E O' H&' / " ' C
' NHE N 3D' Q3&H43' -C' H&' 8 C' P$(3C O C' 5-C N3C' H&' F3
7 I 3$N3' &H4' F3' C$ D' @H-E O' &H4' F$' F3' F3' C$ D
7 D D' $ED' 3' F3' C$ D
7 $D(-D23' F3' C$ D' &H4' F C
' <&&3EN3' H' 1$O' F3' ?-J' H&

> ' ED' F343$C' ' C' EH' E 3ED3D' QO' F C' N ' H' 2 3' F3' I 4H' , '
14 3 H4C' H4' 43C D3E' ?-134 E 3ED$ ' H&' $EO' N3EC3D' 8 H-C3' H4' $EO' " '
H F34' I 34CHE' NHEN34E3D' E' NHE& E E2' $EO' H&' 8 C' P$(3C O C' ?-Q(3N C' NH-4C3'
$EO' E3 '5-C & N$ HE' &4H J' F3 4' Q3 E2' $Q 3' H' 14H 3' F$' F3' I 34CHE' NH J J HE'
CH' NHE& E3D' F$C' Q33E' C3E ' F343' QO' C-<F' <4D34' $ED' -1HE' C-NF' P 3D N$' >$ '
@34 & N$ 3C' $C' $43' 43X- 43D' QO' F C' N ' Q3' ' F3 3#P43' 3E$N 3D' *F$'
E' $' I 4HN33D E2C' F NF' CF$ ' Q3' F$D' -ED34' 8 C' P$(3C O C' 9 4 ' H&'
8$Q3$C' NH41-C' $ED' E' $' ED N J 3E C' E&H4J$ HEC' $ED' N HEC'
$ED' H F34' I 4HN33D E2C' F$' CF$ ' Q3' 143&3443D' , ' Q4H-2F' 2 EC' $EO'
I 34CHE' &H4' NHE& E E2' H4' 43$ E2' $EO' H&' 8 C' P$(3C O C' ?-Q(3N C'
EC$E3' H4' 43143C3E 3D' H4' $ 323D' H' Q3' EC$E3' F3' I $4 3C' NH J 1 $ E3D'
H&' CF$ ' Q3' HQ 23D' H' (-C &O' F3 4' I 4HN33D E2C' $NNH4D E2' H' F3'
@H-4C3' H&' F3' @H J J HE' >$ ' E' F3' C$J 3' P$EE34' $C' &' F C' N ' F1D'
EH' Q33E' J$D3

> ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' '$ '@H J 1 $ E C' $ED' E&H44$$' = (2' '5'
HEC' H&' $ED' &H4' <&&3EN3C' 2 EC' F C' N ' F343' $EO' 6 E3C' I 3E$ 3C' '! '
H4' 6H4&3 -43C' $43' J 1HC3D' QO' 4 -3' H&' F C' N ' $ED' EH' H F34 C3' H& bcbcbb'
14H D3D' &H4' CF$ ' $ED' J$O' Q3' J$D3' Q3&H43' <E3' H4' J H43' 5-C N3C' H&'
F3' I 3$N3' &H4' F3' @H-E O' H4' I $N3' F343 E' F3' <&&3EN3' CF$ ' Q3' NH J R
J 3D' $ED' C-NF' 5-C N3' C' F343QO' $- FH4 T3D' $ED' 3 J 1H 343D' H' $+3'
\' ' @ E U$-33

NH2E T$EN3ʻ F343H& ʻ $EDʻ Hʻ CE $EHHEʻ F3ʻ I34CHEʻ NH J 1 $ E3Dʻ H&ʻ Hʻ $113$4ʻ Q3&H43ʻ * Hʻ H4ʻ J H43ʻ 5-C N3Cʻ H&ʻ F3ʻ I 3$N3 ʻ $EDʻ -1HEʻ @H J 1 $ E ʻ -1HEʻ <$ Fʻ Hʻ CC-3ʻ F3 4ʻ 9 44E ʻ &H4ʻ F3ʻ 1143F3EC HEʻ H&ʻ $EOʻ C-NFʻ I34CHE ʻ $EDʻ -1HEʻ Q3ʻ $113$4 E2ʻ H4ʻ EH ʻ $113$4 E2ʻ H&ʻ C-NFʻ I34CHEʻ 1-4R C-$E ʻ Hʻ C-NFʻ ?- J J HEC ʻ H4ʻ -1HEʻ C-NFʻ I34CHEʻ Q3 E2ʻ $1143F3ED3Dʻ Fʻ C-NFʻ 9 44E ʻ Hʻ F3$4ʻ F3ʻ P $ 34ʻ H&ʻ 3 34Oʻ C-NFʻ @H J 1 $ E ʻ $EDʻ E&H4 J $R HE ʻ QOʻ ; $ J E$ HEʻ H&ʻ $EOʻ 9 E3CCʻ -1HEʻ <$ F ʻ $EDʻ Hʻ J $+3ʻ $EOʻ C-NFʻ G3 34 J E$ HEʻ F343HEʻ $Cʻ C-NFʻ 5-C N3Cʻ CF$ ʻ F E+ʻ 14H134ʻ ($ED ʻ -1HEʻ @HE N HEʻ H&ʻ $EOʻ I34CHEC ʻ C-NFʻ 5-C N3Cʻ CF$ ʻ $EDʻ $Oʻ CC-3ʻ $ʻ 9 44E ʻ -ED34ʻ F3 4ʻ 8 $EDCʻ $EDʻ ?3$ Cʻ &H4ʻ 3 O E2ʻ F3ʻ 6 E3 ʻ I 3E$ O ʻ H4ʻ 6H4&3 -43ʻ QOʻ 4 -3ʻ H&ʻ F Cʻ N ʻ J 1HC3Dʻ &H4ʻ C-NFʻ <& EN3 ʻ QOʻ G C 3CCʻ $EDʻ ?$ 3ʻ H&ʻ F3ʻ MHHDCʻ $EDʻ @F$ 3 Cʻ ^D / F3ʻ I34CHEʻ CHʻ NHE N 3D ʻ $EDʻ ʻ CF$ ʻ $EDʻ J $O ʻ F3ʻ $ &- ʻ &H4ʻ $EOʻ C-NFʻ 5-C N3ʻ Hʻ H4D34ʻ $EOʻ I34CHEʻ CHʻ NHE N 3Dʻ Hʻ Q3ʻ D3 $ E3Dʻ $EDʻ +31 ʻ Eʻ F3ʻ @-C HDOʻ H&ʻ $FOʻ @HEC $Q 3ʻ H4ʻ H F34ʻ I 3$N3ʻ <&& N34ʻ -E ʻ ʻ 3 -4Eʻ N$Eʻ Q3ʻ NHE 3E 3E Oʻ J $D3ʻ Hʻ C-NFʻ 9 44E ʻ H&ʻ G C 43CC ʻ -E 3CCʻ F3ʻ C$ Dʻ <&&3ED34ʻ CF$ ʻ 2 3ʻ C-&& N 3E ʻ ?3N-4 O ʻ Hʻ F3ʻ ?$ C&$N HEʻ H&ʻ C-NFʻ 5-C N3 ʻ &H4ʻ Q Cʻ 113$4$EN3ʻ Q3&H43ʻ F3ʻ C$ Dʻ 5-CR N3ʻ HEʻ C-NFʻ G$Oʻ $Cʻ CF$ ʻ Q3ʻ $11H E 3Dʻ &H4ʻ F3ʻ ʻ 3 -4Eʻ H&ʻ C-NFʻ 9 44E ʻ H&ʻ G C 43CC ʻ ?-NFʻ G$Oʻ EH ʻ Q3 E2ʻ J H43ʻ F$Eʻ ?3 3Eʻ G$OCʻ &4H J ʻ F3ʻ * J 3ʻ H&ʻ $+ E2ʻ $EOʻ C-NFʻ ?3N-4 O ʻ $EDʻ F NFʻ ?3N-4 Oʻ F3ʻ C$ Dʻ 5-C N3ʻ Cʻ F343QOʻ 3 J 1H 343Dʻ Hʻ $+3ʻ QOʻ $Oʻ H&ʻ ʻ 3NH2E T$EN3ʻ H4ʻ H F34 C3ʻ ʻ Q- ʻ &ʻ -1HEʻ F3ʻ ʻ 3 -4Eʻ H&ʻ C-NFʻ 9 44E ʻ H&ʻ G C 43CCʻ ʻ CF$ ʻ $113$4ʻ F$ ʻ EHʻ C-&& N 3E ʻ G C 43CCʻ N$Eʻ Q3ʻ Q$Dʻ F343-1HEʻ Hʻ 3 Oʻ F3ʻ C$ Dʻ I 3E$ Oʻ H4ʻ 6H4&3 -43ʻ $EDʻ C-NFʻ @HC Cʻ EDʻ @F$423Cʻ $Cʻ $&H43C$ D ʻ $EDʻ F3ʻ C$ J 3ʻ CF$ ʻ EH ʻ Q3ʻ &H4 F Fʻ 1$ D ʻ H4ʻ E ʻ N$C3ʻ ʻ CF$ ʻ $113$4ʻ Hʻ F3ʻ ?$ C&$NR HEʻ H&ʻ C-NFʻ 5-C N3 ʻ 3 F34ʻ QOʻ F3ʻ @HE&3CC HEʻ H&ʻ F3ʻ <&&3ED34ʻ H4ʻ H F34 C3 ʻ F$ ʻ F3ʻ <&&HED34ʻ F$ Fʻ EH ʻ C-&& N 3E ʻ MHHDCʻ $EDʻ @F$ 3 Cʻ F343-1HEʻ F3ʻ C$ Dʻ I 3E$ 3C ʻ 6H4&3 -43C ʻ 6 E3C ʻ @HC C ʻ $EDʻ @F$423Cʻ J $Oʻ Q3ʻ 3 3Dʻ -ED34ʻ $ʻ 9 44E ʻ H&ʻ G C 43CC ʻ C-NFʻ 5-C N3ʻ CF$ ʻ EH ʻ Q3ʻ 43X- 43Dʻ Hʻ CC-3ʻ C-NFʻ 9 44E ʻ H&ʻ G C 43CC ʻ $EDʻ F343-1HEʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ C-NFʻ 5-C N3 ʻ $EDʻ Q3ʻ Cʻ F343QOʻ $- FH4 T3Dʻ $EDʻ 43X- 43D ʻ QOʻ 9 44E ʻ -ED34ʻ Q Cʻ 8 $EDʻ $EDʻ ?3$ ʻ Hʻ NH J J ʻ C-NFʻ <&&3ED34ʻ Hʻ F3ʻ @H J J HEʻ M$H ʻ H4ʻ 8 H-C3ʻ H&ʻ @H443N HEʻ &H4ʻ $EOʻ * 34 J ʻ EH ʻ 3 N33D E2ʻ * F433ʻ @$ 3ED$4ʻ P HE FC ʻ -E 3CCʻ C-NFʻ I 3E$ Oʻ H4ʻ 6H4&3 -43 ʻ $EDʻ $ ʻ 43CHEQ 3ʻ @F$423Cʻ $ 3ED E2ʻ F3ʻ ʻ 3NH 34Oʻ F343H& ʻ CF$ ʻ Q3ʻ CHHE34ʻ 1$ Dʻ $EDʻ C$ C& 3D ʻ $EDʻ $ ʻ C-NFʻ 6 E3C ʻ I 3E$ 3C ʻ $EDʻ 6H4&3 -43C ʻ F3Eʻ 43NH 343D ʻ CF$ ʻ Q3ʻ 1$ Dʻ E Hʻ F3ʻ 8 $EDCʻ H&ʻ F3ʻ < 34C334Cʻ H&ʻ F3ʻ I HH4ʻ H&ʻ F3ʻ I $4 CFʻ F343ʻ F3ʻ <&&3EN3ʻ CF$ ʻ Q3ʻ NH J J 3D ʻ $EDʻ F3ʻ < 341 -Cʻ ^ &ʻ $EO ʻ $4 C E2ʻ &4H J ʻ C-NFʻ G C 43CCʻ $EDʻ ?$ 3 ʻ $& 34ʻ I $O J 3E ʻ H&ʻ F3ʻ I 3E$ O ʻ $EDʻ F3ʻ @HC Cʻ $EDʻ @F$423Cʻ $ 3ED E2ʻ F3ʻ C$ J 3 ʻ CF$ ʻ Q3ʻ 43 -4E3D ʻ -1HEʻ G3 J $ED ʻ Hʻ F3ʻ < E34ʻ H&ʻ F3ʻ MHHDCʻ $EDʻ @F$ 3 Cʻ CHʻ D C 4$ E3D ʻ

ʻʻ > ʻ I4H D3Dʻ $ $OC ʻ $EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ * F$ ʻ $#Oʻ I34CHEʻ
! ʻ K ʻ ! ʻ F E+ E2ʻ F J C3 &ʻ $224 3 3Dʻ QOʻ $EOʻ <4D34ʻ H4ʻ G3 34 J E$ HEʻ H&ʻ $EOʻ
) 5-C N3ʻ H&ʻ F3ʻ I 3$N3ʻ Eʻ 1-4C-$EN3ʻ H&ʻ F Cʻ N ʻ J $O ʻ F Eʻ 6H-4ʻ @$ 3ED$4ʻ P HE FCʻ $& 34ʻ C-NFʻ <4D34ʻ J $D3ʻ H4ʻ 2 3E ʻ NH J 1 $ Eʻ Hʻ F3ʻ 5-C N3Cʻ H&ʻ F3ʻ I 3$N3ʻ $ ʻ F3ʻ M3E34$ ʻ H4ʻ \ -$4 34ʻ ?3CC HECʻ H&ʻ F3ʻ I 3$N3ʻ Hʻ Q3ʻ F3 Dʻ Eʻ $EDʻ &H4ʻ F3ʻ @H-E Oʻ F343 Eʻ F3ʻ <&&3EN3ʻ CF$ ʻ Q3ʻ NH J J 3D ʻ F3ʻ I34CHEʻ 113 E2ʻ F$ E2ʻ & 4C ʻ 2 3Eʻ $ ʻ 3$C ʻ 6H-4 33Eʻ N 3$4ʻ G$OCʻ , H N3ʻ Eʻ 9 4 E2ʻ H&ʻ C-NFʻ 113$ ʻ $EDʻ F3ʻ , $ -43ʻ $EDʻ P $ 34ʻ F343H& ʻ Hʻ F3ʻ I34CHEʻ 113 3Dʻ 2 EC ʻ $EDʻ &H4 F Fʻ $& 34ʻ C-NFʻ , H N3ʻ 3E 34 E2ʻ E Hʻ $ʻ ʻ 3NH2E T$EN3ʻ Q3&H43ʻ CH J 3ʻ 5-C N3ʻ H&ʻ F3ʻ

ʻ 7 Uʻ ʻ I 3$N3

ULK SLM # > ; > P ' ' @$1 [

I 3$N3' F * H C-&& N 3E ' ?-43 3C' NHED HE3D H 4O C-NF 113$ '
$ED H $Q D3 F3 <4D34 $ED $4D H& F3 C$ D @H-4 ' F343-1HE ' $ED
F3 C$ D 5-C N3C ' -1HE F3 I 4HH& H& C-NF , H N3 $ED ' 3NH2E T$EN3
F$ E2 Q33E 2 3E $ED 3E 343D E H 'CF$ ' E $ C- J J $4O 9 $O 'F3$4 $ED
D3 34 J E3 C-NF @H J 1 $ E ' $ ' C-NF M3E34$ ' H4 \ -$4 34 ?3CC HEC H& F3
I 3$N3 H Q3 F3 D &H4 F3 C$ D @H-E O ' H4 ' & F3O F E+ 14H134 '
$D(H-4E F3 8 3$4 E2 F343H& -E ' F3 E3 ' M3E34$ ' H4 \ -$4 34
?3CC HEC H& F3 I 3$N3 H Q3 F3 D &H4 F3 C$ D @H-E O ' $ED ' & F3O C33
@$-C3 ' J $O J 2$ 3 $EO 6H4&3 -43 H4 6 E3C ' $ED J $O H4D34 $EO
P HE3O H Q3 43 -4E3D F NF CF$ ' F$ 3 Q33E 3 3D 4(1-4C-$EN3
H& C-NF <4D34 H4 G3 34 J E$ HE ' $ED CF$ ' $ED J $O $ CH $ $4D C#NF
&-4 F34 ?$ C&$N HE H Q3 J $D3 H F3 I $4 O E(-43D ' H4 C-NF @HC C
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> ' ED Q3 ' &-4 F34 3E$N 3D ' * F$ ' & $EO N HE H4 ?$ 'CQ$ ' 5 $' '
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@$ 3E $4 P HE FC E3 ' $& 34 F3 6$N 'NH J J 3D ' $ED CF ' Q3 $ D H4
Q4H-2F ' E F3 @H-E O ' @ O ' H4 I $N3 F343 F3 @$-C3 H& N HE
CF$ ' F$ 3 $4 C3E ' $ED EH ' 3 C3 F343 ' $ED F3 G3&3ED$E ' E 3 34O M3E34$ '
C-NF N HE H4 ?- ' CF$ ' $ED J $O $ ' F C ; 3N HE 1 3$D C13N $ O H4 7 ' '
F3 M3E34$ ' CC-3 , H ' M- O ' $ED 2 3 F C N ' $ED F3 C13N $ '
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& F3 C$ J 3 CF$ ' $113$4 H Q3 CH DHE3 ' H4 F$ ' C-NF N HE H& ?- '
CF$ ' Q3 Q4H-2F ' E $EO H F34 @H-E O ' @ O ' H4 I $N3 ' H4 CF$ ' EH '
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$ED -1HE $ 34D N ' Q3 E2 CH &H-ED ' H4 & F3 I $ E && CF$ ' Q3 EHE ' 4 - ' ! '
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2 EC ' F3 I $ E & ' F3E F3 G3&3ED$E ' CF$ ' 43NH 34 * 43Q 3 @HC C '
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> W ' I 4H D3D $ $OC ' $ED ' C F343QO &-4 F34 3E$N 3D ' * F$ ' ' ! ' f
CF$ ' EH ' Q3 $ &- ' &H4 $EO I 34CHE FH J CH3 34 H NH J J 3EN3 ' 14HC3 ' ! '-'- % f
N- 3 ' 3E 34 ' & 3 ' H4 143&34 $EO N HE ' B ' I $ E ' E&H4 J $ HE ' H4 H(3 4 H& '
ED N J 3E ' 2 EC ' $EO I 34CHE ' -ED34 H4 QO 4 -3 H& F C N 'DE 3CC 5 5 0
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P 33 E2C ' H4 QO F3 5-C N3C $ ' F3 4 M3E34$ ' \ -$4 34 ?3CC HEC ' F E
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NH J J 3EN3D ' 3E 343D ' & 3D ' H4 143&3443D QO H4 E F3 %$ J 3 H& $EO
I 34CHE FH J CH3 34 ' ^3 N31 ' $C $&H43C$ D _ F3 C$ J 3 $ED $ ' I 4HN33DR
E2C F343-1HE F$D CF$ ' Q3 E- ' $ED H D ¯ $ED F3 @H-4 ' $ED 5-C N3
F343 H4 Q3&H43 FH J ' C-NF N HE ' B ' I $ E ' E&H4 J $ HE ' H4
ED N J 3E ' C H4 CF$ ' Q3 H4 NH J J 3EN3D ' 14HC3N- 3D ' 3E 343D ' & 3D '
H4 143&3443D ' CF$ ' EH ' 134 J ' H4 C-&&34 $EO I 4HN33D E2C H Q3 F$D (
$ED

$ED' EH' P 3 4H1H $E' @H4$J CC D 3&' 5-C X3' 8' C H4' CF$ ' E' $EOR C3' Q3' $Q 3' H' $EO' @4 J E$' 9 33D E2 ' H4' @ ' N HE' &H4' $EO' ' 3$CHEC' H' Q3' 2 3E' E' F3' B &3N- HE' H&' F C' N '

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>W ' ED' Q3' '&F4 F34' 3E$N 3D' * F$ ' F3' I 4HC3N- HE' &H4' 3 34O' <&&3EN3' -ED34' F C' N ' ^3 N31 ' C-NF' $C' $43' NH J J 3D' F E' F3' 5-4 CD N HE' H&' F3' P 3 4H1H $E' @H J J CC HE34C' H4' C-NF' $C' $43' 1-E CF$Q 3' 9 'C- J J $4O' @HE N HE _ CF$ ' Q3' QO' ED N J 3E ' 143&3443D' H' $' M4$ED' 5-4O' $' F3' CC T3C' H' Q3' F3 D' E' $ED' &H4' F3' @H-E O' F343 E' F3' <&&3EN3' CF$ ' F$ 3' Q33E' NH J J 3D

f' f! ' 8! # ! ' !- - 5' ! ' ' !2 G ' ! ' 2 5 9 : -

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- : 9 9 / #' / ' ' ,' !#&')!' < F1' , ')!' 8 ! ' ,#' #&' L!(3% ,#' , ' I ,3# ' <3# '' /1 %3 1' #&' , !' ! ! ' 3 %%' ,' 5 ,0 &!' , ')!' I !' $ED' # !# #' !' V '* 35! ' #&' I # %' <3# '1' #' ; E2 $ED

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>W ' ED

U K S M # > ; > P @$1 [VZS

>W ED Q3 &-4 F34 3E$N 3D * F$ F C N $ED F3 C3 34$ @H J J 3EN3
P$ 34C $ED * F E2C F343 E NHE $ E3D CF$ @H J J 3EN3 $ED $+3 H& N
3&&3N &4H J $ED $& 34 F3 1$CC E2 H& F C N $ED EH CH1E34 $ED
CF$ NHE E-3 E &H4N3 &H4 F3 * 34 J H& * F433 =3$4C $ED &4H J
F3E@3 H F3 ; ED H& F3 E3 ?3CC HE H& I $4 $ J 3E ($ED CF$ Q3 I -Q N N
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5-C N3C H& F3 I 3$N3 $N E2 E $ED &H4
E \ -$4 34 ?3CC HEC $CC3 J Q 3D 5 DH F343QO N34 &O * F$ H& F3
I $4 CF H& E F3 @H-E O H& F$ F
D3 343D $, H N3 H $ED D31HC 3D F H-4 @ 34+ IH4 @ 34+ H&
F3 I 3$N3m $ I $E $ED G3CN4 1 HE H& $ 8 H-C3 $ED I 43 J C3C 14HR
1HC3D H Q3 N3EC3D &H4 F3 ' 3N31 HE H& EC$E3 I 34CHEC ($ED 3
F$ E2 NHEC D343D $ED $114H 3D F3 C$ J 3 DH F343QO $- FH4 T3 $ED
3 J 1H 34 F3 C$ D / " IH4 @ 2 $C ?-134 E 3ED$E F3 C$ D / "
EH E 3ED E2 H 43C D3 F343 E F J C3 &(m H -C3 $ED 3 J 1 HO F3
8 H-C3 $ED B- D E2C C -$ 3 $ E F3 I $4 CF
H& E F3 @H-E O H& $C $
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63 J $ 3 H4 P $ 3 H4 63 J $ 3 HE Om F343H& H Q3 I $4 CF
I $-134 I $ 3E C ($ D F C > N3EN3 H NHE E-3 E &H4N3 &H4 F3
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E$J3' $ ' &- ' >3E2 F'
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1.)' F3' - FH4 O' H&' F3' $QH 3' ? $ 3 J 3E ' $ED' F3'
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^? 2E3D_' , $ J 3
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' F3' -ED34C 2E3D ' F343QO' N34 &O ' * F$ ' ' C31$4$ 3 O' C 3D' $ED'
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F$ ' NF423Q 3' H' F3' I $4 CF' H&' E' F3
C$ D' @H - E O ' C' H&' -ECH-ED' P ED ' OH-' $43' F343QO' D 43N 3D' H' N$-C3'
F3' C$ D' H' Q3' NHE 3O3D' H' F3' > - E$ N' CO - J
E' F3' @H - E O' H&' b , ' F3' 8 H - C3' H&
$ ' D - O' N3EC3D' &H4' F3
' 3N31 HE' H&' EC$E3' I 34CHECm '
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Q3&H43 J3E HE3D F3E F343-E H 43X- 43D QO F3 5-C N3C H& F3 1H E 3D 43
I3$N3 CH $11H E E2 F J H4 QO $EO H F34 * H 5-C N3C H& F3 I3$N3 &$C E2 H $+3
$N E2 F E F3 C$J3 > J C F3 CF$ Q3 $Q 3 H Q3 NHE N 3D F3 <$ F H4
F343H& &H4 F F Q3&H43 F3 C$ D 5-C N3C CH 43X- 4 E2 F J $ED H E32 3N E2 H
&H4&3 $ED 1$O C-NF ?- J H& PHE3O EH 3 N33D E2 6 3 IH-EDC $C $ 3ED $C
H F3 C$ D 5-C N3C CH 43X- 4 E2 F J CF$ >C33J J33 $ED & $EO
I34CHE Q3 E2 $11H E 3D $?13N $ @HEC $Q 3 $C $&H43C$ D CF$ E32 3N
H4 43&-C3 H $113$4 $ F3 * J3 $ED I $N3 &H4 F NF F3 CF$ Q3 C- J
JHE3D

JHE3D &H4 F3 I-41HC3 H& $+ E2 F3 C$ D <$ F F3 CF$ Q3 $Q 3 H Q3 NHE N 3D F343H&&H4 F F Q3&H43 F3 5-C N3C C1 $11H E E2 F J H4 Q3&H43 $EO H F34 * H 5-C N3C H& F3 I 3$N3 $N E2 F E F3 C$ J 3 > J C $ED H &H4&3 $ED 1$O C-NF ?- J H& P HE30 EH 3 N33DR E2 6 3 I H-EDC $C H F3 ND N E2 5-C N3C CF$ C33 J J 33 -E 3CC C-NF I 34CHE CF$ 14H 3 H F3 ?$ C&$N HE H& F3 C$ D 5-C N3C F$ F3 $C 143 3E 3D QO ? N+E3CC H4 C-NF H F34 -E$ H D$Q 3 NR N D3E $C CF$8 E F3 5-D2 J 3E H& F3 C$ D 5-C 33? Q3 $ C-&& N 3E ; N-C3

I 3E$ O HE

ED Q3 3 $N 3D / *F$ & $EO I 34CHE Q3 E2 $11H E 3D $?13N $ @HEC $Q 3 $C $&H43C$ D $ED Q J E2 N$ 3D #1HE H C34 3 $C

' %!& 5 ?13N $ @HEC $Q 3 $C $&H43C$ D CF$B E32 3N H4 43&-C3 H C34 3 $C C-NF ?13N $ @HEC $Q 3 H4 H HQ3O C-NF $ &- <4D34C $ED G 43NR HEC $C J $O Q3 2 3E H F J &H4 F3 I 34&H4 J $EN3 H& F3 G- 3C H& F C <&& N3 3 34O I 34CHE CH H&&3ED E2 CF$ HE @HE N HE F343H& Q3&H43 $EO * H 5-C N3C H& F3 I 3$N3 &H4&3 $ED 1$O &H4 3 34O C-NF , 32 3N H4 3&-C$ C-NF ?- J H& P HE30 EH 3 N33D E2 6 3 I H-EDC $C H F3 C$ D 5-C N3C CF$ " - J 33 -E 3CC C-NF I 34CHE CF$ 14H 3 H F3 ?$ C&$N HE H& F3 C$ D 5-C N3C F$ F3 $C 143 3E 3D QO ? N+R E3CC H4 C-NF H F34 -E$ H D$Q 3 NN D3E $C CF$ E F3 5-D2 J 3E H& F3 C$ D 5-C N3C Q3 $ C-&& N 3E ; N-C3

$ED 43&-C E2 H C34&3 H4 D CHQ30 E2 <4D34C

5-C N3C J $O C-C13ED H4 D3 34 J E3 F3 ?34 & N3 H& ?13N $ @HEC $Q 3C

W ED Q3 3E$N 3D *F$ F3 5-C N3C FH CF$ F$ 3 $11H E 3D $EO ?13N $ @HEC $Q 3C -ED34 F C N $43 F343QO 3 J 1H 343D H4 F3 5-C N3C $N E2 &H4 F3 J C F E F NF C-NF ?13N $ @HER C $Q 3C CF$ F$ 3 Q33E N$ 3D <- $ $?13N $?3CC HE H Q3 F3 D &H4 F$ I-41HC3 H4 F3 J $(H4 I $4 H& C-NF $C J 3E HE3D 5-C N3C $ C-NF ?13N $?3CC HE $43 F343QO 3 J 1H 343D H C-C13ED H4 D3 34R J E3 F3 ?34 N3C H& $EO H4 $ H& F3 ?13N $ @HEC $Q 3C CH N$ 3D H- $C H F3 C$ D 5-C N3C 43C13N 3 O CF J C33 J J 33 $ED , H N3 H& C-NF ?-C13EC HE H4 G3 34 J E$ HE H& F3 ?34 N3C H& $EO H4 $ H& F3 C$ D ?13N $ @HEC $Q 3C CF$ Q3 &H4 F F 4$EC J 3D QO C-NF 43C13NR 3 5-C N3C H F3 @F 3& ?3N43 $4O H& F3 >H4D > 3- 3E$E H4 H F34 @F 3& MH 34EH4 H4 MH 34EH C H& $!% #& H4 F C G-D34 ?3N43 $4O $ED $ CH H F3 > 3- 3E$E H& F3 @H-E O

E 3 F34 @$C3 , H N3 H Q3 4$ECR J 3D H @F 3& ?3N43R $4O H& >H4D > 3- 3E$E

?13N $ @HER C $Q 3C $& 34 ; 1 4$ HE H& ?34 N3 H D3 34 -1 ? $ 3C 9 3$R 1HEC KH HE d $ E H& I 3E$ O

W ED Q3 3E$N 3D *F$ 3 34O C-NF ?13N $ @HEC $Q 3 CF$ F E <E3 9 33+ $& 34 F3 ; 1 4$ HE H& F C <&& N3 H4 $& 34 Q3 CF$ N3$C3 H FH D $ED 3 34N C3 F3 C$ J 3 1-4C-$E H F C N D3 34 H 34 H F C ?-NN3CCH4 ^ & $EO C-NF CF$ F$ 3 Q33E $11H E 3D_ H4 H F34 C3 H C-NF I 34CHE $ED $ C-NF * J 3 $ED I $N3 $C J $O Q3 D 43N 3D QO $EO 5-C N3 H& F3 I 3$N3 $N E2 &H4 F3 > J C F E F NF C-NF ?13N $ @HEC $Q 3 J $O F$ 3 Q33E N$ 3D H- 3 34O ? $&& 9 3$1HE $ED H F34 4 N 3C F NF CF$ F$ 3 Q33E 14H D3D &H4 C-NF ?13N $ @HEC $Q 3 -ED34 F C N $ED & $EO C-NF ?13N $ @HEC $Q 3 CF$ H J H4 43&-C3 CH H DH F3 CF$ HE @HE N HE F343H& Q3&H43 * H 5-C N3C H& F3 I 3$N3 &H4&3 $ED 1$O &H4 3 34O C-NF <&&3EN3 C-NF ?- J H& P HE30 ## 3 N33D E2 * H I H-EDC $C H F3 NHE 3 E2 5-C N3C CF$ C33 J J 33

I 3E$ O HE CC- E2 H4 43C C E2 $

W> ED Q3 3E$N 3D *F$ & $EO I 34CHE CF$ CC- H4 43C C @HEC $Q 3 $11H E 3D QO 4 -3 H& F C N F C E F3 ; 4 3@# HF

3N- HE H&' F C' <&& N3 ' H4' CF$ ' 14H J H 3' H4' 3ENH-4$23' $EO' H F34' I 34CH$' @HEC $Q 3' HE' CH' H' DH' 3 340' C-NF' I 34CHE' CF$ ' HE' @HE N HE' F343H&' Q3&H43' * H' 5-C N3C' H&' F3' I 3$N3' &H4&3 ' $ED' 1$O' &H4' C-NF' <&&3EN3' $EO' ?-J' EH ' 3 N33D E2' * 3E O' I H-EDC' H4' CF$ ' Q3' $Q 3' H' C-NF' H F34' I -E CF J 3E ' -1HE' @HE N HE' HE' $EO' ED N J 3E ' H4' ER &H4 J $ HE' &H4' C-NF' <&&3EN3' $C' $EO' I 34CHEC' $43' QO' *$ ' $Q 3' H' &H4' CC- E2' $EO' @HEC $Q 3' E' F3' ; 3N- HE' H&' F3' <- 3C' H&' F C' <&& N3

W >' ED' Q3' ' 3E$N 3D' *F$ ' F3' 5-C N3C' H&' F3' I 3$N3' $N E2' &H4' 5-C N3C' J $O' F3' > J C' F E' F NF' $EO' C-NF' ?13N $' @HEC $Q 3' CF$ ' F$ 3' Q33E' 43$CHE' N$ 3D' H-' H' C34 3' $' $' ?13N $' ?3CC HE' H' Q3' F3 D' &H4' F$ ' I -41HC3' ' H4' F3' J $(H4' I $4 ' H&' F3' 5-C N3C' $' C-NF' ?13N $' ?3CC HE ' $43' F343QO' ; 13EN3C' H 3 J 1H 343D' H' H4D34' &4H J' * J 3' H' * J 3' C-NF' 43CHEQ 3' H $EN3C' Q3' 1$ D' H' &H4' F3 4' *4H-Q 3' >HCC' H&' * J 3' $ED' ; 13EN3C' H' Q3' 5 $D' H' C-NF' VL ' ?13N $' @HEC $Q 3' FH' CF$ ' F$ 3' CH' C34 3D' H4' Q3' F3E' C34 E2 ' $C' H' H 30HE ' F3' C$ D' 5-C N3C' H4' C-NF' J $(H4' I $4 ' H&' F3 J' CF$ ' C33 J' 14H134' $ED' @H-E O' *43$' F3' C$ D' 5-C N3C' H4' C-NF' J $(H4' I $4 ' H&' F3 J ' J $O' $ CH' H4D34' F3' C-434' I $O J 3E ' H&' C-NF' ; 13EN3C' $C' J $O' F$ 3' Q33E' EN-443D' E' 14H D E2' ? $ 3C' H4' H F34' E3N3CC$4O' 4 N 3C' &H4' C-NF' ?13N $' @HEC $Q 3C' ' $ED' F3' C$ D' 5-C N3C' CF$ ' J $+3' C-NF' <4D34' &H4' F3' I $O J 3E ' H&' C-NF' H $EN3C' $ED' ; 13EN3C' -1HE' F3' *43$C-434' H&' F3' @H-E O' @H-E O' H&' $' @ O' @H-E O' H&' $' *H E' F E' H4' F E' $EO' I $4 ' H&' F NF' C-NF' ?13N $' @HEC $Q 3C' J $O' F$ 3' C34 3D' FH' C' F343QO' 43X- 43D' H' 1$O' F3' C$ J 3' H-' H&' $EO' I -Q N' P HE3O' F NF' CF$ ' F3E' Q3' E' F C' 8 $EDC' $ED' F3' C$ D' *43$C-434' CF$ ' Q3' $ H 3D' $ ' C-NF' I $O J 3E C' E' F C' NNH-E C

m ' ED' Q3' ' 3E$N 3D' *F$ ' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' F3' M4$ED' 5-4 3C' M4$ED' 5-4O' H&' F3' @H-E O' @H-E O' H&' $' @ O' H4' @H-E O' H&' $' *H E' 143C3E' H' F NF' C-NF' <4D34' CF$ ' 43 $ 3' $ED' 3$NF' C-NF' M4$ED' 5-4O' C' F343QO' 43X- 43D' H' 143C3E' H' Q3' 4$ C3D' H&&' C-NF' @H-E O' @H-E O' H&' $' @ O' H4D343D' H4' @H-E O' H&' $' *H E' H4' $EO' B$4HEO' 8 $ &' B$4HEO' *H E $ED' H4' -ED34' F C' H F34' G C HE' H4' G3EH J E$ HE' H&' >$ED' F E' F NF' C-NF' ?13N $' @HEC $Q 3C' J $O' F$ 3' C34 3D' F3' J H-E ' H&' $ ' ?- J C' CH' H4D343D' H' Q3' 1$ D' -ED34' F3' - FH4 O' H&' F C' N

W ' ED' Q3' ' 3E$N 3D' *F$ ' F3' 5-C N3C' H&' F3' I 3$N3' $CC3 J Q 3D' (-C N3C' H&' $' $EO' ?13N $' ?3CC HE' &H4' $EO' H&' F3' I -41HC3C' J 3E HE3D' E' F C' N ' I3KN3' J $O' CF$ ' F$ 3' I H 34' H' $D(H-4E' F3' C$ J 3' &4H J' * J 3' H' * J 3' $C' F30 CF$ ' F E+' 14H134' ' $ED' F$ ' 3 340' ?13N $' ?3CC HE' F NF' CF$ ' F$ 3' & H J' * J 3' Q33E' $N -$ O' FH D3E' &H4' $EO' H&' F3' I -41HC3C' J 3E HE3D' E' F C' N ' H* --3' CF$ ' Q3' D33 J 3D' $ED' $+3E' H' F$ 3' Q33E' 32$ O' FH D3 ' -E ' F3' NHE 4$4O' CF$ ' Q3' 14H 3D

W ' ED' Q3' ' 3E$N 3D' *F$ ' F3' I 4HC3N- HE' H&' 3 340' <&&3EN3' I 4HC3N- HE' 1-E CF$Q 3' -1HE' C- J J $4O' @HE N HE' QO' 4 -3' H&' F C' N ' CF$ ' Q3' H&' <&&3EN3C' NH J J 3EN3D' F E' * H' @$ 3ED$4' P HE FC' $& 34' F3' @H J J CC HE' H&' NHE 9N E ' F3' <&&3EN3' ! $ED' F$ ' 3 340' I 3E$ O' $ED' 6H4&3 -43' &H4' $EO' <&&3EN3' $ED' G C1HC$' 2 EC ' F C' N ' CF$ ' Q3' 1$ D' H' C-NF' 8 HC1 $ ' E& 4 J $4O' H4' H F34' H&' I 3E$ 3C ' NF$4 $Q 3' EC - HE' C -$ 3' F E' F3' > J C' H&' F3' 5-4 CD N HE' H&' F3' NHE N E2' 5-C N3C' $C' C-NF' NHE N E2' 5-C N3C' J $O' D 43N ' $ED' EH' I 34CHE' CF$ ' QO' 43$CHE' H&' F3' 11 N$ HE' H&' $EO' ?-NF' I 3E$ O' H4'

6H4&3 -43 $C $&H43C$D Q3 D33 J3D $E -NH44 3E 9 E3CC E 14HH&
H& $EO <&&3EN3 2 EC FC N

'3NH 34O H&
I3E$ 3C

W ED Q3 3E$N 3D *F$ F3 5-C N3C H& F3 I3$N3 QO FHJ I34CHE CF$ Q3 ?-J J$4 O NHE N 3D $ED $D(-D23D H 1$O $EO ?-J H& PHE3O &H4 $EO <&&3EN3 2 EC FC N J$O $D(-D23 F$ C-NF I34CHE CF$ 1$O F3 C$J3 3 F34 J J3D $ 3 O H4 F E C-NF I34 HD $C &3 C$D 5-C N3C CF$ F E&3& $ED E N$C3 C-NF ?-J H& PHE3O CF$ EH Q3 1$D F3 * J3 CH $11H E 3D F3 C$J3 CF$ Q3 3 3D QO G C 43CC $ED ?$3 H& F3 MHHDC $ED @F$ 3C H& F3 <&&3ED34 H23 F34 F F3 43CHEQ 3 @F$423C H& C-NF G C 43CC ($ED &H4 9$E H& C 4 & N 3E G C 43CC C-NF <&&3ED34 CF$ Q3 J 14 CHE3D E F3 @HJ JHE M$H H& 8H-C3 H& @H443N HE $C H F3 NHE N E2 5-C N3C CF$ C33 J J33 &H4 $EO *34 J EH 3 N33D E2 <E3 @$ 3ED$4 PHE F F3E F3 ?-J H Q3 1$D CF$ E< 3W333D 6 3 I H-EDC $ED &H4 $EO *34 J EH 3 N33D E2 * H @$ 3ED$4 PHE FC E $EO H F34 @$C3 F3 J 14 CHE J3E H N3$C3 E 3$NF H& F3 @$C3C $&H43C$D -1HE I$O J3E H& F3 ?-J D-3

EH&@HE
HE

W ED Q3 3E$N 3D *F$ F3 5-C N3C H& F3 I3$N3 Q3&H43 FHJ $EO I34CHE CF$ Q3 C J J$& O NHE N 3D &H4 $EO <&&3EN3 2 EC FC N J$O N$-C3 F3 @HE N HE H Q3 D4$ E -1 E (3 &H H E2 6H4 J H& 9 H4DC H4 H F3 +3 ; &&3N (& $ C H C$O _

*<; 43 J3 J Q343D *F$ HE F3 G$O H&
H (E F3 =3$4 H& H-4 >H4D $
E F3 @H-E O H& W 5? C NHE N 3D
Q3&H43 -C ? I $ED * H H& 8 C P$(3C O C 5-C N3C H& F3 I3$N3 &H4 F3 C$D @H-E O &H4 F$ F3 F3 C$D / D D)! !
15!!& 6 !#'! &)! 7 ! &#& R% '! F)!# #& F)! !)!
1 !F 1', !& 1)! I 1! 4! $ED 3 DH $D(-D23 F$
F3 C$D 5 ; CF$ &H4 F3 C$D <&&3EN3 &H4&3 F3 ?-J H&
$ED CF$ 1$O F3 C$J3 J J3D $ 3 O G, CF$ 1$O
F3 C$J3 HE H4 Q3&H43 F3 G$O H& (H
@G Q3 E2 G)! 7 ! 13 ! ,0! #, , ,)! 6 '! 1)! I 1!
4! & # 1 ! #( )! R3#&1 ,)! ,15 %)
') 4%! $#1 3 ,# , F) ') 13')R #!)! (0!# ,)! 4)
55% !& ,)! O1! , 13' ,15 % $# , , ? $#1 3 ,#
1) 55!# M 3E -ED34 H-4 8$EDC F3 G$O $ED =3$4 & 4C
$QH 3 J3E HE3D W I K W5 I

@HE N HEC
EH H Q3
X-$KF3D &H4
9 $E H&
6H4 J

W ED Q3 3E$N 3D *F$ @HE N HE &H4 $EO <&&3EN3 2 EC FC N CF$ Q3 X-$CF3D &H4 9 $E H& 6H4 J H4 Q3 43 JH 3D QO @34 H4$4 H4 H F34 C3 E H $EO H& 8 C P$(3C O C ?-134 H4 @H-4 C H& '3NH4D $ED F$ EH 9$44$E H& @H J J J3E CF$ Q3 F3 D H D QO 43$CHE H& $EO G3&3N F343 E 14H D3D Q3 FJ 3E $ 3 D F$ C &H-ED3D HE $ @HE N HE $ED F343 Q3 $ 2HHD $ED $ D @HER N HE H C-C $E F3 C$J3 $ED F$ F343 $EO G C 43CC $ Q3 J$D3 Q4 3 O E2 $EO PHE3O QO 4 -3 H& F C N F3 G C 43CC C3 & CF$ EH Q3 D33 J3D -E $ &- EH4 F3 I $4 O J$+ E2 Q3 C$J3 Q3 D33 J3D $ *43C1$CC34 HE $NNH-E H& $EO G3&3N H4 9 $E H& 6H4 J E F3 ?-J JHEC @HE N HE 9$ 4$# H& G C 43CC H4 H F34 I 4HN33D E2C 43 $ E2 F343 H EH4 CF$ F3 I $4 O D C 4$ E E2 Q3 D33 J3D $ *43C

UčKŠ'M#> ;>P ' ' @$1' [Z' VVV

1$CC34' 4' # ,' HE' $NNH-E 'H&' $EO' 4432- $4 O' $& 34 $4DC' NH J J 3D'
QO' F J 'Q- ' F3' I 34CHE' $224 3 3D' QO' C-NF' 4432- $4 O' J $O' 43NH 34'
&- '?$ C&$N HE' &H4' F3' C13N $' G$ J $23' ^ &' $EO_' E' $E' N HE' -1HE'
F3' @$C3

W W' ED' Q3' '3E$N 3D' *F$ '$ ' N HEC' $ED' I 4HC3N- HEC' H' Q3' > J $ HE'
NH J J 3EN3D' 2 EC '$EO' I 34CHE' &H4' $EO' F E2' DHE3' E' 1-4C-$EN3' H&' N HEC'
F C' N 'CF$ ' Q3' $ D' $ED' 4 3D' E' F3' @H-E O' ' D E2 '@H-E O' H&' $'
@ O' H4' @H-E O' H&' $' *H E' F343' F3' 6$N ' $C' NH J J 3D ' $ED'
CF$ ' Q3' NH J J 3EN3D' F E' ? ' @$ 3ED$4' P HE FC' $& 34' F3' 6$N '
NH J J 3D ' $ED' EH 'H F34 C3' ' $ED' , H N3' E' 9 4 E2' H&' C-NF' @$-C3'
H&' N HE' CF$ 'Q3' 2 3E' H' F3' G3&3ED$E '<E3' @$ 3ED$4' P HE F' $ '
3$C 'Q3&H43' F3' @H J J 3EN3 J 3E ' H&' F3' N HE' ' $ED' E' $EO' C-NF'
N HE' F3' G3&3ED$E ' J $O' 1 3$D' F3' M3E34$' CC-3 'H4' E' N$C3' H&'
'31 3 E' J $O' $ H ' 23E34$ O' F$ ' F3' MHHDC' $ED' @F$ 3 C' J 3ER
HE3D' E' F3' I $ E & I C' G3N 4 HE' 343' $+3E' QO' 4 -3' H&' F3' N '
$ED' 2 3' F C' N '$ED' F3' C13N $' P$ 34' E' ; D3EN3' $' $EO' *4 $' H' '
Q3' F$D' F343-1HE ' $ED' EH' I $ E && CF$ ' 43NH 34' E' $EO' C-NF'
N HE' &' *3ED34' H&' C-&& N 3E ' J 3EDC' CF$ ' F$ 3' Q33E' J $D3' Q3&H43'
C-NF' N HE' Q4H-2F ' H4' &' $' C-&& N 3E ' ?- J' H&' P HE3O' CF$ ' F$ 3'
Q33E' 1$ D' E H' @H-4 '$& 34' C-NF' N HE' Q4H-2F ' QO' H4' HE' Q3F$ &' H&'
F3' G3&3ED$E ' $ED' &' $' 34D N 'CF$ ' 1$CC' &H4' F3' G3&3ED$E 'E4' F3'
I $ E && CF$ 'Q3NH J 3' , HEC- ' H4' D CNHE E-3' $EO' C-NF' N HE' $& 34'
CC-3' (H E3D 'H4' &' -1HE' G3 J -4434' H4' H F34 C3 ' 5-D2 J 3E ' CF$ 'Q3'
2 3E' 2 EC ' F3' I $ E &&' F3' G3&3ED$E 'CF$ '43NH 34' F C' &- '@HC C'
$C' Q3 33E' H4E3O' $ED' @ 3E ' $ED' F$ 3' F3' +3' ' 3 J 3DO' &H4' F3'
C$ J 3' $C' $EO' G3&3ED$E ' F$ F' QO' >$ ' E' H F34' @$C3C ' $ED' FH-2F' $'
34D N ' CF$ ' Q3' 2 3E' &H4' F3' I $ E && E' $EO' C-NF' N HE ' C-NF'
I $ E && CF$ 'EH 'F$ 3' @HC C' 2 EC ' F3' G3&3ED$E ' -E 3CC' F3' 5-D23'
Q3&H43' FH J' F3' *4 $' CF$ ' Q3' CF$ ' N34 &O' F C' 114HQ$ HE' H&' F3'
N HE '$ED' H&' F3' 34D N 'HQ $ E3D' F343-1HE

WW' ED' Q3' ' 3E$N 3D' *F$ '$E' N ' 1$CC3D' E' F3' 6 4C '=3$4' H&' ' : ' ' H' '
F3' '3 2E' H&' % E2' !, (!' F3' 6H-4 F ' E - 3D' / ' ' ,' #' ! 1!' !('(& (<' &A'
)!' *, F! ' , ' (1 !1' #')!' /55, # !#' , '+5!' ' %' I ,#1 4%!1'
CF$ 'Q3' $ED' F3' C$ J 3' C' F343QO' 4313$ 3D' $C' H' $ ' I $4 C' H&' $!% #&

WW ' ED' Q3' '3E$N 3D' *F$ 'EH F E2' E' F C' N 'NHE $ E3D' CF$ ' > J E2' EC
3 3ED' H' 8#(% #&' H4' +' , % #& N

WW ' I 4H D3D' $ $OC ' $ED' Q3' ' 3E$N 3D' *F$ ' EH F E2' E' F C' N 'EH ' H'
N 'NHE $ E3D' CF$ 'Q3' NHEC 4-3D' H' $Q4 D23' $EO' I H 34C' &H4' 143C34 E2'
F3' 1-Q N' I 3$N3' F3 F34' QO' $11H E E2' @HEC $Q 3C' H4' H F34 C3' (-C N3C'
F NF' $EO' 5-C N3' H4' 5-C N3C' H&' F3' I 3$N3' F$D' QO' >$ ' H4' QO' 4 -3'
H&' $EO' ? $ - 3' H4' ? $ - 3C' Q3&H43' F3' 1$CC E2' H&' F3' C$ D' F343 ER
Q3&H43' 43N 3D' N ' H&' F3' 6 4C '=3$4' H&' F3' '3 2E' H&' % E2' !, (!'
F3' 6H-4 F

><, G<, '.' I 4 E 3D' QO' # + . (/ +' &(+' $ED') * (+ , ' O1 . 223% , . . *@'
I 4 E 34C' H' F3' % E2 C' J HC ' ; N3 3E ' P$(3C O' ' ZZU

, , <ʿ ? ; @# , G<ʿ Kʿ * ; ' * <

M # > ; > P ʿ ʿ ' ; M ?

@ʿ ʿ I ʿ @ W

Eʿ Nʿ&H4ʿC3 E2ʿ $EDʿ C3N-4 E2ʿ EE- 3Cʿ HEʿ F3ʿ
' 2F ʿ 8HEH-4$Q 3ʿ ? #ʿ , #ʿ ʿ $EDʿ
HEʿ F Cʿ E3 ʿ 8 3 4ʿ P $ 3 ʿ Eʿ NHEC D34$ HEʿ H&ʿ FHʿ
3 J E3E ʿ ?34 N3Cʿ H&ʿ F3ʿ C$ Dʿ ' 2F ʿ 8HEH-4$Q 3ʿ
? #ʿ , #ʿ ʿ I ! Fʿ # ʿ ZSU m

P HC ʿ M4$N H-Cʿ ?H 343 2E

> 8 ; ' ; ?ʿ F3ʿ @H J J HECʿ H&ʿ F3ʿ # E 3Dʿ % E2DH J ʿ H&ʿ ! ʿ " #ʿ $EDʿ $!% #&ʿ D D ʿ QOʿ $Eʿ F- J Q 3ʿ DD43C$ʿ Hʿ =H-4ʿ P $(3C O ʿ Q3C33NFʿ =H-4ʿ P $(3C Oʿ F$ ʿ =H-4ʿ P $(3C Oʿ 9 H- Dʿ Q3ʿ 24$N H-C Oʿ 1 3$C3Dʿ Hʿ NHE&34ʿ CH J 3ʿ C 2E$ ʿ P $4+ʿ H&ʿ F3ʿ ' H($ ʿ 6$ H-4ʿ -1HEʿ F3ʿ ' 2F ʿ 8HEH-4$Q 3ʿ I) %!1ʿ ##! 1ʿ +3 ,#ʿ &H4ʿ F Cʿ 3 J E3E ʿ ?34 N3Cʿ Eʿ F3ʿ ? ʿ I $4 $ J 3E Cʿ D-4 E2ʿ F NFʿ F3ʿ F$Cʿ D CR NF$423Dʿ F3ʿ ; F 3Cʿ H&ʿ ?13$+34ʿ H&ʿ F3ʿ 8 H-C3ʿ H&ʿ @H J J HECʿ Fʿ $ʿ e3$ ʿ $EDʿ Q Oʿ $ +3ʿ FHEH-4$Q 3ʿ Hʿ F J C3 &ʿ $EDʿ NHED-N 3ʿ Hʿ F3ʿ I 4H243CCʿ H&ʿ I -Q Nʿ B-C E3CC ʿ Hʿ NH J J 3EN3ʿ $EDʿ $+3ʿ 3&3N ʿ FE J 3D $ 3 Oʿ -1HEʿ F Cʿ N3$C E2ʿ Hʿ FH Dʿ F3ʿ <&& N3ʿ H&ʿ ?13$+34 ʿ $EDʿ D Dʿ $CC 3ʿ =H-4ʿ P $(3C Oʿ F$ ʿ F3ʿ C$ Dʿ 8 H-C3ʿ H- Dʿ J $+3ʿ 2HHDʿ F$ 3 34ʿ ; 13EN3ʿ =H-4ʿ P $(3C Oʿ J 2F ʿ F E+ʿ 14H134ʿ Hʿ Q3ʿ EN-443Dʿ HEʿ F$ ʿ NNH-E : EDʿ F343$Cʿ =H-4ʿ P $(3C O ʿ Eʿ $EC 34ʿ Hʿ F3ʿ C$ Dʿ DD43CC ʿ $Cʿ 24$N H-C Oʿ 1 3$C3Dʿ Hʿ D3N $43ʿ F$ ʿ =H#4ʿ P $(3C Oʿ $Cʿ D3C 4H-C ʿ Eʿ NH J 1 $EN3ʿ Fʿ F3ʿ 9 CF3Cʿ H&ʿ =H-4ʿ &$ F&- ʿ @H J J HEC ʿ Hʿ NHE&34ʿ -1HEʿ F3ʿ ' 2F ʿ 8HEH-4$Q 3ʿ I) %!1ʿ ##! 1ʿ +3 ,#ʿ CH J 3ʿ C 2E$ ʿ P $4+ʿ H&ʿ =H-4ʿ ' HO$ ʿ 6$ H-4 ʿ Q- ʿ $Cʿ F3ʿ C$ J 3ʿ NH- Dʿ EH ʿ Q3ʿ 3&&3N -$ Oʿ 24$E 3Dʿ $EDʿ C3N-43Dʿ FH- ʿ F3ʿ @HEN-443EN3ʿ H&ʿ I $4 $R J 3E ʿ =H-4ʿ P $(3C Oʿ 43NH J J 3ED3Dʿ Hʿ =H-4ʿ &$ F&- ʿ @H J J HECʿ F3ʿ DH1 HEʿ H&ʿ C-NFʿ P 3$C-43Cʿ $Cʿ J 2F ʿ Q3ʿ E3N3CC$4Oʿ &H4ʿ F3ʿ NNH J R 1 CF J 3E ʿ H&ʿ F$ ʿ I -41HC3: , H ʿ 3 ʿ =H-4ʿ P $(3C O Cʿ J HC ʿ D- &- ʿ $EDʿ HO$ ʿ ?-Q(3N C ʿ F3ʿ @H J J HECʿ H&ʿ F3ʿ # E 3Dʿ % E2DH J ʿ H&ʿ ! ʿ " #ʿ $EDʿ $!% #&ʿ Eʿ I $4 $ J 3E ʿ $CC3 J Q 3D ʿ F$ 3ʿ 43CH 3Dʿ F$ ʿ F3ʿ $EE-$ ʿ ?- J ʿ H&ʿ 6H-4ʿ FH-C$EDʿ I H-EDCʿ E3 ʿ Q3ʿ 24$E 3Dʿ Hʿ =H-4ʿ P $(3C Oʿ H- ʿ H&ʿ F3ʿ @HECH D$ 3Dʿ 6-EDʿ H&ʿ F3ʿ # E 3Dʿ % E2DH J ʿ H&ʿ ! ʿ " #ʿ $EDʿ $!% #& ʿ F3ʿ C$ Dʿ EE- Oʿ Hʿ NH J J 3EN3ʿ -1HEʿ $EDʿ $+3ʿ 3&&3N ʿ &4H J ʿ F3ʿ G$Oʿ HEʿ F NFʿ F3ʿ ' 2F ʿ 8HEH-4$Q 3ʿ I) %!1ʿ ##! 1ʿ +3 ,#ʿ CF$ ʿ N3$C3ʿ Hʿ FH Dʿ F3ʿ <&& N3ʿ H&ʿ ?13$+34ʿ H&ʿ F3ʿ 8 H-C3ʿ H&ʿ @H J J HEC ʿ $EDʿ Hʿ Q3ʿ C3 3Dʿ Eʿ F3ʿ J HC ʿ Q3E3& N $ ʿ P $EE34ʿ -1HEʿ $EDʿ Hʿ NHE E-3ʿ D-4 E2ʿ F3ʿ > &3ʿ H&ʿ % Jʿ F3ʿ C$ Dʿ ' 2F ʿ 8HEH-4R $Q 3ʿ I) %!1ʿ ##! 1ʿ +3 ,#=ʿ $EDʿ F$ ʿ F3ʿ $EE-$ ʿ ?- J ʿ H&ʿ *F433ʿ

ʿ Wʿ FH-C$ED

FH-C$ED E3 Q3 24$E 3D H =H-4 P$(3C O H- H& F3 C$D @HER
CH D$ 3D 6-ED H NHJJ3EN3 HE F3 ; 1 4$ HE H& F3 $QH 3
J3E HE3D EE- O H& 6H-4 FH-C$ED I H-EDC $ED H Q3 C3 3D E
+3 P$EE34 -1HE $ED H NHE E-3 D-4 E2 F3 > &3 H& F3 F3E E3
8 3 4 P$ 3 H& F3 BHDO H& F3 C$ D ' 2F 8HEH-4$Q 3 I) %!1
##! 1 +3 ,# = $ED DH JHC F- JQ O Q3C33NF =H-4 P$(3C O F$
J$O Q3 3E$N 3D $ED Q3 3E$N 3D QO F3 % E2 C JHC ; N3 3E
P$(3C O QO $ED F F3 D N3 $ED @HEC3E H& F3 >H4DC ?1 4 -$
$ED *3 J 1H4$ $ED @H J JHEC E F C 143C3E I $4 $J 3E $CC3 J Q 3D
E EE- $ED QO F3 - FH4 O H& F3 C$J 3 *F$ <E3 EE- O H4 O3$4 O
H& [[[H '3E H4 ?- J H& 6H-4 FH-C$ED I H-EDC H& $ &- P HE3O H& !
Q3 1$D H F3 " # CF$ Q3 CC- E2 $ED 1$O$Q 3 H- H& $ED NF$423D $ED NF$423
@F$4 3 $E -1HE F3 @HECH D$ 3D 6-ED H& F3 #E 3D % E2DH J H& !
E34C ?- HE " # $!% #& ^$& 34 1$O E2 H4 43C34 E2 C-&& N 3E H 1$O $
D-4 E2 C C-NF ?- J $ED ?- J C H& P HE3O $C F$ 3 Q33E D 43N 3D QO $EO &H4 J 34
> &3 N H4 N C H& I $4 $J 3E H Q3 1$ D H- H& F3 C$J 3 Q- F 143R
&343EN3 H $ H F34 I $O J 3E C F NF CF$ H4 J $O F343$& 34 Q3 NF$423D
-1HE H4 1OQ 3 H- H& F3 C$ D 6-ED _ $ED F3 C$J 3 CF$ &4H J
* J 3 H * J 3 Q3 1$ D X-$4 34 O &433 $ED N 3$4 H& $ *$ 3C $ED
G3D-N HEC F$ CH3 34 H F3 C$ D ' 2F 8HEH-4$Q 3 I) %!1
##! 1 +3 ,# &H4 $ED D-4 E2 F3 E$ -4$ > &3 H& F J F3 C$ D
' 2F 8HEH-4$Q 3 I) %!1 ##! 1 +3 ,# = F NF C$ D EE- O H4
O3$4 O '3E H4 ?- J CF$ NHJ J 3EN3 $ED $+3 3&&3N -1HE F3 G$O
-1HE F NF F3 F3 C$ D ' 2F 8HEH-4$Q 3 I) %!1 ##! 1 +3 ,#
CF$ N3$C3 H FH D F3 <&& N3 H& ?13$+34 H& F3 8H-C3 H& @H J JHEC
F3 &4C I $O J 3E H Q3 NHJ 1- 3D &4H J F3 C$ D G$O -E F3
3EC- E2 \ -$4 34 G$O $ED &4H J F3EN3&H4 F CF$ Q3 1$ D $ED 1$O$Q 3
$ F3 6H-4 -C-$ X-$4 34 O G$OC H& I $O J 3E E F3 =3$4 ^ F$ C H
C$O _ F3 6 & F G$O H& ? #3 F3 6 & F G$O H& / 5 % F3 6 & F G$O
H& ?3% $ED F3 *3E F G$O H& 6 ' ,4! E 3$NF $ED 3 34O =3$4 QO
3 3E $ED 3X-$ I H4 HEC

& 34 F3 G3N3$C3 H& F3 ' 8HE @F$4 3C P$ER E34C ?- HE $E EE- O H&

ED Q3 &-4 F34 3E$N 3D *F$ &4H J $ED $& 34 F3 G3N3$C3 H&
F3 C$ D ' 2F 8HEH-4$Q 3 I) %!1 ##! 1 +3 ,# <E3 EE- O H4
O3$4 O '3E H4 ?- J H& *F433 FH-C$ED I H-EDC H& $ &- P HE3O H&
) ! " # CF$ Q3 CC- E2 $ED 1$O$Q 3 H- H& $ED NF$423D $ED
NF423Q 3 -1HE F3 C$ D @HECH D$ 3D 6-ED E J $EE34 $&H43C$ D
$ED F3 C$J 3 CF$ &4H J * J 3 H * J 3 Q3 1$ D X-$4 34 O E J $EE34
$&H43C$ D &433 $ED N 3$4 H& $ *$ 3C $ED G3D-N HEC F$ CH3 34 H
F3 F3E 8 3 4 P$ 3 H& F3 BHDO H& F3 C$ D ' 2F 8HEH-4$Q 3
I) %!1 ##! 1 +3 ,# &H4 $ED D-4 E2 F3 E$ -4$ > &3 H& C-NF
8 3 4 P$ 3

*43$C-4O H D 43N F3 ; NF3X-3 1$O F3 43R C13N 3 EE- 3C

ED C F343QO &-4 F34 3E$N 3D *F$ CF$ $ED J $O Q3
$ &- H $ED &H4 F3 >H4D 8 2F *43$C-434 H& F3 #E 3D % E2DH J
M 4N& & " # $ED $!% #& H4 F3 @H J J CC HE34C H& 8 C P$(3C O C
*43$C-4O H& F3 #E 3D % E2DH J H& ! " # $ED $!% #& H4
$EO *F433 H4 J H43 H& F3 J &H4 F3 * J 3 Q3 E2 $ED F3O $43 F343QO
$- FH4 T3D $ED 43X- 43D QO 9 44E -ED34 F3 4 8 $EDC H D 43N F3
-D H4 H& F3 '3N3 1 H& F3 ; NF3X-34 EH $ED &H4 F3 * J 3
Q3 E2 H J $+3 &H4 F $ED 1$CC G3Q3E -43C &4H J * J 3 H * J 3 &H4
1$O E2 F3 C$ D 43C13N 3 EE- 3C H4 O3$4 O '3E C H4 ?- J C H&
6H-4 FH-C$ED I H-EDC H4 *F433 FH-C$ED I H-EDC E J $EE34 $&H43R
C$ D $ED $C F3 C$J 3 CF$ &4H J * J 3 H * J 3 Q3NHJ 3 D-3 $ED
1OQ 3 FH- $EO 633C H4 @F$ 23C H Q3 D3 J $ED3D H4 $+3E &H4
1$O E2 F3 C$J 3 H4 $EO I $4 F343H& F NF C$ D 9 44E $ED F3
G3Q3E -43C H Q3 J $D3 &H4 F $ED 1$CC3D F343-1HE CF$ Q3 $
C-&& N 3E - FH4 O H F3 C3 34$ $ED 43C13N 3 <&& N34C H& F3
'3N3 1 H& F3 ; NF3X-34 EH $ED &H4 F3 * J 3 Q3 E2 &H4 F3 I $O
J 3E

J 3E H& F3 C$ D EE- 3C H4 O3$4 O '3E C H4 ?-E C H F3 C$ D
' 2F 8HEH-4$Q 3 I) %!1 ##! 1 +3 ,# $ED F3 8 3 4 P $ 3 $C
$&H43C$ D $ F3 43C13N 3 X-$4 34 O G$OC E F C N Q3&H43
$11H E 3D &H4 I $O J 3E F343H& FH- $EO &-4 F34 H4 H F34 9 44E
H Q3 C-3D &H4 F$D H4 HQ $ E3D E F$ B3F$ &

ED C F343QO &-4 F34 3E$N 3D *F$ $& 34 C 2E E2 H& C-NF 9 44E F3 C$J 3 CF$ Q3 2HHD $ D $ED 3&&3N -$ E *$ $NNH4DR E2 H F3 I -41H4 $ED 4-3 P 3$E E2 F343H& $ED H& F C N $ED CF$ EH Q3 D3 34 J E$Q 3 H4 43 HN$Q 3 QO H4 -1HE F3 G3 J C3 H& 8 C P $(3C O ^ FH J MHD HE2 143C34 3_ H4 H& $EO H& 8 C 8 3 4C H4 ?-NN3CCH4C H4 QO H4 -1HE F3 G3$ F H4 '3 J H $ H& $EO H& F3 C$ D @H J J CC HE34C H& F3 *43$C-4O H4 F3 >H4D 8 2F *43$C-434 H4 QO H4 -1HE F3 G3 34 J E$ HE H& F3 I H 34 <&& N3 H4 <&& N3C H& F3 J H4 $EO H& F3 J

I $O J 3E H& EE- 3C EH H Q3 $&&3N 3D QO G3 J C3 H& 8 C P $(3C O KN

ED Q3 &-4 F34 3E$N 3D *F$ F3 >H4D 8 2F *43$C-434 H& F3 #E 3D % E2DH J H& ! " # $ED $!% #& $ED F3 @H J J CC HE34C H& 8 C P $(3C O C *43$C-4O H& F3 #E 3D % E2DH J H& ! " # $ED $!% #& &H4 F3 * J 3 Q3 E2 @F$EN3 H4 $ED #ED34 *43$C-434(@F$ J Q34 $ EC $ED B$4HEC H& F3 ; NF3X-34 $ED $ H F34 F3 <&& N34C $ED P E C 34C H& F3 @H-4 H& 8J) !V3! $ED H& F3 '3N3 1 F343H& EH $ED &H4 F3 * J 3 Q3 E2 CF$ $ED F3O $43 F343QO $- FH4 T3D $ED C 4 N O 3E(H E3D $ED 43X- 43D H DH FH- 633 H4 '3 $4D $ C-NF N C P $ 34C $ED *F E2C $C $43 F343 E Q3&H43 D 43N 3D $ED 43X- 43D H4 CF$ Q3 E3N3CC$4O H Q3 DHE3 $ED 134&H4 J 3D QO F3 J H4 $EO H4 3 F34 H& F3 J E H4D34 H 43ED34 F C N $ED F3 C3 34$ I $O J 3E C F343QO D 43N 3D 3&&3N -$

>H4D 8 2F *43$C-434 $ED @H J J CC HER 34C H& F3 *43$C-4O KN 3E(H E3D H 134&H4 J F3 C3 34$ G- 3C 43X- 43D QO F C N FH- 633

ED Q3 3E$N 3D *F$ F3 NX- $EN3 H4 NX- $EN3C '3N3 1 H4 '3N3 1 C H& F3 ?$ D ' 2F 8HFH#4$Q < I) %!1 ##! 1 +3 ,# $ED H& F3 C$ D 8 3 4 P $ 3 H& F3 BHDO H& F3 C$ D ' 2F 8HEH-4$Q 3 I) %!1 ##! 1 +3 ,# CF$ Q3 $ 2HHD $ED C-&& N 3E G CNF$423 &H4 F3 I $O J 3E H& F3 C$ D 43C13N 3 EE- 3C H4 O3$4 O ?- J C FH- $EO &-4 F34 H4 H F34 9 44E H Q3 C-3D &H4 F$D H4 HQ $ E3D E F$ B3F$ & $ED F3 C$ D 43C13N 3 EE- 3C H4 O3$4 O '3E C H4 ?- J C $ED 3 34O I $4 F343H& CF$ Q3 &433 $ED N 3$4 &4H J $ *$ 3C J 1HC HEC $ED H F34 @F$423C F$ CH3 34 $ED E N$C3 $EO H& F3 <&& N34C H& F3 '3N3 1 H& 8 C P 3C O C ; NF3X-34 CF$ 43&-C3 H4 E32 3N H 1$O F3 C$ D 43C13N 3 EE- 3C H4 O3$4 O '3E C H4 ?- J C H4 $EO I $4 F343H& $NNH4D E2 H F3 4-3 E 3E $ED P 3$E E2 H& F C N H4 DH $EO N E3N3CC$4O H 3E$Q 3 F3 C$ D ' 2F 8HEH-4$Q 3 I) %!1 ##! 1 +3 ,# $ED F3 C$ D 8 3 4 P $ 3 H& F3 BHDO H& F3 C$ D ' 2F 8HEH-4$Q 3 I) %!1 ##! 1 +# , H 43N3 3 F3 C$ J 3 F3E F3 C$ D ' 2F 8HEH-4$Q 3 I) %!1 ##! 1 +3 ,# $ED F3 E3 C-NN33D E2 8 3 4 P $ 3 H& F3 BHDO H& F3 C$ D ' 2F 8HEH-4$Q 3 I) %!1 ##! 1 +3 ,# J $O &4H J * J 3 H * J 3 C-3 14HC3N- 3 $ED J 1 3$D C-NF <&& N34C H4 $EO H& F3 J F3 4 8 3 4C ; 3N- H4C H4 D J E C 4$ H4C QO B # I $ E H4 N HE H& G3Q $ED CF$ $ED J $O 43NH 34 5-D23 J 3E $ED C-3 H- ; 3N- HEC F343-1HE 2 EC C-NF <&& N34C 43C13N 3 O F3 4 8 3 4C ; 3N- H4C H4 D J R E C 4$ H4C &H4 CH J -NF H& C-NF ?- J H4 ?- J C H& P HE3O F3E D-3 $ED H E2 -1HE F3 C$ D 43C13N 3 EE- 3C <4 O3$4 O '3E C H4 ?- J C H4 $EO I $4 F343H& $C CF$ F$ 3 Q33E E F3 8 $EDC H& F3 <&& N34 H4 <&& N34C H& F3 '3N3 1 H& F3 ; NF3X-34 $ F3 * J 3 H4 * J 3C F3E G3 J $EDC CF$ F$ 3 Q33E 32$ O J $D3 H& F3 I $O J 3E H& F3 C$ D 43C13N 3 EE- 3C H4 O3$4 O '3E C H4 ?- J C H4 $EO I $4 F343H& $C $&H43C$ D H4 &H4 F3 '3&-C$ H4 , 32 3N H DH $EO N E3N3CC$4O H Q3 DHE3 QO C-NF <&& N34 H4 <&& N34C 43C13N 3 O

'3N3 1 H& EE- $E H Q3 $C-&& N 3E G CNF$423 &H4 F3 I $O J 3E H& F3 O3$4 O ?- J

<&& N34C H& ; N J X-34 J $O Q3 14HR N33D3D 2 EC &H4 '3&-C$ H4 , 32 3N H1$O F3 EE- 3C

ED

EE- 3C' 43C13N 3 O' 3C 3D' E' F3' I$4 3C' E$J3D' $ED' E' E3 F34' @$C3' H' Q3' $ 3E3D' Q3OHED' F3' > &3' H&' F3' I HCC3CCH4

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' C$D' EE- O' H4' O3$4 O' '3E' H4' ?-J' H&' 6H-4' FH-C$ED' IH-EDC' CF$' Q3' $ED' F3' C$J3' C' QO' F C' N' 3C 3D' E' F3' C$D'; 2F' 8HEH-4$Q 3' I) %!1' ##! 1' +3 ,#' $ED' F3' C$D' EE- O' &&* O3$4 O' %3E' H4' '?-J' <& *F433' FH-C$ED' IH-EDC' CF$' F3' $ED' F3' C$J3' C' QO' F C' N' 3C 3D' E' F3' E3 ' C-NN33D E2' 83 4' P$3' H&' F3' BHDO' H&' F3' C$D'; 2F' 8HEH-4$Q 3' I) %!1' ##! 1' +3 ,#' $ED' F3' C$J3' H4' $EO' I$4' F343H&' CF$' EH'$'$EO' * J3' H4' * J3C' F343$& 34' Q3' $ 3E3D' NHEO3O3D' D C1HC3D' `WA NF$ 23' '3EN-JQ343D' QO' F3' C$D' '2F' 8HEH-4$Q 3' I) %!1'

##! 1' +3 ,#' H4' QO' F3' E3 ' C-NN33D E2' 83 4' P$3' H&' F3' C$D'; 2F' 8HEH-4$Q 3' I) %!1' ##! 1' +3 ,#' &H4' $EO' 243$ 34' H4' $4234' ;C $3' H4' * J3' F$E' D-4 E2' F3' E$ -4$' > &3' H&' F3' I34CHE' CH' $ 3E E2' NHE 3O E2' D ?1HC8 ' H>' 8 $42 -2' H4' 3EN$JQ34&E2' F3' C$J3' CH' $C' H' 143 3E' F3' C$J3' &HJ' D3CN3ED E2' H' F3' E3 ' H4' C-NN33D E2' 83 4' P$3' H&' F3' BHDO' H&' F3' C$D' '2F' 8HEH-4$Q 3' I) %!1' ##! 1' +3 ,#N

<&34 8$&' F3' $J8O' H' Q3' E' N$C3' F3' ' '8HE' @'P'?- HE' FH DC' <&& N3

8 ' I4H D3D' $ $OC' $ED' Q3' '&-4 F34' 3E 3D' *F$' <E3' 8$&' H&' F3' C$D' EE- O' H4' O3$4 O' '3E' ?$J' CF$' $ 3' $ED' Q3' C-C' 13ED3D' D-4 E2' $EO' I34 HD' E' F NF' F3' C$D' '2F' 8HEH-4$Q 3' I) %!1' ##! 1' +3 ,#' J$O' F343$& 34' FH D' $EO' I $N3' <&& N3' H4' ;J1 HOJ3E' -ED34' 8 C' P$(3C O' H&' 3 -$' H4' 243$ 34' JH-E' E' ?$ $4O' I4H& 'H4' ;4ED&HJ3 ' F$E' F3' $$H-E' H&' C ' EE- O

I4H CH' E' N$C3' F3' 83 4' P$3' CFH-D' C-NN33D' H' F3' <&& N3' H&' '32 C 4$4' H&' F3' I434H2$R 3' @H-4' H&' F$ 4NF' QC H1' H&' @$E 34Q-4O

W' ED' F343$C' %!1' 1' +3 ,#' F3' 3 D3C ?HE' $ED' E3 ' 83 4' P$3' H&' F3' BHDO' H&' F3' C$D' '2F' 8HEH-4$Q 3' I) %!1' ##! 1' +3 ,#' ?$EDC' 1HCC3CC3D' H&' $' NHE E23E' Q3E3& N$' E 343C' E' F3' <&& N3' H&' '32 C 4$4' H&' F3' I434H2$ 3' H&' F3' >H4D' 4NFQ H1' H&' I #) ' 'Q3' +' &-4 F34' 3E$N ' *F$' E' F3' ; 3E' H&' F3' C$D' I) %!1' ##! 1' ;CX- 43' Q3 E2' E' &- IHCC3CC HE' H&' F3' C$D' <&& N3' H&' '32 C 4$4' H&' F3' I434H2$ 3' H&' F3' >H4D' 4NFQ CFH1' H&' I # ! 43 ' $ED' 3E 3D' H' F3' 633C' I34R X- C 3C' I4H& C' $ED' ; JH -J3E C' H&' F3' C$D' <&& N3' ^14H D3D' F3' C$J3' 3 N33D' F3' $EE-$' ?-J' H&' *F433' FH-C$ED' IH-EDC_' Q3NJE -2' 3E 3D' H' F3' C$D' EE- O' H&' *F433' FH-C$ED' IH-EDC' $C' F3' E3 ' 83 4' P$3' H&' F3' C$D' ; 2F' 8HEH-4$Q 3' I) %!1' ##! 1' +3 ,#' H4' E' F3' ; 3E' H&' F3' C$D' I) %!1' ##! 1' +3 ,#' ;CX- 43' F$ E2' 'C-NN33D3D' <' $ED' Q3 E2' E' 1HCC3CC HE' H&' F3' C$D' EE- ' H&' *F433' FH-C$ED' IH-EDC' $ED' $& 34 $4DC' Q3NHJ E2' 3E 3D' H' F3' & 8' IHCR C3CC HE' H&' F3' C$D' <&& N3' H&' '32 C 4$4' $ED' H' F3' 633C' I34X- C 3C' I4H& C' $ED' ; JH -J3E C' F343H&' ^14H D3D' F3' C$J3' 3 N33D' F3' $EE-$' ?-J' H&' *F433' FH-C$ED' IH-EDC_' F3E' $ED' E' 3 F34' H&' F3' @$C3C' $&H43C$D' F3' C$D' EE- O' H&' *F433' & H-C$ED' IH-EDC' CF$' N3$C3' $ED' D3 34J E3' $ED' Q3' EH' HE234' 1$O$Q 3' H' F3' C$D' I) %!1' ##! 1' +3 ,#' ;CX- 43' ' I4H D3D' E3 34 F3 3CC' F$' &' F3' C$D' I33C' I34X- C 3C' I4H& C' $ED' ; JH -J3E C' H&' F3' C$D' <&& N3' H&' '32 C 4$4' CF$' EH' 14HD-N3' F3' E3 '$EE-$' ?-J' H&' *F433' FH-C$ED' IH-EDC' H' F3' C$D' I) %!1' %! 1' +3 ,#' ;CX- 43' F3E' F343' CF$8' Q3' CC-3D' $ED' 1$D' H-' H&' F3' C$D' @HECH D$ 3D' 6-ED' C-NF' $' ?-J' H&' PHE3O' $EE-$ O' $C' H23 F34' F' F3' C$D' 633C' I34X- C 3C' I4H& C' $ED' ; JH -J3E C' ' J$+3' -1' $N 3$4' $EE-$' ENHJ3' <' F3' C$D' I) %!1' ##! 1' +3 ,#' ;CX- 43' H&' *F433' FH-C$ED' IH-EDC

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Eʻ Nʻ&H4ʻ F3ʻ Q3 34ʻ '32- $ HEʻ H&ʻ F3ʻ G- 3Cʻ Hʻ
Q3ʻ 134&H4 J 3Dʻ QOʻ F3ʻ <&& N34Cʻ HEʻ F3ʻ I 3$ʻ H4ʻ
@H J J HEʻ >$ ʻ ? D3ʻ H&ʻ F3ʻ @H-4ʻ H&ʻ ; NF3X-34
I ! Fʻ # ʻ ZSU&m

> 8 ; ' ; ?ʻ $Eʻ N ʻ $Cʻ 1$CC3Dʻ Eʻ F3ʻ 6 4C ʻ =3$4ʻ H&ʻ F3 '3 2Eʻ H&ʻ 8 Cʻ 143C3E ʻ P $(3C O ʻ E - 3Dʻ / #ʻ / ' ʻ , ʻ) !ʻ ʻ 9 ʻN [ʻ , !ʻ ! !' 3 % / & # 1 ,#ʻ , ʻ ?31 ' !ʻ #ʻ ; E2 $EDʻ #&ʻ 9 $ 3Cʻ ʻ $EDʻ FOʻ F3ʻ C$ Dʻ N ʻ N34 $ Eʻ @F$E23Cʻ 343ʻ J $D3ʻ HEʻ F3ʻ I 3$ʻ H4ʻ @H J J HEʻ >$ ʻ ? D3ʻ H&ʻ F3ʻ @H-4 ʻ H&ʻ ; NF3X-34ʻ EDʻ F343$Cʻ %% ʻ+ ! F ʻ L , 1!ʻ ; CX- 43ʻ EH ʻ Cʻ @ 34+ʻ H&ʻ F3ʻ I 3$Cʻ Eʻ F3ʻ C$ Dʻ @H-4 ʻ $EDʻ Cʻ $ &- Oʻ 3E 3Dʻ Hʻ 3 3N- 3ʻ F3ʻ C$ Dʻ <&& N3 ʻ FOʻ F J C3 &ʻ H4ʻ F Cʻ C-&& N 3E ʻ G31- O ʻ D-4 E2ʻ F3ʻ *34 J ʻ H&ʻ F Cʻ E$ -4$ʻ > &3 ʻ $EDʻ 7) , 1ʻ 2 Jʻ ; CX- 43ʻ ^NH J J HE Oʻ N$ 3Dʻ F3ʻ P $C 34_ʻ EH ʻ Cʻ G31- Oʻ @ 34+ʻ H&ʻ F3ʻ I 3$C ʻ $EDʻ + !5) !#ʻ L ') &1ʻ !# ' ʻ I , %%! ʻ 8& 3#&ʻ % ! ʻ $EDʻ ! , (!ʻ I) % ,# ʻ ; CX- 43C ʻ $43ʻ F3ʻ 6H-4ʻ C H4Eʻ @ 34+Cʻ Eʻ F3ʻ C$ Dʻ @H-4 ʻ $EDʻ F3ʻ C$ Dʻ 7) , 1ʻ 2 J ʻ+ !5) !#ʻ L ') &1ʻ !# ' ʻ I , %%! ʻ 8& 3#&ʻ % ! ʻ $EDʻ ! , (!ʻ I) % ,#ʻ $43ʻ F3ʻ 6 3ʻ 14 EN 1$ʻ $N E2ʻ <&& N34Cʻ H&ʻ F3ʻ C$ Dʻ @H-4 ; EDʻ F343$Cʻ F3ʻ B-C E3CCʻ Eʻ F3ʻ <&& N3Cʻ HEʻ F3ʻ I 3$ʻ H4ʻ @H J J HEʻ >$ ʻ ? D3ʻ H&ʻ F3ʻ C$ Dʻ @H-4 ʻ F$Cʻ 243$ Oʻ EN43$C3D ʻ $EDʻ F3ʻ C$ J 3ʻ C EN3ʻ F3ʻ 1$CC E2ʻ H&ʻ F3ʻ C$ Dʻ N ʻ F$Cʻ Q33Eʻ NHED-N 3Dʻ $EDʻ 134&H4 J 3Dʻ QOʻ F3ʻ C$ Dʻ G31- Oʻ @ 34+ʻ H&ʻ F3ʻ ʻ I 3$Cʻ $EDʻ F3ʻ C$ Dʻ 6H-4ʻ C H4Eʻ @ 34+C ʻ Q- ʻ FH- ʻ $EOʻ '32- $ HEʻ $Cʻ Hʻ F3ʻ 43C13N 3ʻ G- 3Cʻ Hʻ Q3ʻ 134&H4 J 3Dʻ QOʻ 3$NFʻ ʻ $EDʻ J $EOʻ H&ʻ F3

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F3' G- 3C' H&' F3' P$C 34' F$ 3' &4H J' , 3N3CC O' Q33E' 134&H4 J 3D' QO' F3' C H4E' @ 34+C' Q- ' FH- ' $EO' <Q 2$ HE' -1HE' F3 J' H' 134&H4 J' C-NF' G- 3C ' $ED' ' C' 3 13D 3E ' H' $11H4 HE' C-NF' B-C E3CC' $ J HE2' F3' C$ D' < BN34C' $ED' H' & ' $ED' D3 34 J E3' F3' G- 3C' H' Q3' 134&H4 J 3D' ' F3 J' 43C13N 3 O ' B3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC ' ; N3 3E ' P$(3C O' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$' $ED' * 3 J 1H4$ ' $ED' @H J J HEC' E' F C' 143C3E ' I $4 $R J 3E ' $CC3 J Q 3D' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3' * F$ ' &4H J' $ED' $& 34' F3' @H J J 3EN3 J 3E ' H&' F C' N ' F343' CF$ ' NHE E-3' H' Q3' 6 3' 14 EN 1$' <&& N34C' HE' F3' I 3$' ? D3' H&' F3' C$ D' @H-4 ' ^3 N -C 3' H&' F3' C$ D' %% ' + ! F ' L , 1!' ; CX- 43' F3' C$ D' @ 34+' H&' F3' I 3$C_' $ED' EH' J H43' $ED' F$' F3' C$ D' 7), 1' 2 F' + !5) !#' L ') &1' !# '%!' I ,O! ' & 3#&' % ! ' $ED' ! , (!' I) % ,#' ; CX- 43C' FH' F$ 3' CH' NHED-N 3D' F3' B-C E3CC' HE' F3' P 3$' ? D3' H&' F3' C$ D' @H-4 ' $ED' F3 4' ?-NN3CCH4C' CF$ ' &4H J' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' 134&H4 J' F3' C$ J 3' $C' &H H C' ' F$' C' H' C$O' F3' C$ D' 7), 1' 2 F' !# ' ' I ,%%! ' $ED' L& 3#&' % ! ' CF$ ' 134&H4 J' F3' G- 3C' H&' P$C 34' $ED' I 4H FHEH $4O' F3' 11&&' + !5) !#' L ') &1' F3' G- 3C' H&' @ 34+' H&' F3' ' - 3C' $ED' F3' C$ D' ! , (!' I) % ,#' F3' G- 3C' H&' 6 $e34' H&' F3' C$ D' @H-4 ' $ED' F3' C$ D' <&& N34C' CF$ ' B3' C O 3D' $ED' D3C 2E$ 3D' $NNH4D E2 O ' $ED' &' $EO' GH-Q ' H4' G &&343EN3' CF$ ' $ ' $EO' * J 3' $4 C3' 43C13N E2' F3' G- 3C' H' Q3' 134&H4 J 3D' QO' F3' C$ D' 43C13N 3' <&& N34C' F3' C$ J 3' CF$ ' Q3' C3 3D' $ED' D3 34 J E3D' QO' F3' >H4D' @F 3&' B$4HE' $ED' F3' H F34' B$4HEC' H&' F3' C$ D' @H-4 ' &H4' F3' * J 3' Q3 E2

<&& N3C' H' Q3' F3 D' D-4 E2' 2HHD' B3F$R H-4' F' C-NF' CC CR $E C' $C' F3' @H-4 ' J$O' D33 J' E3N3CR C$4O

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' C-NF' <&& N34C' $ED' F3 4' ?-NN3CCH4C' CF$ ' FH D' F3 4' C$ D' <&& N3C' D-4 E2' 2HHD' B3F$ H-4' $ED' $ ' $ED' J $O' E' $ED' &H4' F3' G CNF$423' H&' F3' G- 3C' H&' F3 4' 43C13N 3' <&& N3C' F$ 3' C-NF' CC C $E C' $ED' @ 34+C' $C' F3' >H4D' @F 3&' B$4HE' $ED' F3' H F34' B$4HEC' H&' F3' C$ D' @H-4 ' &H4' F3' * J 3' Q3 E2' CF$ ' D3 34 J E3' H' Q3' E3N3CC$4O' $ED' 14H134 ' $ED' F$' C-NF' CC C $E C' $ED' @ 34+C' CF$ ' $ED' J $O' Q3' $11H E 3D' QO' C-NF' <&& N34C' 43C13N 3 O ' C-Q(3N ' H' F3' 114HQ$ HE' H&' F3' >H4D' @F 3&' B$4HE' &H4' F3' * J 3' Q3 E2' ' $ED' F$' 3$NF' H&' F3' C$ D' <&& N34C' CF$ ' $ ' $ ' * J 3C' Q3' 43C1HEC Q 3' &H4' F3' @HED-N ' H&' C-NF' H&' F3' C$ D' CC C $E C' $ED' @ 34+C' FH J' F3' CF$ ' $11H E '

I 34CHEC' FH D E2' $EO' H&' 3' <&& N3C' H4 F3 4' CR C C $E C' EH' H' $N ' $C' H4E3OC' H4 23E C

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' &4H J' $ED' $& 34' F3' ?3NHED' G$O' H&' 8 1 ! ' * 34 J' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O F433' EH' I 34CHE' FH D E2' $EO' H&' F3' C$ D' <&& N3C' H4' Q3 E2' $E' CC C $E ' H4' @ 34+' H' $EO' H&' F 3' C$ D' <&& N34C' CF$ ' $N ' $C' $E' H4E3O' H4' ?H R N H4' H4' 23E ' H&' $E' H4E3O' H4' ?H N H4' J' $EO' @H-4 ' H&' >$ ' H4' ' ; X- O' E' F3' #E 3D' % E2DH J' H&' ! ' " #' $ED' $!% #& ' 3 F34' C31$4$ 3 O' H4' E' I $4 E34CF 1' F' $EO' H F34' D-4 E2' C-NF' * J 3' $C' F3' CF$ ' FH D' C-NF' <&& N3' H4' $N ' $C' C-NF' CC C $E ' H4' @ 34+

@ 34+' H&' F3' ; 44H4C

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' F3' <&& N3' H&' @ 34+' H&' F3 ; 44H4C' EH ' & 3D' $ED' 3 3N- 3D' QO' F3' C$ D' 7), 1' 2 F' CF$ ' NHE E-3' H' Q3' & 3D' $ED' 3 3N- 3D' QO' F J' $C' HE2' $C' F3' CF$ ' Q3' $ P$C 34' H4' I 4H FHEH $4O' H&' F3' ?$ D' @H-4 ' $ED' EH' HE234 ' $ED' F3' C$ J 3' CF$ ' $ $OC' F343$& 34' Q3' & 3D' QO' F3' I 34CHE' FH' CF$ ' Q3' F3' C3E H4' P$C 34' H4' I 4H FHEH $4O' H&' F3' @H-4 ' &H4' F3' * J 3' Q3 E2'

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' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' C$ D' <&& N34C' $ED' F3 4' CC C $E C' $ED' @ 34+C' CF$ ' 2 3' F3 4' 3EDEEN3' E' @H-4' H4' 3 C3 F343' $ED' CF$ ' NHED-N' F3' B-C E3CC' E' F3 4' C3 34$' G31$4 ' J3E C' $' C-NF' 8H-4C' $ED' E' 3 340' 43C13N' E' C-NF' P$EE34' $?' F3' QO' C$ D' >H4D' @F 3&' B$4HE' $ED' H F34' B$4HEC' H&' F3' C$ D' @H-4' CF$ '&4H J' * J 3' H' * J 3' H4D34' $ED' D 43N

3ED$EN3 ' $C' D NN 3D' F3' @H-4 '

' I4H D3D' $ $OC' $ED' Q3' '3E$N 3D' *F$' &' 3 F34' H&' F3' C$ D' <&& N34C' CF$ '&4H J' ? N+E3CC' H4' H F34' 43CHEQ 3' @$-C3' F$ 3' <NN$C HE' H' Q3' $QC3E' &4H J' F3' B-C E3CC' H&' F C' C$ D' <&& N3' F3E' $ED' E' 3 340' C-NF' @$C3' ' CF$ ' $ED' J $O' Q3' $ &-' &H4' C-NF' <&& N34' QO' $ED' F' F3' I 34 J CC HE' H&' F3' >H4D' @F 3&' B$4HE' &H4' F3' * J 3' Q3 E2' H4' E' F C' QC3EN3' H&' CH J 3' H F34' B$4HE' H&' F3' C$ D' @H-4 ' H' 2 3' >3$ 3' H&' QC3EN3' QO' F C' <4D34' E' 9 4 E2' H' C-NF' <&& N34' $ED' &' E3N3CC$40' H' $11H E' $' G31- O' E' F C' I $N3' $ED' ? 3$D' D-4 E2' C-NF' * J 3' $C' CF$ ' Q3' 3 143CC3D' E' C-NF' <4D34' $ED' F3' , $ J 3' H&' C-NF' G31- O' $ED' $ CH' F3' @$-C3' $ED' * 4E3' H&' C-NF' QC3EN3' CF$ ' Q3' C $ 3D' E' C-NF' <4D34' $ED' C-NF' G31- O' J $O' &' HNN$C HE' CF$ ' 43X- 43' ' Q3' NF$E23D' QO' F3' C$ D' >H4D' @F 3&' B$4HE' H4' E' F C' QC3EN3' QO' CH J 3' H F34' B$4HE' H&' F3' C$ D' @H-4 ' $ED' 3 340' C-NF' G31- O' CF$ ' Q3' 1$ D' QO' F3' I 4 EN 1$' &H4' FH J' F3' CF$ ' CH' $N' $C' $&H43C$ D' $ED' $C' F3' C$ D' >H4D' @F 3&' B$4HE' H4' H F34' B$4HE' H&' F3' C$ D' @H-4 ' CF$ ' D 43N' E' C-NF' <4D34

E' N$C3' H&' ? N+E3CC' KN' >3$ 3' H&' QR C3EN3' J $O' Q3' 24$E 3D' $ED' &' E3N3CC$40' $' G31- O' $11H E 3D

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' &' 3 F34' H&' F3' C$ D' <&& N3C' CF$ ' Q3NH J 3' NE ' H4' &' $EO' C-NF' <&& N34' CF$ ' Q3' -E$Q 3' H' $N ' E' F C' C$ D' <&& N3' &4H J' ? N+E3CC' H4' $EO' H F34' @$-C3' $ED' CF$ ' Q3' -E$Q 3' H' $11H E' $' G31- O' F3E' $ED' E' 3 340' C-NF' @$C3' ' CF$ ' $ED' J $O' Q3' $ &-' &H4' F3' >H4D' @F 3&' B$4HE' QO' 9 44E' -ED34' F C' 8 $ED' $ED' ?3$' H' $11H E' $' I 34CHE' H' 134&H4 J' F3' G- O' H&' C-NF' <&& N34' -E ' F343' CF$ ' Q3' $E' 3&&3N 3' <&& N34' H' D CNF$423' F3' C$ J 3' ' $ED' C-NF' I 34CHE' CH' $11H E 3D' CF$ ' D-4 E2' F3' @HE E-$EN3' H&' C-NF' G31- $ HE' H4' 11H E J 3E ' F$ 3' $ ' $ED' 3 340' F3' ' 2F C' ; J H - J 3E C' I H 34C' $ED' - FH4 3C' $ED' CF$ ' Q3' C-Q(3N' H' F3' C$ J 3' > $Q 3C' $C' C-NF' <&& N34' FHC3' G- O' F3' CF$ ' CH' F$ 3' Q33E' $11H E 3D' H' 134&H4 J' H- D' F$ 3' 1HCC3CC3D' H4' Q33E' $Q 3' H

* F3' >H4D' @F 3&' B$4HE' E' N34 $ E' @$C3C' J $O' & ' -1' NER N 3C' -E ' F343' CF$ ' Q3' $E' 3&&3NR 3' <&& N34

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3E' $' NENO' CF$ ' HNN-4' E' F3' C$ D' <&& N3' H&' @ 34+' H&' F3' I 3$C' QO' F3' G3 J C3' H&' F3' C$ D' %% ' + ! F ' L ,1!' ; CX- 43' H4' H F34 CN(' F3' C$ D' <&& N3' CF$ ' EH ' 2 E' Q3' & 3D' -1' Q-' F3' C$ J 3' CF$ ' &4H J' F3EN3&H4 F' N3$C3' $ED' D3 34 J E3

<&& N3' H&' @ 34+' H&' F3' 2&(3D' -1

W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' &' $EO' NENO' CF$ ' HNN-4' E' 3 F34' H&' F3' C$ D' <&& N3C' H&' P $C 34' $ED' I 4H FHEH $40' D-4 E2' F3' > &3 J 3' H&' F3' C$ D' %% ' + ! F ' L ,1!' $ED' F 3' F3' CF$ ' FH D' F3' C$ D' <&& N3' H&' @ 34+' H&' F3' I 3$C' $C' $&H43C$ D' F3' C$ D' %% ' + ! F ' L ,1!' CF$ ' $C' H& 3E' $C' C-NF' NENO' CF$ ' F$113E' $11H E' $' I 34CHE' H' C-NN33D' H' C-NF' <&& N3' C-Q(3N' H' F3' 114HQ$ HE' H&' F3' >H4D' @F 3&' B$4HE' &H4' F3' * J 3' Q3 E2' $ED' $& 34' F3' G3$ F' H&' F3' C$ D' %% ' + ! F ' L ,1!' H4' H F34' G3 34 J E$ HE' H&' F C' C$ D' <&& N3' F3E' $EO' NENO' CF$ ' HNN-4' E' 3 F34' H&' F3' C$ D' <&& N3C' H&' P $C 34' $ED' I 4H FHEH $40' F3' >H4D' @F 3&' B$4HE' H&' F3' C$ D' @H-4 ' &H4' F3' * J 3' Q3 E2' CF$ ' $11H E' $' & ' $ED' 14H134' I 34CHE' H' & ' F3' C$ J 3 $ED'

E' C' H' F3' ' 2&' `> P $C 34' $EDC' I 4H FHEH '

$ED H&' F3' @34+' H&' F3' ' - 3C $ED 6 $T34

$ED' F3E ' $ ' $EO' * J3' $ 34' F3' 1$CC E2' H&' F C' N ' $EO' NENO' CF$ ' HNN-4' E' F3' <&& N3C' H&' @34+' H&' F3' %- 3C' $ED' 6 $T34' H&' F3' C$ D' @H-4 ' F3' >H4D' @F 3&' B$4HE' &H4' F3' * J3' Q3 E2' CF$ ' $11H E ' $' & ' $ED' 14H134' I34CHE' H' & ' C-NF' <&& N3

?$ $4 3C H&' F3' C$ D' 6 3' <&& N34C' H' Q3' & 3D' QO' F3' @H-4 ' $ED' 1$ D' H- ' H&' F3' 633C

W ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F3' C$ D' 6 3' <&& N34C' CF$ ' 43N3 3 ' QO' $O' H&' ?$ $ O ' &H4' 134&H4 J E2' F3' G- 3C' H&' F3 4' 43R C13N 3' <&& N3C ' C-NF' $EE-$ ' ?- J' $C' F3' >H4D' @F 3&' B$4HE' $ED' F3' H F34' B$4HEC' H&' F3' C$ D' @H-4 ' F' F3' 114HQ$ HE' H&' F3' >H4DC' @H J J CC HE34C' H&' 8 C' P $(3C O C' * 43$C-40 ' CF$ ' F E+' 14H134 ' H' NH J J3EN3' J D' Q3' NH J 1- 3D' $ED' 1$O$Q 3' &4H J' F3' * 3 & F G$O' H&' 6 ' ,4! ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O ' F3' C$ D' ?$ $4 3C H' Q3' 43 $ E3D' $ED' 1$ D' H- ' H&' F3' 633C' QO' >$ ' 1OQ 3' E' 43C13N ' H&' F3' G- 3C' 134&H4 J 3D' QO' F3' <&& N34C' H&' F3' @H J JHE' >$ ' ? D3' H&' F3' C$ D' @H-4 ' $ED' F3' ?- 1 -C' H&' C-NF' 633C ' $& 34' D3D-N E2' F3' ; 13EN3C' H&' CC C $E C' $ED' @ 34+C ' F3' J H-E ' H&' F NF' CF$ ' Q3' & 3D' $ED' 432- $ 3D' QO' F3' C$ D' @H-4 ' $ED' F3' H F34' E3N3CC$4O' ; 13EN3C' H&' F3' C$ D' <J?N3' CF$ ' Q3' $NNH-E 3D' &H4' HEN3' 3 34O' =3$4 ' -1HE' <$ F ' Q3&H43' F3' >H4D' @F 3&' B$4HE' $ED' H F34' B$4HEC' H&' F3' C$ D' @H-4 ' $ED' F3' B$ $EN3 ' &' $EO ' CF$ ' Q3' 1$ D' H 34' <' F3' >H4DC' @H J J CC HE34C' H&' 8 C' P 3? O C' * 43$C-40 ' CJD' $EO' ?- J' F NF' J $O' Q3' $ $4D3D' H' F3' C$ D' <&& N34C' QO' F3' @H J J CC HE34C ' H4' $EO' H4' 3 F34' H&' F3 J ' -ED34' F3' N ' 1$CC3D' E' F3' 6 4C ' =3$4' H&' F3' ' 3 2E' H&' 8 C' 143C3E ' P $(3C O ' E - 3D' E' / ' ' , ' !(3% #(')!' L!'! 5 ' #&' 3 3 !' / 55 ,5 ,#' , ' !!1' #&' 8 ,%3 !# 1' !'! 0 4%!' 4 ' 6 '! 1' , ')!' +35! , ' I ,3 1' , ' I , ,# < 01 ' CF$ ' Q3' $+3E' E H' NHE D34$ ' HE' E' & E2' $ED' $CN34 $ E E2' F3 4' C$ D' 43C13N 3' ?$ $4 3C

?-41 -C' H&' 633C' H' Q3' $NNH-E 3D' &H4' O3$4 O

9 ? ' HC3' ; CX' H' 43R N3 3' $E' $EE-$ ' ?- J' -E ' @H J R J CC HE34C' J$+3' F3 4' ' 31H4

W ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F343' CF$ ' Q3' 1$ D' H' F3' C$ D' %% ' + ! F ' L ,1!' C-NF' $EE-$ ' ?- J' $C' F3' >H4D' @F 3&' B$4HE' $ED' H F34' B$4HEC' H&' F3' C$ D' @H-4 ' F' F3' 114HQ$ HE' H&' F3' >H4DC' @H J J CC HE34C' H&' 8 C' P $(3C O C' * 43$C-40 ' CF$ ' F E+' 14H134 ' H- ' H&' F3' C$ D' 633C ' -E ' F3' C$ D' @H J J CC HE34C' -ED34' F3' C$ D' N ' H&' F3' 6 4C ' =3$4' H&' F3' ' 3 2E' H&' 8 C' 143C3E ' P $(3C O' CF$ ' J$+3' F3 4' ' 31H4 ' -1HE' F3' @ $ J' J$D3' QO' F3' C$ D' %% ' + ! F ' L ,1!' -ED34' F3' C$ D' $C J3E HE3D' N

<&& N34C' EH ' 3E 3D' H' @H J 13EC$R HE' &' <&& N3C' $QH CF3D

W ' I4H D3D' $ $OC ' $ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' EH' <&& N34' H4' H F34' I34CHE' E$ J 3D' E' H4' $11H E 3D' QO' 4 -3' H&' F C' N ' CF$ ' Q3' 3E 3D' H' F$ 3' H4' N $ J' $EO' @H J 13EC$ HE' F$ 3 34' &H4' H4' QO' 43$CHE' H4' E' NHEC3X-3EN3' H&' $EO' C-NF' <&& N3' Q3 E2' 432- $ 3D ' H4' $QH CF3D' QO' >$ ' H4' F3' <4D34C' H&' F3' C$ D' @H-4 ' H4' H F34 C3

@H J J3EN3R J3E ' H&' N

W ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F C' N ' $ED' 3 34O' @ $-C3 $ED' P $ 34' F343 E' NHE $ E3D ' CF$ ' NH J J3EN3' $ED' F$ 3' ; &&3N ' J J3D $ 3 O' &4H J' $ED' $& 34' F3' 1$CC E2' H&' F3' C$ J 3 ' '

N ' J$O' Q3' $ 343D

W ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F C' N ' J$O' Q3' $ J 3ED3D ' $ 343D ' H4' 4313$ 3D' D-4 E2' F3' 143C3E ' ?3CC HE

>< , G< , ' : I4 E 3D' QO' # + . (/ +' & (+' $ED') * (+ , ' O1 . 223% , . . * + ' I4 E 34C' H' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' ZSU

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M#>G ; >P ʻ ʻ ' ; M ?

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ʻ N ʻ Hʻ $QH CFʻ N34 $ Eʻ ? E3N-43ʻ <&& N3Cʻ NHER E3N 3Dʻ Fʻ F3ʻ @H-4 ʻ H&ʻ @F$EN34O ʻ $EDʻ Hʻ J$+3ʻ I4H C HEʻ &H4ʻ F3ʻ >H4Dʻ 8 2Fʻ @F$EN3 H4ʻ HEʻ F Cʻ '3 43J3E ʻ &4HJʻ <&& N3ʻ I ! Fʻ # ʻ SZU m

I 8 ; ' ; ?ʻ ʻ Cʻ 3 13D 3E ʻ F$ ʻ F3ʻ < & N3Cʻ Q343 E $& 34ʻ J3E HE3Dʻ CFH- Dʻ Q3ʻ $QH CF3Dʻ $Cʻ CHHEʻ $Cʻ I4H C H$ʻ N$Eʻ Q3ʻ J$D3ʻ &H4ʻ F3ʻ D-3ʻ I34&H4J$EN3ʻ H&ʻ F3ʻ G- 3Cʻ F343R -E Hʻ Q3 HE2 E2.ʻ B3ʻ ʻ3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ JHC ʻ ; N3 3E ʻ P $(3C O ʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3E ʻ H&ʻ F3ʻ >H4DCʻ ?1 4 -$ ʻ $EDʻ *3J1H4$ ʻ $EDʻ @HJ JHEC ʻ Eʻ F Cʻ 143C3E ʻ I$4 $J3E ʻ $CC3JQ 3D ʻ $EDʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$J3 ʻ *F$ ʻ F3ʻ <&& N3Cʻ H&ʻ %33134ʻ H4ʻ @ 34+ʻ N $ Eʻ <&& ʻ H&ʻ 8 Cʻ P $(3C O Cʻ 8$E$134 ʻ F3ʻ I$ 3E 33ʻ H&ʻ F3ʻ ?-Q1H3E$ʻ <&& N3 ʻ &F3ʻ N3C$QH CF3D ʻ '32 C 4$4ʻ H&ʻ && D$ C ʻ F3ʻ @ 34+ʻ H&ʻ F3ʻ @4H Eʻ Eʻ @F$EN34O ʻ F3ʻ @ 34+ʻ H&ʻ F3ʻ I$ 3E C ʻ F3ʻ @ 34+ʻ H&ʻ F3ʻ @-C HD 3Cʻ H&ʻ >-E$ NCʻ $EDʻ D H C ʻ F3ʻ I4H FHEH $4Oʻ H&ʻ F3ʻ @H-4 ʻ H&ʻ @F$EN34O ʻ F3ʻ @F$&&ʻ 9 $ ʻ F3ʻ ?3$ 34 ʻ F3ʻ @ 34+ʻ H&ʻ F3ʻ I43C3E $ HEC ʻ F3ʻ @ 34+ʻ H&ʻ E4H J3E Cʻ Eʻ B$E+4-1 NO ʻ F3ʻ @ 34+ʻ H&ʻ G C13EC$ HECʻ $EDʻ 6$N- 3C ʻ $EDʻ F3ʻ I$ 3E 33ʻ &H4ʻ F3ʻ ; 3N- HEʻ H&ʻ F3ʻ >$ Cʻ $EDʻ ? $ - 3Cʻ NHEN34E E2ʻ B$E+4-1 C ʻ CF$ ʻ - 34 Oʻ N3$C3ʻ $EDʻ D3 34J E3ʻ &4HJʻ $EDʻ $& 34ʻ F3ʻ * 3E 3 Fʻ G$Oʻ H&ʻ /3(31 ʻ <E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ F 4 O ʻ F433

ʻ I4H D3Dʻ E3 34 F3 3CC ʻ $EDʻ ʻ Cʻ F343QOʻ &-4 F34ʻ 3E$N 3Dʻ QOʻ F3ʻ <&& N3Cʻ EHʻ H - FH4 Oʻ $&H43C$ Dʻ *F$ ʻ EH F E2ʻ Eʻ F Cʻ N ʻ NHE $ E3Dʻ CF$ ʻ Q3ʻ D3 34J E3ʻ NHEC 4-3Dʻ Hʻ D3 34J E3ʻ $EOʻ H&ʻ F3ʻ $&H43C$ Dʻ <&& N3Cʻ EH ʻ FH D3E ʻ Eʻ H&ʻ I34$HP ʻ IHCC3CC HEʻ H4ʻ '3 34C HE ʻ QOʻ $EOʻ I34CHEʻ $11H E 3Dʻ F343 Hʻ HEʻ H4ʻ Q3&Q43ʻ 1H E 3DʻQ3 ʻ F3ʻ 6 4C ʻ G$Oʻ H&ʻ ?3#!ʻ $C ʻ -E ʻ F3ʻ G3N3$C3ʻ H4ʻ '3C 2E$ HEʻ H&ʻ C-NFʻ &H43ʻ ʻ5-E3 ʻ I34CHE

ʻ eʻ ʻ ED

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EE- O' H&'
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' ED' F343$C' QO' 43$CHE' H&' F3' QHB P' H&' F3' C$D' <&& N3C' F3' >H4D' 8 2F' @F$EN3 H4' H4' >H4D' %33134' H&' F3' M43$' ?3$' &H4' F3' * J3' Q3 E2' ' Q3' D314 3D' H&' F3' I$ 4HE$23' $ED' M &' H&' F3' C$D' <&& N3C' F NF' DH3C' H&' ' 2F' Q3 HE2' $ED' F$C' Q33E' 3 34N C3D' QO' F J' $ED' ' C' 343&<&3' (-C' $ED' 3X- $Q 3' F$' JH43' $J1 3' I4H C HE' CFH- D' Q3' J$D3' &H4' F3' >H4D' 8 2F' @F$EN3 H4' H4' >H4D' %33134' H&' F3' M43$' ?3$' H$' F C' '3 43J3E' &4HJ' <&& N3' ' Q3' ' F343&H43' 3E$N 3D' *F$' ' CF$' Q3' $ &-' &H4' 8 C' P$(3C O' 8 C' 83 4C' $ED' ?-NN3CCH4C' QO' $EO' >3 34C' I$ 3E' -ED34' F3' M43$' ?3$' H&' ! '" #' H' 3' $ED' 24$E '-E H' $EO' I34CHE' 3 3N- E2' F3' <&& N3' H&' >H4D' 8 2F' @F$EN3 H4' H&' ! '" #' ,J' F3' * J3' Q3 E2' H4' F3' <&& N3' H&' %33134' H&' F3' M43$' ?3$' H&' ! '" #' $E' EE- O' H4' O3$4 O' ?-&$ H&' '3 N33D E2' 6 3' FH-C$ED IH-EDC' H&' $ &-' PHE3O' H&' ! " #' H' NHJ J3EN3' $ED' $+3' 3&&3N' JJ3D $ 3 O' &4HJ' $ED' $& 34' F3' I34 HD' F3E3 34' F3' I34CHE' H' FQJ' C NF' EE- O' O3$4 O' ?$J' F&' PHE3O' CF$' Q3' 24$E 3D' CF$' &3 2E' 3' C$D' <&& N3' H&' ><4D' @F$EN3 H4' H4' F3' <&& N3' H&' %33134' H&' F3' M43$' ?3$' H&' ! '" ' H4' Q3' 43JH 3D' &4HJ' F3' C$J3' 43C13N 3 O' $ED' H' NHE E-3' &4HJ' & 3EN3&H4 F' &H4' $ED' D-4 E2' F3' E$ -4$' > &3' <&' F3' I34CHE' H' FHJ' F3' C$J3' CF$' Q3' 24$E 3D' $C' $&H43C$ D' $ED' C-NF' EE- O' H4' O3$4 O' B3E' H4' ?-J' CF$' Q3' CC-3D' $ED' 1$O$Q 3' H-' H&' $ED' Q3' NF$423' $ED' NF$423$Q 3' -1HE' F3' @N$' CH D$ 3D' 6-ED' H&' F3' #E 3D' % E2DHJ' H&' ! '" #' $ED' $!% #&' $& 34' 1$O E2' H4' 43C34 E2' C-&& N 3E' H' 1$O' $ 'C-NF' ?-J' H4' ?-JC' H&' PHE3O' $C' F$ 3' Q33E' D 43N 3D' -ED34' $EO' &H4J 34' E' H4' N C' H' Q3' 1$ D' H-' H&' F3' ?$J3' ($ED' F3' C$D' EE- O' <4 O3$4 O' '3E' H4' ?-J' CF$' &4HJ' * J3' H' * J3' Q3' 1$ D' $ED' 1$O$Q 3' X-$4 34 O' &433' $ED' Q 3$4' H&' $' *$ 3C' $ED' G3D-N HEC' F$ CH3 34' $' F3' 6H-4' -C-$' G$OC' H&' I$OJ3E' E' F3' =3$4' F$' C' H' C$O' F3' 6 & F' N1 ', '? #0 ' F3' 6 & F' G$O' H&' ?5 %' F3' 6 & F' G$O' H&' ?3% ' $ED' F3' *QF F' O' H&' 6' ,4! ' E' 3$NF' =3$4' QO' 3 3E' $ED' 3X-$' IH4 HEC' F3' & 4C' I$OJ3E' H' Q3' J$D3' HE' C-NF' H&' F3' C$D' G$OC' $C' CF$' E3 ' F$113 ' $& 3&' C-NF' '3C 2E$ HE' $C' $&H43C$ D' H&' F3' ?$D' <&& N3.' B4H D3$' $ 9$OC' Q$' ' CF$' Q3' $ &-' &H4' 8 C' P$(3C O' 8 C' 83 4C' $ED' ?-NN3CCH4 ' E' $ED' QO' F3' C$D' >3 34C' I$ 3E' &' 83' H4' *F3O' CF$' F E+' F' H' 8 E' F3' G-4$ HE' $ED' I$OJ3E' H&' $EO' C-@F' EE- O' H' Q3' 24$& 3D' H' $EO' I34CHE' 3 3N- E2' F3' C$D' <&& N3' H&' >H4D' 8 2F' @F$EN3 H4' H4' DFQ' <&& N3' H&' %33134' H&' F3' M43$' ?3$' H&' ! '" #' <4 $EO' I$4' H&' C NF' EE- O' H' C-NF' I34 HDC' H&' * E3' D-4 F2' F3' E$ -4$' > &' H&' C-NF' I34CHE' E' F NF' F3' && $' EH' 3 3N- 3' F3' C$D' <&& N3' H&' >H4D' 8 2F' @F$EN3 H4' H4' F3' %33134' H&' F3' M43$' ?3$' H&' M43$' " #' ,J' $EO' H F34' <&& N3' <&' I4H&' #ED:' 8 C' PJ<C O' 8 C' 83 4C' H4' ?-NN3C&H4C' CH' $C' C-NF' EE- O' < Q3' 24$E 3&' $C' $&H43C$ D' H23 F34' F' F3' ?$ $4O' $ED' I4H& C' <&' -NF' < F34' <&& N3' && $' H23 F34' EH' 3 N33D' E' F3' FH 3' F3' ?-J' H&' 6 3' FH-C$ED' IH-EDC' $EO' F E2' NHE $ E3D' E' $EO' N' H4' N C' H' F3' NHE 4$4O' F343H&' E' $EO C3' EH FC $ED E2

6 .) * .)'' I4 E 3D' IB' ' &(' $ED' ' '
I4 E 34C' H' F3' % E2 C' JHC' ; N3 3E' P$(3C O' ZSU

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@ʼ ʼ I ʼ @W

Eʼ Nʼ Hʼ$- FH4 T3ʼ F3ʼ 8343D $ Oʼ >$EDʼ '3 3E-3Cʼ
Hʼ F3ʼ @4H Eʼ Eʼ 4ʼ 1 $N3Dʼ -ED34ʼ F3ʼ
PE23J3Eʼ Hʼ F3ʼ @HJJ CC HE34Cʼ Hʼ F3ʼ >$EDʼ
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> 8 ; ' ; ?ʼ ʼ J$Oʼ F343$& 34ʼ Q3NHJ3ʼ 3 13D 3Eʼ F$ʼ F3ʼ G- 3Cʼ $EDʼ IH 34Cʼ EH ʼ 134&H4J3Dʼ $EDʼ 3 34N C3Dʼ $EDʼ 3 34N C$Q 3ʼ QOʼ ʼ F3ʼ B$4HECʼ Hʼ 8 Cʼ P$(3C O Cʼ @H-4ʼ Hʼ ; NF3X-34ʼ Eʼ +', % #&ʼ ʼ F3ʼ 8343D $4Oʼ >$EDʼ '3 3E-3Cʼ Hʼ F3ʼ ʼ @4H Eʼ Eʼ +', % #&ʼ CFH- Dʼ Q3ʼ 134&H4J3Dʼ $EDʼ 3 34N C3Dʼ QOʼ $EDʼ C-NFʼ '3 3E-3Cʼ 1 $N3Dʼ -ED34ʼ F3ʼ P$E$23J3Eʼ $EDʼ @HE 4Hʼ Hʼ F3ʼ @HJR J CC HE34Cʼ F$ E2ʼ F3ʼ PE23J3Eʼ $EDʼ @HE 4Hʼ Hʼ F3ʼ 8343D $4Oʼ '3 3E-3Cʼ Hʼ F3ʼ @4H Eʼ Eʼ 8#(% #&ʼ $EDʼ $!% #&=ʼ Q3ʼ ʼ F343&H43ʼ 3E$N 3Dʼ QOʼ F3ʼ % E2 Cʼ JHCʼ ; N3 3Eʼ P$(3C Oʼ QOʼ $EDʼ Fʼ F3ʼ D N3ʼ $EDʼ @HEC3Eʼ Hʼ F3ʼ >H4DCʼ ?1 4 -$ʼ $EDʼ *3J1H4$ʼ $EDʼ @HJJHECʼ Eʼ F Cʼ 143C3Eʼ I$4 $J3Eʼ $CC3JQ 3Dʼ $EDʼ QOʼ F3ʼ - FHR 4 Oʼ Hʼ F3ʼ C$J3ʼ *F$ʼ ʼ CF$ ʼ$EDʼ J$Oʼ Q3ʼ $ &-ʼ Hʼ $EDʼ &H4ʼ F3ʼ >H4Dʼ 8 2Fʼ *43$C-434ʼ H4ʼ F3ʼ @HJJ CC HE34Cʼ Hʼ 8 Cʼ P$(3C O Cʼ *43$C-4Oʼ Hʼ F3ʼ #E 3Dʼ % E2DHJʼ Hʼ ! ʼ " #ʼ $EDʼ $!% #&ʼ &H4ʼ F3ʼ * J3ʼ Q3 E2ʼ H4ʼ $EOʼ *F433ʼ H4ʼ JH43ʼ Hʼ F3Jʼ $EDʼ F3ʼ $EDʼ F3Oʼ Cʼ $EDʼ $43ʼ F343QOʼ $- FH4 T3Dʼ $EDʼ 3J1H 343Dʼ QOʼ 9$44$Eʼ -ED3&ʼ F Cʼ H4ʼ F3 4ʼ 8$EDʼ H4ʼ 8$EDCʼ Hʼ H4D34ʼ $EDʼ D 43Nʼ F$ʼ &4HJʼ $EDʼ $& 34ʼ F3ʼ * J3ʼ ʼ Hʼ Q3ʼ J3E HE3Dʼ Eʼ C-NFʼ 9$44$Eʼ $ʼ $EDʼ 3 34Oʼ F3ʼ '3 3E-3Cʼ G3Q Cʼ /G- 3Cʼ $EDʼ I4H& Cʼ Hʼ F$ʼ , $ -43ʼ H4ʼ % EDʼ CH3 34ʼ $EO $OCʼ$1134R $ E E2ʼ H4ʼ F NFʼ F343$& 34ʼ CF$ʼ $1134 $ Eʼ Hʼ F3ʼ % E2 Cʼ P$(3C Oʼ ? ʼ ʼ 8 C

*F3ʼ *43$C-4Oʼ J$Oʼ CC-3ʼ $ 9$44$Eʼ D 43N E2ʼ $ '3 3E-3Cʼ G3Q Cʼ G-R 3Cʼ KNʼ Eʼ ?NH $EDʼ Q3 HE2Q2ʼ Hʼ 8 Cʼ P$R (3C Oʼ Hʼ Q3ʼ 1 $N3Dʼ -ED34

F3ʿ PE23R J3E ʿ H&ʿ F3ʿ @H J J CC HER 34C H&ʿ 9 HHDC ʿ 6H43C C ʿ $EDʿ >$EDʿ ' 3 3 EE3Cʿ

8 Cʿ 8 3 4Cʿ Y4ʿ ?-NN3CCH4C ʿ F Eʿ +' , % #& ʿ EEDʿ $ ʿ 8 HEH4C ʿ @$C 3C ʿ P $EH4C ʿ >$EDC ʿ *3E3 J 3E C ʿ $EDʿ 8 34ND E3E Cʿ Eʿ F NF EH ʿ DHʿ H4ʿ F343$& 34ʿ CF$ ʿ $1134 $ Eʿ Hʿ F3ʿ % E2 Cʿ P $(3C O ʿ 8 Cʿ 8 3 4Cʿ H4ʿ ?-NN3CCH4C ʿ FOʿ &H4N3ʿ H&ʿ 4 -3ʿ H&ʿ $EOʿ $ ED34 ʿ < - $ 4O ʿ ?3 T-43ʿ &H4ʿ $EOʿ @4 J3 ʿ H4ʿ @$-C3ʿ H&ʿ 6H4&3 -43 ʿ G3Q ʿ H4ʿ G - O ʿ H4ʿ -1HEʿ $EOʿ ; 3E ʿ @H J J CC HE ʿ H4ʿ H F34 C3 ʿ H4ʿ QOʿ &H4N3ʿ $EDʿ 4 -3ʿ H&ʿ F3ʿ ' HO$ ʿ I 434H2$ 3 ʿ H4ʿ QOʿ $EOʿ H F34ʿ ' 2F ʿ H4ʿ * 3ʿ F$ CH3 34 ʿ $EDʿ $ ʿ $EDʿ 3 34Oʿ F3ʿ ' 3E Cʿ CC-3C ʿ $EDʿ I 4H& Cʿ F343H&ʿ H4ʿ H&ʿ $EOʿ H&ʿ F3 J ʿ $EDʿ $ CHʿ $ ʿ $EDʿ 3 34Oʿ F3ʿ MHHDC ʿ @F$ 3 C ʿ G3Q C ʿ @43D C ʿ ' 2F C ʿ * 3C ʿ $EDʿ I 34CHE$ ʿ ; C $ 3Cʿ F Eʿ +' , % #&ʿ $EO $OCʿ $NN4- E2ʿ H4ʿ Q3 HE2 E2ʿ H4ʿ F NFʿ F343$& 34ʿ CF$ ʿ Q3 HE2ʿ Hʿ F3ʿ % E2 Cʿ P $(3C O ʿ 8 Cʿ 8 3 4Cʿ $EDʿ ?-NN3CCH4C ʿ QOʿ &H4N3ʿ #4ʿ 4 -3ʿ H&ʿ F3ʿ ' HO$ ʿ I 43R 4H2$ 3 ʿ H4ʿ H&ʿ $EOʿ $ ED34 ʿ < - $ 4O ʿ ; 3E ʿ EX- C HE ʿ G3Q ʿ G - O ʿ H4ʿ 6H4&3 -43 ʿ H4ʿ QOʿ $EOʿ H F34ʿ ' 2F ʿ * 3 ʿ 9 $OC ʿ H4ʿ P 3$ECʿ F$ CH3 34 ʿ $EDʿ $ ʿ F3ʿ ' 3 J 3D 3Cʿ $EDʿ P 3$ECʿ &H4ʿ 43NH 34 E2ʿ F3ʿ C$ J 3ʿ H4ʿ F3ʿ I HCC3CC HEʿ F343H& ʿ $EDʿ $ ʿ NNH-E Cʿ 43 $ E2ʿ F343 H ʿ $EDʿ $ CHʿ

ʿ $ ʿ $EDʿ 3 34Oʿ 6H4&3 -43Cʿ $EDʿ I 3E$ 3Cʿ F NFʿ F$ 3ʿ Q33Eʿ EN-443Dʿ H4ʿ CF$ ʿ H4ʿ J $Oʿ EN-4ʿ H4ʿ Q3NH J 3ʿ $EO $OCʿ D-3ʿ $EDʿ 1$O$Q 3ʿ Eʿ +' , % #&ʿ QOʿ &H4N3ʿ H4ʿ 4 -3ʿ H&ʿ $EOʿ 13E$ ʿ H4ʿ H F34ʿ >$ Cʿ H4ʿ ? $ - 3Cʿ F$ CH3 34 ʿ $EDʿ $ CHʿ $ ʿ 6 E3C ʿ CC-3C ʿ 6H4&3 -43C ʿ H4ʿ I 3E$ 3C ʿ H&ʿ F$ ʿ , $ -43ʿ H4ʿ % EDʿ CH3 34 ʿ F$113E E2 ʿ $4 C E2 ʿ H4ʿ $NN4- E2ʿ Hʿ F3ʿ % E2 Cʿ P $(3C O ʿ 8 Cʿ 8 3 4Cʿ H4ʿ ?-NN3CCH4C ʿ F Eʿ +' , % #& ʿ C$ 3ʿ $EDʿ 3 N31 ʿ C-NFʿ $Cʿ $43ʿ EH ʿ -ED34ʿ F3ʿ P E23 J 3E ʿ H&ʿ F3ʿ @H J R J CC HE34Cʿ H&ʿ 8 Cʿ P $(3C O Cʿ @-C H J Cʿ $EDʿ ; N C3ʿ 43C13N 3 O ʿ CF$ ʿ Q3ʿ -ED34ʿ F3ʿ P E23 J 3E ʿ @HE 4H ʿ $EDʿ G 43N HEʿ H&ʿ F3ʿ @H J R J CC HE34Cʿ &H4ʿ F3ʿ * J 3ʿ Q3 E2ʿ H&ʿ 8 Cʿ P $(3C O Cʿ 9 HHDC ʿ 6H43C C ʿ >$EDʿ ' 3 3E-3C ʿ 9 H4+C ʿ $EDʿ B- D E2Cʿ Eʿ 8 #(% #&ʿ $EDʿ $!% #& ʿ $EDʿ F3 4ʿ ?-NN3CCH4C ʿ $N E2ʿ -ED34ʿ H4ʿ QOʿ 4 -3ʿ H&ʿ $Eʿ N ʿ 1$CC3Dʿ Eʿ F3ʿ *3E Fʿ =3$4ʿ H&ʿ F3ʿ ' 3 2Eʿ H&ʿ 8 Cʿ $ 3ʿ P $(3C Oʿ % E2ʿ ! , (!ʿ F3ʿ 6H-4 F ʿ

: 9ʿ . ʿ E - 3Dʿ / #ʿ / ' ʿ ,ʿ ' ,#1,% & ! ʿ #&ʿ !#&ʿ)!ʿ < F1ʿ !% #(ʿ ,ʿ)!ʿ # (! !#ʿ &ʿ $ 5 ,0! !#ʿ , ʿ 1ʿ U!1 1ʿ , ,&1 ʿ &R, !1 1ʿ * 1ʿ #&ʿ I) 1!1ʿ , ʿ)!ʿ < #&ʿ L!0!#3!ʿ , ʿ)!ʿ I ,F#ʿ F) #ʿ)!ʿ+3 0! ʿ , ʿ)!ʿ 8J') !V3! ʿ #ʿ ; E2 $ED ʿ #&ʿ , ʿ)!ʿ < #&ʿ L!0!#3!ʿ , ʿ)!ʿ I ,F#ʿ #ʿ 43 $EDʿ ʿ #&ʿ , ʿ !J !#& #(ʿ ' ! #ʿ * ,0 1 ,#1ʿ !% #(ʿ ,ʿ)!ʿ 1 !ʿ ,ʿ)!ʿ $1%!1ʿ V ʿ P $Eʿ #&ʿ D34E3Oʿ ʿ $EDʿ H&ʿ $EH F34ʿ N ʿ 1$CC3Dʿ Eʿ F3ʿ

ʿ > 9 ʿ Hʿ ʿ ?3NHEDʿ =3$4ʿ H&ʿ F3ʿ ' 3 2Eʿ H&ʿ 8 Cʿ 143C3E ʿ P $(3C O ʿ E - 3Dʿ / #ʿ / ' ʿ ʿ , ʿ 3# #(ʿ)!ʿ 6 '!ʿ , ʿ)!ʿ +3 0! , ʿ !#! %ʿ , ʿ 1ʿ U!1 1ʿ , 1ʿ #&ʿ *34% " "3 %& #(1ʿ F)ʿ)!ʿ 6 '!ʿ V ʿ)!ʿ I , 11 ,#! 1ʿ V ʿ 1ʿ U!1 1ʿ , ,&1 ʿ R, !1 1ʿ #&ʿ < #&ʿ L!0!#3!1ʿ #&ʿ , ʿ ,)! ʿ *3 5,1!1ʿ !% #(ʿ ,ʿ)!ʿ < #&ʿ L!0!#3!1ʿ $EDʿ &4H J ʿ $EDʿ $& 34ʿ F3ʿ * J 3ʿ Hʿ Q3ʿ J 3E HE3Dʿ Eʿ C-NFʿ 9 44E ʿ $Cʿ $&H43C$ Dʿ F3ʿ G - 3Cʿ F343 H&H43ʿ 134&3H J 3D ʿ $EDʿ F3ʿ I H 34Cʿ F343 H&H43ʿ 3 34N C3Dʿ H4ʿ 3 34N C$Q 3 ʿ QOʿ F3ʿ B$4HECʿ H&ʿ 8 Cʿ P $(3C O Cʿ @H-4 ʿ H&ʿ ; NF3X-34ʿ Eʿ +' , % #& ʿ Eʿ $ (Dʿ $QH- ʿ F3ʿ P E23 J 3E ʿ $EDʿ @HE 4H ʿ H&ʿ C-NFʿ 8343D $ J 3E Cʿ $EDʿ ' 3 3E-3Cʿ 43C13N 3 O ʿ CF$ ʿ Q3ʿ 134&H4 J 3Dʿ EDʿ 3 34N C3Dʿ QOʿ F3ʿ @H J J CC HE34Cʿ H&ʿ 8 Cʿ P $(3C O Cʿ 9 HHDC ʿ 6H43C C ʿ >$EDʿ ' 3 3E-3C ʿ 9 H4+C ʿ $EDʿ B- D E2C ʿ $EDʿ F3 4ʿ ?-NN3CCH4C ʿ $EDʿ $ ʿ N C ʿ G33DC ʿ BHEDC ʿ @HE 4$N C ʿ 2433 J 3E C ʿ $EDʿ H F34ʿ EC 4- J 3E Cʿ 43 $ E2ʿ Hʿ C-NFʿ 8343D $ J 3E Cʿ $EDʿ ' 3 3E-3Cʿ 43C13N 3 O ʿ E ʿ F NFʿ F3ʿ C$ Dʿ B$4HECʿ H&ʿ 8 Cʿ P $(3C O Cʿ @H-4 ʿ H&ʿ ; NF3X-34ʿ Eʿ +' , % #&ʿ $43ʿ E$ J 3Dʿ H4ʿ J 3E HE3D ʿ CF$ ʿ $11 Oʿ Hʿ F3ʿ @H J J CC HE34Cʿ &H4ʿ F3ʿ * J 3ʿ Q3 E2ʿ H&ʿ 8 Cʿ P $(3C O Cʿ 9 HHDC ʿ 6H43C C ʿ >$EDʿ ' 3 3E-3C ʿ 9 H4+C ʿ $4 Dʿ B- D E2C ʿ $Cʿ &ʿ C-NFʿ @H J J CC HE34Cʿ F$Dʿ Q33Eʿ H4 2 E$ Oʿ E$ J 3Dʿ

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$ED H F34 EC 4- J 3E C EC 3$D H& F3 B$4HEC H& F3 ; NF3X-34
$&H43C$ D

ED Q3 &-4 F34 3E$N 3D *F$ &4H J $ED $& 34 F3 * 3 H Q3 N31-E C 43R
J 3E HE3D E C-NF 9 44E $C $&H43C$ D $ F3 NNH-E C 43 $ E2 &$ E2 I C-NF
H C-NF 8 343D $ J 3E C $ED I HCC3CC HEC $C $&H43C$ D F343 H&H43 - 3E 4$EC
3 $ J E3D 4 3D $ED $-D 3D QO F3 C$ D B$4HEC H& F3 ; NF3X-34 &34C3D H F3
E +', % #& CF$ Q3 3 $ J E3D 4 3D $ED $-D 3D E +3 P $EE34 C$ D @H J R
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8#(% #& $43 E $ED QO F3 C$ D N 1$CC3D E F3 ?3NHED = 3$4 H&
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9 8 ; ' ; ? F3 G- 3C H& @H J 1HC HEC &H4 CC3CC3D * $ 3C KU 97 N
EH E &H4N3 3 1 43 HE F3 6 & F G$O H& / 5 % < E3
FH-C$ED 3 2F F-ED43D $ED F 4 O F433 $ED C 3 13D 3E
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F 4 O &H-4 Q3 F343&H43 3E$N 3D QO F3 % E2 C J HC ; N3 3E
P $(3C O QO $ED F F3 D N3 $ED @HEC3E H& F3 >H4DC ?1 4 -$
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* $ 3C $ED 3 34O @HE 4$N $ED @H J 1HC HE 43C13N 3 O EH E
&H4N3 CF$ Q3 $ED $43 F343QO 43C13N 3 O NHE E-3D H 8 C P $(3C O =3$4 3ED E2
H F3 +3 $EE-$ J H-E C EH 1OQ 3 &H4 $ &-4 F34 * 34 J H& < E3 !# 14
=3$4 NH J 1- 3D &4H J F3 6 & F G$O H& < E3 FH-C$ED 3 2F ZS
F-ED43D $ED F 4 O F433 $ED H D3 34 J E3 HE F3 6 & F G$O H& / 5 %
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>$ C EH E &H4N3 3 1 43 Q3&H43 F3 $C J 3E HE3D G$O $ED $
F3 I H 34C $ED I 4H C HEC H& F3 C3 34$ N C 1$CC3D 43 $ E2 H $ED
&H4 NHE E- E2 F3 G - 3C H& @H J 1HC HEC $ED @HE 4$N C &H4 NH 3N R
E2 F3 C$ J 3 F$ & O3$4 O $ED &H4 3E&H4N E2 I $O J 3E F343H& CF$ Q3
3 3ED3D $ED $11 3D H F3 @H J 1HC HEC $ED @HE 4$N C NHE E-3D
-ED34 F C N H $ E 3E C $C & F3 C$ J 3 F$D Q33E 4313$ 3D $ED
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I 4H D3D $ $OC $ED Q3 &-4 F34 3E$N 3D * F$ F C N CF$ 3 3 J1 E
EH 3 3ED H $EO I 34CHE FH CF$ Q3 D3C 4H-C H& D3 34 J E E2 F C H4 @$C3C F343
F34 @H J 1HC HE HE F3 6 & F G$O H& / 5 % < E3 FH-C$ED 3 2F F-ER I $4 3C CF$
D43D $ED F 4 O F433 $ED FH CF$ HE H4 Q3&H43 F3 * 3E F G$O H& 2 3 , H N3
6 ' , 4 ! < E3 H-C $E D 3 2F F-ED43D $ED F 4 O H 2 3 , H N3 H D3 34$ E3
F343H& E 9 4 E2 H F3 CC3CCH4 H4 @H 3N H4 H& F3 I $4 CF H4 I $N3 F3 C$ J 3 HE
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H4' H' F3' ?-4 3OH4' $N E2' E' F3 ; 3N- HE' H&' F3' N C' 43 $ E2' H' F3' G- 3C' H&' CC3CC3D' U % &H4' .F3' G C 4 N ' E' F NF' C-NF' @H J 1HR C HE' CF$ ' Q3' 1$0$Q 3

; 3ED E2' F3' ; 3 J 1R HE' 24$E 3D' QO' F3' N C' H&' ! ' M S ' $ED' !' M' ' H' I 34CHEC' E' * 4$D3' E' 43C13N ' H& F3 ' 9 EDH ' G- 3C' HE'

' ED' F343$C' QO' * H' C3 34$ ' N C ' 1$CC3D' E' F3' 6 & O C3 3E F' =3$4' H&' F3' ' 3 2E' H&' 8 $' $ 3' P $(3C O' ; HE2' ! , (!' F3' * F 4D' $ED' F3' 6 & F' =3$4' H&' F3' ' 3 2E' H&' 8 C' $ 3' P $(3C O' % E2' ! , (!' F3' 6H-4 F ' I4H C HE' C' J $D3' &H4' 24$E E2' ; 3 J 1 HEC' &4H J ' F3' G- 3C' HE' 8H-C3C ' 9 EDH C ' $ED' > 2F C ' $ED' -1HE' EF$Q 3D' 8H-C3C ' H' I 34CHEC' E' 43C13N ' H&' * 3E3 J 3E C' H4' B- D E2C' FH O' HNN-1 3D' QO' F3 J ' E' F3' G$O J 3' HE O' &H4' F3' I -41HC3C' H&' F3 4' * 4$D3C' H4' I4H ' &3CC HEC' FN&3' C-NF' 134CHEC' $ CH' 43C D3' E' $' C31$4$ 3' $ED' D C EN ' G 3 E2' 8H-C3' H4' I $4 ' H&' $' G 3 E2' 8H-C3' NF$423D' H' F3' C$ D'

34 H4 ' * 4$D3

G- 3C.' ED' F343$C' F3' ; 3 J 1 HE' -ED34' F3' I4H C HEC' H&' F3' C$ D' 1 C' N$EEH ' Q3' $NX- 43D' $ED' 24$E 3D' &H4' $' 3CC34' I 34 HD' F$E' F3' FH 3' =3$4 C' CC3CC J 3E ' ' $ED' ' C' 3 13D J ' H' $11 O' F3' C$ D' ; 3 J 1 HEC' H' <NN-1 34C' &H4' I $4 C' H&' F3' C$ J 3' =3$4' E' F3' @$C3C' H&' @F$E23C' H&' <NN-1$ HE' F343 E' J 3E HE3D' Q3' ' &-4 F34' 3E$N 3D' * F$ ' F343' $EO' I 3 CHE' H4' I 34CHEC' E' F3' C$ D' N C' H4' 3 F34' H&' F3 J ' D3CN4 Q3D' CF$ ' F$ 3' HNN-1 3D' $' * 3E3 J 3E ' H4' B- D E2 ' H4' I $4 ' H&' $' * 3E3 J 3E ' H4' B- D E2 ' &H4' F3' #C3C' $ED' I -41HC3C' $ H 3D' QO' F3' C$ D' ; 3 J 1 HEC' E' F3' C$ D' N C' NHE $ E3D ' &H4' $' 3CC34' I 34 HD' F$E' F3' =3$4' H&' CC3CC J 3E (' $ED' &H4' $ED' D-4 E2' $EO' E' 4H' \ -$4 34' H4' \ -$4 34C' HE O' F343H&' ' CF$ ' Q3' $ &- ' &H4' F3' 43C13N 3' @H J R J CC HE34C ' HE' F3' ; 3 J 1 HE' &H4' C-NF' E 43' \ -$4 34' H4' \ -$4 34C' Q3 E2' D- O' N $ J 3D' QO' $' , H N3' $ED' G3N 4 HE' E' F3' P $EE34' 43X- 43D' QO' F3' C$ D' N C' &H4' N $ J E2' ; 3 J 1 HEC' &H4' F3' =3$4' H&' CC3CC J 3E ' H' D CNF$423' F3' CC3CC J 3E ' &H4' F3' E 3' \ -$4 34' H4' \ -$4 34C' H&' F3' =3$4' &H4' F NF' F3' C$ D' ; 3 J 1 HE' CF$ ' Q3' N $ J 3D'

; N31 HE

$ED' 3C $Q CF3D ' I4H D3D' $ $OC ' F$ ' EH' C-NF' @ $ J ' CF$ ' Q3' $ H 3D' H' $EO' I 34CHE' -ED34' F C' N ' FH' CF$ ' <NN-1O' F3' C$ J 3' I 43 J C3C' $C' $' G 3 E2' 8H-C3 ' $ D' $C' $' * 3E3 J 3E ' H4' B- D E2' &H4' F3' I -41HC3C' H&' ; 3 J 1 HE ' $ ' D &&343E ' I 34 HDC' D-4 E2' <E3' =3$4' H&' CC3CC J 3E ' EH4 ' -E 3CC' F3' <NN-1 34' ' H4' <NN-1 3 C' X- E2' H4' F3' <NN-1 34' 4 4 <NN-1 34C' NH J J 3EN E2' F3' <NN-1$ HE' H&' F3' I 43R J C3C' E' F3' P $EE34' $ H 3D' QO' F3' C$ D' ; 3 J 1 HEC ' $ED' FH' CF$ ' C33+' F3' B3E3& ' H&' F C' I4H C HE ' CF$ ' Q3&H43' F3' X- E2' H4' @H & ' J 3EN3 J 3E ' H&' <NN-1$ HE' 43C13N 3 O ' 2 3' , H N3' F343H&' H' F3' CC3CCH4' H4' ?-4 3OH4' E' F3' P $EE34' 43X- 43D' QO' F3' N C' E' &H4N3' &H4' $- FH4 T E2' H $EN3C &H4' I $4 C' H&' F3' =3$4' HE' @F$E23C' H&' <NN-1$ HE

' 3 3&' &H4 ' I HC J $C 34C' KN' FH' QO 3 J 1 HO E2' N34 $ E' ?34 $E 3 Q3NH J 3 HJ&!*(&I (' L)#J' #J (' G J3* 1$O' &I (' G <(!' HJ(<G (' ^@ _ , H' ' H& !UMS'N'VS'

O ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' &4H J ' $ED' $& 34' F3' C$ D' 6 & F' G$O' H&' / 5 %' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O 9H ' F343' $EO' > 34O' ? $Q 3' %33134 ' 8H4C3' G3$ 34 ' I HC J $C 34 ' H4' H F34' I 34CHE' N3EC3D' QO' F3' @H J J CC HE34C' H&' ? $ J 1C ' H4' $EO' I 34CHE' -ED34' F3 4' - FH4 O ' H' 3 ' I HC ' 8H4C3C' H4' @$4E$23C' &H4' 8 43' H4' I4H& ' CF$ ' QO' 43$CHE' H&' F3 4' 43C13N 3 O' 43 $ E E2' H4' 3 J 1 HO E2' $EO' ?34 $E ' H4' ?34 $E C' E' F3' @$1$N 3C' H&' M4HH J ' ? $Q 3' BHO ' H4' b 134' E' F3' ? $Q 3C ' CH 3 O' $ED' 4 ,#&' ? &!' E' F3 4' 43C13N 3' * 4$D3C' ' B-C E3CC3C ' QaNH J 3' NF423Q 3' F' F3' 14H243CC 3' G- 3C' HE' C-NF' P$ 3' ?34 $E C' 1$O$Q 3' -ED34' ?NF3D- 3' ^@ _* - J Q34' ' ; H&' $E' N ' 1$CC3D' E' F3' 6 & O C3NHED' =3$4' H&' F3' ' 3 2E' H&' 8 C' C$ D' $ 3' P $(3C O' 2(((2' ! , (!' F3' * F 4D' E - 3D' / #' / ' ' , ' (# #(' , ' 1' U!1 ' '! #' #!F' #&' && ,# %' 2 3 !1' , ' / 11!11!&' 7 J!1' #&' , ' ' ,#[1 ,% & #(')!' 1 !' F)')&' , ! ' 2 3 !1' , ' / 11!11!&' 7 J!1 ' C-NF' I 34CHEC' 43C13N 3 O' CF$ ' E' 3- ' H&' F3' C$ D' G- 3C' Q3' $CC3CC3D' $ED' H' NF$423D

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NF$423D' -ED34' F3' C$ D' ?NF3D- 3' ^@ _' , - J Q34' ' $ED' ' - 3C' F343H&'
F' EH' J H43' F$E' F3' G- O' H&' <E3' I H-ED' 6 3' ?F E2C' &H4' 3$NF'
C-NF' P$ 3' ?34 $E' CH' 3 J 1 HO3D' H' $ ' E 3E C' $C' &' C-NF' ?34 $E C'
343' NF423Q 3' -ED34' ?NF3D- 3' ^@ _' , - J Q34' ' H&' F3' C$ D' N

' ED' Q3' '&-4 F34' 3E$N 3D' *F$ ' E' 432$4D' H' CC3CC J 3E C' H' Q3' J $D3' &H4' $EO' =3$4' NH J J 3EN E2' &4H J' H4' $& 34' F3' C$ D' 6 & F' G$O' H&' /5 %' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H' F3' G- 3C' 1OQ 3' QO' ?NF3D- 3' ^@ _' , - J Q34' S' H&' F3' C$ D' N ' 1$CC3D' E' F3' 6 & O C3NHED' =3$4' $&H43C$ D' HE' P$ 3' I 34CHEC' 3 J 1 HO3D' $C' ?FH1 J 3E' 9 $43FH-C3 J 3E' H4' I H4 34C' CF$ ' EH' Q3' 1$ D' &H4' $EO' P$ 3' I 34CHE' CH' 3 J 1 HO3D' FH' CF$ ' Q3' -ED34' F3' 23' H&' 6 & 33E' =3$4C ' $ED' FH' CF$ ' EH' Q3' FH O' J $ E $ E3D' $ED' HD23D' E' F3' 8 H-C3' H&' F C' ; J 1 HO34' H4' ; J 1 HO34C' ' 14H D3D' F$ ' 3 34O' C-NF' P$ 3' I 34CHE' CF$ ' Q3' D- O' 43 -4E3D' $ED' F3' ; 3 J 1 HE' 4- O' C $ 3D' $ED' N $ J 3D' QO' F3' ; J 1 HO34' H4' ; J 1 HO34C' $C' 43X- 43D' QO' F3' N C' E' &H4N3' &H4' 24$E E2' ; 3 J 1 HEC ' 3 3&' &4H J' CC3CC J 3E C' HE' P$ 3' I 34CHEC' 3 J R 1 HO3D' $C' ?FH1 J 3E' &' -ED34' !' =3$4C' H&' 23

' ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' &4H J' $ED' $& 34' F3' 6 & F' G$O ; 3 J 1 HE' /5 %' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H' F3' G- 3C' EH 1OQ 3' -ED34' F3' C$ D' N ' 1$CC3D' E' F3' 6 & O C3NHED' =3$4' $&H43C$ D' E' 43C13N ' H&' < 34C334C' H4' PE234C' H4' @ 34+C' -ED34' < 34C334C' H4' PE234C' CF$ ' EH ' Q3' NF$423D' &H4' H4' E' 43C13N ' H&' $EO' I 34CHE' QO' 43$CHE' H&' F C' ; J 1 HO J 3E' -ED34' F3' ?-134 E 3ED3EN3' $ED' - FH4 O' H&' <E3' H4' J H43' PE234' H4' PE234C' H4' <E3' H4' J H43' @ 34+' H4' @ 34+C' E' F3' H 34 HH+ E2' $ED' NF3N+ E2' H&' 9 H4+ J 3E' H4' >$QH-434C' E' F3' I 34&H4 J $EN3' H&' F3' 9 H4+' $ED' >$QH-4' $ H 3D' H' F3 J' E' $EO' B- D E2' H4' B- D E2C' Q3 E2' FH O' $' I $N3' H&' P$E-&$N -43' H&' MHHDC 9 $43C' H4' P 34NF$ED T3' ^C31$4$ 3' $ED' D C EN' &4H J' $EO' ?FH1' H4' 9 $43FH-C3' E' F NF' $EO' MHHDC ' 9 $43C' $ED' P 34NF$ED T3' CF$ ' Q3' 3 1HC3D' H' ?$ 3' H4' CH D _' F343' F3' ; J 1 HO34' H4' ; J 1 HO34C' $Q 3' H' F3' G- 3C' -ED34' F3' N C' E' &H4N3' CF$ ' Q3' $CC3CC3D' &H4' F3' G- O' &H4' <E3' < 34C334' H4' PE234' $' F3' 3$C ' $ED' $ CH' &H4' <E3' @ 34+' $' F3' 3$C ' FH' CF$ ' Q3' FH O' 3 J 1 HO3D' $' C-NF' P$E-&$N H4O' ' 14H D3D' F$ ' 3 34O' I 34CHE' H' FH J' F3' ; 3 J 1 HE' F343QO' 24$E 3D' CF$ ' 3 3ED' CF$ ' Q3' $EE-$ O' 43 -4E3D' QO' F3' ; J 1 HO34' H4' ; J 1 HO34C' H' F3' CC3CCH4' H&' F3' I $4 CF' H4' I $N3' $ED' ; 3 J 1 HE' D- O' N $ J 3D' &H4' F3' C$ J 3' E' +3' P$EE34' $C' E' H F34' @$C3C' H&' ; 3 J 1 HE' -ED34' F3' C3 34$' N C' EH ' E' &H4N3 $C' H' N34 $ E' < 34C334C' H4' PE234C' H&' P$E-&$N HR 4 3C' KN

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' &4H J' $ED' $& 34' F3' 6 & F' G$O' 64H J' ! F' H&' /5 %' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED') F , ' , ' #&' #' /5 %' X.-B' 43C13N ' H&' $ ' CC3CC J 3E C' J $D3' H4' H' 4!' &!' #' ! ' " ' , ' 23 !1' $EO' =3$4' H4' =3$4C' H' NH J J 3EN3' &4H J' H4' $& 34' F$ ' G$O') !' 1!0! %' (*$G>*7N 4' $ED' 43C13N 3' G- 3C' H&' CC3CC3D' *$ 3C' EH '5 4%!' -ED34' +') !&3%!' !+)*' / ' ' , ' ^G _' H&' F3' C$ D' N ' 1$CC3D' E' F3' 6 & O C3NHED' =3$4' , ') !' ' 3 2E' H&' 9B' ' -' 1) %%' 8 C' C$ D' $ 3' P$(3C O' % E2' ! , (!' F3' *F 4D' &H4' 3 34O' @H$NF G 23EN3' @$4$ $E' H4' @F$ C3' F' 6H-4' 9 F33 C' H4' J H43' H4' F' 3CC F$E' 6H-4' 9 F33 C' 43C13N 3 0 ' H4' H F34' @$44 $23' F' 6H-4' 9 F33 C' H4' J H43' H4' 3CC' F$E' 6H-4' 9 F33 C' 43C13N 3 0 ' QO' F$ 3 34' , $ J 3' F3' C$ J 3' CF$ ' Q3' N$ 3D' H4' +EH E' F NF' CF$ ' Q3' +31 ' $ED' 3 J 1 HO3D' $C' $ I -Q N' ? $23' @H$NF' H4' @$44 $23' &H4' F3' I -41HC3' H&' NHE 3O E2' I $CR C3E234C' &H4' 8 43' H' $ED' &4H J' D &&343E' I $N3C' $ED' F NF' CF$ ' Q3' D- O' 3E 343D' H4' N3EC3D' $C' C-NF' F' F3' @H J J CC HE34 C' H&' ? $ J 1' G- 3C' CF$ ' C3 34$ O' N3$C3' $ED' D3 34 J E3. I 4H D3D' $ $OC' F$ ' F3' I H 34C' H&' F3' C3 34$' N C' 43 $ E2' H' F3' C$ D' G- 3C' CF$ ' 43 J $ E' E' &H4N3' $ED' Q3' 3 3N- 3D' &H4' $CC3CC E2' NF$42 E2' NH 3N E2' $ED' 3E&H4N 4 2' I $O J 3E' H&' $EO' H&' F3' C$ D' G- 3C' D-3' H4' 1OQ 3' H' 8 C' P$(3C O' H4' F NF "!+2)A+' ?+!' (H+2(!B' +?' `3E$+ 3C'

F NF $43 H NF$423$Q 3 &H4 $EO =3$4 H4 =3$4C NH J J 3EN E2 143 H-C H F3 CPD 6 & F G$O H& / 5 % FH-C$ED 3 2F F-ED43D $ED F 4 O H $ED &H4 F3 '3NH 34O H& $EO I 3E$ O H4 I 3E$ 3C 43 $ E2 H F3 C$ D $C J 3E HE3D G- 3C H $ E 3E C $ED I -41HC3C $C & F C N F$D EH Q33E 1$CC3D

*F3 ; 3 J 1R HE &4H J F3 G- 3C HE 8H4C3C E ?NF3D- 3C ^; < $ED ^6 H& F3 N H& ! U M S 3 R 3ED3D H $ & I 34CHEC E $EO I $4 H& M43$ B4 $ E +331 E2 8 $N+E3O @$44 $23C

ED Q3 &-4 F34 3E$N 3D *F$ F3 ; 3 J 1 HE &4H J F3 G- 3C HE 8H4C3C P$43C H4 M3 8 E2C D3CN4 Q3D H4 NHE $ E3D E ?NF3D- 3C ^; _ $ED ^6 _ 43C13N 3 O H& F3 C$ D N 1$CC3D E F3 6 & O C3NHED =3$4 $&H43C$ D &H4 $ED E 43C13N H& 8 H4C3C P$43C H4 M3 D E2C +31 QO $EO I 3 CHE N3EC3D QO F3 @H J J CC HE34C &H4 8 $N+E3O @H$NF3C F E F3 @ 3C H& <,#&,# $ED !1 #1 ! $ED F3 ? QE4QC F343H& &H4 F3 I -41HC3 H& D4$ E2 C-NF @H$NF CF$ HE $ CC3CC J 3E C J $D3 H4 H Q3 J $D3 &H4 $<O =3$4 NH J J 3EN E2 &4H J H4 $& 34 F3 6 & F G$O H& / 5 % <E3 FH-C$ED 3 2F F-ED43D $ED F 4 O H Q3 3 3ED3D $ED $11 3D H 3 34O I 34CHE H4 I 34CHEC N3EC3D QO F3 @H J J CC HE34C H& ? $ J 1C H4 QO $EO I 34CHE $- FHR 4 T3D QO F3 J E $EO I $4 H& ! " # -ED34 $EO N H4 N C E &H4N3 H +331 $EO 8 $N+E3O @H$NF H4 H F34 @$44 $23 H Q3 -C3D $C H4 E F3 , $ -43 H& $ 8 $N+E3O @H$NF &H4 H4 E 43C13N H& $EO 8 H4C3C P$43C H4 MD&D E2C +31 $ED CH 3 O -C3D &H4 F3 I -41HC3 H& D4$ E2 $EO C-NF M$44 $23 43C13N 3 O E F3 P$EE34 $ H 3D QO F3 ? $ J 1 <&& N3 > N3EN3 H4 - FH4 O F- EH H F34 C3

M$ J 3+33134C $11H E 3D QO F3 @H J J CR C HE34C H& 9 HHDC K3 EH H Q3 $Q 3 H F3 G- O HE M$ J 3 @34 R & N$ 3C

W ED F343$C GH-Q C F$ 3 $4 C3E F3 F34 M$ J 3+33134C $1R 1H E 3D QO F3 @HE H& CC HE34C H& 8 C P$(3C O C 9 HHDC 6H43C C $ED >$ED '3 3E-3C H4 QO F3 @H J J CC HE34C H& 8 C P$(3C O C 9 HHDC 6H43C C >$ED '3 3E-3C 9 H4+C $ED B- D E2C HE Q3F$ & H& 8 C P$(3C O $43 NF$423$Q 3 H F3 GE O H M$ J 3 @34 & N$ 3C J R 1HC3D QO F3 C$ D 43N 3D N H& F3 6 & O C3NHED =3$4 H& F3 '3 2E H& 8 C $ 3 P$(3C O % E2 !, (! 43 *F 4D Q3 F343&H43 3E$N 3D *F$ EH I 34CHE H4 I 34CHEC $11H E 3D H4 H Q3 $11H E 3D $ M$ J 3+33134 H4 M$ J 3+33134C HE Q3F$ & H& 8 ? P$(3C O QO F3 @H J J CC HE34C H& 8 C P$(3C O C 9 HHDC 6H43C C >$ED '3 3E-3C 9 H4+C $ED B J D E2C -ED34 H4 QO 4 -3 H& F3 - FH4 O H& $E N 1$CC3D E F3 *3E > =3$4 H& F3 '3 2E H& 8 C $ 3 P$(3C O % E2 !, (! F3 *F 4D E

M N ![- 3D /# / ,' ',#1,% & ! #& !#&)! < F1 !% #(,)! [# (! !# #&$ 5 ,0! !# , 1 U 1 1 ,,&1 R, !1 1 * 1= #& I) 1!1= ,)! < #& L!0!# ,)! I ,F#))! 0! ,)! 8J') !V3! # ; E2 $ED (#& V)! < #& L!0!#3! ,)! I ,F# # 43 $ED #& , !J !#& #(' ! # * ,0 1 ,#1 !% #(,)! 1 ! ,)! $1%!1 H6 P$E #& D34E3O H4 -ED34 H4 QO 4 -3 H& F3 - FH4 O H& $EO H F34 N H4 N C H& I $4 $ J 3E 43 $ E2 H F3 >$ED '3 3R E-3C H& F3 @4H E CF$ Q3 C-Q(3N H4 $Q 3 H F3 MQ J 3 @34 & N$ 3 G- O J 1HC3D QO F3 C$ D 43N 3D N H& F3 6 & O C3NHED =3& 4 H& F3 '3 2E H& 8 C $ 3 P$(3C O % E2 !, (! F3 *F 4D H4 H Q3 J 1HC3D QO $EO &- -43 N H4 N C -E 3CC C-NF I 34CHE H4 I 34CHEC CF$ Q3 C13N $ O C-Q(3N 3D F343 H E $ED QO C-NF &- -43 N H4 N C

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ED Q3 &-4 F34 3E$N 3D *F$ F C N J $O Q3 $ J 3ED3D $ 343D H4 4313$ 3D QO $EO N H4 N C H Q3 1$CC3D E F C 143C3E ?3CC HE H& I $4 $ J 3E

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$**ʿ $(ʿ ʿ - ʿ * ʿ 6 3"ʿ * 1ʿ ʿT X ,) "
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/ 8 ; ' ; ?ʿ QOʿ $Eʿ N ʿ 1$CC3Dʿ Eʿ F3ʿ ? Fʿ =3$4ʿ H&ʿ F3ʿ ' 3 2Eʿ H&ʿ 8 Cʿ $ 3ʿ P$(3C Oʿ E - 3Dʿ / #ʿ / ' ʿ ,ʿ !#&ʿ) !ʿ YK 3 Y < F1ʿ !% #(ʿ ,ʿ " # 35 1ʿ ʿ Cʿ $ J HE2ʿ H F34ʿ * F E2Cʿ 3E$N 3Dʿ F$ʿ F3ʿ >H4Dʿ @F$EN3 H4ʿ J $Oʿ -1HEʿ I 3 HEʿ D 43Nʿ $EOʿ G31HC HECʿ I 4HN33D E2Cʿ H4ʿ H F34ʿ P$ 34ʿ 43 $ E2ʿ Hʿ @H J J CC HECʿ <&ʿ Q$E+4-1 NOʿ Hʿ Q3ʿ 3E 343Dʿ H&ʿ ' 3NH4Dʿ QOʿ $ʿ 14H134ʿ I 34CHEʿ Hʿ Q3ʿ $1R 1H E 3Dʿ QOʿ F3ʿ >H4Dʿ @F$EN3 H4ʿ &H4ʿ F$ʿ I -41HC3ʿ H4ʿ QOʿ "Cʿ G31- O.ʿ EDʿ F343$Cʿ F3ʿ C$ Dʿ N ʿ NHE $ ECʿ EHʿ C-&& N 3Eʿ I 4H C HEʿ &H4ʿ J $+ E2ʿ C-NFʿ G31HC HECʿ H4ʿ <&& N3ʿ @H1 3Cʿ H&ʿ F3ʿ ' 3NH4Dʿ F343H&ʿ ; D3EN3ʿ $EDʿ Cʿ Eʿ H F34ʿ 43C13N Cʿ D3&3N 3ʿ .ʿ EDʿ F343$Cʿ QOʿ $Eʿ N ʿ 1$CC3Dʿ Eʿ F3ʿ 6 4Cʿ $EDʿ ?3NHEDʿ =3$4Cʿ H&ʿ F3ʿ ' 3 2Eʿ H&ʿ 8 Cʿ 143C3Eʿ P$(3C Oʿ E - 3Dʿ / #ʿ / ' ʿ ,ʿ !1 4% 1)ʿ ʿ I , 3 ʿ , ʿ " # 35 ' ʿ ʿ Cʿ $ J HE2Cʿ ʿ 4 0ʿ H F34ʿ * F E2Cʿ 3E$N 3Dʿ F$ʿ 3 34Oʿ 6 $ʿ 14HC3N- 3Dʿ Eʿ F3ʿ C$ Dʿ @H-4ʿ H&ʿ Nʿ YY B$E+4-1 NOʿ CF$ ʿ Q3ʿ & 3Dʿ $EDʿ 3E 343Dʿ H&ʿ ' 3NH4Dʿ Eʿ F3ʿ a$ Dʿ @H-4ʿ EDʿ F343$Cʿ F3ʿ C$ Dʿ $C J 3E HE3Dʿ N ʿ NHE $ ECʿ EHʿ I 4H C HEʿ &H4ʿ F3ʿ 3E 34 E2ʿ H&ʿ ' 3NH4Dʿ Eʿ F3ʿ C$ Dʿ @H-4ʿ 6 $ Cʿ 14HC3N- 3Dʿ 3 C3 F343ʿ $EDʿ F3ʿ G31HC HECʿ $EDʿ I 4HN33D E2Cʿ -ED34ʿ C-NFʿ 6 $ Cʿ H4ʿ &H4ʿ F3ʿ I 4HH&ʿ F343H&.ʿ EDʿ F343$Cʿ ʿ Cʿ 3 13D 3Eʿ F$ʿ F3ʿ ' 3NH4Dʿ H&ʿ $ ʿ P$ 34Cʿ Eʿ B$E+4-1 NOʿ CFH- Dʿ Q3ʿ -ED34ʿ F3ʿ C$ J 3ʿ @-C HDOʿ ʿ Q3ʿ ʿ F343&H43ʿ 3E$N 3Dʿ QOʿ F3ʿ % E2 Cʿ J HCʿ ; N3 3Eʿ P$(3C Oʿ QOʿ $EDʿ Fʿ F3ʿ D N3ʿ $EDʿ @HEC3Eʿ H&ʿ F3ʿ >H4DCʿ ?1 4 -$ʿ $EDʿ * 3 J 1H4$ʿ $EDʿ @H J J HECʿ Eʿ F Cʿ 143C3Eʿ I $4 $ J 3Eʿ $CC3 J Q 3Dʿ $EDʿ QOʿ 43ʿ - FH4 Oʿ H&ʿ F3ʿ C$ J 3ʿ * F$ʿ F3ʿ ' 3NH4DCʿ H&ʿ $ ʿ @H J J CC HECʿ H&ʿ 14H D E2ʿ&H4ʿ B$E+4-1 ʿ $EDʿ H&ʿ $ ʿ I 4HN33D E2Cʿ -ED34ʿ F3ʿ C$ J 3ʿ F NFʿ J $Oʿ F$ 3ʿ F3ʿ @-C-P ʿ Q33Eʿ F343 H&H43ʿ 3E 343Dʿ H&ʿ ' 3NH4Dʿ 1-4C-$Eʿ Hʿ H4ʿ -ED34ʿ NH H-4ʿ H&ʿ F3ʿ H&ʿ ' 3NH4DCʿ C$ Dʿ & 4C 43N 3Dʿ N ʿ H4ʿ $EOʿ H F34ʿ N ʿ CF$ ʿ Q3ʿ 43 J H 3Dʿ E Hʿ F3ʿ C$ Dʿ -ED34ʿ &H4 J 34ʿ @H-4ʿ H&ʿ B$E+4-1 NOʿ $EDʿ CF$ ʿ Q3ʿ +31ʿ $Cʿ ' 3NH4DCʿ H&ʿ F3ʿ C$ Dʿ @H-4ʿ H&ʿ B$E+4-1 Eʿ C-NFʿ I $N3ʿ $Cʿ F3ʿ 5-D23Cʿ H&ʿ F3ʿ C$ Dʿ @H-4ʿ CF$ ʿ &4H Jʿ * J 3ʿ Hʿ * J 3ʿ D 43N ʿ $ED F$ʿ ʿ CF$ ʿ $EDʿ J $Oʿ Q3ʿ $ &-ʿ &H4ʿ F3ʿ 5-D23Cʿ H&ʿ F3ʿ @H-4ʿ H&ʿ B$E+4-1 NOʿ Hʿ EH J E$ 3ʿ F3ʿ I 34CHEʿ F343 H&H43ʿ $1R 1H E 3Dʿ QOʿ F3ʿ >H4Dʿ @F$EN3 H4ʿ Hʿ 3E 34ʿ C-NFʿ I 4HN33D E2Cʿ H&ʿ ' 3NH4D

H4' E' N$C3' H&' F C' '3&-C$' H' $ 31' C-NF' <&& N3' CH J 3' H F34' & ' $ED' 14H134' I 34CHE' $C' F3' @ 34+' H&' ; E4H J 3E ' H' F3' C$ D' @H-4 ' $ ' C-NF' ?$ $40' H' Q3' 1$ D' H- 'H&' F3' 633C' F343 E $& 34' J 3E HE3D '$C' F3' >H4D' @F$EN3 H4' CF$ ' QO' 9 E2' -ED34' F C' 8 $ED' D 43N '($ED' F$ ' C-NF' @ 34+' H&' F3' ; E4H J 3E C' $ED' F C' ?-NN3CCH4C' ^ H' Q3' $11H E 3D' E' +3' P $EE34' $' F3' +3' ?$ $40 _' CF$ ' F$ 3' F3' @$43' $ED' @-C HDO' H&' $ ' F3' C$ D' '3NH4DC' C< 43 J H 3D' $C' $&H43C$ D' $ED' CF$ ' E' +3' P $EE34' 3E 34' H&' '3NH4D' $ ' P $ 34C' $ED' I 4HN33D E2C' E' B$E+4-1 NO' F NF' QO' F C' N ' H4' QO' F3' C$ D' 43N 3D' N C' H4' QO' $EO' <4D34' J $D3' E' 1-4C-$EN3' F343H&' $43' H4' J $0' Q3' D 43N 3D' H' Q3' 3E 343D' H&' '3NH4D' -1HE' I $0 J 3E ' H&' F3' 633C' F343 E$& 34' J 3E HE3D

P$ 34C E' 4H 3D' Q3&H43 D33 J 3D' H Q3' 3&&3N -$& O' 3E 343D' H&' '3N14D

' I 4H D3D' $ $OC' '$ED' Q3' ' D3N $43D' $ED' 3E$N 3D(* $ ' $F' @H J J CC HEC' H&' B$E+4-1 NO' CC-3D' Q3&H43' F3' 6 4C ' 8 $O' H&' +!5 ! 4! ' FH-C$ED' 3 2F ' F-ED43D' $ED' 3E O & 3' $ED' $ ' 831HC HEC' $ED' < F34' I 4HN33D E2C' 43 $ E2' H' C-NF' @H J J CC HEC' D 43N 3D' H' Q3' E4H 3D' $ED' $N -$ O' 3E 343D' H&' '3N J D' -1HE' H4' C EN3' F$ 'G$O ' CF$ ' Q3' D33 J 3D' $ED' $+3E' H' F$ 3' Q33E' 3 ' $ED' 3&&3N -$ O' 3E 343D' H&' '3NH4D

@34 & N$ 3' H&' C-NF' ; E 4O' H' F$ 3' F3' C$ J 3' ; &&3N ' $C' &' @H J CR C HE' F$D' Q33E' CC-3D' $& 34 ?31 ' ZU!

' I 4H D3D' E3 34 F3 3CC' $ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F3' @34 & N$ 3' H&' C-NF' ; E 40' 1-41H4 E2' H' Q3' C 2E3D' QO' F3' I 34CHE' $11H E 3D' H' 3E 34' C-NF' I 4HN33D E2C ' H4' QO' F C' G31- O' CF$ ' F$ 3' F3' C$ J 3' ; &&3N ' $C' &' C-NF' @H J J CC HE' F$D' Q33E' CC-3D' $& 34' F3' C$ D' 6 4C 'G$O' H&' +!5 ! 4! ' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' 3E O & 3' $ED' CF$ ' Q3' 43N3 3D' E' ; D3EN3' FH- ' I 4HH&' H&' F3' 11H E J 3E ' H4' 8 $ED 4 E2' H&' C-NF' I 34CHE

5-D23C' J $O' H4D34' @H J R J CC HEC' H' Q3' 3E 343D' HE' '3NH4D

' ED' Q3' '3E$N 3D ' * F$ ' $EO' < E3' H&' F3' 5-D23C' H&' F3' @H-4 ' H&' B$E+4-1 NO' CF$#' F$ 3' &- ' I H 34' $ED' - FH4 O' -1HE' 11 N$ HE' J $D3' H' F J' &H4' F$ ' I -41HC3' H' D 43N ' C-NF' <&& N34' H' 3E 34' -1HE' F3' '3NH4DC' H&' F3' @H-4 ' $EO' @H J J CC HE' H&' B$E+4-1 ' $ ' $EO' * J 3' F343 H&H43' CC-3D ' $ED' F3' G31HC HEC' $ED' I 4HN33D E2C' F$D' $ED' $+3E' -ED34' F3' C$ J 3' H4' C-NF' I $4 ' H4' I $4 C' F343H&' $&' C-NF' 5-D23' CF$ ' F E+' & ' I 4H D3D' $ $OC' F$ ' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' C-NF' <&& N34' H' 3E 34' H&' '3NH4D' F3' C3 34$ ' P $ 34C' D 43N 3D' QO' F3' C$ D' 43N 3D' N C' H4' 3 F34' H&' F3 J ' H' Q3' 3E 343D' H&' '3NH4D ' -1HE' F3' 11 N$ HE' H&' H4' HE' Q3F$ &' H&' $FO' I $4 O' E 343C 3D' F343 E ' FH- ' $EO' C13N $ ' <4D34' &H4' F$ ' I -41HC3

@34 $ E' P$ 34C J $O' Q3' 3E 343D' ' 11 N$ HE' H&' I $4 3C

6 $ C' H Q3' 3E 343D' H&' '3NH4D ' HE' 11 N$ HE' H&' $EO' E 34R 3C 3D' I $4 O

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' $ ' 6 $ C' $ 43$DO' CC-3D' H4' F343$& 34' H' Q3' CC-3D' E' 3-' H&' @H J J CC HEC' H&' B$E+4-1 ' H' Q3' 14HC3N- 3D' 3 C3 F343' F$E' E' F3' C$ D' @H-4 ' H&' B$E+4-1 NO ' $ED' $#' D(-D N$ HEC' H&' B$E+4-1 NO' QO' F3' I 34CHEC' E$ J 3D' E' C-NF' 6 $ C' H' $N ' $C' @H J J CC HE34C' $ED' $ ' 11H E J 3E C' H&' CC 2E33C ' $ED' @34 & N$ 3C' H&' @HE&H4 J O ' J $D3' $ED' $ H 3D' -ED34' C-NF' 6 $ C ' J $O' $ED' CF$ ' Q3' 3E 343D' H&' '3NH4D' E' F3' C$ D' @H-4 ' H&' B$E+4-1 NO ' -1HE' F3' 11 N$ HE' H&' H4' HE' Q3F$ &' H&' $EO' I $4 O' E 343C 3D' F343 E ' HE' F3' I $0 J 3E ' H&' F3' 633C' F343$& 34' J 3E HE3D ' FH- ' $EO' I 3 HE' E' 9 4 E2' 143C3E 3D' &H4' F$ ' I -41HC3 ' $ED' F$ ' $EO' < E3' H&' F3' 5-D C' H&' F3' C$ D' @H-4 ' J O' -1HE' I 3 HE ' D 43N ' $EO' G31HC HE' H4' H F34' I 4HN33D E2' -ED34' C-NF' 6 $ ' H' Q3' 3E 343D' H&' '3NH4D' $C' $&H43C$ D

633' &H4' ; E 40' H&' @H J E C' C HEC' $ED' 6 $ C

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F343' J $O' $ED' CF$ ' Q3' 1$ D &H4' F3' ; E 40' H&' 3 340' @H J J CC HE' $ED' 6 $ ' F3' 633' H&' * H' ?F E2C ' $ED' &H4' F3' ; E 40' H&' 3 340' @34 & N$ 3' H&' @HE&H4 J O' $ED' H&' 3 340' ' H' : CC 2E J 3E

CC 2E J 3E ' F3' 633' H&' ? ' ?F E2C' 3$NF ' $ED' &H4' F3' ; E O' H&' 3 34O'
; $J E$ HE' C-NF' 633' $C' F3' @H-4 ' H&' ' 3 3 ' CF$ ' &4H J ' * EH &3 H'
* J 3' & ' $ED' $11H E ' EH ' 3 N33D E2' F3' ' $ 3' H&' < E3' ?F E2' &H4'
3 34O' 6H H' F343H&' $ED' &H4' F3' ; E 4O' H&' 3 34O' D(-D N$ HE' H&'
B$E+4-1 NO ' G31HC HE ' 11H E J 3E ' H&' CC 2E33C ' $ED' 3 34O' H F34 '
I 4HN33D E2' H4' P $ 34' 43 $ E2' H' @H J J CC HEC' X4' 6 $ C ' F3' 633' H&'
* H' ?F E2C' 3$NF ' F NF' 633C' CF$ ' Q3' 1$ D' H' F3' @ F 3& ' 32 C 4$4'
&H4' F3' * J 3' Q3 E2 ' $ED' CF$ ' Q3' $11 3D' QO' F J ' H' F3' I $O J 3E ' H&'
F3' ; 13EN3C' H&' C-NF' ; E4H J 3E ' $ED' F3' ?$ $4O' H&' C-NF' < & N3 4 ' $ED'
F3' B$ $EN3' F343H&' &' $EO ' CF$ ' Q3' $11 3D' H' F3' I $O J 3E ' H&' C-NF'
H F34' ; 13EN3C' $ 3ED E2' F3' C$ D' @H-4 ' H&' B$E+4-1 NO' $C' F3' 5-D23C'
F343H&' F' F3' @HEC3E ' H&' F3' >H4D' @F$EN3 H4 ' CF$ ' &4H J ' * J 3' H
* J 3' D 43N

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' E' F3' ; 3E ' H&' F3' G3$ F' I 4H C HE' E'
H&' $EO' H&' F3' 9 E3CC3C' D31HC E2' H' F3' I 3 HE E2' @43D H4C
G3Q ' * 4$D E2 ' H4' N ' H&' B$E+4-1 NO ' -ED34' $EO' @H J J CC HE' H4' 6 $ ' >3CC3C'
$ 43$DO' CC-3D' H4' F343$& 34' H' Q3' CC-3D' ' CF$ ' Q3' $ &- ' &H4' F3'
CC 2E33C' $11H E 3D' -ED34' C-NF' @H J J CC HE' H4' %$ ' $ED' &H4' $ '
I 34CHEC' N $ J E2' F4H-2F' H4' -ED34' F3 J ' H4' $N E2' QO' H4' -ED34' F3 4'
- FH4 O ' E' F3' @$C3C' F343$& 34' J 3E HE3D ' H' 14HD-N3' $ED' 43$D' E'
; D3EN3 ' E' $ ' @H-4 C' H&' @ ' 5-D N$ -43 ' $ED' E' $ ' @ ' I 4HN33D ' '
E2C ' E' P $ E 3E$EN3' $ED' ?-11H4 ' H&' C-NF' @H J J CC HE' H4' 6 $ ' $EO'
G31HC HE' H&' C-NF' D3N3$C/3D' 9 E3CC' 43 $ 3' H' C-NF' I 3 EE $2'
@43D H4 C' G3Q ' * 4$D E2 ' H4' N ' H&' B$E+4-1 NO ' F NF' CF$ ' F$ 3'
Q33E' D- O' 3E 343D' H&' ' 3NH4D' 1-4C-$E ' H' F3' I 4H C HEC' $&' F3' C$ D'
43N 3D' N C' H4' H&' F C' N ' $ED' F3' I 4HD-N HE' H4' 43$D E2' H&' C-NF'
G31HC HEC ' H4' H&' $EO' @H1O' F343H&' D- O' $- F3E N$ 3D' $NNH4D E2' H'
F3' I 4H C HEC' H&' F3' C$ D' 43N 3D' N C' H4' H&' F C' N ' CF$ ' F$ 3' F3'
C$ J 3' ; &&3N ' $C' &' F3' P $ 34C' $ 323D' F343 E' F$D' Q33E' D31HC3D' H' QO'
F3' C$ J 3' 9 E3CC' E' C-NF' @H-4 ' $NNH4D E2' H' F3' H4D E$4O' @H-4C3' $ED'
I 4$N N3' F343H&.' I 4H D3D' $ $OC ' F$ ' F3' Q3&H43 J 3E HE3D' G31H '
C HEC' CF$ ' Q3' 43$D' E' ; D3EN3' E' C-NF' @$C3C' HE O' F343' F3' I $4 O'
-C E2' F3' C$ J 3' CF$ ' N $ J ' J $ E $ E ' H4' D3&3ED' CH J 3' ' 2F ' * 3
E 343C ' @ $ J ' H4' G3 J $ED' F NF' F3' B$E+4-1 ' 1$ 2F ' F$ 3' N $ J 3D '
J $ E $ E3D ' H4' D3&3ED3D' E' N$C3' EH' @H J J CC HE' H&' B$E+4-1 ' H4' 6 $ '
F$D' CC-3D ' $ED' CF$ ' EH ' Q3' 43$D' E' ; D3EN3' E' $EO ' N HE' H4' I 4HR
N33D E2' EH ' 13ED E2' QO' F NF' F3' $ D O' H&' $EO' @H J J CC HE' H4'
6 $ ' C' H4' J $O' Q3' Q4H-2F ' E H' X-3C HE

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' EH' 6 $ ' CC-3D' H4' H' Q3' , H' 6 $' H QC'
CC-3D' E' 3- ' H&' $' @H J J CC HE' H&' B$E+4-1 ' F3 F34' 14HC3N- 3D
E' F3' @H-4 ' H&' B$E+4-1 NO' H4' 3 C3 F343 ' EH4' $EO' D(-D N$ HE'
H&' B$E+4-1 NO' H4' 11H E J 3E ' H&' CC 2E33C ' H4' @34 & N$ 3' H&' @HE ' 3E 3&q ' H&'
&H4 J O' -ED34' C-NF' 6 $ ' CF$ ' Q3' 43N3 3D' E' ; D3EN3' E' $EO' @H-4 ' ' 3NH4('
H&' >$ ' H4' ; X- O ' -E 3CC' F3' C$ J 3' ' CF$ ' F$ 3' Q33E' & 4C ' 3E 343D' H&'
' 3NH4D' E' F3' @H-4 ' H&' B$E+4-1 NO' $C' $&H43C$ D

W ' I 4H D3D' $ $OC ' $ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' -1HE' FH I 4HH33D 2C'
I 4HD-N HE' E' ; D3EN3' H&' $EO' @H J J CC HE ' 6 $ ' D(-D N$ HE ' $' B$E+R
CC 2E J 3E ' 11H E J 3E ' H&' CC 2E33C ' @34 & N$ 3 ' G31HC HE ' H4' 4-1 NO ' 1-4R
H F34' I 4HN33D E2' E' B$E+4-1 NO ' 1-41H4 E2' H' Q3' C3$ 3D' F' F3' 1H4 E2' H Q#
?3$ ' H&' F3' C$ D' @H-4 ' H&' B$E+4-1 NO ' H4' H&' $EO' 9 4 E2' 1-41H4 E2' CN$ 3D' F'
H' Q3' $' @H1O' H&' $EO' C-NF' GHN- J 3E ' $ED' 1-41H4 E2' H' Q3' CN$ 3D' $C' F3' ?3$ ' H&'
$&H43C$ D ' F3' C$ J 3' CF$ ' Q3' 43N3 3D' $C' ; D3EN3' H&' C-NF' GHN- J 3E C F3' @H-4 ' H'
Q3' 43N3 3D' $?
; D3EN3

43C13N 3O '$ED'H&' F3' C$J3' F$ E2'Q33E' CH' 3E 343D'H&' '3NH4D' $C' $&H43C$D' FH-'$<O'&-4 F34' I4HH&' F343H&.' I4H D3D'E3 34 F3 3CC' F$'$ ' I $ K'$ED' I4HN33D JC'-ED34' F3' C$J3' F NF' J$O'F$ 3' Q33E' 3E 343D' H&' '3NH4D' Q3&H43' F3' 1$CC E2' H&' F C' N ' CF$ ' $ED' J$O' -1HE' F3' I4HD-N HE' F343H&' F' F3' @34 & N$ 3' F343HE' 1-41H4 E2' H' Q3' C 2E3D' QO' F3' I34CHE' CH' $11H E 3D' H' 3E 34' I4HN33D E2C' E' B$E+4-1 NO' H4' QO' F C' G31- O' Q3' 43N3 3D' $C' ; D3EN3' H&' F3' C$J3' F$ E2' Q33E' D- O' 3E 343D' H&' '3NH4D' $EO' F E2' F343 E' NHE $ E3D' EH FC $ED E2

>H4D' @F$ER N3 H4' 3JR 1H 343D' H' D 43N'N34 $ H' PHE 3C' C $ED E2' H' F3' @43D 'H&' FO' ?3N43 $4O' H&' B$E+4-1 C' NNH-E' H' Q3' N$44 3D' H' F3' ?3N43 $4O' H&' B$E+4-1 C' @H J 13EC$R HE' NNH-E' $ED' N3' 34C

W' ED' F343$C' QO' F3' C$D' 43N 3D' N'H&' F3' 6 4C' $ED' ?3NHED' =3$4C' H&' F3' '3 2E' H&' 8 C' 143C3E' P$(3C O' ' C' $JHE2C' H F34' F E2C' 3E$N 3D' F$' C3 34$' ?-JC' F343 E' C13N & 3D' CF$ ' Q3' 1$ D' E H' F3' B$E+' H&' "#(% #&' H' F3' @43D ' H&' F3' NNH-E $E 'M3E34$' H&' F3' 8 2F' @H-4' H&' @F$EN34O' H' $E' NNH-E' H' Q3' E - 3D' `' *F3' ?3N43 $4O' H&' B$E+4-1 C' NNH-E ' $ED' F$'$ ' PHE 3C' CH' 1$ D' CF$ ' Q3' C- (3N' H' C-NF' M3E34$' <4D34C' &H4' F3' I-41HC3C' F343 E' C13N & 3D' $C' F3' >H4D' @F$EN3 H4' CF$ ' 143CN4 Q3' ($ED' ' C' &-4 F34' 3E$N 3D' F$' @HJ 13EC$ HE' CF$ 'Q3' J$D3' H' N34 $ E' <&& N34C' F343 E' E$J 3D' E' 3-' H&' N34 $ E' 633C' $ED' ; JH - J3E C' QO' F3' C$ D' N' $QH CF3D' $ED' F$' &H4' F3' I-41HC3' H&' 4$ C E2' $' 6-ED' H' J 33' F3' C$ D' @HJR 13EC$ HE' N34 $ E' ?-JC' E' F3' C$ D' N' C13N & 3D' CF$ ' Q3' 1$ D' E H' F3' B$E+' H' F3' @43D ' H&' F3' C$ D' NNH-E $E 'M3E34$ ' H' $' C31$4$ 3' NNH-E' H' Q3' E - 3D' `' *F3' ?3N43 $4O' H&' B$E+4-1 C' @HJ 13EC$ HE' NNH-E ED' F343$C' F3' ?-JC' 1$ D' E' H' F3' @43D ' H&' F3' C$ D' & 4C' NNH-E' $43' JH43' F$E' C-&& N 3E' H' J 33' F3' ?-JC' $' 143C3E' 1$O$Q 3' H-' H&' F3' C$J3' $ED' F3' ?-JC' 1$ D' E' H' F3' @43D ' H&' F3' C3NHED J3E HE3D' NNH-E' $43' $' 143C3E' EC-&& N 3-' H' J 33' F3' I$O J3E C' D 43N 3D' H' F3' J$D3' H-' H&' F3' C$J3' $ED' ' J$O' Q3' 3 13D 3E' F$' IH 34' CFH- D' F3' '2 3E' H' F3' >H4D' @F$EN3 H4' H' 11 O' HE3' H&' FHC3' 6-EDC' ' $ D' H&' F3' H F34' &4HJ' * J3' H' * J3' $C' <NN$C HE' J$O' 43X- 43' F3' ' F343&H43' 3E$N 3D' *F$' ' CF$ ' $ED' J$O' F3' $ &- '&H4' F3' >H4D' @F$EN3 H4' QO' F C' <4D34' H' D 43N ' &4HJ' * J3' H' * J3' $C' F3' J$O' C33' & ' F$' F3' PHE 3C' C $ED E2' H' F3' @43D ' H&' F3' NNH-E' E - 3D' `' *F3' ?3N43 $4O' H&' B$E+4-1 C' NNH-E c' H4' CH' J-NF' F343H&' $C' F3' J$O' & ED' H' Q3' E3N3CC$4O' CF$ ' Q3' N$44 3D' H 34' QO' F3' C$ D' NNH-E $E 'M3E34$' H' F3' @43D ' H&' F3' NNH-E' E - 3D' `' *F3' ?3N43 $4O' H&' B$E+4-1 C' @HJ 13EC$ HE' NNH-E c' $ED' F3' C$J3' F3E' CH' N$44 3D' H 34' CF$ ' $ED' J$O' Q3' $11 3D' E' C$ C&$N HE H&' $EO' ?-J' H4' ?-JC' NF$423D' -1HE' H4' J$D3' 1$O$Q 3' H-' H&' F3' C$ D' $C J3E HE3D' NNH-E ' $ED' E' +3' P$EE34' H' D 43N ' &4HJ' * J]' H' * J3' $C' F3' J$O' C33' & ' F$' F3' PHE 3C' C $ED E2' H' F3' @43D ' H&' F3' NNH-E' E - 3D' ` *F3' ?3N43 $4O' H&' B$E+4-1 C' @HJ 13EC$ HE' NNH-E c' H4' ?H J NF' F343H&' $C' F3' E $O' & ED' H' Q3' E3N3CC$4O' CF$ 'Q3' N$44 3D' H 34' QO' F3' C$ D' NNH-E $E ' M3E34$' H' F3' @43D ' H&' F3' NNH-E' E - 3D' `' *F3' ?3N43 $4O' H&' B$E+4-1 C' NNH-E c' $ED' F3' C$J3' F3E' CH' N$44 3D' H 34' CF$ ' $ED' J$O' Q3' $11 3D' E' C$ C&$N HE' H&' $EO' ?-J' H4' ?-JC' NF$ E3D' -1HE' H4' J$D3' 1$O$Q 3' H-' H&' F3' C$ D' $C J3E HE3D' NNH-E

, , <' ? ; @# , G<' K' * ; ' * <

M # > ; > P ' ' ' ; M ?

@ I ' @W

' N ' &H4' F3' Q3 34' C3N-4 E2' F3' @F$4 $Q 3' GHE$ HEC' $ED' B3X-3C C' H&' 8 C' P $(3C O C' ?-QR (3N C' E' ! ' ' 14H&3CC E2' F3' ' H J $E' @$ FH N' ' 3 2 HE' I ! F' ZSU d

> 8 ; ' ; ?' QO' $E' N ' 1$CC3D' E' F3' 6 4C ' =3$4' H&' F3' ' 3 2E H&' % E2' %% ' $ED' \ -33E' ' E - 3D' / #' / ' ' , ' ' 9 KP' !J! 5 #(' 1' U!1 1' * , !1 # ' +3% ! ' 1' & 11!# #(' , ')!' I)3 ')' , ' ; E2 $ED' , ')!' *!# % !1' , ' ' ! #' < F1 ' '$ED' QO' N34 $ E' C-QC3X-3E ' ? $ - 3C ' F3' ?NFHH C' $ED' I $N3C' &H ' ' 3 2 H-C' 9 H4CF 1 ' ; D-N$ HE ' $ED' @F$4 $Q 3' I - 1HC3C' H&' I 4H 3C $E ' G CR C3E 34C' $43' 3 3 J 1 3D' &4H J' F3' <134$ HE' H&' N34 $ E' 13E$ ' $ED' D CR $Q E2' >$ C' H' F NF' F3O' 343' C-Q(3N ' 143 H-C O' H' F3' 1$CC E2' H&' F3' C$ D' 43N 3D' N ' H&' F3' 6 4C ' =3$4' H&' F3' ' 3 2E' H&' % E2' %% ' $ED' \ -33E' ED' F343$C' QO' N34 $ E' N C' H&' F3' I $4 $ J 3E ' H&' +' , % #&' $ED' 1$4 N- $4 O' QO' $E' N ' 1$CC3D' E' F3' =3$4' <E3' FH-C$ED' C3 3E' F-ED43D' E - 3D' / #' / ' ' , '5 !0!# #(')!' , F)' V ' * , 5! ' [[' N S' $4 H-C' I 3E$ 3C' $ED' G C$Q 3C' 343' J 1HC3D' -1HE' I 34CHEC' 14H&3CCR E2' F3' ' H J $E' @$ FH N' ' 3 2 HE' E' +' , % #&' ' ED' F343$C' EH FR C $ED E2' F3' I 4H C HEC' H&' $4 H-C' N C' 1$CC3D' &H4' F3' ' 3&' H&' 8 C' P $(3C OC' ' H J $E' @$ FH8N' ?-Q(3N C' &4H J' D C$Q E2' >$ C' GH-Q C' F$ 3' Q33E' 3E 34 $ E3D' F3 F34' ' Q3' $ &- ' &H4' 8 C' P $(3C O C' ?-Q(3N C' 14H&3CC E2' F3' ' H J $E' @$ FH N' ' 3 2 HE' E' +' , % #&' H' $NX- 43' $ED' FH D' E' ' 3$ ' ; C $ 3' F3' I 4H134 O' E3N3CC$4O' &H4' ' 3 2 H-C' 9 H4CF 1 U' G' ' ; D-N$ HE

; -N$ HE' $ED @F$4 $Q3 I-41HC3C: %ED I343$C ' C3 13D 3E' H 43JH 3 $ ' GH-Q C 43C13N E2 F3 ' 2F' H& 8 ' P$(3C O C ?-Q(3N C 14H&3CC E2 F3 'HJ$E @$ FH N '3 2HE E 8#(% #& $ED ?C !1 H $NX- 43 $ED FH D I4H134 O E3N3CC$4O &H4 '3 2H-C 9H4CF 1' ;D-N$R HE' $ED @F$4 $Q3 I-41HC3C: B3 ' F343&H43 3E$N 3D QO F3 % E2 C JHC' ; N3 3E' P$(3C O' QO $ED F F3 D N3 $ED @HEC3E' H& F3 >H4DC ?14 -$' $ED *3J1H4$ ' $ED @HJ JHEC' E F C 143C3E' I$4 $R J3E' $CC3JQ 3D' $ED QO F3 - FH4 O H& F3 C$J3' *F$' &4HJ' $ED $& 34 F3 1$CC E2 H& F C N' 8 C P$(3C O C ?-Q(3N C 14H&3CC E2 F3 'HJ$E @$ FH N '3 2HE' E 43C13N' H F3 4 ?NFHH C' I $N3C &H4 '3 2H-C 9H4CF 1' ;D-N$ HE' $ED @F$4 $Q3 I-41HC3C' E !!& " #' $ED F3 I4H134 O F3 D F343 F' $ED F3 I34CHEC 3 $1 HO3D E H4 $QH-' F3 C$J3' CF$ ' E 43C13N' F343H&Q3 C-Q(3N' H F3 C$J3 >$ C $C F3 I4H 3C $E' G CC3E 34C $43 C-Q(3N' H E 8#(% #& E 43C13N' H F3 4 ?NFHH C $ED I $N3C &H4 '3 2H-C 9H4CF 1' ;D-N$ HE' $ED @F$4 $Q3 I-41HC3C' $ED EH '&-4 F34 H4 H F34 C3

'HJ$E @$ FH NC H F3 C-Q(3N' H F3 C$J3 >$ C $C I4HR 3C $E' G CR C3E 34C' F 43C13N' H ?NFHH C $ED I $N3C H& 9H4CF 1

' I4H D3D $ $OC' $ED Q3 '&-4 F34 3E$N 3D' *F$' E'$ '@$C3C E F NF ?NFHH J$C 34C H4 H F34 I34CHEC 3J1 HO3D E C-NF ?NFHH C H4 H F34 I $N3C $43' $C $ 32$' \-$ &N$ HE &H4 C-NF ; J1 HOJ3E C' EH '43X- 43D QO >$ ' H $+3 F3 <$ F H& ?-143J$NO' H4 F3 <$ F H4 G3N 4 HE 2 EC' *4$EC-QC $E $ HE $ED F3 E HN$ HE H& ?$ E C $ED ?$N4 &N3 H& F3 P$CC' H4 H 43N3 3 F3 ?$N4$J3E' H& H-4 >H4D C ?-1134' H4' E +', % #&' H C-QCN4 Q3 F3 6H4J- $ $EE3 3D H F3 &H43C$ D N '&H4 143 3E E2 F3 M4H F H& IH134O' $EO ?-@F ?NFHH R J$C 34' H4 H F34 P$C 34' 14H&3CC E2 F J C3 & $ 'HJ$E @$ FH N' CF$ ' E 3-' H& F3 \-$ &N$ HE $&H43C$ D &H4 FH D E2 C13F ; J1 ^&4J3E ' $+3 F3 <$ F NHE $ E3D E F3 ? $ - 3 1$CC3D E F3 *3E F =3$4 H& 8 C $ 3 P$(3C O ' E - 3D /# / ' ' , ')! " !% ! 'V '8% 1 U!1 1 L, # I),% " +34U!' 1' $ED $' F3 * J3C $ED E J$EE34 E F$' N' J3E HE3D

'HJ$E @$ FH N ?NFHH ' '$C 34C F3E 43X- 43D H $+3 <$ F' H $+3 F$' 143CN4 Q3D QO [' M' 'N'

' I4H D3D $ $OC' $ED Q3 '&-4 F34 3E$N 3D' *F$' EH F E2 E F C N' NHE $ E3D CF$ ' $&&3N' $EO ?- ' $N -$ O 13ED E2 H4 NHJR J3EN3D' H4 $EO I4H134 O EH ' E > 2$ HE' G CN-CC HE' H4 G C1- 3 E $EO H& 8 C P$(3C O C @H-4 C H& >$ 'H4 ;X- O E ! ' " #

N' EH' H $& &3H 13ED' E2 ?- C'

' I4H D3D $ $OC' $ED Q3 '&-4 F34 3E$N 3D' *F$' EH F E2 E NHE $ E3D CF$ ' Q3 $+3E H 4313$' H4 E $EO $O $ 34 $EO I4H CHE H& $E N' 1$CC3D E F3 *3E F =3$4 H& F3 '3 2E N& 8 C $ 3 P$(3C O H/J(!, (! F3 6H-4 F' 0 0%!&' /# / ' ' , ')! " !O! ', ' U(1 U!1 1 L, # I),% " +3 !' 1' 43C13N E2 F3 ?-1143CC HE H4 I4HF Q HE H& F3 '3 2H-C <4D34C H4 ?HN3 3C H& F3 @F-4NF H& L, ! QH-ED QO PHE$C N H4 '3 2H-C H C

,H4 H 4313$' ' &H4 ? 1143C' C HEH&334 $ E '3 2H-C ?HN3 3C'

' I4H D3D $ $OC' $ED Q3 '&-4 F34 3E$N 3D' *F$' $ ' I4H134 O H Q3 $NX- 43D H4 F3 D &H4 C-NF I-41HC3C H& '3 2H-C 9H4CF 1' ;D-N$ HE' $ED @F$4 $Q3 I-41HC3C' E 8#(% #& $ED %!1' CF$ 'Q3 C-Q(3N' H F3 I4H C HEC H& $E N' 1$CC3D E F3 , E F =3$4 H& F3 '3 2E H& % E2 !, (! F3 ?3NHED' E - 3D /# / ' ' ,' !1 #)! 2 15,1 ,# , '< #&1 F)! !4')! 1 ! ' 4!', ! 3# % !# 4%!' $ED H F3 C$J3 >$ C $C F3 I4H 3C $E' G CC3E 34C $43 C-Q(3N' H E 8#(% #& E 43C13N' H& F3 $NX- 4 E2 H4 FH D E2 H& C-NF I4H134 O.

I4H134 O F3 D &H4 F3 I-4R 1HC3C J3ER HE3D E F C N' E ;ER 2 $ED $ED 9$ 3C' H Q3 C-Q(3N' H F3 I4H C HEC H& V M' U' N' SY

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>< , G< , .: I4 E 3D QO MEH$HE ; O$E $ED & L / 8
I4 E 34C H F3 @E2 C JHC ; N3 3E P$(3C O ZSU

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> 8 ; ' ; ?ʽ Eʽ $Eʽ N ʽ 1$CC3Dʽ Eʽ 3ʽ 6 4C ʽ =3$4ʽ H&ʽ F3ʽ ' 3 2Eʽ H&ʽ 8 Cʽ 143C3E ʽ P$(3C Oʽ 3%!&ʽ / #ʽ / ' ʽ?4 ʽ)!ʽ +355, ʽ H&ʽ 1ʽ U!1 1ʽ ,31!) ,%&ʽ #&ʽ , ʽ)!ʽ ,#,3 ʽ #&ʽ 2 (# ʽ , ʽ)!ʽ I ,F#ʽ , ʽ)!ʽ O# !&ʽ #(&, ʽ H ʽM43$ ʽB4 $ Eʽ EJ0 4D$EDʽ ʽ Cʽ 43N 3Dʽ F$ʽ Eʽ NHEC3X-3EN3ʽ H&ʽ 8 Cʽ P$(3C Oʽ F$ E2ʽ Q33Eʽ 24$N H-C Oʽ 1 3$C3Dʽ Hʽ C 2E &Oʽ Hʽ 8 Cʽ &$ F&-ʽ @H J JHECʽ Eʽ I$4 $R J3E ʽ $CC3JQ 3Dʽ F$ʽ 8 Cʽ P$(3C Oʽ 1 $N3Dʽ FH-ʽ ' 3C34 3ʽ $ʽ F3 4ʽ G C1HC$ʽ 8 Cʽ P$(3C O Cʽ E 343C ʽ Eʽ F3ʽ 8343D $40ʽ ' 3 3E-3C ʽ $EDʽ Eʽ FHC3ʽ 6-EDCʽ F NFʽ J $Oʽ Q3ʽ D34 3Dʽ &4HJʽ $EOʽ G4H Cʽ H&ʽ F3ʽ @4H Eʽ H4ʽ DJ 4$ Oʽ &4HJʽ F3ʽ !1ʽ $#& ʽ G- 3Cʽ H4ʽ &4HJʽ $EOʽ N$C-$ʽ ' 3 3E-3C ʽ 3 F34ʽ Eʽ 8 Cʽ P$(3C O Cʽ 6H43 2Eʽ IHCC3CC HECʽ H4ʽ Eʽ F3ʽ #E 3Dʽ % E2DHJ ʽ $EDʽ F$ʽ Eʽ C-443ED34 E2ʽ 8 Cʽ P$(3C O Cʽ E 343C ʽ Eʽ ' 3 3E-3Cʽ F NFʽ F$Dʽ Eʽ &H4J34ʽ ?3 3J3E Cʽ H&ʽ F3ʽ @ ʽ > C ʽ Q33Eʽ 43C34 3Dʽ Hʽ F3ʽ @4H Eʽ 8 Cʽ P$(3C Oʽ 43(HN3Dʽ Eʽ F3ʽ <11H4R -E Oʽ H&ʽ 3 EN E2ʽ 8 Cʽ P$(3C O Cʽ 3E 43ʽ ' 3 $EN3ʽ HEʽ F3 4ʽ D- &-ʽ $NF J3E ʽ $EDʽ 8 Cʽ P$(3C O Cʽ @HE& D3EN3ʽ F$ʽ F3Oʽ H- Dʽ NF334R &- Oʽ 14H D3ʽ $ ʽ F$ʽ J 2F ʽ Q3ʽ E3N3CC$4Oʽ &H4ʽ F3ʽ ?-11H4ʽ H&ʽ F3ʽ @ ʽ@H 34EJ3E ʽ $EDʽ F3ʽ 8HEH-4ʽ $EDʽ G 2E Oʽ H&ʽ 8 Cʽ P$(3C O Cʽ ʽ@4H Eʽ(8 Cʽ P$(3C O Cʽ JHC ʽ D- &-ʽ $EDʽ HO$ʽ ?-Q(3N Cʽ F3ʽ @HJR JHECʽ H&ʽ F3ʽ #E 3Dʽ % E2DH1ʽ H&ʽ ! ʽ " #ʽ F &ʽ $!% #&ʽ Eʽ I$4 $J3E ʽ $CC3JQ 3Dʽ Fʽ 83$4 Cʽ &-ʽ H&ʽ F3ʽ $4J3C ʽ G- Oʽ $EDʽ

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M4$ -D3' D3N$43' F3 4' G3C 43' F ' I4H CHE' CFH-D' Q3' J$D3' &H4' F3' ?-11H4' H&' F3' @ 'MH 34EJ3E' QO' @F$423C' -1HE' F3' @HECH D$3D' 6-ED' $ED' H F34 C3' QO' H F34' N C' H' Q3' 1$CC3D' E' F3' F3E' ?3CC HE' H&' I$4 $J3E ' $ED' F$' $' N34 $ E' $ED' NHJR 13 3E' '3 3E-3' &H4' D3&4$O E2' F3' ; 13EN3?' H&' 8 C' P$(3C O C' 8H-C3FH D' $ED' C-11H4 E2' F3' 8HEH-4' $ED' G 2E O' H&' F3' @4H E' H&' F3' #E 3D' % E2DHJ' D-4 E2' 8 C' P$(3C O C' > &3' ^ FHJ' MHD' HE2' 143C34 3_' J 2F' Q3' C3 3D' -1HE' 8&3' P$(3C O' ' ED' F343$C' QO' F3' C$D' 43N 3D' N ' F3' $ 34' <Q(3N ' $C' 3&&3N 3D' Q-' EH' N ' H4' N C' F$ 3' C EN3' 1$CC3D' &H4' J$+ E2' F3' NHE 3J 1 $ 3D' I4H CHE' &H4' F3' @ 'MH 34EJ3E' @F$423C' 143 H-C O' QH4E3' -1HE' F3' @ ' > C' '3 3E-3C' -1HE' F3' 8343D $4O' '3 3E-3C' H&' +', % #&' $ED' -1HE' F3' 6H-4' $ED' 8$ &' 5! ' I!# 3 ' G- 3C' H 34' $ED' $QH 3' F3' @F$423C' 14H D3D' &H4' QO' F3' C$D' 43N 3D' N ' $ED' C-NF' @F$423C' F$ 3' &4HJ' * J3' H' * J3' Q33E' 14H D3D' &H4' QO' HNN$C HE$' M4$E C' H&' 1$4 $J3E' -E ' F3O' CFH-D' Q3' NF$423D' -1HE' F3' @HECH D$3D' 6-ED' H4' H F34 C3' 14H D3D' &H4' $NNH4D E2' H' F3' ?1 4 ' $ED' P3$E E2' D3R N$43D' E' F3' C$D' 43N 3D' N .' ED' F343$C' ' F$C' Q33E' D33J3D' 3 13D 3E' F$' J$EO' H&' F3' C$D' @F$423C' CFH-D' Q3' 24$E 3D' &4HJ' =3$4' H' =3$4' -1HE' ;C J$ 3C' H' Q3' $EE-$ O' 1431$43D' &H4' F$' I-4R 1HC3' ' ED' F343$C' ' C' EH 'D33J3D' 3 13D 3E' H' N$44O' E H' 3&&3N' F3' E 3E HEC' 3 143CC3D' E' F$' N ' QO' J$+ E2' I4H CHE' &H4' H F34' H&' F3' C$D' @ 'MH 34EJ3E' @F$423C' H-' H&' F3' @HECH D$3D' 6-ED' H&' F3' #E 3D' % E2DHJ' H&' ! ' " #' $ED' $!) ' ' B3' ' F343R &H43' 3E$N 3D' QO' F3' % E2 C' JHC' ; N3 3E' P$(3C O' QO' $ED' F' F3' D N3' $ED' @HEC3E' H&' F3' >H4DC' ?1 4 -$' $ED' *3J1H4$ ' $ED' @HJJHEC' E' F C' 143C3E' I$4 $J3E' $CC3JQ 3D' $ED' QO' F3' - FHR 4 O' H&' F3' C$J3' *F$' ' CF$ 'Q3' $ &-' &H4' 8 C' P$(3C O' 8 C' 83 4C' $ED' ?-NN3CCH4C' H' 24$E' F3' C3 34$' $ED' 43C13N 3' $EE-$' ?$ $4 3C' F343 E $& 34' C13N & 3D' &4HJ' $ED' $& 34' F3' 6 & F' G$O' H&' / 5 %' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O H' H' F3' 5-D23C' H&' 8 C' P$(3C O C' @H-4 C' $' !1 #1 ! ' $ED' 234% #' F343 E $& 34' 3E-J3R 4$ 3D' ^ F$' C' H' C$O_' H' F3' @F 3&' 5-C N3' H&' F3' @H-4' H&' % E2 C' B3ENF' $' !1 #1 ! ' *3E' FH-C$ED' IH-EDC' H' F3' @F 3&' 5-C N3' H&' F3' @H-4' H&' @HJJHE' I 3$C' $' !1 #1 ! ' ; 2F' FH-C$ED' IH-EDC' H' F3' @F 3&' B$4HE' H&' F3' @H-4' H&' ; NF3X-34' $' !1 #1 ! ' ?3 3E' FH-C$ED' IH-EDC' H' 3$NF' H&' F3' I-CE3' 5-C N3C' H&' F3' @H-4 C' H&' % E2 C' B3ENF' $ED' @HJJHE' I 3$C' $ED' B$4HEC' H&' F3' @H &' H&' F3' @H-4' H&' ; NF3X-34' $' !1 #1 ! ' FH' J$O' F$ 3' Q33E' $11H E 3D' Q3&H43' F3' ? 33E F' G$O' H&' E,0! 4! ' \#!' FH-C$ED' 3 2F' F-ED43D' $ED' 3E O 3 2F ' 6 3' FH-C$ED' & 3' F-ED43D' IH-EDC' H' 3$NF' H&' F3' I-CE3' 5-C N3C' $ED' B$4HEC' H&' F3' C$D' @H-4 C' FH' J$O' F$ 3' Q33E' $11H E 3D' C EN3' F3' ? 33E F' G$O' H&' E,0! 4! ' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' 3E O 3 2F ' $ED' H' FHC3' FH' J$O' Q3' F343$& 34' $11H E 3D' 6 3' FH-C$ED' IH-EDC' H' F3' @-4C H4' B$4HE' H&' F3' ; NF3X-34' $' !1 #1 ! ' D-4 E2' F3' @HER E-$EN3' H&' F3' 3 C E2' E 343C' F343 E' * H' F-ED43D' $ED' &H4 O F433' IH-EDC' ' H' F3' N3 @F$EN3 H4' H&' 8#()3&' ? ' FH-C$ED' IH-EDC' ' H' F3' >H4D' @F$EN3 H4' H&' $!% #&' ; 2F ' FH-C$ED' IH-EDC' ' X' F3' @F 3&' 5-C N3' H&' F3' @H-4' H&' % E2 C' B3ENF' E' 234% #' 6 3' FH-C$ED' $ED' C3 3E O &H-4' IH-EDC' , E3' ?F E2C' $ED' 6H-4 13EN3' (H' F3' @F 3&' 5-C N3' H&' F3' @H-4' H&' @HJJHE' I 3$C' E' 2 3 #' 6H-4' FH-C$ED' C ' F-ED43D' $ED' 3 3' IH-EDC' ; 2F 33E' ?F E2C' $ED

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?$ $4 3C' H 5-D23C

U" K S č M # > ; > P ' ' @$1' Y

; 2 13 (N3' H' Q3' @F 3&' B$4HE' H&' F3' @H-4' H&' ; NF3X-34' E' 234% #' ;H-4' FH-C$ED' C ' F-ED43D' $ED' 3 3' I H-EDC' ; 2F 33E' ?F E2C' $ED' ; 2F 13EN3' H' F3' ?3NHED' 5-C N3' 1&' F3' @H-4' H&' % E2 C' B3ENF' E * F 4 3 3 ' FH-C$ED' C3 3E' F-ED43D' $ED' 3E O & 3' I H-EDC' , E3 33E' ?F E2C' $ED' 6H-4 13EN3' ' H' 3$NF' H&' F3' H F34' I - CE3' 5-C N3C' H&' F3' @H-4 C' H&' % E2 C' B3ENF' $ED' @H J J HE' 6 3$C' $ED' B$4HEC' H&' F3' @H &' E' F3' @H-4' H&' ; NF3X-34' E' 234% #' * F433' FH-C$ED' C ' F-ED43D' $ED' 3 2F O 3 2F' I H-EDC' * 3 3' ?F E2C' $ED' 6H-4 13EN3' H' F3' 5-D23' H&' F3' D J 4$ O' @H-4' E' $!% #&' 6 3' F-ED43D' I H-EDC' $ED' $ ' C-NF' ?$ $4 3C' CF$ ' Q3' 1OQ 3' X-$4 34 O' $ED' CF$ ' Q3' NF$423D' $ED' NF$423$Q 3' -1HE' $ED' 1$ D' H-' H&' F3' @HECH D$ 3D' 6-ED' H&' F3' # E 3D' %4E2DH J' H&' ! ' " #' $ED' $!% #& ' $ED' $ ' C-NF' 43C13N 3' ?$ $4 3C' CF$ ' Q3' F3' &- ' ?$ $4 3C' H&' 3$NF' H&' C-NF' 5-D23C' $ED' CF$ ' Q3' E' 3-' H&' $ ' ?$ $4 3C' F343 H&H43' 1$O$Q 3' H' C-NF' 5-D23C' H-' H&' F3' @HECH D$ 3D' 6-ED' H4' @ ' > C ' H4' H F34' 6-ED' F$ CH3 34' -ED34' $EO' N ' H4' N C' H&' F3' I $4 $ J 3E ' , ' ! ' " #' H4' $!% #&' , ' H&' F3' # E 3D' % E2DH J ' $ED' H&' $ ' 633C' H4' H F34' ; J H - J 3E C' F NF' F343 H&H43' J $D3' I $4' H&' F3' ?$ $4 3C' H&' $EO' H&' C-NF' 5-D23C' 43C13N 3 O' C$ 3' $ED' 3 N31' $C' H' 633C' 3N3 $Q 3' QO' F3' 143C3E' @-4C H4' B$4HE' H&' F3' ; NF3X-34' FH' CF$ ' Q3' $ H 3D' H' NHE E-3' H' $+3' $ED' 43N3 3' $ ' 633C' 32$ O' DN J EDQ 3' QO' F J ' D-4 E2' F3' @HE E-$EN3' H&' F C' 3 C E2' E 343C' E' F3' C$ D' <&& N3' ' $EO' F E2' NHE $ E3D' E' $EO' N ' H4' N C' H&' F3' I $4 $ J 3E ' , ' ! ' " #' , J' $!% #&' H4' H&' F3' # E 3D' % E2DH J ' H4' $EO' >$ ' #C$23' H4' @-C H J ' 43 $ E2' H' $EO' H&' F3' ?$ $4 3C' H&' $EO' H&' C-NF' 5-D23C' 43C13N 3 O' H' F3' NHE 4$4O' EH R FC $ED E2

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' $ ' C-NF' 633C' $ED' 13N-E $4O' I 4H& C' $? F$ 3' F343 H&H43' Q33E' -C3D' $ED' $NN-C H J 3D' H' Q3' D3R J $ED3D' $ED' 43N3 3D' QO' H4' &H4' F3' # C3' H&' $#O' H&' F3' $&H43C$ D' 5-D23C' ^C$ 3' $ED' 3 N31' F3' C$ D' @-4C H4' B$4HE_ ' H4' H&' F3' >H4D' @F$EN3 H4' H&' $!% #&' CF$ ' NHE E-3' H' Q3' D3 J $ED3D' $ED' 43N3 3D' QO' F3' I 34CHEC' FH' F$ 3' F343 H&H43' D3 J $ED3D' $ED' 43N3 3D' F3' C$ J 3' $ED' CF$ ' Q3' $NNH-E 3D' &H4' X-$4 34 O' $ED' 1$ D' E H' F3' ; R NF3X-34' $ED' Q3' N$44 3D' H' $ED' J $+3' I $4' H&' F3' C$ D' @HECH D$ 3D' 6-ED

633C' KN' F343 H&H43' 43N3 3D' QO' 5-D23C' $ED' >H4D' @F$ER N3 H4' H&' 43R $ED' H' Q3' 1$ D' E H' F3' ; NF3X-34

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' ' CF$ ' Q3' $ &-' &H4' 8 C' P $(3C O' 8 C' 8 3 4C' $ED' ?-NN3CCH4C' H' 24$E ' H' F3' >H4D' > 3- ' 3E$E ' M3E34$' $ED' M3E34$' MH 34EH4' H&' $!% #&' &H4' F3' * J 3' Q3 E2 $E' $EE-$' ?$ $4O' H&' * 3E O' FH-C$ED' I H-EDC' NF423Q 3' -1HE' F3' C$ D' @HECH D$ 3D' 6-ED' H&' F3' # E 3D' % E2DH J ' H&& ! ' " #' $ED' $!% #&' H' Q3' 1$ D' $ED' 1$O$Q 3' X-$4 34 O' $' F3' 6H-4' J HC' -C-$' G$OC' H&' I $O J 3E ' E' F3' =3$4' F3' & 4C' I $O J 3E ' H' NH J R J 3EN3' $ED' $+3' 3&&3N' &4H J ' F3' 6 & F' G$O' H&' / 5 %' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H

?$ $4O' H' >H4D' > 3-R

'

' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' ' CF$ ' Q3' $ &-' &H4' 8 C' P $(3C O' 8 C' 8 3 4C' $ED' ?-NN3CCH4C' H' NF$423' -1HE' F3' @HECH D$ 3D' 6-ED' H&' F3' # E 3D' % E2DH J ' H&' ! ' " #' $ED' $!% #&' $E' $EE-$' ?- J' H&' * H' F-ED43D' $#D' F433' FH-C$ED' & 3' F-ED43D' $ED' 3E' I H-EDC' H' D3&4$O' F3' @F$423' H&' F3' ?$ $4 3C' $ED' H $$N3C H&

G 1 H J $ N' ?$ $4 3C' $ED' I 3EC HEC

[SU　　Uč K' SčM # >　; > P '　　' @$1'　Y

H&' 8 C' P$(3C O C' G 1 H J $ N' ?34 $E C' 3 J 1 HO3D' $ ' 6H43 2E' @H-4 C' $ED' H&' F3' I3EC HEC' F NF' F$ 3' Q33E' 24$E 3D' 6 ' J $O' F343$& 34' Q3' 24$E 3D' H' I34CHEC' F$ E2' C34 3D' 8 C' P $(3C O' $ ' 6H43 2E' @H-4 C' F3' C$ D' @F$423' H' $+3' 3&&3N ' $ED' NH J J 3EN3' &4H J' F3' 6 & F' G $O' H&' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H

'3C 4 N HE' HE' JH-E' H&' M4$E C' H&' I3EC HEC

' I4H D3D' $ $OC' $ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' -E ' F3' C$ D' ?- J' H&' * H' F-ED43D' $ED' F433' FH-C$ED' & 3' F-ED43D' $ED' 3E' IH-EDC' CF$ ' Q3' 43D-N3D' H' F3' ?- J' H&' <E3' F-ED43D' $ED' 3 2F O' FH-C$ED' IH-EDC ' ' CF$ ' EH ' Q3' $ &- ' &H4' 8 C' P $(3C O ' 8 C' 8 3 4C' H4' ?-NN3CCH4C ' H' 24$E ' E' $EO' <E3' =3$4' $' $4234' $EE-$ ' J H-E ' E' I3EC HEC' &H4' G 1 H J $ N' ?34 N3C' F$E' * H' FH-C$ED' 6H-EDC' E' F3' FH 3 ' $ED' F3E' F3' $N -$ ' @F$423' CF$ ' Q3' 43D-N3D' H' F3' ?- J' H&' <E3' F-ED43D' $ED' 3 2F O' FH-C$ED' 6H-EDC ' ' CF$ ' "H ' Q3' $ &- ' &H4' 8 C' P $(3C O ' 8 C' 8 3 4C' $ED' ?-NN3CCH4C ' H' NF J .23' -1HE' F3' C$ D' @HECH D$ 3D' 6-ED' &H4' $EO' <E3' =3$4' $' $4234' J H-E ' H' D3&4$O' F3' @F$423C' H&' G 1 H J $ N' ?$ $4 3C' H $EN3C ' $ED' I3EC HEC' F$E' <E3' F-ED43D' $ED' 3 2F O' FH-C$ED' 6H-EDC

> J $ HE' H& G1HJ$ N I3EC HEC

' ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' EH' E3 ' G 1 H J $ N' I3EC HE' F NF' J $O' F343$& 34' Q3' 24$E 3D' -ED34' F3' - FH4 O' H&' F C' N ' CF$ ' 3 N33D' <E3' FH-C$ED' C3 3E' F-ED43D' IH-EDC' 5! ' / ## ' , ' $EO' <E3' I34CHE' &H4' F3' 6 4C ' @ $CC ' <E3' FH-C$ED' 3 3 ' F-ED43D' IH-EDC' 5! ' / ##3 ' H' $EO' <E3' I34CHE' &H4' F3' ?3NHED' @ $CC ' , E3' F-ED43D' IH-EDC' 5! ' / ##3 ' N' $EO' <E3' I34CHE' &H4' F3' * F 4D' @ $CC ' $ED' ?3 3E' F-ED43D' IH-EDC' 5! ' / ##3 ' H' $EO' <E3' I34CHE' &H4' F3' 6H-4 F' @ $CC ' $ED' F$ ' C-NF' I3EC HEC' CF$ ' HE O' F3' CH' 24$E 3D' -ED34' F3' &H H E2' '32- $ HEC' $ED' '3C 4 N HEC' ' ^ F$ ' C' H' C$O _

6 4C ' * F$ ' EH' G 1 H J $ N' I3EC HE' F$ 3 34' CF$ ' F3' 24$E 3D' H' $EO' I34CHE' -E ' F3' ; 1 4$ HE' H&' 6 & 33E' =3$4C' &4H J' F3' G$ 3' H&' F C' 6 4C ' @H J J CC HE ' EH4' -E 3CC' F3' CF$ ' F$ 3' $N -$ O' C34 3D' * 3E' =3$4C.

?3NHED ' * F$ ' EH' I34CHE' CF$ ' Q3' X-$ & 3D' H' 43N3 3' $' I3EC HE' H&' F3' 6 4C ' @ $CC' -E 3CC' F3' CF$ ' F$ 3' $N -$ O' 43C D3D' * F 33' =3$4C' $C' J Q$CC$DH4' $ ' CH J 3' 6H43 2E' @H-4 .

* F 4D ' * F$ ' EH' I34CHE' CF$ ' Q3' X-$ & 3D' H' 43N3 3' $' I3EC HE' H&' F3' ?3NHED' @ $CC' FH' CF$ ' EH ' F$ 3' $N -$ O' 43C D3D' 6 3' =3$4C' $C' $E' ; E HO' ; 4$H4D E$4O' $ED' P E C 34' 6 3E 1H 3E $4O' $ ' CH J 3' 6H43 2E' @H-4 .

6H-4 F ' * F$ ' EH' I34CHE' CF$ ' Q3' X-$ & 3D' H' 43N3 3' $' I3EC HE' H&' F3' * F 4D' @ $CC' FH' CF$ ' EH ' F$ 3' $N -$ O' 43C D3D' 6 3' =3$4C' $C' P E C 34' I 3E 1H 3E $4O' \N P E C 34' 43C D3E ' $ ' CH J 3' 6H43 2E' @H-4 .

6 & F ' * F$ ' I3EC HEC' E' F3' 43 J $ E E2' @ $CC' CF$ ' EH ' 3 N33D' ?3 3E' F-ED43D' IH-EDC' 5! ' / ##3 ' -ED34' F3' C$ J 3' @HED HEC' $C' H' * J 3' H&' '3C D3EN3

6H4&3 -43' [' Q$ 3 J 3E H& I3EC HE' E N34 $ E@$C3C'

I4H D3D' $ $OC' $ED' Q3' '&-4 F34' 3E$N 3D' * F$ ' $ ' G 1 H J $& N' I3EC HEC' CF$ ' Q3' C-Q(3N ' H' 6H4&3 -43' E' N$C3' H&' '3&-C$ ' H&' F3' I34CHE' FH D E2' F3' C$ J 3' H' 14HN33D' H' $EO' P CC HE' H&' 3X-$ ' H4' F 2F34' '$E+' F$E' F$ ' E' 43C13N ' H&' F NF' C-NF' I3EC HE' J $O' F$ 3' Q33E' 24$E 3D' $ED' H&' ?-C13EC HE' H4' Q$ 3 J 3E ' E' $EO' @$C3' E' 9 F NF F3

U' K'S' M#> ;>P ' ' @$1' Y [SS

F3' I34CHE' FH D E2' F3' C$J3' J$O' Q3' $11H E 3D' H' $EO' <&& N3' H&' I4H& '
-ED34' F3' @4H E

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' $E' NNH-E' H&' $' I$O' NNH-E' (&
J3E C' F NF' J$O' Q3' J$D3' &H4' D 1 HJ$ N' ?$ $4 3C' H $EN3C' $ED'
I3EC HEC' CF$ ' Q3' $ D' Q3&H43' QH F' 8H-C3C' H&' I$4 $J3E' HE' H4' Q3&H43
F3' * 3E O' & & F' G$O' H&' *$4N ' E' 3 34O' =3$4

W' ED' Q3' '&-4 F34' 3E$N 3D' *F$' ' CF$ ' Q3' $ &-' &H4' 8 C' I4H D E2' ?+!'
P$(3C O' 8 C' 83 4C' $ED' ?-NN3CCH4C' H' D 43N' F3' I$O J3E' H&' $EO
?-J' <4 ?-JC' H&' PHE3O' EH' 3 N33D E2' E' F3' FH 3' ; 2F O & 3' C HEC
FH-C$ED' HE3' F-ED43D' $ED' 3E O E E3' *, &1'U:!' , ' H&
F3' @HECH D$ 3D' 6-ED' H&' F3' #E 3D' % E2DHJ' H&' Y ! ' " #' $ED'
$!% #&' ,' D3&4$O' F3' @F$423' D-4 E2' F3' I 3$C-43' H&' 8 C' P$(3C O
8 C' 83 4C' $ED' ?-NN3CCH4C' H&' FHC3' I3EC HEC' F NF' 14 H4' H' F3'
NN3CC HE' H&' 8 C' P$(3C O' 343' NF$423D' -1HE' F3' @ '> C' 1OQ 3'
E' 8#(% #&' $ED' E' $!% #&' -1HE' F3' 8343D $4O' '3 3E-3C' H&' +', [
% #&' $ED' F3' 6H-4' $ED' $' 8$ &' 5! ' I!#3 'G- 3C' $ED' &H4' F NF' EH'
I4H C HE' 9$C' J$D3' E' F3' @ '> C' 24$E 3D' H' 8 C' P$(3C O' QO' F3'
N '&H4' F3' ?-11H4' H&' 8 C' P$(3C O C' 8H-C3FH D' $ED' &H4' F3' 8HEH-4'
$ED' G 2E O' H&' F3' @4H E' F3' C$ D' @F$423' H' NH J J3EN3' $ED' $+3'
3&&3N' &4HJ' F3' 6 & F' G$O' H&' / 5 %' <E3' FH-C$ED' 3 2F' F-ED43D' $ED'
F 4 O H'

W' I4H D3D' $ $OC' $ED' ' C' F343QO' &-4 F34' 3E$N 3D' *F$' ?-N' I3ER
C-NF' 13EC HEC' CF$ ' Q3' 24$E 3D' HEG' H' H4' HE' Q3F$ &' H&' FHC3' I34R C HEC' H' Q3'
CHEC' FH' 343' E' F3' '3N3 1' $ED' ; E(HO J3E' H&' H4' 343' Q3E3& N $ O' 24$E 3D' HE O'
E 343C 3D' E' $' I3EC HE' H&' NH443C1HED E2' JH-E' -1HE' F3' @ '> C' H' FHC3' I34R
' 8#(% #&' H4' E' $!% #&' F3' 8343D $4O' '3 3E-3C' H&' +', % #&' H4' CHEC' FH'
F3' 6H-4' $ED' $' 8$ &' 5! ' I!#3 'G- 3C' 14 H4' H' F3' NN3CC HE' H&' 343' NF$423D'
8 C' P$(3C O' $ED' F$' C-NF' H&' F3' C$ D' I3EC HEC' $1D' H&' F3' ?$ $4 3C' HE' F3' @ '
$ED' H $EN3C' F343 E $& 34' J3E HE3D' $C' F$ 3' F343 H&H43' Q33E' 1$ D' > C' KN
H-' H&' F3' 8343D $4O' '3 3E-3C' H&' +', % #&' $ED' H-' H&' F3' 6H-4' $ED'
$' 8$ &'(34' I!#3 ' G- 3C' CF$ ' $& 34' 8 C' P$(3C O C' > &3' ^ F NF'
MHD' HE2' 143C34 3_' $ED' E' F3' ; 3E' H&' 8 C' P$(3C O C' 83 4C' $ED'
?-NN3CCH4C' 43C-J E2' F3' ' 2F C' H&' F3' @4H E' E' F3' C$ D' 8343D $4O'
'3 3E-3C' H&' +', % #&' $ED' F3' 6H-4' $ED' $' 8$ &' 5! ' I!#3 ' G- 3C'
$ED' 43N3 E2' F3' ?$J3' F3E' N3$C3' H' Q3' $' @F$423' HE' F3' C$ D' @HER
CH D$ 3D' 6-ED

W>' ED' Q3' '&-4 F34' 3E$N 3D' *F$' ' CF$ ' Q3' $ &-' &H4' 8 C' ?$ $4 3C' H&'
P$(3C O' 8 C' 83 4C' $ED' ?-NN3CCH4C' H' NF$423' -1HE' F3' @HECH ' <&& N34C' &H4'
D$ 3D' 6-ED' H&' F3' #E 3D' % E2DHJ' H&' ! ' " #' , #&' $!% #&' $EO' H&' N*
?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' E' F3' FH 3' * 3E O' FH-' > C'
C$ED' F433' F-ED43D' $ED' E E3' IH-EDC' 5! ' / ##3 ' H' 1$O' ?$ $4 3C'
$ED' H $EN3C' F NF' 14 H4' H' F3' NN3CC HE' H&' 8 C' P$(3C O' 343'
NF423Q 3' HE' F3' @ '> C' '3 3E-3C' E' 8#(% #&' _ &' $!% #&' $ED'
HE' F3' 8343D $4O' '3 3E-3C' E' +', % #&' $ED' &H4' F NF' EH' I4H C HE'
F$C' Q33E' J$D3' QO' F3' N' &H4' F3' ?-11H4' H&' 8 C' P$(3C O C' 8H-C3R
FH D' $ED' &H4' F3' 8HEH-4' $ED' G 2E O' H&' F3' @4H E' F3' C$ D' @F$423'
H' NH J J3EN3' $ED' $+3' 3&&3N' &4HJ' F3' 6 & F' G$O' H&' / 5 %' <F3'
FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O H

[S ʿ UL ʿ K ʿ S" M#> ; > P ʿ ʿ @$1ʿ Y

?$ $4 3C ʿ KN ʿ
H Q3 &433 H&
*$ 4 ʿ

W ʿ ED Q3 ʿ &-4 F34 ʿ 3E$N 3D ʿ * F$ ʿ F3 ?3 34$ ʿ ?$ $4 3C ʿ H ʿ
$EN3C ʿ $ED I 3EC HEC 24$E 3D H4 H Q3 24$E 3D -ED34 ʿ F3 - FH4 O
H& F C N ʿ CF$ ʿ Q3 1$ D E3 ʿ $ED &433 $ED N 3$4 H& $ ʿ * $ 3C H4
@F$423C ʿ &H4 H4 E 43C13N ʿ H& $EO > $ED ʿ * $ ʿ H4 H& $EO I 3EC HE H4
H F34 G- O ʿ ' $ 3 ʿ H4 @F$423 F$ 3 34 ʿ $ED N 3$4 $ED D CNF$423D H&
$ ʿ 633C H4 I $0 J 3E C F$ 3 34 H F NF $EO C-NF ?$ $4 3C ʿ H R
$EN3C ʿ H4 I 3EC HEC J $0 F$ 3 Q33E F343 H&H43 ʿ H4 J $0 Q3 QO $EO N ʿ
H4 N C H& I $4 $ J 3E ʿ H4 > $ ʿ H4 > $ C ʿ D4 $EO $EN 3E ʿ # C$23 H4
@-C H J ʿ C-Q(3N ʿ H4 $Q 3 ($ED F$ ʿ $ ʿ C-NF ?$ $4 3C ʿ H $EN3C ʿ
$ED I 3EC HEC CF$ ʿ Q3 1$ D $ED 1$0$Q 3 X-$4 34 O $ ʿ F3 6H-4 J HC ʿ
-C-$ ʿ G$OC H& I $0 J 3E ʿ E F3 = 3$4 ʿ H23 F34 F $ ʿ ' $ 3$Q 3 I 4HR
1H4 HE H& F3 \ -$4 34 N-443E ʿ $ ʿ F3 G3$ F H4 ' 3C 2E$ HE H& $EO
H& F3 ʿ I 34CHEC E F3 ' 3N3 1 ʿ H& C-NF ?$ $4 3C ʿ H $EN3C ʿ $4 D
I 3EC HEC ʿ

* F3 * 43$C-4O
J $0 QO 9 $4R
4$E ʿ D 43N ʿ
F3 -D H4
H& F3 ; R
NF3X-34 H
1$CC G3Q3ER
-43C&H4 I $0R
J 3E ʿ H& F3
?$ $4 3C ʿ
I 3EC HEC ʿ KN

W ʿ 4 D Q3 ʿ &-4 F34 3E$N 3D * F$ ʿ ʿ CF$ ʿ Q3 $ &- ʿ &H4 F3 > H4D
8 2F * 43$C-434 ʿ H4 F3 @H J J CC HE34C H& F3 * J C-4O ʿ H& F3 # E 3D
% E2DH J ʿ H& ! ʿ " # $ED $!% #& ʿ &H4 F3 * J 3 Q3 E2 ʿ H4 $EO
* F433 H4 J H43 H& F3 J ʿ $4 D F3O $43 F343QO $- FH4 T3D $ED 43X- 43D ʿ
QO 9 44E ʿ -ED34 F3 4 8 $EDC ʿ H D 43N ʿ G3Q3E -43C H Q3 J $D3
&H4 F $ED 1$CC3D QO F3 14H134 <&& N34C $ ʿ F3 ' 3N3 1 ʿ H& 8 C P $R
(3C O C ; NF3X-34 ʿ &4H J ʿ * J 3 H * J 3 ʿ &H4 1$0 E2 F3 C$ D C3 34$ ʿ
?$ $4 3C ʿ I 3EC HEC ʿ H4 ? - J C H& P HE3O ʿ E J $EE34 $C $&H43C$ D ʿ $ED $C
F3 C$ J 3 CF$ ʿ &4H J ʿ * J 3 H * J 3 Q3NH J 3 D-3 $ED 1$0$Q 3 ʿ $NNH4D E2
H F3 4-3 E 3E ʿ $ED P 3$E E2 H& F C N ʿ F NF C$ D ʿ 9 44E C ʿ
$ED G3Q3E -43C H Q3 J $D3 &H4 F $ED 1$CC3D F343HE 43C13N 3 O ʿ
CF$ ʿ Q3 C-&& N 3E ʿ - FH4 O H F3 C3 34$ ʿ 43C13N 3 <&& N34C H& F3
' 3N3 1 ʿ H& F3 ; NF3X-34 ʿ EH ʿ $ED &H4 F3 * J 3 Q3 E2 ʿ &H4 F3
I $0 J 3E ʿ H& $ ʿ C-NF ?$ $4 3C ʿ I 3EC HEC ʿ H4 ? - J C H& P HE3O ʿ $ ʿ F3 43R
C13N 3 G$OC H Q3 $11H E 3D &H4 C-NF I $0 J 3E C ʿ FH- ʿ $EO &-4 F34
H4 H F34 9 44E C H Q3 C-3D &H4 ʿ F$D ʿ H4 HQ $ E3D E F$ ʿ B3F$ &

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ZSU

W ʿ ED F343$C EH I 4H C HE F$C Q33E J $D3 &H4 D3&4$0 E2 F3
@F$423 H& F$ ʿ I $4 ʿ H& F3 ?$ $4 3C H& F3 C3 34$ ʿ 5-D23C 3E- J 3R
4$ 3D E F C N ʿ &H4 J 34 O NF$423D-1HE F3 I / %$1 ʿ # 8 # (% #& $ED
$!% #& ʿ EH4 &H4 $EO H& F3 H F34 ?$ $4 3C ʿ H $EN3C ʿ $ED I 3EC HEC
H Q3 24$E 3D -ED34 F3 - FH4 O H& F C N ʿ &H4 $EO I 34 HD
C-QC3X-3E ʿ H F3 6 & F G$O , ʿ / 5 % 6#! ʿ H-C$ED ʿ 3 2F ʿ F-ED43D
$ED F 4 O H ʿ Q3 ʿ F343&H43 3E$N 3D ʿ * F$ ʿ ʿ CF$ ʿ Q3 $ &- ʿ &H ʿ
F3 > H4D 8 2F * 43$C-434 ʿ H4 @H J J CC HE34C H& Qb ʿ * 43$C-4O ʿ &H4 F3
* J 3 Q3 E2 ʿ H4 $EO * F433 H4 J H43 H& F3 J ʿ $& 34 F3 1$CC E2 ʿ H&
F C N ʿ $ED 143 H-C O H F3 J $+ E2 -1 H& F3 @HECH D$ 3D 6-ED
&H4 F3 \ -$4 34 F3E E3 ʿ 3EC- E2 ʿ H D 43N ʿ $ED N$-C3 H Q3 CC-3D ʿ
H- ʿ H& F3 24H E2 I 4HD-N3 H& F3 @HECH D$ 3D 6-ED ʿ C#NF CC-3C
$ED I $0 J 3E C $C J $0 Q3 E3N3CC$4O H D3&4$0 F3 @F$423 H& $ ʿ C-NF
?$ $4 3C ʿ H $EN3C ʿ $ED I 3EC HEC &4H J ʿ F3 6 & F G$O H& ME3
FH-C$ED 3 2F ʿ F-ED43D $ED F 4 O H H F3 6 & F G$O , ʿ ? 3% ʿ
< E3 FH-C$ED 3 2F ʿ F-ED43D $ED F 4 O 9 H ʿ

' 313$ ʿ H&
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W ʿ ED F343$C QO $E N ʿ 1$CC3D E F3 ? F = 3$4 H& F3
' 3 2E H& 8 C $ 3 P $(3C O % E2 # 3H42N F3 6H-4 F ʿ # %!& / #
/ ' ʿ , ! (3% !) ! * , ' ! ! & # (1 1 , 1! % # (, ʿ 1 #) ! I , 3 ʿ
, ʿ 8 J ') ! V3! ʿ # 43 $ED ʿ ʿ $C 3E$N 3D ʿ F$ ʿ &4H J ʿ $ED $& 34 F3

UL' K' S/' M # > ; > P ' ' @$1' Y [S!

6 & F' G$O' H&' ?3% ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' 3E O & 3' F343' CFH- D' Q3' CC-3D' $ED' 1$ D' H' F3' @F$EN3 H4' H&' F3' ; NF3X-34' H&' $!% #&' &4H J' * J 3' H' * J 3' &H4' F3' * J 3' Q3 E2' $ED' D-4 E2' F3' @HE E-$EN3' H&' $EO' $ED' 3 34O' C-NF' @F$EN3 H4' H&' F3' ; NF3X-34' E' F C' C$ D' <&& N3' $C' $' @H J 13EC$ HE' &H4' F3' >HCC' F NF' H- D' Q3' C-C $ E3D' QO' C-NF' @F$EN3 H4' H&' F3' C$ D' ; NF3X-34' QO' 43$CHE' H&' F3' C$ D' N ' F3' ?- J' H&' ? ' F-ED43D' I H-EDC' " 1)' @-443ENO' O3$4 O' $ED' 3 34O' =3$4' H- ' H&' $ED' NF$423D' $ED' @F$423$Q 3' -1HE' F3' @HECH D$ 3D' 6-ED' H&' F3' #E 3D' % E2DH J' H&' 6 ! &' " #' $ED' $!% #&' ED' F343$C' F3' ?$ $4O' H&' F3' @F$EN3 H4' H&' F3' ; NF3R X-34' &H4' F3' * J 3' Q3 E2' C' FH ' H F34 C3' 14H D3D' &H4' Q3' ' F343R &H43' 3E$N 3D' *F$' F3' C$ D' N ' CH' &$4' $C' F3' C$ J 3' 43 $ 3C' H' $EO' I $O J 3E' H' Q3' J $D3' H' F3' @F$EN3 H4' H&' F3' ; NF3X-34' &H4' F3' * J 3' Q3 E2' E' NH J 13EC$ HE' &H4' 633C' CF$ ' Q3' $ED' F3' C$ J 3' C' F343QO' 4313$ 3D

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H&ʻ 8#(% #&ʻ 4$D E2ʻ Hʻ F3ʻ 8 1 ʻ $#& !1 ʻ H4ʻ H F34ʻ " 1)ʻ
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Hʻ F3ʻ <&& N3ʻ H&ʻ 5 - C N3ʻ H&ʻ F3ʻ I 3$N3ʻ F Eʻ $EDʻ &H4ʻ F3ʻ * H ECʻ H&ʻ
I)3 ʻ & 1 ʻ $EDʻ " , 4 =ʻ Q3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ F3

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F3ʻ P $EE34ʻ 143CN4 Q3Dʻ QOʻ >$ ʻ &H4ʻ F3ʻ , H J E$ HEʻ $EDʻ 11H E R
J 3E ʻ H&ʻ I 34CHECʻ EH ʻ3 2 Q 3ʻ Hʻ F3ʻ <&& N3ʻ H&ʻ 5 - C N3ʻ H&ʻ F3ʻ I 3$N3ʻ Eʻ
F3ʻ * 344 H4 3Cʻ Eʻ F3ʻ I HCC3CC HEʻ $EDʻ - ED34ʻ F3ʻ MH 34E J 3E ʻ H&ʻ F3ʻ
C$ Dʻ @H J 1$EO ʻ $EDʻ C - Q(3N ʻ 3 31 ʻ $Cʻ Hʻ F3ʻ $+ E2ʻ H&ʻ $EOʻ < $ FC ʻ Hʻ
F3ʻ H F34ʻ I 4H C HECʻ H&ʻ F3ʻ #$ ʻ F NFʻ 43 $ 3ʻ Hʻ F3ʻ C$ Dʻ <&& N3 ʻ ʻCF$ ʻ
$EDʻ J $Oʻ Q3ʻ $ & - ʻ &H4ʻ F3ʻ MH 34EH4ʻ M3E34$ ʻ Eʻ @H - EN ʻ H&ʻ R , ʻ
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$&H43C$ D ʻ $EDʻ EH ʻQ3 E2ʻ F3ʻ ? - Q(3N Cʻ H&ʻ $EOʻ 6H43 2Eʻ ? $ 3ʻ FH J ʻ F3ʻ
C$ Dʻ MH 34EH4ʻ M3E34$ ʻ Eʻ @H - EN ʻ $EDʻ MH 34EH4Cʻ Eʻ @H - EN ʻ43C13NR
3 Oʻ CF$ ʻ F E+ʻ 14H134 Oʻ X - $ & 3D ʻ $EDʻ FHʻ ʻQ EDʻ F3 J C3 3Cʻ QOʻ
C - NFʻ < $ FCʻ H4ʻ CD$ E Eʻ && 4 J $ HECʻ $Cʻ J $Oʻ &4H J ʻ * J 3ʻ Hʻ * J 3ʻ Q3ʻ
143CN4 Q3Dʻ Eʻ F$ ʻ B3F$ &ʻ QOʻ F3ʻ C$ Dʻ MH 34EH4ʻ M3E34$ ʻ Eʻ @H - EN ʻ
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MH 34EH4Cʻ Eʻ
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$ED MH 34EH4C E @H-EN 43C13N 3 O H $N F E $ED &H4 F3 *H EC H& I %'3 & 1 $ED " , 4 43C13N 3 O $C 5-C N3C H& F3 I 3$N3 $ED F3 I 34CHEC CH H Q3 EH J E$ 3D $ED $11H E 3D H $N $C 5-C N3C <& F3 I 3$N3 F E $ED &H4 F3 *H EC $&H43C$ D CF$ F$ 3 &- IH 34 $ED - FH4 O H $N $C a-NF 5-C N3C H& F3 I 3$N3 Q- $NNH4D E2 HE O H F3 *3EH4 H& F3 43C13N 3 @H J J CC HEC F343 E C-NF I34CHEC CF$ Q3 CH EH J E$ 3D $ED $11H E 3D

M N S
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ED F343$C QO $E N 1$CC3D E F3 ?3 3E F =3$4 H& F3 ' 3 2E H& 8 C $ 3 P $(3C O % E2 ! , (! F3 6H-4 F E - 3D / # / ' ' ! (3% !)! /55, # !# H P4 N ; $C ED 3C C $ J HE2C < F34 F E2C 14H D3D $ED 3E$N 3D F$ F3 M4$ED 5-4 3C E $ @$C3C $ED $ 5-4 3C &H4 F3 *4 $ Y& I34CN J C 14H&3CC E2 F3 @F4 C $E ' 3 2 HE CF$ NHEC C FH O H& I34CHEC 14H&3CC E2 F3 @F4 C $E ' 3 2 HE . ED F343$C C 3 13D 3E H 4313$ C-NF ; E$N J 3E Q3 F343&H43 3E$N 3D *F$ &4H J $ED $& 34 F3 6 4C G$O H& ?3% < E3 FH-C$ED 3 2F F-ED43D $ED F 4 O H F3 C$ D 43N 3D I 4H C HE $ED ; E$N J 3E CF$ Q3 $ED F3 C$ J 3 C F343QO 4313$ 3D

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I$4 Oʿ I 4HN3CC HECʿ Eʿ ʿ I Y Fʿ # ʿ ZSU ㎜

> ' ; ' ; ?ʿ 243$ ʿ , - J Q34Cʿ H&ʿ I 34CHECʿ Q3 HE2 E2ʿ Hʿ D &&343E ʿ 43 2 H-Cʿ G3EH J E$ HEC ʿ $EDʿ D C E2 - CF3Dʿ 43C13N 3 Oʿ QOʿ $4 H-Cʿ ; J Q 3 J Cʿ 3 143CC 3ʿ H&ʿ 1$4 Oʿ 633 E2Cʿ $EDʿ G &&3R 43EN3C ʿ $43ʿ Eʿ F3ʿ I 4$N N3ʿ H&ʿ J 33 E2ʿ $EDʿ J $4NF E2ʿ Eʿ I 4HN3CC HEʿ Eʿ $!% #& ʿ -1HEʿ N34 $ Eʿ 63C $ Cʿ $EDʿ EE 34C$4 3Cʿ $EDʿ H F34ʿ <NN$R C HEC ʿ $EDʿ C-NFʿ I 4HN3CC HECʿ $43ʿ N$ N- $ 3Dʿ Hʿ N43$ 3ʿ $EDʿ 13413 -$ 3ʿ E J HC 3C ʿ $EDʿ F$ 3ʿ Q33Eʿ &H-EDʿ Hʿ HNN$C HEʿ &43X-3E ʿ $EDʿ C$E2- R E$4Oʿ @HE& N Cʿ Q3 33Eʿ D &&343E ʿ @ $CC3Cʿ H&ʿ 8 Cʿ P $(3C O Cʿ ? -Q(3N C ʿ &H4ʿ I 43 3E HEʿ F343H& ʿ $EDʿ Eʿ H4D34ʿ Hʿ 2 -$4Dʿ 2 EC ʿ F3ʿ ' 3N-443EN3ʿ H&ʿ F3ʿ * - J - C ʿ ' H C ʿ $EDʿ G CH4D34Cʿ $4 C E2ʿ H- ʿ H&ʿ C-NFʿ I 4HN3CC HEC ʿ Q3ʿ ʿ 3E$N 3Dʿ QOʿ F3ʿ % E2 Cʿ J HC ʿ ; N3 3E ʿ P $(3C O ʿ QOʿ $EDʿ Fʿ F3ʿ D N3ʿ $EDʿ @HEC3E ʿ H&ʿ F3ʿ >H4DCʿ ?1 4 -$ ʿ $EDʿ * 3 J 1H4$ ʿ $EDʿ @H J R J HEC ʿ Eʿ F Cʿ 143C3E ʿ I $4 E3E ʿ $CC3 J Q 3D ʿ $EDʿ QOʿ F3ʿ - FH4 Oʿ H&ʿ F3ʿ C$ J 3 ʿ * F$ ʿ &4H Jʿ $EDʿ $& 34ʿ F3ʿ @H J J 3EN3 J 3E ʿ H&ʿ F Cʿ N ʿ $EOʿ BHDOʿ H&ʿ I 34CHECʿ FHʿ CF$ ʿ J 33 ʿ $EDʿ 1$4$D3ʿ H23 F34 ʿ H4ʿ (H Eʿ Eʿ I 4H ʿ N3CC HE ʿ &H4ʿ F3ʿ I -41HC3ʿ H&ʿ N3 3Q4$ E2ʿ H4ʿ NH J J 3 J H4$ E2ʿ $EOʿ 63C $ ʿ EE 34C$4O ʿ H4ʿ 1H N$ ʿ ; 3E ʿ 43 $ E2ʿ Hʿ H4ʿ NHEE3N 3Dʿ Fʿ $EOʿ 43 R 2 H-Cʿ H4ʿ H F34ʿ G C EN HECʿ H4ʿ G &&343EN3Cʿ Q3 33Eʿ $EOʿ @ $CC3Cʿ H&ʿ 8 Cʿ P $(3C O Cʿ ? -Q(3N C ʿ H4ʿ H&ʿ D3 J HEC 4$ E2ʿ $EOʿ C-NFʿ 43 2 H-Cʿ H4ʿ H F34ʿ G C EN HEʿ H4ʿ G &&343EN3 ʿ $EDʿ FHʿ CF$ ʿ Q3$4 ʿ 3$4 ʿ H4ʿ F$ 3ʿ $ J HE2C ʿ F3 J ʿ $EOʿ 6 43 $4 J Cʿ H4ʿ H F34ʿ 3 3EC 3ʿ 9 3$1HEC ʿ H4ʿ $EOʿ B$EE34 ; J Q 3 J ʿ 6 $2 ʿ H4ʿ ?O J QH ʿ F3ʿ G C1 $Oʿ F343H&ʿ J $Oʿ Q3ʿ N$ N- $ 3Dʿ H4ʿ 3EDʿ Hʿ 14H H+3ʿ E J HC Oʿ Q3 33Eʿ 8 Cʿ P $(3C O Cʿ ? -Q(3N Cʿ H&ʿ D &&343E ʿ 43 2 H-Cʿ I 34C-$C HEC ʿ H4ʿ FHʿ CF$ ʿ Q3ʿ $NNH J 1$E 3Dʿ QOʿ $EOʿ P - C Nʿ H&ʿ $ʿ

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5-C N3C' H' CC3 JQ 3*H' I4HNPCH C) ' ED' Q3' ' 3E$N 3D' *F$ ' $EO' 5$C N3' H4' 5-C N3C' H&' F3' I 3$N3' $ED' J $O' 14HN33D' F' C-NF' CC C $EN3' $C' CF$ ' Q3' E3N3CC$4O' H' F3' ^I $N3' F343' $EO' I 4HN3CC HE' H4' P33 E2 ' I 34CHEC' F343QO' D3R N $43D' H' Q3' -E $ &-' CF$ ' Q3' F3 D' H4' $+3' 1 $N3' $ED C-NF' 5-C N3' H4' <E3' H&' C-NF' 5-C N3C' H4' CH J 3' < F34' I 34CHE' QO' F3 4' H4' F C' <4D34' CF$ ' F3E' $ED' F343' 43$D' H4' 4313$' $ H-D' H' F3' I 34CHEC' CH' $CC3 J Q 3D' $' @H J J $ED' H4' , H N3' H' D C134C3' E' F3' 9 H4DC' H4' H' F3' ; &&3N' &H H E2' ^ F$' C' H' C$O _

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7 I 34CHEC' Q3 E2' F343' $CC3 J Q 3D' J J 3D $ 3 O' H' D C134C3' F3 J '
7 C3 3C' $ED' 13$N3$Q O' H' D31$4 ' -1HE' F3' I $ EC' NHE $ E3D' E' F3' N '
7 J $D3' E' F3' =3$4' H&' F3' ' 3 2E' H&' % E2' %% ' F3
7 6H-4 F' H' 43C 4$ E' E' N34 $ E' @$C3C' I $4 O' I 4HN3CC HEC' E' $!% #&

I 34CHEC' 43' H Q3 ' $1143F>D3D' $ED' 1-E CF3D' 8 ' ED' Q3' ' 3E$N 3D' *F$ ' F3' I 34CHEC' CH' J 3' $ED' $CC3 J Q 3D' &H4 F F' D C134C3' $ED' 1$4 ' $ED' E' N$C3' $EO' < E3' H4 c H43' H&' F3' I N4CHEC' CH' J 3' H4' $CC3 J Q 3D' H23 F34' $C' $&H43C$ D' CF$ ' EH' D C134C3' $ED' D31$4 ' F E' F3' ?1$N3' H&' < E3' \ -$4 34' H&' $E' 8 H-4' &4H J' F3' * J 3' H&' C-NF' , H N3' H4' @H J J $ED' Q3 E2' 2 3E' ' CF$ ' Q3' $ &-' &H4' F3' C$ J 3' (-C N3' H4' 5-C N3C' FH' CF$ ' F$ 3' 43$D' C-NF' @H J J $ED' H4' , H N3' , ' $EO' H F34' 5-$ H334' 5-C N3C' H&' F3' I 3$N3' H' N$-C3' F3' I 34CHE' H4' I 34CHEC' ?H' 43&-C E2' H4' E32 3N E2' H' D C134C3' H4' D31$4 ' H' Q3' $1143F3ED3D' QO' $' 9 J ' ' &H4' D $&N' I -41HC3' H' Q3' C 2E3D' QO' F J' H4' F3 J ' $ED' C-NF' <&&3ED34' H4' <&&3ED34C' CF$ ' F343R -1HE' Q3' 14HN33D3D' 2 EC' E' $' C- J J$$&O' 9 $O' &H4' C-NF' <&&3EN3' Q3&H43' $EO' * H' 5-C N3C' H&' F3' I 3$N3' Q3&H43' FH J' F3' H4' F3O' J $O' Q3' Q4H-2F ' $ED' C-NF' 5-C N3C' $43' F343QO' $- FH4 T3D' H' F3$4' $ED' D3 34 J E3' F3' C$ D' @H J 1 $ E ' $ED' 3 34O' I 34CHE' Q3&H2' NHE N 3D' F343H&' HE' F3' <$ F' H&' < E3' H4' J H43' N43D Q 3' 9 E3CC' H4' 9 E3CC3C' CF$ ' Q3' NH J J 3D' H' $EO' < E3' H&' 8 C' P 3C O C' @J $-P' <$H C' H4' I 4 CHEC' E' $!% #&' &H4' F3' *34 J' H&' < E3' @$ 3ED$4' P HE F' $ED' &H4' $' ?3NHED' H4' $EO' C-QC3X-3E' <&&3EN3' $2 J EC' F3' I 4H HEC' H&' EC' N ' &H4' F3' *344$' H&' *F433' @$ 3ED$4' P HE FC

; 3EC HE' $ED' G-4$ HE' H&' F C' N ' ED' Q3' ' 3E$N 3D' *F$ ' F C' N ' CF$ ' 3 3ED' HE O' H' F$ ' I $4 ' H&' F3' #E 3D' % E2DH J' H&' ! ' " #' $ED' $!% #&' N$ 3D' $!% #&' $ED' H' Q3' $ED' NHE E-3' $ED' 43 J $ E' E' &H4N3' &H4 ' 6 3' *3$4C' &+ J' F3' 1$CC E2' F343H&' $ED' F3EN3&H4 F' -E ' F3' ; ED' H&' F3' F3E' E3 ' ?3CC HE' H&' I $4 $ J 3E ' $ED' EH' HE234

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M#>B ; >P ʼ =ʼ ' ; M ?

@ʼ ʼ I ʼ @W W

Eʼ N ʼ Hʼ $J3EDʼ *F433ʼ N Cʼ 1$CC3Dʼ 43C13N 3 Oʼ Eʼ F3ʼ 6H-4 F ʼ 6 & F ʼ $EDʼ Eʼ F3ʼ ?3 3E Fʼ $EDʼ ; 2F Fʼ =3$4Cʼ H&ʼ F3ʼ ' 3 2Eʼ H&ʼ 8 Cʼ $ 3ʼ P$(3C Oʼ % E2ʼ ! ʼ F3ʼ 6H-4 F ʼ 14H D E2ʼ &H4ʼ F3ʼ 3C $Q CF E2ʼ H&ʼ @HJ1HC HECʼ &H4ʼ * F3Cʼ Eʼ Gʼ Hʼ J$+3ʼ C-NFʼ @HJ1HC HEC 134J$E3E ʼ G%)ʼ / 3 (3 1 ʼ $+-B a

> 8 ; ' ; ?ʼ QOʼ $Eʼ N ʼ 1$CC3Dʼ Eʼ F3ʼ ;Q-4 Fʼ =3$4 H&ʼ F3ʼ ' 3 3Eʼ H&ʼ 8 Cʼ $ 3ʼ P$(3C Oʼ % E2ʼ ! , (!ʼ F3ʼ 6H-4 F ʼ E ʼ - J ʼ ʼ / ' ʼ ,ʼ5 ,0 &!ʼ? , ʼ)!ʼ !+ 4O1) #(ʼ , ʼ I , 5 ,1 ,#1ʼ 1ʼM ʼ NVKʼ , ʼ 7)!1ʼ ʼ 43$EDʼ , ʼ ʼ % !&ʼ 7 ! ʼ F NFʼ N ʼ $ ʼ $& 34 $4DCʼ $J3ED3Dʼ QOʼ $EH F34ʼ N ʼ 1$CC3Dʼ Eʼ F3ʼ 6 & Fʼ =3$4 H&ʼ F3ʼ C$J3ʼ ' 3 2E ʼ !ʼMʼ ʼ Nʼ YSʼ $EDʼ QH Fʼ F NFʼ C$ Dʼ N Cʼ 343ʼ $& 34 $4DCʼ $J3ED3Dʼ QOʼ $Eʼ N ʼ ʼ K?Mʼ ʼ ʼ 1$CC3Dʼ Eʼ F3ʼ ?3 3E Fʼ $EDʼ ; 2F Fʼ =3$4Cʼ H&ʼ F3ʼ C$J3ʼ ' 3 2E ʼ I4H C HEʼ Nʼ Y[$Cʼ J$D3ʼ &H4ʼ F3ʼ $- FH4 T E2ʼ @HJ1HC HECʼ Hʼ Q3ʼ J$D3ʼ &H4ʼ * F3Cʼ Eʼ $!% #&ʼ Eʼ FHC3ʼ I$4 CF3Cʼ F343 Eʼ F3ʼ I$4 CF HE34Cʼ X-$ & 3Dʼ $Cʼ Eʼ F3ʼ C$ Dʼ N ʼ J3E HE3Dʼ H23 F34ʼ Fʼ F3ʼ ; NN 3C $C N$ʼ EN- JQ3E Cʼ H4ʼ H F34ʼ I34CHECʼ 3E N3Dʼ Hʼ * F3Cʼ F343 E ʼ CFH- Dʼ J - -$ Oʼ NHEC3E ʼ $EDʼ $2433ʼ Hʼ 3C $Q CFʼ C-NFʼ @HJ1HC HECʼ . EDʼ F343$Cʼ ʼ Cʼ 3 13R D 3E ʼ F$ ʼ $ & 3Dʼ $EDʼ 134J$E3E ʼ @HJ1HC HEʼ Eʼ 3-ʼ H&ʼ * F3Cʼ CFH- Dʼ Fʼ $ 3 ʼ Hʼ F3ʼ &- -43ʼ @HJ J - $ HEʼ FJ H&ʼ Q3ʼ 23E34$ Oʼ 3C $Q CF3Dʼ F4H-2FH- ʼ F$ ʼ IH4 HEʼ H&ʼ F3ʼ #E 3Dʼ % E2DHJʼ N$ 3Dʼ Uʼ ʼ $!% #&

$!% #& ˢ $EDˢ F$ ˢ &H4ˢ C-NFˢ I -41HC3ˢ F3ˢ ; E$N J 3E Cˢ H&ˢ F3ˢ C$ Dˢ 43N 3Dˢ N Cˢ CFH- Dˢ Q3ˢ Eˢ CH J 3ˢ 43C13N Cˢ J HD & 3D ˢ $EDˢ I 4H C HEˢ J $D3ˢ Hˢ 2 3ˢ ; &&3N ˢ Hˢ F3ˢ C$ J 3ˢ Eˢ @$C3Cˢ F343ˢ F30ˢ J 2F ˢ &$ ˢ H&ˢ <134$ HEˢ F4H-2Fˢ F3ˢ G3&$- ˢ H4ˢ G C$2433 J 3E ˢ H&ˢ 3ˢ I $4 3Cˢ Hˢ FH J ˢ F3ˢ <1 HEˢ H&ˢ 14HN33D E2ˢ F343-ED34ˢ Cˢ QOˢ F3ˢ C J Dˢ N Cˢ 2 3Eˢ : B3ˢ ˢ F343&H43ˢ 3E$N 3Dˢ QOˢ F3ˢ % E2 Cˢ J HC ˢ ; N3 3E ˢ P $(3C O ˢ QOˢ $EDˢ Fˢ F3ˢ D N3ˢ $EDˢ @HEC3E ˢ H&ˢ 3ˢ >H4DCˢ ?1 4 -$ ˢ $EDˢ * 3 J 1H4$ ˢ $EDˢ @H J J HEC ˢ Eˢ F Cˢ 143C3E ˢ I $4 $ J 3E ˢ CC3 J Q 3D ˢ $EDˢ QOˢ F3ˢ - FHR 4 Oˢ H&ˢ F3ˢ C$ J 3 ˢ * F$ ˢ F3ˢ J H-E ˢ &ˢ$EOˢ $EDˢ 3 34Oˢ @H J 1HC HEˢ Hˢ Q3ˢ $ ˢ $EOˢ * J 3ˢ $& 34ˢ F3ˢ 1$CC E2ˢ H&ˢ F Cˢ N ˢ 3C $Q CF3Dˢ Eˢ 3-ˢ H&ˢ * F3Cˢ H4ˢ $EOˢ I H4 HEˢ H& & Q3Cˢ Eˢ $EOˢ I C2 CFˢ Eˢ $!% #&ˢ CF$ ˢ Q3ˢ N$ N- $ 3Dˢ -1HEˢ $Eˢ 34$23ˢ H&ˢ $ ˢ F3ˢ ?- J Cˢ 1$ Dˢ H4ˢ $2433Dˢ &H4ˢ H4ˢ $D(-D23Dˢ Hˢ Q3ˢ 1$ Dˢ HEˢ $NNH-E ˢ H&ˢ F3ˢ * F3Cˢ H&ˢ F3ˢ I $4 CFˢ Hˢ F NFˢ C-NFˢ @H J 1HC HEˢ CF$ ˢ 43 $ 3ˢ D$4 E2ˢ F3ˢ ?3 3Eˢ C-NN3CC 3ˢ =3$4Cˢ E3 ˢ 143N3D E2ˢ F3ˢ 6 4C ˢ ˢ E , 0! 4! ˢ <E3ˢ FH-C$EDˢ 3 2F ˢ F-ED43Dˢ $EDˢ F 4 O ˢ $EOˢ F E2ˢ Eˢ J ˢ C$ Dˢ 43N 3Dˢ N Cˢ D 43N E2ˢ F3ˢ J H-E ˢ H&ˢ @H J 1HC HECˢ &H4ˢ * F3Dˢ Hˢ Q3ˢ N$ N- $ 3Dˢ -1HEˢ $Eˢ 34$23ˢ H&ˢ F3ˢ ?- J Cˢ 1$ Dˢ H4ˢ 433Dˢ &H4ˢ H4ˢ (J 3D ˢ Hˢ Q3ˢ 1$ Dˢ D-4 E2ˢ F3ˢ ?3 3Eˢ C-NN3CC 3ˢ =3$4Cˢ E3 ˢ 1 @33D E2ˢ F3ˢ 6 4C ˢ G$Oˢ H&ˢ E , 0! 4! ˢ Eˢ F3ˢ =3$4ˢ <E3ˢ FH-C$EDˢ 3 2F ˢ F-ED43Dˢ $EDˢ 3E O HE3ˢ Hˢ F3ˢ NHE 4$4Oˢ F343H&ˢ EH FC $ED E2 ˢ $EDˢ F3ˢ @34 & N$ 3Cˢ C $ E2ˢ F3ˢ $ 34$23ˢ I 4 N3Cˢ H&ˢ @H4Eˢ CF$ ˢ 43&34ˢ Hˢ C-NFˢ ?3 3Eˢ C-NN3CC 3ˢ =3$4Cˢ 143N3D E2ˢ F3ˢ %4C ˢ G$Oˢ H&ˢ E , 0! 4! ˢ <E3ˢ FH-C$EDˢ 3 2F ˢ F-ED43Dˢ $EDˢ F 4 Oˢ $NNH4D E2 O

ˢ &- -43ˢ @H J 1HC HECˢ CF$ ˢ Q3ˢ N$ R N- $ 3Dˢ HEˢ 34$23ˢ H&ˢ ?3 3Eˢ =3$4Cˢ 143N3D E2ˢ C , H ZS[

ˢ EDˢ Q3ˢ ˢ 3E$N 3D ˢ * F$ ˢ &4H J ˢ $EDˢ $& 34ˢ F3ˢ 1$CC E2ˢ H&ˢ F Cˢ N ˢ CHˢ J -NFˢ $EDˢ C-NFˢ I $4 Cˢ H&ˢ F3ˢ C$ Dˢ 43N 3Dˢ N Cˢ $Cˢ J $+3ˢ F3ˢ CC3E ˢ @HEC3E ˢ H4ˢ 114HQ$ HEˢ H&ˢ $EOˢ 4NFQ CFH1 ˢ B C H1 ˢ I $ 4HE ˢ H4ˢ ?3X-3C 4$ H4ˢ E3N3CC$4Oˢ Hˢ 2 3ˢ $ D Oˢ Hˢ F3ˢ 11H E J 3E ˢ H&ˢ $EOˢ @H J J CC HE34ˢ -ED34ˢ F3ˢ C J Dˢ 43N 3Dˢ N C ˢ H4ˢ H ˢ $EOˢ N ˢ H&ˢ C-NFˢ @H J J CC HE34Cˢ Eˢ 3 3N- HEˢ H&ˢ F3 4ˢ G- Oˢ F343-ED34 ˢ aF$ ˢ Q3ˢ $EDˢ C-NFˢ I $4 Cˢ H&ˢ F3ˢ C$ Dˢ N Cˢ $43ˢ F343QOˢ 4313$ 3Dˢ $NNH4D E2 O ˢ $EDˢ $ ˢ C-NFˢ 11H E J 3E Cˢ $EDˢ N Cˢ CF J ˢ &33ˢ 2HHD ˢ $ D ˢ $EDˢ 3&&3N -$ ˢ FH- ˢ C-NFˢ CC3E ˢ @HEC3E ˢ H4ˢ 114HQ$ HE ˢ Hˢ $ ˢ E 3E Cˢ $EDˢ I -41HC3Cˢ $Cˢ &ˢ C-NFˢ CC3E ˢ @HEC3E Oˢ H4ˢ 114N& ($ N J ˢ F$Dˢ EH ˢ Q33Eˢ J 3E HE3Dˢ Eˢ C-NFˢ N C

?Hˢ J -NFˢ H&ˢ 43N 3Dˢ N Cˢ $Cˢ 43X- 43Cˢ @HEC3E ˢ H&ˢ I $ 4HE ˢ KN ˢ Hˢ 11H E R J 3E ˢ H&ˢ @H J R J CC HE34 ˢ KN ˢ 4313$ 3D

ˢ EDˢ Q3ˢ ˢ 3E$N 3D ˢ * F$ ˢ Eˢ $EDˢ &H4ˢ 3 34Oˢ I $4 CFˢ H4ˢ I $4 Cˢ H&ˢ $ I $4 CFˢ Eˢ $!% #&ˢ F343 Eˢ $ˢ @H J 1HC HEˢ &H4ˢ F3ˢ * F3Cˢ F343H&ˢ CF$ ˢ EH ˢ F$ 3ˢ Q33Eˢ J $D3ˢ -ED34ˢ F3 ˢ C$ Dˢ 43N 3Dˢ N Cˢ Fˢ F3ˢ C3 34$ ˢ I 34CHECˢ 3E 3Dˢ Hˢ * F3ˢ F343 Eˢ F Eˢ * F433ˢ P HE FCˢ $& 34ˢ F3ˢ 1$CC E2ˢ H&ˢ F Cˢ N ˢ ˢ CF$ ˢ $EDˢ J $Oˢ Q3ˢ $ & Dˢ & 4ˢ F3ˢ >H4Dˢ > 3- 3E$E ˢ H4ˢ H F34ˢ @F 3& MH 34EH4ˢ H4ˢ MH 34EH4Cˢ H&ˢ $!% #& ˢ F3Eˢ $EDˢ $Cˢ F3ˢ H4ˢ F3Oˢ CF$ ˢ CHˢ F E+ˢ & ˢ Hˢ EH J E$ 3ˢ CH J 3ˢ I 34CHEˢ Hˢ Q3ˢ $ˢ @H J J CC HE34ˢ &H4ˢ N$44O E2ˢ F3ˢ C$ Dˢ 43N 3Dˢ N Cˢ $EDˢ F Cˢ N ˢ E Hˢ 3 3N- HEˢ F Eˢ C-NFˢ I $4 CF ˢ $EDˢ C-NFˢ I 34CHEˢ CF$ ˢ Q3ˢ 3E 3Dˢ Hˢ $EDˢ 43N3 3ˢ C-NFˢ $EDˢ F3ˢ C$ J 3ˢ I $O J 3E ˢ H4ˢ ; 3 J -E34 J (HEˢ &H4ˢ F3ˢ I 34&H4 J $EN3ˢ H&ˢ F Cˢ G- Oˢ -ED34ˢ F Cˢ N ˢ $Cˢ $EOˢ @H J J CC HE34ˢ H4ˢ # J 1 43ˢ $11H E 3Dˢ -ED34ˢ F3ˢ I 4H C HECˢ H&ˢ F3ˢ C$ Dˢ 43N 3Dˢ N C ˢ $EDˢ C-NFˢ I 34CHEˢ CF$ ˢ Q3ˢ X-$ & 3Dˢ Eˢ 43C13N ˢ H&ˢ I 4H134 Oˢ Hˢ C-DCˢ J H-E ˢ $EDˢ Eˢ +3ˢ P $EE34ˢ $Cˢ ˢ Cˢ QOˢ F3ˢ C$ Dˢ 43N 3Dˢ N Cˢ 43X- 43Dˢ F$ ˢ F3ˢ @H J J CC HE34Cˢ $11H E 3Dˢ Eˢ F3ˢ P $EE34ˢ 343 Eˢ J 3E H H3Dˢ CF$ ˢ Q3ˢ X-$ & 3D ˢ $EDˢ C-NFˢ I 34CHEˢ CF$ ˢ EH ˢ Q3ˢ < E34ˢ H4ˢ I 4H14 3 H4ˢ H&ˢ $EO

*ˢ I $4 CF3Cˢ F343ˢ @H J R 1HC HEˢ CF$ ˢ EH ˢ F$ 3ˢ Q33Eˢ J $D3ˢ F Eˢ Sˢ P HE FCˢ F3ˢ >H4Dˢ > 3- 3E$E ˢ J $Oˢ EQ J E$ 3ˢ $ˢ @H J J CR C HE34 ˢ FH CF$ ˢ & ˢ F3 J H-E ˢ H&ˢ @H J 1HC HE ˢ $EDˢ F$ 3ˢ C$ J 3ˢ I H 34ˢ $Cˢ @H J J CR C HE34Cˢ -ED34ˢ 43N 3Dˢ N C

$EO ̓ * F3C ̓ H4 ̓ @H J 1HC HE ̓ &H4 ̓ * F3C ̓ EH4 ̓ < E34 ̓ H4 ̓ <NN-1 34 ̓ H& ̓ $EO ̓ >$EDC ̓ C-Q(3N ̓ H ̓ F3 ̓ I$O J 3E ̓ H& ̓ $EO ̓ * F3C ̓ H4 ̓ @H J 1HC HE ̓ &H4 ̓ * F3C ̓ E ̓ F3 ̓ I$4 CF ̓ H4 ̓ I $N3 ̓ &H4 ̓ F NF ̓ C-NF ̓ I 34CHE ̓ CF$ ̓ Q3 ̓ CH ̓ $11H E 3D ̓ H ̓ Q3 ̓ @H J J CC HE34 ̓ $ED ̓ 3 34O ̓ I 34CHE ̓ CH ̓ $11H E 3D ̓ H ̓ Q3 ̓ C-NF ̓ @H J J CC HE34 ̓ CF$ ̓ $+3 ̓ $ED ̓ C-QCN4 Q3 ̓ C-NF ̓ <$ F ̓ &H4 ̓ F3 ̓ I 34&H4 J $EN3 ̓ H& ̓ F C ̓ G- O ̓ $C ̓ C-NF ̓ @H J J CC HE34 ̓ $ED ̓ $ CH ̓ C-NF ̓ <$ F ̓ H& ̓ \ -$ & N$ HE ̓ E ̓ 43C13N ̓ H& ̓ I 4H134 O ̓ $C ̓ $43 ̓ 43X- 43D ̓ H ̓ Q3 ̓ $+3E ̓ $ED ̓ C-QCN4 Q3D ̓ QO ̓ $EO ̓ @H J J CC HE34 ̓ $11H E 3D ̓ -ED34 ̓ F3 ̓ C$ D ̓ 43N 3D ̓ N ̓ H& ̓ F3 ̓ 6H-4 F ̓ =3$4 ̓ H& ̓ 8 C ̓ $ 3 ̓ P $(3C O ̓ EC34 E2 ̓ E ̓ C-NF ̓ <$ FC ̓ F3 ̓ * 3 ̓ H& ̓ F C ̓ N ̓ $& 34 ̓ F3 ̓ * 3 ̓ H& ̓ F3 ̓ C$ D ̓ 43N 3D ̓ N ̓ ! $ED ̓ 3 34O ̓ I 34CHE ̓ CH ̓ $11H E 3D ̓ C-NF ̓ @H J (4E CC HE34 ̓ CF$ ̓ 14HR N33D ̓ H ̓ $CN34 $ E ̓ $ED ̓ & ̓ F3 ̓ J H-E ̓ H& ̓ F3 ̓ O3$4 O ̓ ?- J ̓ H& ̓ P HE3O ̓ H ̓ F3 ̓ 1$ D ̓ H ̓ F3 ̓ EN- J Q3E ̓ H4 ̓ H F34 ̓ I 34CHE ̓ H4 ̓ I 34CHEC ̓ H4 ̓ BHDO ̓ I H N ̓ H4 ̓ @H 32 $ 3 ̓ H4 ̓ @H41H4$ HE ̓ 3E 3D ̓ H ̓ $EO ̓ * F3C ̓ 43N H4 $ ̓ H4 ̓ N$4 $ ̓ 14 J D $ ̓ 134CHE$ ̓ H4 ̓ J 3D ̓ E ̓ F3 ̓ I$4 CF ̓ E ̓ $ED ̓ &H4 ̓ F NF ̓ C-NF ̓ @H J J CC HE34 ̓ CF$ ̓ Q3 ̓ CH ̓ $11H E 3D ̓ $ED ̓ CF$ ̓ &H4 ̓ F$ ̓ I -41HC3 ̓ F$ 3 ̓ $ED ̓ -C3 ̓ $ ̓ C-NF ̓ I H 34C ̓ $ED ̓ - FH4 3C ̓ $C ̓ $43 ̓ QO ̓ F3 ̓ C$ D ̓ 43N 3D ̓ N C ̓ $ED ̓ F C ̓ N ̓ 2 3E ̓ H ̓ $EO ̓ * H ̓ @H J J CC HE34C ̓ $11H E 3D ̓ -ED34 ̓ F3 ̓ I 4H C HEC ̓ H& ̓ F3 ̓ C$ D ̓ N C ̓ $ED ̓ $C ̓ C-NF ̓ * H ̓ @H J J CC HE34C ̓ H4 ̓ 3 F34 ̓ H& ̓ F3 J ̓ & ̓ $11H E 3D ̓ E ̓ F3 ̓ P $EE34 ̓ 143R CN4 Q3D ̓ QO ̓ F3 ̓ C$ D ̓ 43N 3D ̓ N C ̓ J 2F ̓ F$ 3 ̓ -C3D ̓ $ED ̓ 3 34N C3D ̓ &H4 ̓ F$ ̓ I -41HC3

ED ̓ Q3 ̓ 3E$N 3D ̓ *F$ ̓ & ̓ $EO ̓ @H J J CC HE34 ̓ $11H E 3D ̓ E ̓ J $EE34 ̓ $&H43C$ D ̓ CF$ ̓ D 3 ̓ H4 ̓ CF$ ̓ E32 3N ̓ H4 ̓ 43&-C3 ̓ H ̓ $N ̓ H4 ̓ Q3NH J 3 ̓ EN$1$Q 3 ̓ H& ̓ $N E2 ̓ F3E ̓ $ED ̓ E ̓ 3 34O ̓ C-NF ̓ @$C3 ̓ $ ̓ E3 ̓ @H J J CC HE34 ̓ CF$ & ̓ Q3 ̓ E ̓ +3 ̓ P $EE34 ̓ $11H E 3D ̓ FH ̓ CF$ ̓ Q3 ̓ E ̓ +3 ̓ P $EE34 ̓ X-$R & 3D ̓ $ED ̓ $+3 ̓ F3 ̓ +3 ̓ <$ FC ̓ $ED ̓ E ̓ $ ̓ 43C13N C ̓ F$ 3 ̓ F3 ̓ +3 ̓ I H 34C ̓ $ED ̓ - FH4 3C ̓ $C ̓ F3 ̓ @H J J CC HE34 ̓ E ̓ FHC3 ̓ ' HH J ̓ F3 ̓ ?F$ ̓ Q3 ̓ $11H E 3D. ̓ I 4H D3D ̓ E3 34 F3 3CC ̓ F$ ̓ E ̓ N$C3 ̓ $EO ̓ @H J J CC HE34 ̓ CH ̓ N3$C E2 ̓ H ̓ $N ̓ CF$ ̓ F$ 3 ̓ 3E 343D ̓ -1HE ̓ F3 ̓ ; 3N- HE ̓ H& ̓ F C ̓ G- O ̓ -ED34 ̓ F C ̓ N ̓ ̓ CF$ ̓ EH ̓ Q3 ̓ E3N3CC$4O ̓ &H4 ̓ $EO ̓ @H J J CC HE34 ̓ FH ̓ J $O ̓ Q3 ̓ C-QC3X-3E O ̓ $11H E 3D ̓ E ̓ F C ̓ ' HH J ̓ H ̓ NH J J 3EN3 ̓ &! ̓ ̓ $EO ̓ I 4HN33D E2 ̓ QO ̓ C-NF ̓ &H4 J 34 ̓ @H J J CC HE34 ̓ E ̓ 1$4 ̓ 134&H4 J 3D ̓ H4 ̓ 3 3N- 3D ̓ Q- ̓ F$ ̓ $ ̓ F3 ̓ N C ̓ H& ̓ C-NF ̓ &H4 J 34 ̓ @H J J CC HE34 ̓ CF$ ̓ Q3 ̓ $ED ̓ 43 J $ E ̓ $ +3 ̓ $ D ̓ $ED ̓ 3&&3N -$ ̓ H ̓ $ ̓ E 3E C ̓ $ED ̓ I -41HC3C ̓ $C ̓ & ̓ F3 ̓ F$D ̓ NHE E-3D ̓ H ̓ $N ̓ $C ̓ C-NF ̓ @H J J CC HE34

*̓ H&A(̓ +@D @)AA)+ (! ̓ AJ& ̓ <)(1 ̓ 4H ̓ & ̓ (L ̓ +@D @)AA)+ (! ̓ /AJ& ̓ I (̓) ̓); (̓ & (! ̓ & ̓ ' +) #(< N C ̓ H& ̓ &H4R J34 ̓ @H J J CR C HE34 ̓ 2HHD

ED ̓ Q3 ̓ 3E$N 3D ̓ *F$ ̓ $ ̓ ; E$N J 3E C ̓ $ED ̓ I 4H C HEC ̓ E F3 ̓ C J D ̓ 43N 3D ̓ N C ̓ 43 $ E2 ̓ H ̓ F3 ̓ @H J 1HC HEC ̓ 3C $Q CF3D ̓ QO ̓ $EO ̓ * H ̓ @H J J CC HE34C ̓ $11H E 3D ̓ E ̓ J $EE34 ̓ F343 E ̓ J 3E HE3D ̓ CF$ ̓ 3 3ED ̓ $& D ̓ Q3 ̓ $11 N$Q 3 ̓ H ̓ 3 34O ̓ @H J 1HC HE ̓ H ̓ Q3 ̓ 3C $Q CF3D ̓ QO ̓ $EO ̓ CH 3 ̓ @H J J CC HE34 ̓ $11H E 3D ̓ QO ̓ F3 ̓ C$ D ̓ >H4D ̓ > 3- 3E$E ̓ H4 ̓ H F34 ̓ @F 3& ̓ MH 34EH4 ̓ H4 ̓ MH 34EH4C ̓ -ED34 ̓ - FH4 O ̓ H& ̓ F C ̓ N ̓ $C ̓ & ̓ C-NF ̓ ; E$N J 3E C ̓ $ED ̓ I 4H C HEC ̓ 343 ̓ F343 E ̓ 43N 3D ̓ $ED ̓ EC34 3D ̓ C$ 3 ̓ $ED ̓ 3 N31 ̓ $C ̓ 43C13N C ̓ F3 ̓ 11H E J 3E ̓ H& ̓ $E ̓ # J 1 43 ̓ H4 ̓ $C ̓ F3 ̓ C$ D ̓ BE$3 J 3E ? ̓ H4 ̓ I 4H C HEC ̓ J $O ̓ Q3 ̓ H F34 C3 ̓ 431-2E$E ̓ H4 ̓ E$11 N$Q 3 ̓ $ED ̓ F3 ̓ ; 13 N3C ̓ $ 3ED$E ̓ -1HE ̓ F3 ̓ ; C $Q CF J 3E ̓ H& ̓ $EO ̓ @H J 1HC HE ̓ QO ̓ $ ̓ CH 3 ̓ < J J CC HE34 ̓ $11H E 3D ̓ F343-ED34 ̓ $C ̓ E&H43C $ D ̓ CF$ ̓ Q3 ̓ D3&4$O3D ̓ E ̓ +3 ̓ P $EE34 ̓ $C ̓ F3 ̓ ; 13EN3C ̓ $ 3ED$E ̓ -1HE ̓ 3C $Q CF E2 ̓ @H J 1HC HEC ̓ QO ̓ * H ̓ @H J J CC HE34C ̓ $11H E 3D ̓ -ED34 ̓ F3 ̓ C$ D ̓ 43N 3D ̓ N C ̓ 14H D3D ̓ F$ ̓ $ ̓ P H 3 O ̓ H& ̓ F3 ̓ I$O J 3E ̓ ̓ H4

; E$N J 3E C ̓ H& ̓ 43N 3D ̓ N C ̓ H ̓ Q3 ̓ $11 N$Q 3 ̓ H ̓ @H J 1HC HEC ̓ J $D3 ̓ QO ̓ CH 3 ̓ @H J J CR C HE34 ̓ -ED34 ̓ F C ̓ N ̓ $ED ̓ ; 13EN3C ̓ H& ̓ C-NF ̓ @H E1H ̓ C HEC ̓ H ̓ Q3 ̓ 14H D3 ̓ &H4 3C ̓ -ED34 ̓ 43N 3D ̓ N

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H4 '3J-E34$ HE H& C-NF CH 3 @H J J CC HE34 CF$ Q3 1$ D $ED D3R &4$O3D H- H& F3 J H-E H& @H J 1HC HE 1OQ 3 E F3 EN- J Q3E J 14H14 $ H4 H4 H F34 I 34CHE H4 I 34CHEC 3E 3D F343 H $ED $ IH 34C $ED - FH4 3C QO F3 C$ D 43N 3D N C 14H D3D &H4 F3 D $EN3 H- H& F3 I 4HD-N3 H& F3 @HECH D$ 3D 6-ED H& $EO P HE 3C &H4 D3&4$O E2 C-NF ; 13EN3C $C $&H43C$ D $ED &H4 3E&H4N E2 F3 ' 3R 1$O J 3E H& F3 P HE3O CH $D $EN3D CF$ $11 O $ED 3 3ED C-Q(3N H F3 +3 '32- $ HEC $ED J $ HEC $C 3C $Q CF3D QO F3 C$ D 43N 3D N C H $- FH4 T3 F3 D $EN3 H& P HE3O &H4 F3 I -41HC3C H& F C N $ED H 3E&H4N3 F3 ' $O J 3E F 3H& $C &- O H $ E 3E C $ED I -41HC3C $C & C-NF I H 34C $ED - FH4 3C 343 F343 E C13N & N$ O J 3E HE3D $ED C3 &H4 F

ED Q3 3E$N 3D *F$ $ @H J 1HC HEC F343 H&H43 H4 F NF J $O F343$& 34 Q3 J $D3 $ED 3C $Q CF3D E $EO I $4 CF CF$ $EO F E2 E F3 C$ D 43N 3D N C NHE $ E3D J E2 F3 G-4$ HE H& C-NF @H J R 1HC HEC H F3 *34 J H& * 3E O HE3 =3$4C H F3 NHE 4$4O EH FR C $ED E2 43 J $ E $ED 3ED-43 &H4 3 34 H4 #E F3 C -"3 CF$ F3 43R D33 J 3D H4 3 E2- CF3D E C-NF P $EE34 $C I $4 $ J 3E 1$O F343$& 34 143CN4 Q3 $ED $11H E Q- C-Q(3N E3 34 F3 3CC H C-NF $4 $ HE &4H J * J 3 H * J 3 &H4 3 34 F343$& 34 E F3 J H-E H& C-NF @H J 1HC HEC $C F343$& 34 J 3E HE3D F$ C H C E 43C13N H& $ @H J 1HC HEC F343 H&H43 J $D3 $ED 3C $Q CF3D H $4 $ H% $ C-NF I 3$4 HDC $C C-NF @H J 1HC HEC J $O EH Q3 43C13N 3 O $Q 3 < $ED E 43C13N H& C-NF @H J 1HC HEC $C J $O Q3 E $4 $Q 3 D-4 E2 F3 FH 3 I 34 HD H& * 3E O HE3 =3$4C &H4 F NF F3O J $O F$ 3 Q33E J $D3 H $4 $ HE $ F3 *34 J E$ HE H& C-NF I 34 HD $ED F3EN3&H4 F $ $EO * J 3 Q3 33E F3 6 4C H& $ED 6 4C H& E ,0! 4! E 3$NF C-NN33D E2 ?3 3E F =3$4 $ED E 43C13N H& $ C-NF @H J 1HC HEC F343$& 34 H Q3 3C $Q CF3D H $4 $ HE Q3 33E F3 6 4C H& $ED 6 4C H& E ,0! 4! E 3$NF ?3 3E F =3$4 E3 $& 34 F3 G$O &4 J F NF 3$NF C-NF @H J 1HC HE CF$ NH J J 3EN3: I 4H D3D $ $OC F$ F3 J H-E H& $ @H J 1HC HEC F343 H&H43 H4 F NF J $O $ $EO * J 3 F343$& 34 Q3 J $D3 $ED 3C $Q CF3D CF$ $EO F E2 E F3 C$ D 43N 3D N C NHE $ E3D H F3 NHE 4$4O EH FC $ED E2 Q3 EN43$C3D H4 D J E CF3D F 43&343EN3 H F3 $ 34$23 I 4 N3 H& @H4E $C $D 34 C3D E F3 234% # ! ! D-4 E2 F3 ?3 3E =3$4C J J 3D $ 3 O 143N3D E2 $ D EH H F34 C3 $ED F$ C-NF EN43$C3 H4 G J E- HE CF$ Q3 $11 3D &H4 $ED 3&&3N 3D E $ 4@C13N ? E F3 C$ J 3 P $EE34 $C C (143C34 Q3D E F3 C$ D 43N 3D N C C$ 3 $ED 3 N31 E CH &$4 $C 43 $ 3C H F3 =3$4 E F NF F3 C$ J 3 C $11H E 3D H $+3 1 $N3 $ED $ CH C$ 3 $ED 3 N31 E CH &$4 $C 43 $ 3C H F3 @$ N- $ HE H& C-NF EN43$C3 H4 G J E-R HE -1HE 43&343EN3 H F3 $ 34$23 I 4 N3 H& 9 F3$ H4 <$ C F E F3 C$ J 3 @H-E O

I 4H D3D $ED Q3 3E$N 3D *F$ E $ @$C3C F3E $E 11 R N$ HE &H4 F3 $4 $ HE $ED EN43$C3 H4 G J E- HE H& $EO @H J 1HC R HE J 2F F$ 3 Q33E J $D3 Q3 33E F3 6 4C G$O , $ED F3 6 4C G$O , E,0! 4! E F3 =3$4 <E3 FH-C$ED 3 2F F-ED43D $ED F 4 O HE3 $ED F$ EH C-NF 11 N$ HE $C J $D3 CF$ $ED J $O Q3 $ &- H J $+3 C-NF 11 N$ HE $ $EO * J 3 $& 34 F3 1$CC E2 H& F C N $ED Q3&H43 F3 6 4C G$O H& E ,0! 4! <E3 FH-C$ED 3 2F F-ED43D $ED F 4 O H ! $ED C-NF 11 N$ HE J $O Q3 J $D3 QO C-NF I 34CHEC

I34CHECʻ $EDʻ C-NFʻ I4HNE3D- ʻ CF$ ʻ Q3ʻ F$Dʻ F343-1HEʻ $Cʻ QOʻ F3 ʻ I4H ʻ $E 11 N$ ʻ CHECʻ H&ʻ F3ʻ C$ Dʻ 43N 3Dʻ N Cʻ $- FH4 T3Dʻ $EDʻ D 43N 3Dʻ Eʻ F3ʻ @$C3Cʻ HE J$O Q3 3&ʻ 11 N$ HECʻ &H4ʻ &H3ʻ +3ʻ I C3ʻ J $D3ʻ EEʻ &H3ʻ I34 HDCʻ J 3Dʻ $EDʻ $11H E 3Dʻ F343-ED34.ʻ I H4 D3Dʻ E3 34 F3 3CC ʻ F$ ʻ ʻ CF$ ʻ Q3 ʻ NH J 3ʻ 2 Eʻ $ &-ʻ Hʻ J $+3ʻ 11 N$ HEʻ &H4ʻ C-NFʻ $4 $ HEʻ $Cʻ $&H43R C$ Dʻ $ ʻ C-NFʻ I34 HDʻ $Cʻ H- Dʻ F$ 3ʻ Q33Eʻ $ &-ʻ Eʻ @$C3ʻ F Cʻ ; E$N R J 3E ʻ F$Dʻ EH ʻ Q33Eʻ J $D3 ʻ $EDʻ F$ ʻ F3ʻ C$ J 3ʻ CF$ ʻ EH ʻ Q3ʻ $+3Eʻ Eʻ $EOʻ 43C13N ʻ Hʻ NF$E23ʻ H4ʻ $& QX ʻ F3ʻ I34 HDʻ H4ʻ ?34 3Cʻ H&ʻ =3$4Cʻ $11H E 3Dʻ &H4ʻ C-NFʻ $4 $ HE ʻ C$ 3ʻ $Cʻ F343 Eʻ C13N & N$ Oʻ 14H D3D

ʻ I4H D3Dʻ &-4 F34 $ED Q3ʻ ʻ 3E$N 3D ʻ * F$ ʻ F343ʻ F3ʻ J H-E ʻ %ʻ ' ʻ H&ʻ F3ʻ @H J 1HC HEʻ 3C $Q CF3Dʻ Eʻ $EOʻ I$4 CFʻ CF$ ʻ F$ 3ʻ Q33Eʻ & 3Dʻ 113$ʻ QOʻ 2433 J 3E ʻ C-NFʻ J H-E ʻ EH ʻ F$ E2ʻ Q33Eʻ $CN34 $ E3Dʻ QOʻ $EOʻ 3C @H J J CC HE34Cʻ H4ʻ # J 1 43ʻ 1-4C-$E ʻ Hʻ F3ʻ I4H C HECʻ H&ʻ F3ʻ C$ Dʻ G- - #-2ʻ 43N 3Dʻ N ʻ H&ʻ F3ʻ 6H-4 Fʻ =3$4ʻ H&ʻ &H3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C Oʻ ʻ % ' ! $ CF$ ʻ $EDʻ J $Oʻ Q3ʻ $ &-ʻ &H4ʻ $EOʻ ?3 3Eʻ H4ʻ J H43ʻ I34CHECʻ Eʻ C-NFʻ I$4 CFʻ X-$ & 3Dʻ Eʻ +3ʻ P $EE34ʻ $Cʻ I34CHECʻ $- FH4 T3Dʻ Hʻ 14HN33Dʻ Eʻ 3 3N- HEʻ H&ʻ F3ʻ C$ Dʻ 43N 3Dʻ N Cʻ $ ʻ $EOʻ ?13N $ ʻ 3C 40ʻ N$ 3Dʻ Eʻ C-NFʻ I$ CFʻ $43ʻ QOʻ C-NFʻ N Cʻ 43X- 43Dʻ Hʻ Q3ʻ X-$ & 3D ʻ $ ʻ $EOʻ * J 3ʻ F Eʻ * F433ʻ @$ 3ED$4ʻ P HE FCʻ $& 34ʻ F3ʻ 1$CC E2ʻ H&ʻ F Cʻ N ʻ Hʻ 43X-$ 3ʻ &H3ʻ @F-4NF $4D3ECʻ H&ʻ C-NFʻ I$4 CFʻ Hʻ C- J J HEʻ $ʻ ?13N $ ʻ 3C 40ʻ &H&ʻ &H3ʻ I-41HC3ʻ H&ʻ NHEC D34 E2 ʻ F3ʻ I4H14 3 Oʻ H&ʻ 113 E2ʻ 2 EC ʻ F3ʻ @H J 1HD H& ʻ CHʻ 3C $Q CF3Dʻ Eʻ C-NFʻ I$4 CF ʻ $EDʻ C-NFʻ @F-4NF $4D3ECʻ CF$ ʻ N$-C3ʻ 1-Q Nʻ , H N3ʻ Hʻ Q3ʻ 2 3E ʻ Eʻ F3ʻ -C-$ ʻ P $EE34ʻ H&ʻ 2 E2ʻ , H N3Cʻ &H4ʻ FH D E2ʻ 3C 4 3C ʻ F$ ʻ $ʻ ?13N $ ʻ 3C 40ʻ H&ʻ I34CHECʻ X-$ & 3Dʻ $NNH4D E2ʻ Hʻ F3ʻ G 43N HECʻ H&ʻ F3ʻ C$ Dʻ 43N 3Dʻ N Cʻ ʻ Q3ʻ FH D3Eʻ HEʻ CH J 3ʻ G$Oʻ Hʻ Q3ʻ E$ J 3Dʻ Eʻ C-NFʻ , H N3 ʻ Q3 E2ʻ EH ʻ 3CCʻ F$Eʻ ?3 3Eʻ G$OCʻ EH4ʻ J H43ʻ F$Eʻ 6H-4 33Eʻ G$OCʻ &4H J ʻ F3ʻ & 4C ʻ I-Q N$ HEʻ F343H&ʻ &H4ʻ &H3ʻ I-41HC3ʻ $&H43C$ D ʻ $EDʻ C-NFʻ 3C 40ʻ CHʻ $CC3 J Q 3Dʻ CF$ ʻ $+3ʻ C-NFʻ @H J 1HC HEʻ E Hʻ NHEC D34$ HE ʻ $EDʻ J $Oʻ $D(H-4Eʻ &4H J ʻ * J 3ʻ Hʻ * J 3ʻ Hʻ $EOʻ G$Oʻ H4ʻ G$OCʻ EH ʻ J H43ʻ ʻ F$Eʻ * 3Eʻ G$OCʻ D C $E ʻ &4H J ʻ &H3ʻ & 4C ʻ G$Oʻ H&ʻ J 33 12 ʻ $EDʻ &ʻ $ ʻ C-NFʻ 3C 40 ʻ H4ʻ $EOʻ D(H-4- J 3 ʻ F343H& ʻ ʻ CF$ ʻ Q3ʻ D3 34 J #3Dʻ Hʻ 113 ʻ 2 EC ʻ F3ʻ @H J 1HC HEʻ 3C $Q CF3Dʻ Eʻ C-NFʻ I$4 CF ʻ C-NFʻ ʻ 113$ ʻ CF$ ʻ Q3ʻ J $D3ʻ Hʻ F3ʻ >H4Dʻ > 3- 3E$E ʻ H4ʻ H F34ʻ @F 3&ʻ MH 34EH4ʻ H4ʻ MH 34EH4Cʻ H&ʻ $!% #&ʻ Eʻ @H-EN ʻ Eʻ F3ʻ , $ J 3ʻ H&ʻ C-NFʻ 3C 40 ʻ HEʻ Q3F$ &ʻ H&ʻ C-NFʻ I$4 CF ʻ $EDʻ F3ʻ M4H-EDCʻ H&ʻ C-NFʻ 113$ ʻ CF$ ʻ Q3ʻ C $ 3Dʻ Eʻ 9 4 E2 ʻ $EDʻ C 2E3Dʻ QOʻ F3ʻ @F$ 4 J $Eʻ H&ʻ C-NFʻ 3C 40 ʻ $EDʻ 4$EC J 3Dʻ QOʻ F J ʻ Hʻ F3ʻ @ 34+ʻ H&ʻ F3ʻ I4 Oʻ @H-EN ʻ F Eʻ * Hʻ G$OCʻ $& 34ʻ $-NFʻ P 33 E2ʻ ʻ $EDʻ Eʻ +3ʻ P $EE34ʻ ʻ CF$ ʻ Q3ʻ $ #ʻ &H4ʻ $EOʻ EN- 4&(NE ʻ 34ʻ J 14H14 $ H4 ʻ H4ʻ BHDOʻ I H Nʻ H4ʻ @H41H4$ 3ʻ H4ʻ @H 32 $ 3ʻ H ʻ $EOʻ I34CHEʻ H4ʻ I34CHECʻ 3E 3Dʻ Hʻ $EOʻ * F3Cʻ H4ʻ I H4 HEʻ H&ʻ * F3Cʻ Eʻ $EOʻ I$4 CFʻ F343 Eʻ $EOʻ @H J 1HC HEʻ CF$ ʻ F$ 3ʻ Q33Eʻ 3C $Q CF3Dʻ QOʻ 2433 J 3E ʻ $Cʻ $&H43C$ &Hʻ Hʻ 113 ʻ Hʻ F3ʻ C$ Dʻ >H4Dʻ > 3- 3E$E ʻ H4ʻ H F34ʻ @F 3&ʻ MH 34EH4ʻ H4ʻ MH 34EH4Cʻ Eʻ @H-EN ʻ C-NFʻ 113$ ʻ Hʻ Q3ʻ HD23D ʻ H23 F34ʻ Fʻ F3ʻ M4H-EDCʻ $EDʻ ʻ 3$CHECʻ F343H&ʻ Eʻ 9 4 E2 ʻ Fʻ F3ʻ @ 34+ʻ H&ʻ F3ʻ C$ Dʻ @H-EN ʻ F Eʻ C-NFʻ I34 HDʻ H&ʻ * F433ʻ @$ 3ED$4ʻ P HE FCʻ $Cʻ $&H43C$ D ʻ $EDʻ , H N3ʻ H&ʻ 3 340ʻ C-NFʻ 113$ ʻ CF$ ʻ Q3ʻ EC34 3Dʻ QOʻ H4ʻ HEʻ Q3F$ &ʻ H&ʻ F3ʻ I$4 CFʻ H4ʻ I$4 Oʻ 113 $E ʻ Eʻ F3ʻ "3)O#ʻ ! !ʻ < EN3ʻ Eʻ * Hʻ C-NN3CC 3ʻ 9 33+Cʻ $& 34ʻ C-NFʻ 113$ ʻ CF$ ʻ F$ 3ʻ Q33Eʻ HD33Dʻ $Cʻ $&H43R C$ D ʻ Fʻ F3ʻ @ 34+ʻ H&ʻ &H3ʻ @H-EN ʻ f

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ULKS"M#> ;> ' ' @$1 *?' [!

H' C-NF' I $N3C' $ED' H' N$44O' F3' C$J3' E H' 3 3N- HE' F E' C-NF' I $N3C' ' $ED' ' CF$ '$ED' J$O'Q3' $ &-'&H4' F3' >H4D'> 3- 3E$E'H4' ' H F34' @F 3&' MH 34EH4' H4' MH 34EH4C' H&' $!% #&' E' $ ' @$C3C' F343' 'CF$ ' ?33J' H' F J'& ' H4' E3N3CC$4O' H' EH J E$ 3' $ED' $11H E' CH J 3' I34CHE' H' $N' $C' $' @F-4NF $4D3E' E' $EO' C-NF' I $N3' H4' I $N3C' &H4' F3' I-41HC3C' H&' F3' C$ D' 43N 3D' N C' H4' H&' F C' N ' $ED' $ ' N C P$ 34C' $ED' *F E2C' DHE3' 1-4C-$E' H' F3' I4H C HEC' H&' F3' C$ D' 43N 3D' N C' H4' F C' N ' QO' H4' F' 43 $ HE' H' F3' I34CHE' CH' EH J R E$ 3D' $ED' $11H E 3D' $C' $ED' E' 3-' $ED' C 3$D' H&' $' @F-4NF $4D3E' CF$ 'Q3' $C' 2@HD' $ D' $ED' 3&&3N $$' H' $ ' E 3E C' $ED' I-41HC3C' $C' &' C-NF' I $N3' H4' I $N3C' 343' $' I$4 CF' $ED' C-NF' I34CHE' F3' @F-4NFR $4D3E' F343H&' D- O' NHEC - 3D' $NNH4D E2' H' >$

W ' ED' Q3' ' 3E$N 3D' *F$' EH' I34CHE' FH D E2' H4' HNN-1O E2' 4 ' !' '! >$ED' E' $!% #&' $C' *3E$E'$' 9 'H4' *3E$E'&4H J' =3$4' H' =3$4' H4' Ocp F$ E2' $EO' 3CC34' ;C $ 3' H4' E 343C' F343 E' CF$ ' Q3' $Q 3' H' F3' 3 3J1 3D I$O J 3E' H&' $EO' ?- J' H4' ?- J C' H&' P HE3O' $NN4- E2' D-3' $ED' 1$O$Q 3' $ 5'<'2O $& 34' F3' 6 4C' G$O' H&' E ,0! 4! '6#!' FH-C$ED' 3 2F' F-ED43D' $ED' 5 ! $ 5O F 4 0 F433' HE' $NNH-E' H&' $EO' @H J 1HC HE' &H4' * F3C' NF423Q 3' H4' F NF' J $O' Q3NH J 3' NF$423$Q 3' HE' C-NF' >$ED' ' $ED' F3' I34CHE' (5- / FH' CF$ ' F$ 3' E' C-NF' >$ED' F3' & 4C' ;C $ 3' H4' E 343C' 243$ 34' ' # ! '< O F$E' C-NF' *3E$ENO' &4H J' =3$4' H' =3$4' CF$ ' Q3' $ED' Q3NH J 3' &H4' $ED' '(% D-4 E2' F3' @HE E-$EN3' H&' C-NF' ;C $ 3' H4' E 343C ' $Q 3' H' F3' I$O' J 3E' H&' F3' @H J 1HC HE' &4H J' C-NF' 6 4C' G$O' H&' E ,0! 4! ' <E3' $H! ' 5'# W FH-C$ED' 3 2F 'F-ED43D' $ED' F 4 0 F433' $ED' F3EN3&H4 F' &4H J' * J 3' '- '! O H' * 8 3' $NN4- E2' D-3' $ED' 1$O$Q 3' E' 43C13N' H&' C-NF' >$ED ' $ED' $! / ' # -1HE' F3' ; 1 4$ HE' ?-443ED34' 6H4&3 -43' H4' H F34' G3 34 J E$ HE' ^-' H&' C-NF' & 4C' ;C $ 3' H4' E 343C' 243$ 34' F$E' $' *3E$ENO' &4H J' =3$4' H' ; 14$' =3$4' $C' $&H43C$ D' F3' I34CHE' F$ E2' F3' E3 ' ;C $ 3' H4' E 343C' E' ! $ ' C-NF' >$ED' 243$ 34' F$E' C-NF' ;C $ 3' $C' $&H43C$ D' CF$ ' Q3' $ED' $!'% '! ' Q3NH J 3' &H4' $ED' D-4 E2' F3' @HE E-$EN3' H&' C-NF' ;C $ 3' H4' E 343C ' $Q 3' H' F3' I$O J 3E' H&' C-NF' @H J 1HC HE' $C' $&H43C$ D' ' $ED' CH' HE' 243$ 34 F3' > $Q O' H' F3' I$O J 3E' H&' C-NF' @H J 1HC HE' $ $NF E2' $ED' :!'! ' ' # D3 H E2 C-NN3CC 3 O' -1HE' F3' ; 1 4$ HE' 6H4&3 -43' H4' H F34' HE' &H4 G3 3EE E$ HE' H&' 3$NF' $ED' 3 34O' C-NF' 143 H-C' ;C $ 3' H4' E 343C' $C' ' $&H43C$ D' -1HE' F3' I34CHE' F$ E2' F3' E3 'C-NF' ;C $ 3' H4' E 343C' &H4' $ED' D-4 E2' F3' @HE E-$EN3' F343H&' -E ' C-NF' > $Q O' CF$ ' 3 3E -$ O' $ $NF' $ED' D3 H 3' -1HE' F3' I34CHE' F$ E2' F3' 633' ? J 1 3' $ED' EF34 $EN3' H&' C-NF' >$ED' FH' CF$ ' Q3' $ED' 43 J $ E' &H4' 3 34' C-Q(3N' F343 H.' I4H D3D' $ $OC' F$' C-NF' *4$EC&34C' H&' > $Q O' CF$ 'Q3' FH-' I 3(-D N3' H' $EO' 443$4C' H&' @H J 1HC HE' F NF' J $O' F$ 3' $NN4-3D' D-3' $ ' F3' * J 3C' H&' C-NF' *4$EC&34C' 43C13N 3 O' $ED' H' $ ' ' 3 J 3D 3C' &H&' F3' ' 3NH 34O' H&' C-NF' 443$4C' $ED' 14H D3D' $ $OC' F$' &' $EO' C-NF' *3E$E' $' 9 ;' H4' O3$4 O' *3E$E' CF$ ' NHER E-3' E' 1HCC3CC HE' $& 34' C-NF' 6 4C' G$O' H&' E ,0! 4! ' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 F433' H&' C-NF' >$ED' CH' $Q 3' $C' $&H43C$ D' FH-' 3E 34 E2' E H' $EO' E3 ' 2433 J 3E' F' F C' >$ED H4D' C-NF' >$ED H4D' CH' Q3NH J E2' $Q 3' CF$ 'Q3' 3E 3D' H' 43NH 34' &4H J' C-NF' *3E$E' CH' NHE E- E2' E' C-NF' I HCC3CC HE' E' $DD HE' H' F3' ' 3E' F3E' 1OQ 3' QO' F J' F3' J H-E' H&' ?-NF' @H J 1HC HE' F343 H&H43' 1OQ 3' QO' ?-NF' *3E$E ' F3' C$ J 3' H' Q3' 43NH 343D' QO' $ ' F3' 9 $OC' $ED' P 3$EC' $ED' $C' &' F3' C$ J 3' 343' I$4' H&' $ED' $DD3D' H' C$ D' ' 3E' QO' 2433 J 3E' Q3 33E' C-NF' >$ED H4D' $ED' *3E$E' H4 2 E$ O

W >' ED

7 ' ' '$! ' G ' '! ' G '! ' - ' $ '$ 5' 4!

W 4' ED' Q3' '3E$N 3D' *F$' &4H J' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' E' $ ' @$C3C' F343' $EO' W $ED' D $ ' Q3' 3 ' H4' CH ' H4' D3 J C3D' E' $!% #& ' F3' >3CC33' H4' *3E$E ' F343H&' CF$ ' FH D' C-NF' >$ED' &433' &4H J' F3' I$O J 3E ' H&' * F3C' H4' @H J 1HC HE' &H4' * F3C ' $ED' $ ' @HE 4$N C' @H 3E$E C' $ED' 2433 J 3E C' H' F3' NHE 4$4O' F343H&' FH R CH3 34' J$D3' CF$ ' Q3' - 34 O' E- ' $ED' H D

)'(%$ ' G ' ' * # # ' (' !

W ' I4H D3D' $ED' Q3' '3E$N 3D' *F$' E' EH' @$C3' F343' 1-4C-$E H' @H 3E$E ' H4' @HE 4$N ' $EO' >3$C3' CF$ ' Q3' 43E3 3D' H4' $EO' > &3' H4' > 3C' Q3' C-QC - 3D' H4' C-134$DD3D' H4' $EO' E3 ' >3$C3' H&' F3' C$J 3' >$ED' Q3' 24$E 3D' CF$ ' F3' ; C $ 3' *34 J ' H4' E 343C' 143 H-C O' C-QC C E2' Q3' D33 J 3D' F E' F3' P 3$E E2' H&' F C' N ' H' E$ 3' Q33E' D3 34 J E3D' EH4' CF$ ' C-NF' >$ED' Q3' D33 J 3D' H' Q3' H4' F$ 3' Q33E' 3 ' C3 ' H4' D3 J C3D' $& 34' F3' 1$CC E2' H&' F C' N ' F E' F3' P 3$E E2' F343H&'

'<' !2 ' - '! '! ' <'25 f $ 5 ! ' f ' ' * '! ' = ' (' 5'2 - ' ! # ! ' $ ' <'25 f $ ' ' $

W ' ED' Q3' '3E$N 3D' *F$' E' $ ' @$C3C' F343' $EO' >$ED' E' $!% #&' CF$ ' Q3' F3 D' H4' HNN-1 3D' QO' $EO' I34CHE' EH ' $Q 3' -ED34' F3' I4H C HEC' H&' F C' N ' H' F3' I$O J 3E ' H&' F3' @H J 1HC HE' &H4' * F3C' &4H J' * J 3' H' * J 3' $NN4- E2 D-3' E' 43C13N ' H&' C-NF' >$ED' ' CF$ ' EH ' Q3' $ &-' H' J$+3' $EO' G C 43CC' -1HE' C-NF' >$EDC' H4' -1HE' $EO' MHHDC' H4' @F$ 3 C' F343HE ' Q4' F3' '3NH 34O' $ED' >3 O' H&'$EO' C-NF' @H J 1H ' C HE' H4' 443$4C' F343H&' $ED' E' $ ' C-NF' @$C3C' 'CF$ ' $ED' J $O' Q3' $ &- ' F3E3 34' $ED' CH' H& 3E' $C' F3' ?$J 3' H4' $EO' I H4 HE' H&' C-NF' @H J 1HC HE' $C' $&H43C$ D' CF$#' Q3' E' $443$4' $ED' -E1$ D' &H4' < E3' =3$4' $ED' $E' 8 $ &' E3 ' $& 34' F3' I34 HD' F3E' F3' C$J 3' J $O' F$ 3' Q3NH J 3' D-3' $ED' 1$O$Q 3' &H4' $' @H-4 ' H&' ; X- O' -1HE' 11 N$ HE' E' J $EE34' F343$& 34' J 3E HE3D' $ED' -1HE' C' $113$4 E2' H' C$ D' @H-4 ' F$ ' $EO' 32$' '3 J 3DO' H' 3E& J N3' I$O J 3E ' H&' C-NF' 443$4' C' +3 O' H' 14H 3' E3&&3N -$ ' H' $11H E ' $' '3N3 34' H' 43N3 3' C-NF' I$4 ' H&' F3' '3E C' H&' F3' >$EDC' E' 43C13N ' F343H&' C-NF' @H J 1HC HE' J $O' Q3' D-3' $ED' 1$O$Q 3' $C' CF$ ' Q3' C-&& N 3E ' H' 1$O' C-NF' 443$4' , '@H J 1HC HE' D-3' $ED' -E1$ D' -E ' F3' FH 3' H&' C-NF' 443$4' H&' @H J 1HC HE' CF$ ' Q3' D CNF$423D' $ED' EH' HE234 ' H23 F34' 9 F' C-NF' I33C' H4' ?$ $4O' $C' $ ' Q3' $11H E 3D' QO' F3' C$ D' @H-4 ' &H4' C-NF' '3N3 34' $C' $ CH' F3' E3N3CC$4O' @HC C' H- ' H&' I HN+3' H&' C-NF' 11 N$ HE' ($ ' F$ ' H- ' H&' F3' ? J C' CH' 43N3 3D' C-NF' ?$ $4O' $ED' @HC C' CF$ ' Q3' H4D343D' H' Q3' 1$ D ' $ED' C-NF' < 4D34' CF$ ' Q3' J $D3' -1HE' I 3 N$' $ED' && D$ ' $& 34' 43$CHE$Q 3' * J 3' 2 3E' H' CFH '@$-C3' $ED' F3 F34' $EO' B ' F$C' H4' F$C' EH ' Q33E' & 3D' $ED' F3E3 34' $EO' I$4 O' ($ $C ' FH J' $EO' C-NF' 11 N$ HE' J $O' Q3' J$D3' CF$ ' Q3' Q3OHED' F3' ?3$C' H4' FH- ' F3' 5-4 CD N HE' H&' F3' @H-4 ' ' CF$ ' Q3' $ &-' &H4' F3' @H-4 ' H' D 43N ' , H N3' H&' C-NF' 11 N$ HE' H' Q3' C34 3D' HE F3' +EH E' H4E3O ' 23E ' H4' ? 3 $4D' H&' C-NF' I$4 O ' $ED' C-NF' , H N3' CF$ ' Q3' $C' 2H P' $ED' 3&&3N -$ ' $C' 134CHE$ ' ?34 N3' HE' C-NF' I$4 O' ' $ED' ' CF$ ' Q3' $ &- ' &H4' F3' @H-4 ' H' 14HN33D' -1HE' C-NF' 1(D 3$ HE ' H' & ' E 3E C'

7 ' ' ' ! ' ' '=% f' $@ ! '! ' 5'

$ED' I -41HC3C' $C' &' C-NF' I$4 O' 343' F E' C-NF' 5-4 N HE.' I 4HR D3D' $ $OC' F$ ' EH F E2' F343 E' NHE $ E3D' CF$&' 3 3ED' H' $ 34' H4' $&&3N ' $EO' '3 J 3DO' QO' G C 43CC' H4' H F34 C3 ' EH ' QO' >$ ' 14H D3D' &H4' F3' '3NH 34O' H4' >3 O' H&' $EO' @H J 1HC HE' &H4' * F3C ' E' @$C3C' F343' F3' I34CHE' $Q 3' H' F3' I$O J 3E ' H&' C-NF' @H J 1HC HE' CF$ ' FH D' H4' HNN-1O' F3' >$ED' E' 43C13N ' F@43<&' F3' C$J 3' J $O' Q3' 1$O$Q 3' EH4' E' $EO' @$C3' H' 143 3E ' $EO' '3N3 34' FH' J $O' Q3' $11H E 3D' E J $EE34

U"K'Sč M # > ; > P P ' @$1 V' [!S

J$EE34' Q3&H43' J3E HE3D' &4H J' 3 O E2' QO' G C 43CC' H4' H F34 C3 '
C-NF' I$4 ' H&' $EO' ' 3E C' $C' J$O' Q3' E3N3CC$4O' H' 1$O' $EO' 443$4' H&'
@H J 1HC HE' &H4' ?$ C&$N HE' F343H&' C-NF' 11H E J3E ' J$O' F$ 3'
Q33E' J$D3

W ' ED' Q3' ' 3Q$3 3D' *F$ ' ' CF$ ' $ED' J$O' F3' $ &- ' H' C-3' 5 ! '
&H4' $ED' 43NH 34' $EO' C-NF' @H J 1HC HEC ' H4' I$4 C' F343H&' $' $EO' ('- '
* J3' D-3' $ED' E' $443$4' H&' $ED' &4H J' F3' 134CHE' $Q 3' H' F3' I$O J3E
H&' F3' C$J3 ' QO' B ' E' ; X- O ' H4' QO' N HE' H&' G3Q ' H4' HE' F3' @$C3'
E' $EO' H&' 8 C' P$(3C O C' ?-134 H4' @H-4 C' H&' ' 3NH4D' E' 234% #' , ' E'
N$C3' F3' J H-E ' CH' CH-2F ' H' Q3' 43NH 343D' CF$ ' EH ' 3 N33D' * 3E O'
IH-EDC' QO' @ ' B ' E' F3' @H-4 ' H&' F3' CC C $E ' B$44 C 34' H&' F3'
@H-E O' F343 E' F3' I34CHE' J$O' 43C D3' 2 EC ' FH J' ' C' CH-2F ' H'
43NH 34' C-NF' @H J 1HC HE ' H4' E' N$C3' 3-NF' 134CHE' CF$ ' 43C D3' E' F3'
@H-E O' , ' 234% #' QO' @ ' B ' E' F3' @H-4 ' H&' F3' @F$ 4 J$E' H&' F3'
?3CC HEC' H&' F3' I3$N3' &H4' C-NF' @H-E O

W ' ED' Q3' ' 3E$N 3D' * F$ ' ' CF$ ' $ED' J$O' Q3 $ &- ' &H4' $EO' ' 5 '2
I34CHE ' F$ E2' E' 1HCC3CC HE' $EO' ; C $ 3' H4' E 343C ' E' >$ED' NF$423D' 5 '. ' % 0
' H 4 F NF' J$O' Q3NH J 3' NF$423$Q 3' F' F3' I$O J3E ' H&' $EO' @H4$1HC ' 5 ,/ ' #
HE' &H4' * F3C ' C-NF' I34CHE' EH ' Q3 E2' $' * 3E$E ' &H4' $#O' 3CC34' * 34 J' ! !
F$E' $' * 34 J' H&' * 3E O HE3' =3$4C' &4H J' F3' @H J J3EN3 J3E ' F343H&'
$ED' $EO' C-NF' I34CHE' C' F343QO' 3 J 1H 343D' $ED' 3E 3D' H' $2433' &H4'
$ED' #ED34 $+3' F3' &- -43' I$O J3E ' H&' C-NF' @H J 1HC HE ' HE' F3' * 34 J C'
$ED' E' F3' P$EE34' $ED' C-Q(3N ' H' F3' I43&343EN3' $ED' H F34' ' 32- $R
HEC' F343 E $& 34' NHE $ E3D

W ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' ' CF$ ' Q3' $ &- ' &H4' F3' 5 5 !! '
@H J J 33' H4' @H J J 33C' H&' $EO' >-E$ N ' H4' F3' M-$4D $E' H4' , ' ' ! ' '
M-$4D $EC' H&' $EO' E&$E ' H4' F3' 8 -CQ$ED' H4' * 4-C 33' H4' * 4-C 33C' H&' $ ' ' ! '*
$EO' 63 J 3' @H 34 ' H4' C-NF' I34CHE' $C' J$O' Q3' &H4' F$ ' I -41HC3' EH J R ! # < '
E$ 3D' QO' F3' @H-4 ' H&' @F$EN34O' -1HE' $' C- J J$4O' 11 N$ HE' HE' F3' . - ' # '
I$4 ' H&' $EO' I34CHE' -ED34' $EO' EN$1$N O ' $ED' FH J' C-NF' @H-4 ' C' #4 ! '
F343QO' 3 J 1H 343D' H' EH J E$ 3' F NF' >-E$ N ' E&$E ' H4' 63 J 3' 5 #! '
@H 3 '] IH F34' EN1N $ 3D' I34CHE' J$OQ3' E 343C 3D' E' $EO' >$EDC 5 '. ' % *
* 3E3 J3E C' H4' 8 343D $ J3E C' NF$423D' H4' F NF' J$O' Q3NH J 3' NF$423R 5 !
$Q 3' F' F3' I$O J3E ' H&' $EO' @H J 1HC HE' &H4' * F3C ' H' $2433' &H4'
$ED' -ED34 $+3 ' HE' Q3F$ &' H&' C-NF' >-E$ N ' E&$E ' 63 J 3' @H 34 ' H4'
H F34' EN1N $ 3D' I34CHE ' F3' I$O J3E ' H&' $EO' C-NF' @H J 1HC HE' &H4'
* F3C' E' F3' P$EE34' QO' F C' N ' 143CN4 Q3D' ' $ED' 3 34O' C-NF' 2433R
J3E ' H4' #ED34 $+ E2' CF$ ' Q3' $C' 2HHD' $ D' $ED' 3&&3N -$' E' >$ ' H'
$ ' E 3E C' $ED' I -41HC3C' $C' &' F3' C$J 3' 9343' J$D3' QO' $' I34CHE' -ED34'
EH' G C$Q O' H ? EN$1$N O

W W' ED' Q3' ' 3E$N 3D' * F$ ' $EO' I34CHE' 3 J 1H 343D' -ED34' F3' *34JC'HE
I4H C HE' F343 E Q3&H43' NHE $ E3D' $ED' FH' CF$ ' $2433' &H4' $ED' -ED34 ' ' % 0
$+3' F3' G- O' <Q 2$ HE ' $ED' > $Q O' H' F3' &- -43' I$O J3E ' H&' C-NF' 5 ! ' ' '
@H J 1HC HE' $C' $&H43C$ D' CF$ ' E' NHEC D34$ HE' F343H&' Q3' 3E 3D' H
$E' Q$ 3 J3E ' 14' ' 3D-N HE' HE' F3' J H-E ' F343H&' $' $ED' $& 34' F3'
' $ 3' H&' 6 & 33E' IH-EDC' ! ' I !# 3 ' HE' C-NF' J H-E .' I4H D3D'
$ $OC' F$ ' &' $ ' $EO' * J 3' C-NF' @H J 1HC HE' CF$ ' Q3' E' $443$4' $ED'
-E1$ D' &H4' F3' ?1$N3' H&' ? ' PHE FC' E3 ' $& 34' F3' C$J 3' CF$ ' F$ 3'
$NN4-3D' D-3' $ED' 1$O$Q 3' F3E' $ED' E' C-NF' @$C3' EH' C-NF' Q$ 3 J3E '
XB' >' H4

! U K S/ M # > ; > P 5 @$1 V

H4 ' 3D-N HE CF$ Q3 J$D3 Q- F3 FH 3 H4 2 E$ J H-E H& F3 @H J 1HC HE F3E $NN4- E2 D-3 $ED 1$0$Q 3 CF$ Q3 5 , %%& 0 '! D-3 $ED 1$0$Q 3

< $!'- # '5 %! < - $ # - #

WW ED Q3 3E$N 3D *F$ F3 NF 3& >$ED H4D H4 >3CCH4 C3 C3D H& $EO ' 3E $ED ' 3 34C HE E >$ED NF$423D H4 F NF J $O Q3NH J 3 NF$423$Q 3 F $EO C-NF @H J 1HC HE &H4 * F3C CF$ Q3 3E 3D H $2433 &H4 $ED #ED34 $+3 F3 I $0 J 3E H& C-NF @H J 1HC HE E 143R &343EN3 H $ H F34 I 34CHEC F$ CH3 34 544H D3D F$ C-NF NF 3&>$EDR H4D H4 >3CCH4 CF$ C 2E &O E J $EE34 F343 E $& 34 $11H E 3D F C G3C 43 CH H DH F E ? @$ 3ED$4 P HE FC E3 $& 34 F3 1$CC E2 H& F C N d $ED E N$C3 C-NF NF 3& >$ED H4D H4 >3CCH4 CF$ EH CH C 2E &O C-NF G3C 43 F E C#NF I 34 HD $C $&H43C$ D F3E F3 I 34CHE F$ E2 F3 ; C $ 3 H4 E 343C & 4C J J 3D $ 3 0 D34 3D -ED34 C-NF NF 3& >$ED H4D H4 >3CCH4 CF$ Q3 143&3443D H F J $ED H $ H F34 I 34CHEC F$ CH3 34 $ED E D3&$- H& F3 I 34CHE F$ E2 C-NQ & 4C D34 $ 3 ; C $ 3 H4 E 343C CH C 2E &O E2 C-NF G3C 43 F3E F3 I 34CHE F$ E2 F3 E3 E&34 H4 D34 $ 3 ; C $ 3 H4 E 343C CF$ Q3NH J 3 3E 3D H $ +3 I 43&343EN3 $E& CH DH E $4DC F3 I 34CHE F$ E2 F3 ; C $ 3 H4 E 343C D34 3D E3$43C H H4 E3 -ED34 F3 NF 3& >$ED H4D H4 >3CCH4 Q3 E2 143&3443D H $ I 34CHEC F$ E2 ; C $ 3C H4 E 343C C J H43 43 J 1 3 O D34 3D

; < # $ 5 ' . % % 5 ! ' ! * #

WW ED Q3 3E$N 3D *F$ 3 34O I 34CHE 3 J 1H 343D -ED34 F3 I 4H C HE F343 E Q3&H43 NHE $ E3D $ED FH J $O Q3 D3C 4H-C H& $2433 E2 &H4 $ED #ED34 $+ E2 F3 &- -43 I $0 J 3E H& $EO @H J 1HC HE CF$ D3 34 H4 N$-C3 H Q3 D3 343D H F3 ; NN 3C $C N$ EN- J Q3E H4 H F34 I 34CHE H4 I 34CHEC 3& 3D H F3 ' 3N3 1 H& C-NF @H J R 1HC HE $, H N3 E 9 4 E2 4 2E &O E2 C-NF G3C 43 $ED D3CN4 Q E2 QO P 3 3C $ED BH-EDC F3 >$EDC NF$423D F C-NF @H J 1HC HE $ED CFH E2 F3 * 3 ; C $ 3 H4 E 343 H& C-NF I 34CHE E $ED H C-NF >$EDC $ED CF$ Q3 $ &- &H4 C-NF ; NN 3C $C N$ EN- J Q3E H4 H F34 I 34CHE H4 I 34CHEC 3E 3D H F3 ' 3N3 1 H& C-NF @H J R 1HC HE H 43X- 43 &4H J $EO I 34CHE N $ J E2 $EO I 43&343EN3 J D34 F C N F3 I 4HD-N HE H& $EO G33D M4$E @HE 3O$EN3 H4 EC 4-R J 3E 43 $ E2 H F3 $ 323D H4 1 3 3ED3D ; C $ 3 H4 E 343C H& C-NF I 34CHE $ED E N$C3 H& $EO G C1- 3 H4 GH-Q $C H 3-NF ; C $ 3 H4 E 343C H4 F3 ' 2F H& 143&343EN3 $4 C E2 F343H- CF$ $ED J $O Q3 $ &- &H4 F3 @H-4 H& @F$1334O E $!% #& -1HE F3 I 3 R HE H& C-NF ; NN 3C $C N$ EN- J Q3E H4 < F34 134CHE H4 I 34CHEC 3E 3D $C $&H43C$ D C $ E2 F3 I 43 J C3C E $ C- J J $4O P $EE34 $ED FH- B & 3D H J $+3 $E <4D34 43&344 E2 F3 P $ 34 H F3 G3N C HE H& $EO P $C 34 H& F3 C$ D @H-4 9 F > Q34 O &H4 F3 I $4 3C H $ 3ED C-NF P $C 34 $ED F C-NF H F34 G 43N HEC $C F3 C$ D @H-4 CF$ D33 J 14H134 $ED F3 ' 31H4 H& C-NF P $C 34 CF$ EH Q3 $Q 3 H $EO ; N31 HE Q- CF$ Q3 NHEN -C 3 0 F3 P $ 34C F343 E N34 & 3D $ED F3 C$ D ; NN 3C $C N$ EN- J Q3E H F34 I 34CHE H4 I 34CHEC 3E 3D $C $&H43C$ D CF$ Q3 $ED F3 H4 F3O $43 F343QO ED3 J E & 3D &4H J $ED 2 EC $?- C N HEC $ED I 4HN33DR E2C F$ CH3 34 QH F $ >$ $ED E ; X- O &H4 $EO N P $ 34 H4 *F E2 F NF J $O Q3 DHE3 E 1-4C-$EN3 H& H4 E NHE&H4 J O H C-NF ' 31H4 HE $EO \ -3C HE CH 43&3443D H F3 G3N C HE E& C-NF P $C 34 $ED F3 @HC C H& C-NF I 3 HE $ED ' 3&H4 J N3 CF$ Q3 E F3

7 @ ! @ -! ! f ! < $! " '!! ! ' -' $ # ! ' " ' ! 2

G CN43 HE

G CN43 HE' H&' C-NF' P $C 34 ' $ED' I $0 J 3E ' F343H&' 3E&H4N3D' QO' $NFR
J 3E ' H4' H F34 C3' $C' F3' CF$ ' D 43N

WW ' ED' Q3' ' 3E$N 3D ' * F$ ' F' $ ' NHE 3E 3E ' ?133D' $& 34' F3' ' 3N3 1 ' H&' $EO' C-NF' , H N3' H4' , H N3C' $C' $&H43C$ D ' F3' ; NN 3C $C N$ ' EN- J Q3E ' H4' H F34' I 34CHE' H4' I 34CHEC' 43N3 E2' F3' C$E 3' CF$ ' $ED' F3' H4' F30' $43' F343QO' 43X- 43D' H' 24$E ' H' F3' I 3 E' 2 E2' C-NF' , H N3 ' $ED' FH' -ED34' $ED' QO' 4 -3' H&' F3' I 43&343EN3' QO' F C' N ' 3C $Q CF3D' J $0Q3' 3E 3D' F343 H ' $' @34 & N$ 3' E' 9 4 E2' 43N E2' C-NF' , H N3 ' $ED' D3N $4 E2' F3' I 34CHE' FH' J $0' F$ 3 '2 3E' F3' C$ J 3' 3E 3D' H' F3' B3E3& ' F343H&'($ED' C-NF' @34 & N$ 3' CF$ ' Q3' 3 3N- 3D' -ED34' F3' 8 $ED' $ED' ?3$ ' H&' C-NF' ; NN 3C $C N$ ' EN- J Q3E ' H4' H F34' I 34CHE' H4' I 34CHEC ' $ED' $ ' 6HH ' F343H&' $' G3N $ $ HE' CF$ ' Q3' EC34 3D ' D3N $4 E2' F3' NN31 $EN3 H&' F3' C$ J 3' QO' F3' I 34CHE' FH' J $0' F$ 3' 2 3E' C-NF' , H N3 ' $ED' C-NF' G3N 4 HE' CF$ ' Q3' E' +3' P $EE34' 3 3N- 3D' -ED34' F3' 8 $ED' $ED' ?3$ ' H&' C-NF ' I 34CHE' ' $ED' H' 3 340' C-NF' @34 & N$ 3' F343' CF$ ' Q3' $EE3 3D ' $' P $1' H4' * 3443' @F$4 ' H4' <4H-ED' I $E' H&' F3' 1$EDC' NF$423D' F' F3' @H J 1HC HE' H' F NF' C-NF' @34 & N$ 3' CF$ ' 43&34 ' $ED' $' @H-E 341$4 ' H&' 3 340' C-NF' @34 & N$ 3' $ED' G3N 4 HE ' F' $' +3' P $1' H4' * 3443' @F$4 ' H4' M4H-ED' I $E' $EE3 3D' F343 H ' CF$ ' F E' * H' @$ 3ED$4' P HE FC' E3 ' $& 34' F3' G$ 3' H4' G$ 3C' F343H&' Q3' D31HC 3D' E' F3' <&& N3' H&' F3' ' 32 C 4$4' H&' F3' G HN3C@' F343 E' C-NF' >$EDC' CF$ ' Q3' HN$ O' C -$ 3' ' H4 ' E' F3' @$C3' H&' >$EDC' C -$ 3' F E' F3' 13N- $4' 5-4 CD NR HE' H&' $EO' 4NFQ CFH1' H4' B CFH1 ' H4' $EO' H F34' 3 3 J 1 ' H4' 13N- $4' 5-4 CD N HE ' E' F3' <&& N3' H&' 3' ' 32 C 4$4' H&' C-NF' 13N- $4' 5-4 CR D N HE ' H' Q3' 13413 -$ O' +31 ' ##D' 143C34 3D' F343 E' ' $ED' C-NF' ' 32 C 4$4C' CF$ ' 43C13N 3 O' CH' D31HC ' $ED' 143C34 3' F3' C$ J 3 ' $ED' F$ ' 2 3' $ED' C 2E' $E' N+EH 3D2 J 3E ' H&' C-NF' G31HC ' F343H& ' H' Q3' 4 3E' HE' C-NF' @34 & N$ 3 ' <4 HE' CH J 3' H F34' C31$4$ 3' I $4NF J 3E I $134 ' H4' EC 4- J 3E ' $ED' 3 340' C-NF' @H-E 341$4 ' CF$ ' Q3' 14HD-N3D' $ ' $ ' 14H134' $ED' -C-$ ' 8 H-4C' $ ' C-NF' ' 32 C 40' H' 3 340' I 34CHE' $11 O E2' H' EC13N ' F3' C$ J 3 ' $ED' $E' <&& N3' @H1O' H&' 3$NF' C-NF' @H-E 341$4 ' N34 & 3D' -ED34' F3' 8 $ED ' H&' F3' ' 32 C 4$4 ' ^$ED' F NF' <&& @3' @H2O' CH' N34 & 3D' F3' ' 32 C 4$4' CF$#' E' $ ' @$C3C' 24$E ' H' 3 340' I 34CXE' FH' CF$ ' $11 O' &H4' F3' C$ J 3_' CF$ ' E' $ ' @$C3C' Q3' $D J 3D' $ED' $ H 3D' $C' 32$ ' ; D3EN3' F343H&' E' $ ' @H-4 C' F$ R CH3 34 ' $FD' 3 340' C-NF' ' 32 f 4$4' CF$ ' F3' 3E 3D' H' F3' ?- J ' H&' <E3' ?F E2' $ED' EH' J H43' &H4' C-NF' N+EH 3D2 J 3& ' $ED' F3' ?- J ' H&' <E3' ?F E2' $ED' EH' J H43' &H4' CH' D31HC E2' $C' $&H43C$ D' C-NF' @H-E 341$4 ' $ED' CH' $C' $&H43C$ D' $N+EH 3D2 E2' C-NF' G31HC ' F343H& ' $ED' F3' ?- J ' H&' ? 13EN3' $ED' EH' J H43' &H4' 3$NF' C-NF' ?3$4NF ' $ED' F3' ?- J ' H&' 6H-4 13EN3' $ED' EH' J H43' &H4' 3$NF' 6H H' H&' ?3 3E O H' 9 H4DC' H&' 3$NF' C-NF' <&& N3' @H1O' CH' N3 & 3D' $C' $&H43C$ D '

@34 & N$ 3' H&' 2433 J 3E ' H' Q3' 24$E 3D' H' F3' I 34CHE' 3E 3D' F343 H

$ED' 432 C 34R 3D' E' ' 32 C 4O' H&' G HN3C3

WW 8 >' ED' Q3' ' 3E$N 3D ' * F$ ' &4H J ' $ED' $& 34' F3' ' 32 C 4$ HE' H&' $EO' C-NF' @34 & N$ 3' $ED' G3N 4 HE ' $ED' QO' 4 -3' $ED' &H4N3' F343H& ' F3' I 34CHE' C-QCN4 Q E2' C-NF' G3N 4 HE' CF$ ' Q3' $FD' Q3NH J 3' $ED' 43 J $ E' C-Q(3N ' $ED' $Q 3' H ' $ED' QH-ED' H' J $+3' I $0 J 3E ' &4H J ' F3' ' 6 4C ' B$0' 6 ' ' H4' F3' 6 4C ' G$0' H&' E , 0 4 ! ' $C' J $0' F$113E ' $C ' 143 H-C' H' F3' G$ 3' F343H& ' H&' F3' @H J 1HC HE' &4H J ' * J 3' H' * J 3' $NN4- E2' D-3' E' 43C13N ' H&' F3' ($FDC' 43&3443D' H' E' C-NF' @34 & N$ 3

@34 & N$ 3' CH 432 C 343D' H' 1> 3E ' H&' +! % 1HC HE ' H' '

H F3 ; NN 3C $C N$ E3$ J Q3E H4 H F34 I 34CHE H4 I 34CHEC &4H J
* J 3 H * J 3 3E 3D F343 H &H4 $ED D-4 E2 F3 @HE E-$EN3 H&
$ F3 ; C $ 3 $ED E 343C H& C-NF 134CHE CH C-QCN4 Q E2 C-NF G3N $R
4$ HE E C-NF >$EDC $C &- O $ED NH J 1 3 3 O H $ E 3E C $ED
I -41HC3C $C E N$C3 EH C-NF 2433 J 3E F$D Q33E J $D3 F3 C$ J 3 H4
$EO H F34 I 34CHE H4 I 34CHEC H- D F$ 3 Q33E H4 J 2F F$ 3 Q3NH J 3
C-Q(3N $ED $Q 3 H C-NF I $O J 3E -ED34 F3 I 4H C HEC H& F C N
H4 H F34 C3 Q- 3E 3D E3 34 F3 3 H ?-NF G3D-N HE H4 Q$ 3R
J 3E HE F3 D-3 $ED 1-EN -$ I $O J 3E H& C-NF @H J 1HC HE $C
F343 E Q3&H43 J 3E HE3D $ED 3 34O ; NN 3C $C N$ EN- J Q3E H4
H F34 I 34CHE H4 I 34CHEC FH J $O Q3 &4H J * J 3 H * J 3 3E 3D H
F3 3N3 1 H& C-NF @H J 1HC HE CF$ F$ 3 2 EC $EO I 34CHE
$+ E2 -1HE F J E J $EE34 $&H43C$ D F3 I $O J 3E H& $EO @H J 1HC HE
$ C-NF $ED F3 +3 3 J 3D 3C &H4 43NH 34 E2 $ED 3 O E2 F3 C$ J 3
$C 2 EC $EO I 34CHE $EO FH H F34 C3 $Q 3 H F3 I $O J 3E H&
@H J 1HC HE &H4 * F3C

!$ '! ! WW ED Q3 3E$N 3D *F$ CF$ $ED J $O Q3 $ &- &H4 F3
'- '<' !2 I 34CHE H FH J $EO C-NF @34 & N$ 3 CF$ Q3 24$E 3D &4H J $ED $& 34
! 5 ! F3 32 C 4$ HE F343H& H F$ 3 43NH 34 $ED 43N3 3 H F C H E
% ! # ! #C3 F3 &- J H-E FH- G3D-N HE H4 Q$ 3 J 3E H& F3 @H J R
((1HC HE 43&3443D H E C-NF @34 & N$ 3 H& $ED &4H J F3 I 34CHE H4
'%' ! ! I 34CHEC &4H J * J 3 H * J 3 $Q 3 -ED34 F3 I 4H C HEC H& F C N
< H4 H F34 C3 H F3 I $O J 3E F343H& &4H J F3 6 4C G$O H& H4
! 5 * 6 4C G$O H& E ,0! 4! $C J $O F$113E $C 143 H-C &H4 $ED D-4 E2
! $ X! F3 @HE E-$EN3 H& $ F C ; C $ 3 H4 E 343C E F3 >$EDC NF$423R
! $ $Q 3 F343 F $ED C-NF @34 & N$ 3 CF$ F$ 3 F3 ; &&3N H& $ED Q3
5 ! # D33 J 3D $ED $+3E H Q3 $ED CF$ H134$ 3 $C $ 2HHD $ D $ED
! ! 3&&3N -$ M4$E CC 2E J 3E H4 @HE 30$EN3 E >$ H C-NF I 34CHE
% * &H4 $ED D-4 E2 F C C$ D *34 J H4 E 343C H& $ F3 2F * 3
5 ! $ED E 343C H& $EO $ED 3 34O ; NN 3C $C N$ EN- J Q3E H4 H F34
I 34CHE H4 I 34CHEC FH J $O Q3 H4 Q3NH J 3 E $EO P $EE34 3E 3D H
F$ 3 43NH 34 $ED 43N3 3 C-NF @H J 1HC HE H& $ED &4H J C-NF
I 34CHE H4 I 34CHEC CH $Q 3 H4 &4H J * J 3 H * J 3 Q3NH J E2 $Q 3
$C $&H43C$ D $ED 3 34O C-NF I 34CHE H FH J $EO C#N @34 & N$ 3
CF$ Q3 24$E 3D CF$ F$ 3 &H4 F3 3NH 34O $ED 3 O E2 H& $EO
C-NF @H J 1HC HE $ C-NF $ED F3 +3 3 J 3D 3C $a -ED34 F3 C$ D
43N 3D N C $ED F C N H4 H F34 C3 $EO ; NN 3C $C N$ EN- J Q3E
H4 H F34 I 34CHE H4 I 34CHEC 3E 3D H F3 3N3 1 H& $EO @H J 1HR
C HE &H4 * F3C $ED $ C-NF CC3CC J 3E C 11 H J 3E C BHH+C
I $134C $ED GHN- J 3E C $C H- D H F34 C3 Q3 NHEN -C 3 ; D3EN3
&H4 $EO I 34CHE H& F3 J H-E H& $EO @H J 1HC HE H4 $EO H F34 N
P$ 34 H4 *F E2 CF$ Q3 $ +3 NHEN -C 3 ; D3EN3 &H4 F3 I 34CHE
H FH J C-NF @34 & N$ 3 CF$ Q3 24$E 3D $ED $ @ $-C3C I 4HR
CH3C $ED @HED HEC E F3 43N 3D N C H F C N NHE $ E3D
432- $ E2 F3 I $O J 3E H& C-NF @H J 1HC HEC $ED 3E$Q E2 H4
&$N $ E2 F3 3NH 34O H& C-NF @H J 1HC HEC QO F3 I 34CHEC
3E 3D H 43N3 3 F3 C$ J 3 CF$ 3E-43 $ED 3 3ED CH &$4 $C F3
C$ J 3 $43 $11 N$Q 3 H $ED &H4 F3 I $O J 3E $ED 3NH 34O F343H& H
$ED QO C-NF I 34CHE $ED $ %H N3C 43^(-(43D H Q3 2 3E H $ED
$ P$ 34C 43X- 43D H Q3 DHE3 QO $EO ; NN 3C $C N$ EN- J Q3E H4
H F34 I 34CHE H4 I 34CHEC 3E 3D H F3 3N3 1 H& $EO C-NF @H J R
1HC HE CF$ Q3 2 3E H $ED DHE3 QO C-NF I 34CHE $C $&H43C$ D $ED
F3

U`KS"M#> ; P ' ' @$1 V' [!

F3' CF$ ' &H4' $ED' D-4 E2' C-NF' ; C $ 3' H4' E 343C ' $C' $&H43C$ D ' H' $ '
E 3E C' $ED' I -41HC3C' Q3' $ED' Q3' D33 J 3D' H' Q3 ' E' 43 $ HE' F343 H ' E'
F3' I $N3' $ED' ? 3$D' H&' C-NF' ; NN 3C $C N$ ' E1 - J Q3E ' H4' H F34' I 34CHE'
H4' I 34CHEC' 3E 3D' H' F3' ' 3N3 1 ' H&' C#NF' @H J 1HC HE

WW ' I 4H D3D'$ $OC ' $ED' Q3' '3E$N 3D ' * F$ ' EH' C-NF' 2433 J 3E ' 24334$3E C'
H4' #ED34 $+ E2' &H4' F3' &- -43' I $O J 3E ' H&' $EO' @H J 1HC HE' CF$ ' E' H' Q3' J $D3
'$EO' 43C13N ' 143(-D N3' H4' $&&3N ' F3' ' 2F ' H&' $EO' ; NN 3C $C N$ ' E ' 43
N- J Q3E ' H4' H F34' I 34CHE' H4' I 34CHEC' H' F$ 3 ' 43NH 34 ' $ED' 43N3 3' H-C' 444$43'
$EO' 443$4C' H&' C-NF' @H J 1HC HE' F343 H&H43' D-3' $ED' E' $443$4($ED'
F$ ' C-NF' ; NN 3C $C N$ ' EN- J Q3E ' H4' H F34' I 34CHE' H4' I 34CHEC' CF$ '
F$ 3' C-NF' $ED' F3' F+3' ' 3 J 3D 3C' &H4' ' 3NH 340' F343H&' $C' &' EH' ?-NF'
#ED34 $+ E2' H4' 2433 J 3E ' F$D' Q33E' 3E 343D' E H

WW ' ED' Q3' '3E$N 3D ' * F$ ' F3' F343 E Q3&H43' NHE $ E3D' I 4H ' @H J 1HC HEC'
C HEC ' 3E$Q E2' I 34CHEC' H' $+3' -1HE' F3 J ' F3' &- -43' I $O J 3E ' H&' QH43$& 34' 3C '
@H J 1HC HEC' &H4' * F3C ' CF$ ' 3 3ED' H' $ ' @H J 1HC HEC' F343$& 34
H' Q3' 3C $Q CF3D ' F3E' $ED' $C' F3' C$ J 3' CF$ ' Q3' 3C $Q CF3D' -ED34' O4H HEC' H&
F3' I 4H C HEC' ^&&' F3' F343 E Q3&H43' 43D 3D' N C' $ED' F C' N ' $ED' EC' N '
F$ ' F3' ; 13EN3C' $ 3ED$E ' -1HE' $EO' C-NF' 2433 J 3E ' H4' #ED34R
$+ E2' H' Q3' 3E 343D' E H' -ED34' F3' &H432H E2' I 4H C HEC ' $ED' H&'
432 C 34 E2' F3' C$ J 3' CF$ ' Q3' D3& $O3D ' QO' F3' I 34CHE' 3E 34 E2' E H'
C-NF' 2433 J 3E ' H4' #ED34 $+ E2

WW '' ED' F343$C' E' J $EO' I $4 CF3C' $' $ -$ HE' H&' * F3C' &H4' P$EE34 H&
F3' 143C3E ' =3$4' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' F$C' Q33E' 43 $ $
H4' J $O' Q3' 143 3E 3D' &4H J ' Q3 E2' J $D3 ' QO' J 3$EC' H&' @H J Q E$ HEC'
$ED' E J D$ HE ' H4' &' J $D3 ' &4H J ' Q3 E2' D- O' 14H 3D ' H' F3' 243$ ' J$D3' H4
E(-4O' $ED' >HCC' H&' F3' * F3' < E34C ' Q3' ' F343&H43' 3E$N 3D ' * F$ ' D3C 4HO3D' QO
E' N$C3' ' CF$ '$113$4' QO' $EO' && D$ ' H' Q3' $EE3 3D' H' $EO' B ' H' H 3EN3' KN'
Q3' & 3D' E' F3' @H-4 ' H&' N 9 E3340' H4' F3' @H-4 ' H&' ; NF3X-34 ' H4'
> Q3 ' H4' I 3 HE' H' Q3' 3 F Q 3D' E' $EO' ; NN 3C $C N$ ' @H-4 ' H4'
@H J 1 $ E ' E' 9 4 E2' H' Q3' 143&3443D' H' H4' Q3&H43' $EO' 5-C N3C' H&'
F3' I 3$N3 ' $C' EH ' 44E 3D' QO' >$ ' &H4' ' 3NH 340' H&' F3' J H-E '
H&' $EO' * F3C' &H4' F C' 143C3E ' =3$4' < E3' FH-C$ED' 3 2F ' F-ED43D'
$ED' J 4 O 9 H ' 1$O$Q 3' H' $EO' ; NN 3C $C N$ ' I 3 J HE' <4 BHDO ' H4' H'
$EO' J 14H14 $ H4' H4' F3' ' 3143C3E $ 3C' H&' $EO' I 34CHE' H4' I 34CHEC'
D34 E2' QO' H4' -ED34' $EO' H&' F3 J ' F$ ' $' $ -$ HE' H&' F3' * F3C'
H&' F3' >$EDC' H&' F3' I 34CHE' H4' I 34CHEC' CH' H' Q3' C-3D' H4' 14HN33D3D'
2 EC ' &H4' * F3C' H&' F3' C$ D' =3$4' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED'
F 4 O H' $C' EH ' J $D3 ' QO' 43$CHE' H&' $EO' C-NF' @H J Q E$ HE ' E J R
D$ HE ' H4' H F34' -ED-3' P 3$EC ' H ' F$ ' C-NF' $ $ -$ HE' F$ E2' Q33E'
J $D3' F3' , H 3C' H4' 3 J C' H&' C-NF' $F $ HE' F$ 3' Q33E' D3C 4HO3D '
H4' QO' 43$CHE' H&' $EO' H 3EN3 ' 64$-D ' H4' 6$ $ O' N$EEH ' Q3' 14HR
D-N3D' $ED' 14H 3D ' $ED' &' F3' C$ D' && D$ ' CF$ ' $ CH' C3 ' &H4 F ' H'
F3' Q3C ' H&' F3' HE3E C' %EH 3D23 ' E&H4 J $ HE ' $ED' B3 3& ' F3'
$ 34$23' $ -3' H&' F3' * F3C' H&' F3' >$EDC' H&' F3' I 34CHE' H4' I 34CHEC'
&4H J ' FH J ' F3' * F3C' &H4' F3' C$ D' =3(4' < E3' FH-C$ED' 3 2F ' F-ED43D'
$ED' F 4 O H' CF$ ' Q3' CH' N $ J 3D ' N$ N- $ 3D' HE' $E' 34$23' H&' $ '
F3' ?- J C' 1$ D' H4' $2433D' &H4' H4' $D(-D23D' H' Q3' 1$ D' HE' $NNH-E ' H&' F3'
* F3C' H&' F3' C$ J 3' >$EDC' D-4 E2' $ED' , ' F3' =3$4C' < E3' FH-C$ED' 3 2F '
F-ED43D' $ED' 3E O 3 2F ' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' 3E O '
E E3 ' $ED' < E3' FH-C$ED' 3 'F-ED43D' $ED' F 4 O' 'CF$ 'EH 'Q3' E3N3C '

C$40' E' C-NF' @$C3' H' C3 '&H4 F' E' $EO' C-NF' B '> Q3 ' I3 HE ' H4' @H J R
1 $ E ' F3' I$4 N- $4C ' \ -$E 3C ' H4' $N -$ ' $ -3' H&' $ ' H4' $EO' * F3C'
H&' F3' C$ D' >$EDC ' H4' H&' $ O' F3$Q 3' P $ 34C 'Q- ' HE O' F3' J H-E ' H&'
F3' $&H43C$ D' $ 34$23' $ -3' H&' F3' * F3C' H&' F3' C$ D' >$EDC' &H4' F3' C$ D'
=3$4C' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' 3E 0 3 2F ' <E3' FH-C$ED'
3 2F ' F-ED43D' $ED' 3E 0 E E3 ' $ED' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED'
F 4 O' CH' N$ N- $ 3D' $C' $&H43C$ D' ($ED' F$ ' F3' 5-D23' $ED' 5-D23C '
$ED' 5-C N3C' H&' F3' I3$N3 ' CF$ ' E' 3 34O' C-NF' @$C3' 43N3 3' $ED' $D J '
; D3EN3' H&' F3' J H-E ' H&' F3' 34$23' H&' F3' * F3C' H&' F3' C$ D'
>$EDC' &H4' F3' C$ D' =3$4C' [" 3' F J C$ED' 3 2F ' F-ED43D' $ED' 3E O '
3 2F ' <E3' FH-C$ED' 3 2F ' F-ED43D' $DD' 3E O E E3 ' $ED' <E3' FH-R
C$ED' 3 2F ' F-ED43D' $ED' F 4 O' $C' I 4HH&' H&' F3' $N -$ ' $ -3' H&' F3'
* F3C' F343H&' &H4' F3' C$ D' =3$4' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED'
F 4 O H ' $ED' CF$ ' -ED' J $O' D3N433' $ED' $D(-D23' F3' J H-E ' H&'
C-NF' $ 34$23' ?- J ' H' Q3' $3N D E2 O' 1 $D' E' C-NF' $ED' F3' C$ J 3' P $ER
E34' $ED' ; H4 J ' $C' F3' H4' F3O' CFH- D' $ED' H-2F ' H' DH' 343' F3' -C-$ '
I 4HH&' J $D3' H&' F3' 1$4 N- $4' \ -$E 3C' $ED' $ -3C' H&' F3' * F3C' $ED'
F3$Q 3' P $ 34C' &H4' F3' C$ D' >$EDC ' D-3' &H4' F3' C$ D' =3$4' <E3'
FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H ' I 4H D3D' $ $OC ' F$ ' E'
N$C3' F3' I 34CHE' H4' I 34CHEC' 2 E4 ' 9F PB $EO' C-NF' ?- ' H4' I 4HN33D E2'
CF$ ' Q3' NH J J 3EN3D' $ED' 14HC3N- 3D' CF$ ' 14H 3' H' F3' ?$ C&$N HE'
H&' F3' C$ D' 5-D23' H4' 5-D23C ' H4' 5-C N3C' H&' F3' I 3$N3 ' $C' F3' @$C3' J $O'
Q3 ' F3' 4-3' $ -3' $ED' \ -$E 3C' H&' F3' * F3C' $ED' F3$Q 3' P $ 34C'
E' 43C13N ' H&' F NF' C-NF' ?- ' H4' I 4HN33D E2' CF$ ' F$ 3' Q33E' CH'
EC - 3D' &H4' F3' * F3C' H&' F3' =3$4 <EN' FH-C$ED' 3 2F ' F-ED43D' $ED'
F 4 O H' $C' $&H43C$ D ' $ED' F$ ' ' CF$ ' Q3' &H-ED' HE' C-NF' I 4HH&' F$ '
F3' J H-E ' F343H&' C' 3CC' F$E' F3' J H-E ' H&' F3' 34$23 ' CH'
@$ N- $ 3D' $C' $&H43C$ D ' F3E' C-NF' G3N433 ' <4D34 ' H4' D(-D N$ HE'
CF$ $ $4D' I $O J 3E ' H&' C-NF' 3CC34' ?- J ' HE O ' EC 3$D' H&' F3' J H-E '
H&' F3' C$ D' $ 34$23D' ? - J ' $EO' F E2' F343 E' NHE $ E3D' H' F3' NHE 4$4O'
EH FC $ED E2

@34 & N$ 3'
KN' 3 3 J 1 3D'
&H J' ? $ J 1'
G - O ' $ED'
EH' @F$423C' H'
Q3' J $D3' &H4'
?3$4NF3C' E'
F3' ' 32 C 4O'
<&& N3' E'
43 $ED

WW ' ED' Q3' ' 3E$N 3D ' * F$ ' EH' G33D ' @34 & N$ 3 ' H4' G3R
N 4 HE' H4' H F34' EC 4- J 3E ' H' F3' E $D3' H4' 3 3N- 3D' -ED34' F3' I 4HR
C HEC' H&' F C' N ' CF$ ' Q3' C-Q(3N ' H' $EO' &') ! ' H4' H F34' ? $ J 1'
G - O' F$ CH3 34' J 1HC3D' QO' $EO' N ' <4 N C' FH E' &H4N3 ' H4' F NF'
J $O' Q3' J 1HC3D' QO' $#O' C#NF' &- -43' N ' H4' N C&' #E 3CC' F3' C$ J 3'
Q3' 3C13N $ O' C-Q(3N 3D' F343 H' 1$ED' F$ ' EH' 633' <4 633C' CF$ ' C$ 3' $C'
F343 E Q3&H43' 14H D3D ' Q3' 1$ D' N-' 1OQ 3' H' $EO ' <&& N34' H4' <&& N34C'
E' $EO' ' 32 C 4O' <&& N3 ' &H4' J $+ E2' ?3$4NF3C' 1H-N3 E E2' $EO' ; C $ 3C '
P $EH4C ' >H4DCF 1C ' P 3CC-$23C ' EDC ' * 3E3 J 3E C ' ' 3E C ' H4' 8 343R
D $ J 3E C ' H4' $EO' * 34 J ' H4' E 343C ' F343 E ' EH4' HE' $NNH-E ' H&' $EO'
@34 & N$ 3' H&' $EO' C-NF' ?3$4NF' FH4' &H4' $EO' @H1O' H4' ; 4$N ' &H J '
$EO' ' 32 C 4O' BHH+' H4' QC 4$N ' BHH+' H4' H F34' ' 3NH4D' F NF' J $O'
Q3' 43X- 43D' QO' $EO' I 34CHE' &H4' F3' I -41HC3C' H&' F C' N ' J 1HC3D' QO'
$EO' N ' H4' N C' EH ' E' &H4N3 ' <4 F NF' J $O' Q3' J 1HC3D' QO' $EO'
&- -43' N ' H4' N C ' -E 3CC' F3' C$ J 3' Q3' C13N $ O' C-Q(3N 3D' F343 H' E'
$ED' QO' ?-NF' &- -43' N ' <4 N C '

E 34143 $R
HE' H&' N34R
$ E' ; 143CR
C HEC' E' F C'
N

WW W ' ED' Q3' ' 3E$N 3D ' * F$ ' 3 N31 ' F343' F3' , $ -43' H&' F3'
I 4H C HE' H4' F3' @HE 3 ' CF$ ' 3 N -D3' C-NF' @HEC 4-N HE ' F3' 9 H4DC '
$ED' ; 143CC HEC' F343 E $& 34' J 3E HE3D' CF$ ' -4 F C' N ' Q3' E 34R
143 3D' $C' &H H C' O' ^ F$ ' C' H' C$O _ F3' 9 H4D' `' I 34CHE' ' CF$ ' 3 3ED
' H

U"KS/M#> ;>P4' ' @$1 V' [!V

H' $'BHDO' I H N ' @H41H4$ 3' H4' @H 32 $ 3' 22432$ 3' H4' ?H 3 ' 8 C'
P$(3C O' 8 C' 8H 4C' $ED' ?-NN3CCH4C' $ $OC' 3 N31 3D ' $ED' F$ ' F34< '
3 34' $3' 9 N4D' `' I 34CHEc' CF$ ' F3' #C J' E' NHEE3N HE' F' H4' $C'
D3CN4 Q E2' F3< E34' H&' $EO' ; C $ 3' H4' E 343C ' E' >$ED ' H4' 3' I 34CHE'
J$+ E2' $EO' 2433 J 3E ' EE$34' EC' N ' F3' 8 3 4C ' ; 3N- H4C ' D J R
E C 4$ H4C ' CC 2EC ' H4' ?-NN3CCH4C' H&' C-NF' I 34CHE' H4' @H41H4$ HE '
$ED' $ ' * 4 - C 33C' H4' 63H&&33C' $ED' < F34' I 34CHEC' N $ J E2' H4' D34 E2'
-ED34' C-NF' I 34CHE' H4' @H41H4$ HE ' $ED' F$ E2' F3' C$ J 3' H4' $E' 3X-$ '
; C $ 3' H4' E 343C ' CF$ ' Q3' -ED34C HHD' H' Q3' J 3$E ' $C' 3 ' $C' C-NF'
I 34CHE' H4' @H41H4$ HE ' $ED' F3' 9 H4DC' `' ; NN 3C $C N$ ' EN- J Q3E '
H4' H F34' I 34CHE' H4' I 34CHECc' CF$ ' 3 3ED' H' $E' 4NFQ CFH1 ' B CFH1
G3$E ' G3$E' $ED' @F$1 34' 4NFD3$NHE ' I 43Q3ED$40 ' @$EHE ' 8 3N H4
N$4 ' H4' @-4$ 3' $ED' H' $EO' J 14H14 $ H4' H4' 114H14 $ H4 ' $ED' 3 340'
9 H4D' J 1H4 E2' F3' ? E2- $4' , - J Q34' HE O' CF$ ' 3 3ED' $ED' Q3' $11 3D'
H' C3 34$ ' I 34CHEC' <4 * F E2C' $C' 3 ' $C' < E3' I 34CHE' H4' * F E2d' $ED'
3 340' 9 H4D' J 1H4 E2' F3' P $CN- E3' M3ED34' HE O' CF$ ' 3 3ED' $ED'
Q3' $11 3D' H' $' 63 J $ 3' $C' 3 ' $C' $' P $ 3

' WWW ' I 4H D3D' $ $OC' $ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' EH' @H J ' @H HC HEC'
1HC HE' H' Q3' J $D3' -ED34' F C' N ' E' $EO' I $4 ' F3' * F3C' F343H&' &H4 % F3C'
F$D' Q33E(14H H- O' D3 J C3D' H4' NHC 3 1H-ED3D' &H4' QO' $EO' G33D ' >3$C3 '
H4' EC 4- J 3E ' 3$' C-Q C E2' $ED' E' H134$ HE' CF$ ' D3&3$ ' H4' $&&3N ' c 15$E'
C-NF' G33D ' >3$C3 ' H4' EC 4- J 3E ' H4' $EO' * D3' H4' E 343C ' F343-ED34 ' E' &H4N3 ' '
Q- ' F$ ' F3' C$ D' G33D ' >3$C3 ' H4' EC 4- J 3E ' F$ ' 43 J $ E' $ED' Q3 '
D-4 E2' Q3' @HE E-$EN3' H&' $-3F' * 3' H4' E 343C ' H' $ ' E 3E C' $ED'
I -41HC3C' $C' $ D' $ED' 3&&3N -$ ' $C' &' F C' N ' F$D' EH ' Q33E' 1$CC3Dd'
$ED' F$ ' C-NF' @H J 1HC HE' ' H' Q3' 3& 3N 3D' -ED34' F C' N ' CF$ ' Q3'
C-C13ED3D ' $ED' EH ' NH J 3' E H' H134$ HE' H4' 3&&3N ' -E ' $& 34' F3'
* 34 J E$ HE' H&' C-NF' * 3' $ED' E 343C ' $C' $&H43C$ D

WWW ' I 4H D3D' $ $OC ' $ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' E' $CN34 ' * F3' HE'
$ E E2' F3' J H-E ' H&' @H J 1HC HE' H' Q3' J $D3' &H4' * F3C' E' $EO ' * HQ$NNH '
I $4 CF' H4' I $N3' -ED34' F C' N ' F3' 3 4$H4D E$40' ENH J 3' $4 C E2' &4H J
F3' * F3C' H&' * HQ$NNH' CF$ ' EH ' Q3' EN -D3D' E' C-NF' ; C J $ 3' Q- ' F3'
C$ J 3' CF$ ' Q3' 3C J $ 3D' $C' &' 9 F3$ ' H4' F3' @H4E' 14 EN 1$ O' 24H E' '
E' FX' @H-E O' E' F NF' C-NF' I $4 CF' H4' I $N3' C' C -$ 3 ' F$D' Q33E'
24H E' E' 3-' H&' * HQ$NNH ' E' F3' C$ J 3' I $N3C' $ED' H' F3' C$ J 3' ; 3E d'
$ED' 14H D3D' $ CH ' F$ ' 9 F343' ; D3EN3' &&' F3' ? - J C' 1$ D ' $2433D' &H4 '
H4' $ -D23D' H' Q3' 1$ D' & (4' F3' * D 3C' H&' $EO' I $4 CF ' H4' &H4' F3' * F3C'
H&' $EO' > J DC' D((33 ' H' F3' I $0 J 3E ' H&' * 3C' E' $EO' I $4 CF ' &H4' $EO'
=3$4' H4' =3$4C' D-4 E2' F3' ?3 3E' =3$4C' J J 3D $NO' 143N3D E2' F3'
6 4C ' * $O' H&' E , 0! 4! ' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O'
N$EEH ' Q3' F$D ' F3E' $ED' E' 3 340' C-NF' @$C3' F3' $ -3' H&' F3' * F3C'
H&' C-NF' I $4 CF' H4' >$EDC' &H4' C-NF' =3$4' H&' =3$4C' CF$ ' Q3' 3C J $ 3D'
QO' F3' @H J J CC HE34C' -ED34' F C' N ' $NNH4D E2' H' F3' Q3C ' E&H4 J $R
HE' F NF' F30' N$E' HQ $ E

WWW ' I 4H D3D' $ $OC ' $ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' $ ' $EO' 113$ '
* J 3' F E' ? ' P HE FC' $& 34' F3' 1$CC E2' H&' F C' N ' ' CF$ ' $ED' J $O
Q3' $ &- ' &H4' $EO' EN- J Q3E ' J 14H14 $ H4 ' H4' H F34' I 34CHE' E 343C 3D'
E' $EO' @H J 1HC HE' F343 H&H43' J $D3' -ED34' F3' C$ D' 43N 3D' N C '
FH' CF$ ' F E+' F J C@ &' $224 3 3D' QO' F3' 11H4 HE J 3E ' H4' 114HR
14 $ HE' J $D3' E' $EO' @34 & N$ 3' H&' F3' @H J 1HC HE' F343 E' J 3ER
HE3D

HE3D H 113 H F3 >H4D > 3- 3E$E H4 H F34 @F 3& MH 34EH4 H4 MH 34EH4C H& $!% #& E @H-EH > 2 EC C-NF 11H4 HE J 3E H4 114H14 $ HE C-NF 113$ H Q3 HD23D H23 F34 F F3 M4H-EDC $ED '3$CHEC F343H& E 9 4 E2 9 F F3 @ 34+ H& F3 C$ D @H-EN $ED , H N3 H& 3 340 C-NF 113$ CF$ Q3 EC34 3D QO H4 HE Q3F$ & H& F3 113 $E E F3e_ Y $! ! E * H C-NN3CC 3 9 33+C $& 34 C-NF 113$ CF$ F$ 3 Q33E HD23D $C $&H43C$ D $ED F343-1HE CF$ Q3 $ &- &H4 F3 >H4D > 3- 3E$E H4 H F34 @F 3& MH 34EH4 H4 MH 34EH4C H& $!% #& E @H-EN H F3$4 $ED D3 34 J E3 3 340 113$ CH HD23D $ED H J $+3 C#NF <4D34 &H4 F3 $40 E2 $ 34 E2 H4 J HD &O E2 H& F3 11H4 HE J 3E $ED 114H14 $ HE H& C-NF @H J 1HC HE $ED &H4 F3 I $O J 3E H& $EO @HC C H H4 QO $EO I $4 O 113 E2 H4 113 3D 2 EC $C CF$ C33 J J 33 $ED C-NF @34 & N$ 3 $ED F3 ; E 40 F343H& E F3 '32 C 40 H& F3 G HN3C3 CF$ Q3 $ 343D $ED $ J 3ED3D E 43C13N H C-NF 11H4 HE J 3E $ED 114H14 $ HE $C CF$ Q3 D 43N 3D QO C-NF >H4D > 3- 3E$E H4 H F34 @F 3& MH 34EH4 H4 MH 34EH4C $ED @H-EN

; E$N J 3E C H& &H4 J 34 N C C$ 3 $C F343QO $ R 343D H 43 J $ E E &- 6H4N3

WWW ED Q3 3E$N 3D *F$ F3 C3 34$ I 4H C HEC @ $-C3C $ED ; E$N J 3E C E F3 C$ D N C F343 E Q3&H43 43N 3D H4 $EO H& F3 J NHE $ E3D CF$ C$ 3 CH &$4 $C < C$ J 3 $43 F343QO J HD & 3D 43R 13$ 3D H4 C-134C3D3D 3 3ED H $ED Q3 -C3D 3 3ED3D $ED 3 R 34N C3D E $ED H $ED &H4 F3 ; 3N- HE $ED & J F3 I -41HC3C H& F C N $ED F$ EH F E2 F343 E NHE $ E3D CF$ Q3 D33 J 3D H4 NHEC 4-3D H 4313$ $EO H& F3 I 4H C HEC H& F3C$ D 43N 3D N C C$ 3 $C F343 E C13N & N$ O 14H D3D $ED 3E$N 3D H4 $C J $O Q3 E3N3CC$4O &H4 F3 NH J 1 3 3 $ED 3&&3N -$; 3N- HE H& F3 I -41HC3C H& F C N $ED H& F3 C$ D 43N 3D N C

N J $O Q3 $ 343D KN

WWW ED Q3 &-4 F34] E$N 3D *F$ F C N J $O Q3 $ 343D $ J 3ED3D H4 4313$ 3D QO $EO N H4 N C H Q3 1$CC3D D-4 E2 F C 143C3E ?3CC HE H& I $4F$ J 3E :

> < , G < , : I 4 E 3D QO # + . (/ + & + + $ED) * (+ , O 1 . 2 2 3% , . . * + I 4 E 34C H F3 W E2 C J HC ; N3 3E P $(3C O

, , <ʿ ? ; @# , G<ʿ Kʿ * ; ' * <

M#> ; >P ʿ ʿ B ; M ?

@ʿ ʿ I ʿ @WW

Eʿ Nʿ Hʿ 4313$ʿ F3ʿ G- 3Cʿ -ED34ʿ F3ʿ PE23 ʿ
J3E ʿ H&ʿ F3ʿ @HJ J CC HE34Cʿ H&ʿ ? $J1Cʿ HEʿ ? $23ʿ
@$ * 3aʿ $EDʿ HEʿ 8H4C3Cʿ 3 ʿ &H4ʿ 8 43ʿ Eʿ ! ʿ
, *ʿ $EDʿ Hʿ 24$E ʿH F34ʿ G- 3Cʿ Eʿ 3-ʿ F343H& ʿ
$EDʿ $ CHʿ Hʿ @HECH D$ 3ʿ $EDʿ $J3EDʿ F3ʿ >$ Cʿ
43 $ E2ʿ F343 H ʿ I Y Fʿ # ʿ ZSU m

9 8 ; ' ; ?ʿ ʿ Cʿ 3 13D 3E ʿ Hʿ 4313$ʿ F3ʿ G- 3Cʿ -ED34ʿ F3ʿ PE23 J3E ʿH&ʿ F3ʿ@HJ J CC HE34Cʿ H&ʿ? $J1Cʿ Eʿ 43C13N ʿH&ʿ ? $23ʿ @$44 $23Cʿ $EDʿ H&ʿ 8H4C3Cʿ 3 ʿ&H4ʿ 8 43ʿ Eʿ ! ʿ" # ʿ $EDʿ Hʿ 24$E ʿH F34ʿ G- 3Cʿ Eʿ 3-ʿ F343H& ʿ $EDʿ $ CHʿ Hʿ NHECH D$ 3ʿ $EDʿ $J3EDʿ F3ʿ >$ Cʿ EH ʿ Eʿ &H4N3ʿ 43 $ E2ʿ Hʿ C-NFʿ ? $23ʿ @$44 $23Cʿ $EDʿ 8H4C3Cʿ $Cʿ $&H43C$ Dʿ 43C13N 3 O ʿ Q3ʿ ʿ F343&H43ʿ 3E$N 3Dʿ QOʿ F3ʿ % E2 Cʿ JHC ʿ ; N3 3E ʿ P$(3C Oʿ QOʿ $EDʿ Fʿ F3ʿ D N3ʿ $EDʿ @HEC3E ʿ1&ʿ F3ʿ >H4DCʿ ?1 4 -$ ʿ$EDʿ *3J1H4$ ʿ$EDʿ @HJ4$H Cʿ Eʿ F Cʿ 143C3E ʿI $4 $J3E ʿ $CC3JQ 3D ʿ$EDʿ QOʿ F3ʿ - FH4 Oʿ H&ʿ F3ʿ C$J3ʿ *F$ ʿ F3ʿ C3 34$ʿ N Cʿ @34 $ Eʿ N Cʿ $EDʿ I$4 Cʿ <&ʿ N Cʿ E3 ʿ F343 E $& 34ʿ J3E HE3D ʿH4ʿ CHʿ J -NFʿ $EDʿ C-NFʿ $EDʿ I$4 Cʿ I$4 ʿ$EDʿ I$4 Cʿ F343H&ʿ $Cʿ $43ʿ EH ʿ Eʿ &H4N3 ʿCF$ ʿ43C13N 3 Oʿ 43 J$ Eʿ $EDʿ NHE E-3ʿ 1ʿ &H4N3ʿ -E ʿ $EDʿ -1HEʿ F3ʿ *3E Fʿ G$Oʿ , ʿ6 ' ,4! ʿ Eʿ F3ʿ H FHN H / ʿ =3$4ʿ H&ʿ H-4ʿ >H4Dʿ <E3ʿ FH-C$EDʿ 3 2F ʿ F-ED43Dʿ $EDʿ F 4 O Hʿ $EDʿ Q34ʿ ?SU ʿ CF$ ʿ&4H Fʿ F3EN3&H4 Fʿ 43C13N 3 Oʿ N3$C3 ʿD3 34 J E3 ʿ$EDʿ Q3ʿ 4313$ 3Dʿ (T ^ F$ ʿ Cʿ HʿC$ _ʿ$Eʿ N ʿ1$CC3Dʿ Eʿ F3ʿ * 3E O & & Fʿ =3$4ʿ H&ʿ F3ʿ ' 3 2Eʿ H&ʿ / ʿ9 !5ʿ ʿ 8 Cʿ $ 3ʿ P 3C Oʿ % E2ʿ ! , (!ʿ F3ʿ *F 4D ʿ E - 3Dʿ / #ʿ / ' U) ʿ !5! %[#(ʿ)!ʿ 23 !1ʿ ,#ʿ < '!#'!1ʿ !#ʿ ,3 ʿ4 ʿ *! 1,#1ʿ %! #(ʿ , 1!1ʿ , ʿ)!ʿ *3 5,1!ʿ , ʿ 0!%% #(ʿ *,1 ʿ #&ʿ ,#ʿ , 1!1ʿ ʿ ,ʿ !ʿ , ʿ 0!%% #(ʿ Uʿ , ʿ *,1

*,1 #&4 7 ! #& ,#+ (! I, ')!1 & @ (# #(,)! 23 !1
% !3)! !, #& %1, && ,# % 23 !1 ,# , 1!1 %! , !
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99 : - /# / ' , !5! %)! 1!0! % 23 !1 3#&!)! I, 11 ,#! 1 ,
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$C 43 $ 3C H F3 1$ E E2 -1HE 3 3 O @$44 $23 H Q3 3 J 1 HO3D $C $
1-Q N ? $23 @H$NF H4 @$44 $23 &H4 F3 I -41HC3 H& NHE 30 E2 I $CR
C3E234C &H4 8 43 H $ED &4H J D &&343E I $N3C E ! " # N34 $ E
9 H4DC E F3 C$ D $C 43N 3D N J 3E HE3D $ED H F3 , - J Q34 H&
EC D3 I $CC3E234C H Q3 N$44 3D E $EO C-NF @$44 $23 $ED F3 FH 3
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. : 9 P$(3C O E - 3D /# / ' , !5! % 7) !! / ' 1 &! #)! 7F!#
! ()) 7) !) #& R, 1 J) H! 1 , 1 5 !1!# U!1 , ,
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I, ')!1 , ,)! I (!1 #& , !# ' ,)! *!(3% ,#1 , ' #(
)! 6%U! ' 1 ,)! 1 & / ' 1 # , ! ! ' = $ED CH J -NF H& $4 N 1$CC3D
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, 4! ! !# 4% #( )! I, 11 ,#! 1 + 51 , (0! L !% ! # I 1!1
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I, ')!1 43 $ 3C H F3 G - 3C 24$E 3D HE @H$NF3C $ED H F34 @$4R
4 $23C 3 J 1 HO3D $C 1-Q N ? $23 @H$ND 3C H4 @$44 $23C &H4 NHE 30 E2
I $CC3E234C &H4 8 43 $ED <E N3EN3C &H4 +331 E2 F3 C$ J 3 $ED $ CH
CH J -NF H& F3 C$ D $C 43N 3D N $C 43 $ 3C H F3 * J 3 H& 24$E E2
C-NF > N3EN3C H4 H& F3 4 NHE E- E2 E &H4N3 $ED CH J -NF H& $E
N 1$CC3D E F3 6 & O & & F=3$4 H& F3 ; 3 2E H& 8 C C$ D $ 3 P$(3C O
. . : . E - 3D H[3 ! !H '(&))L *)! + 5 6 '! 23 !1 ,# /&0! 1!
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HE ? $23 @H$NF3C $ED HE > N3EN3C &H4 +331 E2 ? $23 @H$NF3C
$ED $C 43 $ 3C , F3 <&&3EN3C E F3 C$ D N J 3E HE3D 43C13N R
E2 C-NF G - 3C $ED > N3EN3C $ED $ CH CH J -NF H& F3 C$ D $C
43N 3D N $C 43 $ 3C H > N3EN3C H Q3 $+3E H- QO F3 < E34C H&
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G4 34C H& ? $23 @H$NF3C $+ E2 -1 I $CC3E234O E J $EE34 QO F3 C$ D
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1$CC3D E F3 , E F =3$4 H& F3 ' 3 2E H& 8 C C$ D $ 3 P$(3C O
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!% #(ʻ ,ʻ !ʻ+ 5ʻ23 !1ʻ,#ʻ+! ʻ$#13 #'!1ʻ,#ʻ/ ʻ%!1ʻ, ʻI%! 1) 5
6ʻI! ! !1ʻ,ʻ ! 1ʻ ,ʻ)!ʻ+ (#! ʻ #&ʻ, ʻI,#0! #'! 1ʻ #&ʻ,)! 1ʻ
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2 1ʻ,#ʻ " #%'! 1ʻ #&ʻ,#ʻ< '!#'!1ʻ , ʻ+ (!ʻ I, ')!1ʻ #ʻM43$ʻB4 $Eʻ
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@$44 $23Cʻ +31 ʻ -C3Dʻ H4ʻ 3 J 1 HO3Dʻ Hʻ NHE 3Oʻ I $CC3E234Cʻ &H4ʻ 8 43ʻ H4ʻ
Hʻ F3ʻ '3NH 34Oʻ H&ʻ$EOʻ 6 E3ʻ I3E$ Oʻ H4ʻ 6H4&3 -43ʻ J $D3ʻ H4ʻ EN-443Dʻ ʻ.
Fʻ 43 $ HEʻ Hʻ $EOʻ C-NFʻ ? $23ʻ @H$NF3Cʻ H4ʻ @$44 $23Cʻ $EDʻ CHʻ J -NFʻ
H&ʻ$Eʻ N ʻ1$CC3Dʻ Eʻ F3ʻ ?3NHEDʻ =3$4ʻ H&ʻ F3ʻ '3 2Eʻ H&ʻ 8 Cʻ C$ Dʻ $ 3ʻ
P $(3C Oʻ% E2ʻ !, (!ʻ F3ʻ *F 4Dʻ E - 3Dʻ /#ʻ /'ʻ , ʻ)!ʻ 4! ! ʻ135ʻ UMʻSʻNʻ !ʻ
5% #(ʻ)!ʻ I !1ʻ, ʻ>HEDHEʻ #&ʻ 9 3C J EC 34ʻ F)ʻR 1)ʻ #&ʻ ,ʻ !&3'!ʻ Vʻ
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!#ʻ$Cʻ 43 $ 3Cʻ Hʻ F3ʻ I3E$ Oʻ F343 Eʻ J 1HC3Dʻ -1HEʻ F3ʻ G4 34ʻ H&ʻ$EOʻ
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N Cʻ $EDʻ I $4 Cʻ H&ʻ N Cʻ F343 E Q3&H43ʻ C13N & 3Dʻ CF$ ʻQ3ʻ $EDʻ F3ʻ C$ J 3ʻ
$43ʻ F343QOʻ C3 34$ Oʻ 4313$ 3Dʻ $NNH4D E2 Oʻ C$ 3ʻ $EDʻ 3 N31 ʻHE Oʻ CHʻ &$4ʻ
$Cʻ Cʻ F343 E $& 34ʻ Eʻ F$ʻ B3F$ &ʻ14H D3D

ʻ EDʻ Q3ʻ ʻ3E$N 3Dʻ *F$ʻ$Eʻ N ʻ1$CC3Dʻ Eʻ F3ʻ 6H-4 Fʻ =3$4ʻ H&ʻ ʻMʻ ʻNʻYUʻ
F3ʻ '3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C Oʻ% 2ʻ M3H423ʻ F3ʻ 6H-4 Fʻ E - 3Dʻ 43 $ E2ʻ Hʻ
/#ʻ /'ʻ ,ʻ !5! %ʻ)!ʻ)& !1ʻ 35,#ʻ , 1!1ʻ %!ʻ ,ʻ !ʻ , ʻ)!ʻ *3 [F3ʻ G- 3Cʻ ʻ
5,1!ʻ, ʻ 0! #(ʻ #ʻM43$ʻB4 $Eʻ #&ʻ ,ʻ(#ʻ ,)! ʻ23 !1ʻ #ʻ%!3ʻ HEʻ 8H4C3Cʻ
)! !, ʻ #&ʻ ,ʻ5 ,0 &!ʻ , ʻ%! #(ʻ)!ʻ1 !ʻ ,ʻ ʻCF$ ʻNHE E-3ʻ Eʻ 3ʻ&H4ʻ 8 43ʻ
&H4N3ʻ -E ʻ $EDʻ -1HEʻ F3ʻ *F 4 0 & 4Cʻ G$Oʻ ? #3 ʻ Eʻ F3ʻ =3$4ʻ H&ʻ 4313$ 3Dʻ $& 34ʻ
H-4ʻ>H4Dʻ <E3ʻ FH-C$EDʻ 3 2F ʻ F-ED43Dʻ $EDʻ F 4 0 F433ʻ $EDʻ CF$ ʻ F3ʻ S Cʻ H&ʻ
&4H Jʻ F3EN3&H4 Fʻ N3$C3ʻ D3 34E E3ʻ $EDʻ Q3ʻ 4313$ 3Dʻ C$ 3ʻ $EDʻ 3 N31 ʻ 5$E-$4Oʻ
HE Oʻ CHʻ &$4ʻ $Cʻ Cʻ F343 E $& 34ʻ Eʻ F$ʻ B3F$ &ʻ 14H D3D ZSS

ʻ I4H D3Dʻ $ $OCʻ $EDʻ Q3ʻ ʻ3E$N 3Dʻ *F$ʻEH F E2ʻ Eʻ F Cʻ N ʻ ; N31 HEʻ $C
NHE $ E3Dʻ CF$ ʻ 3 3EDʻ Hʻ 4313$ʻ $EOʻ H&ʻ F3ʻ C$ Dʻ C3 34$ʻ N Cʻ $EDʻ Hʻ C-NFʻ I $4 Cʻ
I $4 Cʻ H&ʻ N Cʻ F343 E Q3&H43ʻ J 3E HE3Dʻ CHʻ &$4ʻ $Cʻ F3ʻ C$ J 3ʻ H4ʻ $EOʻ H&ʻ H&ʻ F3ʻ 43R
F3 Jʻ 4313$ʻ F3ʻ 9 FH 3ʻ H4ʻ $EOʻ I $4ʻ H&ʻ$EOʻ &H4 J 34ʻ N ʻ H4ʻ N Cʻ H4ʻ Fʻ N 3Dʻ N Cʻ $C
43C13Nʻ Hʻ $EOʻ G- Oʻ H4ʻ 443$4Cʻ H&ʻ $EOʻ G- Oʻ H4ʻ $EOʻ G3Q ʻ H4ʻ ?- Jʻ 4313$ʻ $EOʻ
H&ʻ P HE3Oʻ F NFʻ $ʻ $EOʻ * J 3ʻ Q3&H43ʻ F3ʻ C3 34$ʻ G$OCʻ H4ʻ * J 3Cʻ &H4 J 34ʻ N Cʻ
F343 E Q3&H43ʻ 43C13N 3 Oʻ $11H E 3Dʻ &H4ʻ F3ʻ '313$ʻ H&ʻ F3ʻ C$ Dʻ C3 34$ʻ $EDʻ $Cʻ Hʻ
N Cʻ $EDʻ I $4 Cʻ H&ʻ N Cʻ CF$ ʻF$ 3ʻ $NN4-3Dʻ H4ʻ Q33Eʻ EN-443Dʻ -ED34ʻ H4ʻ 443$4Cʻ H&ʻ
QOʻ 4 -3ʻ H&ʻ F3ʻ C$ Dʻ N Cʻ $EDʻ I $4 Cʻ H&ʻ N Cʻ H4ʻ $EOʻ H&ʻ F3 Jʻ 43C13NR G- Oʻ $EDʻ Hʻ
3 Oʻ $EDʻ F NFʻ CF$ ʻ F3-ʻ D4ʻ $ʻ$EOʻ * J 3ʻ $& 34 $4DCʻ Q3ʻ H4ʻ Q3NH J 3ʻ I3E$ 3C
D-3ʻ H4ʻ 1OQ 3ʻ $EDʻ 431 $ Eʻ Eʻ $443$4ʻ $EDʻ -E1$ Dʻ H4ʻ Fʻ 43C13N ʻ ,ʻ KNʻ EN-443D
$EOʻ I3E$ Oʻ H4ʻ 6H4&3 -43ʻ H4ʻ I -E CF J 3E ʻ EN-443Dʻ &H4ʻ H4ʻ #ʻ 43C13Nʻ
H&ʻ$EOʻ <&&3EN3ʻ NH J J 3Dʻ $ʻ $EOʻ * J 3ʻQ3&H43ʻ F3ʻ C$ Dʻ C3 34$ʻ G$OCʻ
H4ʻ * J 3Cʻ F343 E Q3&H43ʻ 43C13N 3 Oʻ $11H E 3Dʻ &H4ʻ F3ʻ '313$ʻ H&ʻ F3ʻ
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443$4Cʻ H&ʻ G- Oʻ G3Q Cʻ ?- J Cʻ H&ʻ P HE3Oʻ I3E$ 3Cʻ 6H4&3 -43Cʻ $EDʻ
I -E CF J 3E Cʻ CF$ ʻ43C13N 3 Oʻ Q3ʻ C-3Dʻ H4ʻ 14HC3N- 3Dʻ &H4ʻ 43NH 343Dʻ
HQ $ E3Dʻ $EDʻ E& N 3Dʻ QOʻ F3ʻ C$ J 3ʻ 9 $OCʻ $EDʻ P 3$ECʻ $EDʻ Eʻ F3ʻ C$ J 3ʻ
P $EE34ʻ $Cʻ &ʻ F Cʻ N ʻ F$Dʻ EH ʻ Q33Eʻ J $D3

ʻ EDʻ Q3ʻ ʻ3E$N 3Dʻ *F$ʻ Eʻ 3-ʻ H&ʻ F3ʻ G- 3Cʻ 4313$ 3Dʻ QOʻ F Cʻ
N ʻ F343ʻ CF$ ʻQ3ʻ 4$ C3Dʻ 3 3Dʻ NH 3N 3Dʻ $EDʻ 1$ Dʻ -E Hʻ $EDʻ &HL4 F3
#C3ʻ H&ʻ 8 Cʻ P $(3C Oʻ 8 Cʻ 8 3 4Cʻ $ED ?-NN3CCH4Cʻ Eʻ $EDʻ F4H-2FH-ʻ CNF3D- 3^ _ʻ
! ʻ" #ʻ &H4ʻ $EDʻ Eʻ 43C13Nʻ H&ʻ 3 34Oʻ ? $23ʻ @$44 $23ʻ $EDʻ 3 34Oʻ F343 H $E
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[Y ʻ U ʼ K ʻ S/ʻ M # > ; > P ʻ ʻ @$1 ʻ U[

8H4C3ʻ 3 ʻ &H4ʻ 8 43 ʻ $EDʻ 3 34Oʻ > N3EN3ʻ 43 $ E2ʻ Hʻ F3ʻ C$ J 3 ʻ $EDʻ &H4ʻ $EDʻ Eʻ 43C13N ʻ H&ʻ I $CC3E234Cʻ NHE 3O3Dʻ &H4ʻ 8 43ʻ $Cʻ J 3E HE3Dʻ $EDʻ D3CN4 Q3Dʻ Eʻ F3ʻ ?NF3DE 3ʻ ^ _ʻ Hʻ F Cʻ N ʻ $EE3 3D ʻ F3ʻ C3 34$ ʻ G - 3Cʻ H4ʻ ?- J Cʻ H&ʻ P HE3Oʻ C3 ʻ DH Eʻ Eʻ 6 2 - 43Cʻ 2 EC ʻ F3ʻ C$ J 3ʻ 43C13N 3 O ʻ H4ʻ H F34 C3ʻ C13N & 3Dʻ $EDʻ C3 ʻ &H4 Fʻ Eʻ F3ʻ C$ J 3ʻ ?NF3D - 3 ʻ $EDʻ F$ ʻ F3ʻ C$ Dʻ ?NF3D - 3ʻ CF$ ʻ Q3ʻ D33 J 3Dʻ $EDʻ $+3Eʻ Hʻ Q3ʻ I $4 ʻ H&ʻ F Cʻ N ʻ ʻ $EDʻ F$ ʻ $#ʻ F3ʻ C$ Dʻ G - 3Cʻ CF$ ʻ Q3ʻ -ED34ʻ F3ʻ P E23 J 3E ʻ H&ʻ F3ʻ @H J J CC HE34Cʻ H&ʻ ? $ J 1C ʻ $EDʻ CF$ ʻ Q3ʻ D3EH J E$ 3Dʻ $EDʻ D33 J 3Dʻ Hʻ Q3ʻ ? $ J 1ʻ G - 3C

G3& E HEʻ H&ʻ $? $23ʻ @$4ʻ

ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ * F$ ʻ 3 34Oʻ @$44 $23ʻ -C3Dʻ H4ʻ 3 J 1 HO3Dʻ &H4ʻ ((2 1 J 1H23ʻ H&ʻ NHE 3O E2ʻ I $CC3E234Cʻ &H4ʻ 8 43ʻ Hʻ H4ʻ &4H J ʻ $EOʻ I $N3ʻ Eʻ ! ʻ " # ʻ $EDʻ F NF ʻ F3E 1$CC ʻ $ H ʻ $EOʻ 8 2F $Oʻ H4ʻ H F34ʻ ʻ H$D ʻ CF$ ʻ 4$ 3 ʻ $ ʻ F3ʻ ʻ $ 3ʻ H&ʻ * F433ʻ P 3Cʻ H4ʻ J H43ʻ Eʻ F3ʻ 8 H - 4 ʻ CF$ ʻ FH - ʻ 432$4Dʻ Hʻ F3ʻ 6H4 J ʻ H4ʻ @HEC 4 - N HEʻ F343H& ʻ Q3ʻ D33 J 3Dʻ $EDʻ $+3Eʻ Hʻ Q3ʻ $ʻ ? $23ʻ @$44 $23ʻ F Eʻ F3ʻ P 3$E E2ʻ H&ʻ F Cʻ N ʻ (14H D3Dʻ F3ʻ I $CC3E234C ʻ D4ʻ $EOʻ < E3ʻ H4ʻ J H43ʻ H&ʻ F3 J ʻ F343QOʻ NHER 3O3D ʻ CF$ ʻ Q3ʻ NF$ 23Dʻ H4ʻ $ ʻ 1$Oʻ C31$4$ 3ʻ $EDʻ D C EN ʻ 6$43Cʻ H4ʻ $ʻ C31$4$ 3ʻ $EDʻ D C EN ʻ 6$43 ʻ H4ʻ CF$ ʻ Q3ʻ NF$423Dʻ H4ʻ 1$Oʻ $ ʻ F3ʻ ʻ $ 3ʻ H&ʻ C31$4$ 3ʻ $EDʻ D C EN ʻ 6$43C ʻ &H4ʻ F3 4ʻ 43C13N 3ʻ I $N3Cʻ H4ʻ ?3$ Cʻ H4ʻ F Cʻ I $N3ʻ H4ʻ ?3$ ʻ F343 Eʻ H4ʻ @HE 3O$EN3ʻ F343QO ʻ $EDʻ Eʻ $ ʻ I 4HR N33D E2Cʻ $ ʻ >$ ʻ H4ʻ H F34 C3 ʻ $EDʻ E1HEʻ $ ʻ < NN$C HECʻ F$ CH3 34 ʻ ʻ CF$ ʻ Q3ʻ C -&& N 3E ʻ Hʻ D3CN4 Q3ʻ $EOʻ @$44 $23ʻ -C3Dʻ H4ʻ 3 J 1 HO3Dʻ $Cʻ $&H43R C$ Dʻ QOʻ F3ʻ * 34 J ʻ ``? $23ʻ @C4 $23 cʻ FH - ʻ &- 4 F34ʻ H4ʻ H F34 C3ʻ D3CN4 Q E2ʻ F3ʻ C$ J 3: I 4H D3Dʻ $ $OC ʻ F$ ʻ F3ʻ C$ Dʻ * 34 J ʻ ``? $23ʻ @$44 $23 ʻ CF$ ʻ EH ʻ Q3ʻ D33 J 3Dʻ Hʻ 3 3EDʻ Hʻ H&ʻ Hʻ EN - D3ʻ EEOʻ @$44 $23ʻ -C3Dʻ H ʻ 3 J 1 HO3Dʻ $Cʻ $&H43C$ Dʻ FH Oʻ -1HEʻ $EOʻ ʻ $ $O ʻ EH4ʻ Hʻ $EOʻ @$44 $23ʻ D4$ Eʻ H4ʻ J 13 3Dʻ QOʻ F3ʻ I H 34ʻ H&ʻ ? 3$ J ʻ H4ʻ H F34 C3ʻ F$Eʻ QOʻ E J $ ʻ I H 34

? $23ʻ @$4R 4 $23Cʻ EH ʻ H Q3ʻ -C3Dʻ FR H - ʻ > N3EN3C ʻ EH4ʻ FH - ʻ I $ 3C ʻ EH4ʻ FH - ʻ F$ R E2ʻ 1$ E 3Dʻ F343HEʻ F3ʻ I $4 N - $4Cʻ F343QOʻ 3 ʻ X - 43>

ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ * F$ ʻ ʻ CF$ ʻ EH ʻ Q3ʻ $ &H ʻ &H4ʻ $EOʻ I 34CHEʻ Hʻ +331 ʻ -C3 ʻ H4ʻ 3 J 1 HOʻ $EOʻ ? $23ʻ @$44 $23 ʻ -E 3CCʻ C - NFʻ I 34CHEʻ CF$ ʻ F$ 3ʻ $ > N3EN3ʻ Eʻ &H4N3ʻ CHʻ Hʻ DH ʻ 24$E 3Dʻ Hʻ F J ʻ -ED34ʻ F3ʻ - FH4 Oʻ H&ʻ F Cʻ N ʻ QOʻ * Hʻ H4ʻ J H43ʻ H&ʻ F3ʻ @H J J C4 HE34Cʻ H&ʻ ? $ J 1C ʻ H4ʻ QOʻ CH J 3ʻ I 34CHEʻ D - Oʻ $ - FH4 T3Dʻ QOʻ F3ʻ C$ Dʻ @H J J CC HE34Cʻ Hʻ 24$E ʻ C - NFʻ > N3EN3 ʻ EH4ʻ -E 3CCʻ F343ʻ CF$ ʻ Q3ʻ & 3Dʻ HEʻ C - NFʻ @$44 $23 ʻ Eʻ F3ʻ P $EE34ʻ F343 E $& 34ʻ J 3E HE3D ʻ F3ʻ E - J Q343Dʻ I $ 3Cʻ QOʻ F Cʻ N ʻ D 43N 3Dʻ Hʻ Q3ʻ D3 343Dʻ Fʻ 3 34Oʻ C - NFʻ > N3EN3 ʻ EH4ʻ -E 3CCʻ F3ʻ C3 34$ ʻ I $4 N - $4Cʻ QOʻ F Cʻ N ʻ D 43N 3Dʻ Hʻ Q3ʻ 1$ E 3Dʻ HEʻ 3 34Oʻ C - NFʻ @$44 $23ʻ CF$ ʻ Q3ʻ 1$ E 3Dʻ F3 3HEʻ $ Oʻ F E2ʻ Eʻ $EOʻ H F34ʻ N ʻ NHER $ E3Dʻ Hʻ F3ʻ NHE 4$4Oʻ F343H&ʻ EH FC $ED E2

@$44 $23C Fʻ I $ 3C H4ʻ I $4 N - ʻ $4Cʻ 1$ E 3Dʻ F343HEʻ H Q3ʻ D33 J 3Dʻ ? $23ʻ @$4R 4 $23C

ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ * F$ ʻ Eʻ $EOʻ N HE ʻ E&H4 J $ HE ʻ H4ʻ H F34ʻ I 4HN33D E2ʻ &H4ʻ F3ʻ ʻ 3NH 34Oʻ H&ʻ $EOʻ G - Oʻ H4ʻ I 3E$ Oʻ EN - 443Dʻ -ED34ʻ F Cʻ N ʻ Eʻ 43C13N ʻ H&ʻ H4ʻ Fʻ 43 $ HEʻ Hʻ $EOʻ ? $23ʻ @$44 $23 ʻ &ʻ ; D3EN3ʻ CF$ ʻ Q3ʻ 2 3Eʻ F$ ʻ 3ʻ @$44 $23ʻ Eʻ 43 X 3N ʻ H&ʻ F NFʻ H4ʻ Eʻ $EOʻ P $EE34ʻ 43 $ E2ʻ Hʻ F NFʻ $EOʻ C - NFʻ N HE ʻ E&H4 J $ HE ʻ H4ʻ I 4HN33D E2ʻ CF$ ʻ Q3ʻ NH J J 3EN3Dʻ H4ʻ 14HC3N - 3Dʻ $Cʻ C33Eʻ 4$ 3 E2ʻ H4ʻ 2H E2ʻ -1HEʻ $EOʻ 8 2F $Oʻ H4ʻ H F34ʻ ʻ H$D ʻ F$ E2ʻ & 3Dʻ H4ʻ 1 $N3Dʻ F343HEʻ $EOʻ E - J Q343Dʻ I $ 3ʻ 14H D3Dʻ H4ʻ -C3Dʻ Eʻ 1 - 4C - $EN3ʻ H&ʻ F Cʻ H4ʻ $EOʻ &H4 J 34ʻ N ʻ 43 $ E2ʻ Hʻ ? $23ʻ @$44 $23C ʻ H4ʻ F$ E2ʻ F343 - 1HEʻ $EOʻ I $ 3ʻ 43C3 J Q E2ʻ H4ʻ E 3ED3Dʻ Hʻ 43C3 J Q 3ʻ $EOʻ C - NFʻ I $ 3ʻ $Cʻ $&H43C$ D ʻ H4ʻ F$ E2ʻ 1$ E 3Dʻ -1HEʻ C - NFʻ @$44 $23ʻ $EOʻ H& F3

F3 I $4 N- $4C 43X- 43D QO F C N H Q3 1$ E 3D -1HE ? $23
@$44 $23C C-NF @$44 $23 CF$ Q3 D33 J 3D $ED $+3E H Q3 $? $23
@$44 $23 $ED C-NF ; D3EN3 $C $&H43C$ D CF$ Q3 43N3 3D $C C-&& N 3E
I 4HH& F$ C-NF @$44 $23 $C +31 -C3D $ED 3 J 1 HO3D &H4 F3 I -4R
1HC3 H& NHE 3O E2 I $CC3E234C &H4 8 43 $C $? $23 @$44 $23 F E F3
P 3$E E2 H& F C N -E 3CC F3 NHE 4$4O Q3 14H 3D $ED F$ E
$ C-NF N HEC E&H4 J $ HEC $ED I 4HN33D E2C $C $&<43?$ D F3 I 34R
CHE E$ J 3D H4 ED3CN4 Q3D E F3 N3 E N3 24$E 3D F H4 43 $ E2 H
F3 , -- Q H& F3 I $ 3 ^ & $EO F343 CF$ Q3_ & 3D H4 1 $N3D -1HE
$EO C-NF @$44 $23 F3 F34 C-NF > N3EN3 CF$ Q3 E &H4N3 H4 EH H4 F3
I 34CHE FHC3 , $ J 3 ^ & $EO_ CF$ Q3 1$ E 3D HE $EO C-NF @$44 $23
CF$ &H4 F3 I -41HC3C H& F C N ^-E 3CC F3 NHE 4$4O Q3 14H 3D_
Q3 D33 J 3D H Q3 F3 I 34CHE H FH J C-NF @$44 $23 DH F Q3 HE2

ED Q3 3E$N 3D *F$ $EO * H H4 J H43 H& F3 @H J J C BO #H J
C HE34C H& ? $ J 1C H4 $EO I 34CHE D- O $- FH4 T3D QO F3 C$ D @H J 2 2
J CC HE34C CF$ 24$E $ > N3EN3 -ED34 F3 4 H4 F C 8 $EDC H4 8 $ED A G
H $EO $ED 3 34O I 34CHE H& F3 23 H& * 3E O HE3 =3$4C H4 -1 $4DC N3E33C CF$
FH CF$ $11 O &H4 C-NF > N3EN3 E F3 P $EE34 F343 E $& 34 J 3E Q3 24$E 3D
HE3D H +331 -C3 $ED 3 J 1 HO $EO ? $23 @$44 $23 E $EO I $4 H&
! " #= $ED F$ 3 34O C-NF > N3EN3 H $EO I 34CHE &H4 H4 E
43C13N H& $EO ? $23 @$44 $23 F NF CF$ 2H &4H J H4 CF$ NH J 3 H
<,#&,# H4 !1 #1 ! H4 &4H J H4 H $EO I $N3 F E F3 @H-E O
, &&%!1!J ,J F3 9 33+ O B C H& P H4 $ O CF$ Q3 24$E 3D $
F3 8 3$D <&& N3 &H4 ? $ J 1C E !1 #1 ! = $ED 3 34O C-NF > N3EN3
H $EO I 34CHE &H4 H4 E 43C13N H& $EO ? $23 @$44 $23 F NF CF$ 2H
&4H J H4 CF$ NH J 3 H $-O H F34 *H E H4 I $N3 F E ! " #
CF$ Q3 24$E 3D 3 F34 $ F3 C$ D 8 3$D <&& N3 H4 QO F3 I 34CHE
& - O $- FH4 T3D QO F3 C$ D @H J J CC HE34C H 24$E C-NF > N3EN3C
&H4 F3 G C 4 N F E F NF F3 *H E H4 I $N3 C C -$ 3D &4H J
F NF H4 $ F NF C-NF ? $23 @$ 4 $23 CF$ Q32 E H4 3ED C
5H-4E3O $ED F3 C$ D @H J J CC HE34C H4 F3 I 34CHE ?H $- FH4 T3D
H 24$E C-NF > N3EN3 $C $&H43C$ D CF$ $ F3 * J 3 H& 24$E E2
3 34O C-NF > N3EN3 &H4 F3 & 4C * J 3 $ED $ $ H F34 * J 3C
F3E E3N3CC$4O D3 34 H F3 I 34CHE $11 O E2 &H4 C-NF > N3EN3 F3
E- J Q343D I $ 3C F343 E $& 34 43X- 43D H Q3 & 3D -1HE F3 ? $23
@$44 $23 J 3E HE3D E C-NF > N3EN3 I 4H D3D $ $OC F$ EH I 34CHE I 34CHEC E
CF$ Q3 3E 3D H F3 M4$E H4 3E3 $ H& $EO C-NF > N3EN3 FH $ $443$4 &H4
F3 * J 3 H& $11 O E2 &H4 C-NF M4$E H4 3E3 $ CF$ Q3 E $443$4 G- 3C H4 I 3
&H4 $EO G- 3C 1$O$Q 3 -ED34 F C H4 $EO &H4 J 34 N &H4 H4 E 43C13N
H& $EO ? $23 @$44 $23 H4 FH CF$ EH F$ 3 1$ D H4 C$ C& 3D $EO 3D H >
I 3E$ O E F NF F3 CF$ F$ 3 Q33E @HE N 3D H4 &H4 F NF ?3&(!# N3E33C -E
CF$ F$ 3 Q33E HQ $ E3D 2 EC F J E $EO N HE E&H4 J $ HE H4 I $O J 3E H&
H F34 I 4HN33D E2 -ED34 F C H4 $EO &H4 J 34 N 43 $ E2 H ? $23 443$4C
@$44 $23C $ED CF$ Q3 $ &- &H4 F3 @H J J CC HE34C H& ? $ J 1C
H4 F3 4 <&& N34 H 43&-C3 H 24$E H4 43E3 $EO C-NF > N3EN3 H $EO
C-NF I 34CHE -E C-NF 443$4 H& G- O $ED C-NF I 3E$ O H4 J 2$ 3D
I 3E$ O CF$ F$ 3 Q33E &- O 1$ D $ED C$ C& 3D $EO F E2 F343 E
NHE $ E3D H F3 NHE 4$4O EH FC $ED E2

' ED Q3 3E$N 3D *F$ Q3&H&3 $EO > N3EN3 F3 F34 H4 2 E$ "(!A+ A & %
H4 C-11 3 J 3E $4O CF$ Q3 24$E 3D H4 43E3 3D -ED34 F3 I 4H C HEC
H& F C N &H4 H4 E 43C13N H& $EO ? $23 @$44 $23 $ 3X- C HE &H4

N3EN3C' H C 2E' $ ' 3X- R C HE' &H4' F3' C$J3

C-NF' > N3EN3 ' E' C-NF' 6H4 E' $C' F3' @H J J CC HE34C' H&' ? $ J 1C' CF$ ' &4H J' * J3' H' * J3' 14H D3' &H4' F$ ' I -41HC3 ' CF$ ' Q3' J $D3' $ED' C 2E3D' QO' F3' I 4H14 3 H4' H4' < E3' H&' F3' I 4H14 3 H4C' H&' F3' ? $23' @$44 $23' E' 43C13N ' H&' F NF' ?-NF' > N3EN3' CF$ ' Q3' $11 3D' &H4 ' $ED' E' 3 340' C-NF' ' 3X- C HE' F343' CF$ ' Q3' 4- O' C13N & 3D' $ED' C3 ' &H4 F' F3' @F4 C $E' , $ J 3' $ED' ?-4E$ J 3' $ED' I $N3' H&' QHD3' H&' F3' I 34CHE' $11 O E2' &H4' C-NF' > N3EN3 ' $ED' H&' 3 340' I 34CHE' FH' CF$ ' Q3' $' I 4H14 3 H4' H4' I $4 ' I 4H14 3 H4' H&' C-NF' @$44 $23' ' H4' FH' CF$ ' Q3' NHEN34E3D' 3 F34' CH 3 O' H4' E' I $4 E34C -1' F' $EO' H F34' I 34CHE ' E' F3' +331 E2 ' -C E2 ' H4'

I 3E$ O' &H4 HJ E2' F3 , $ J 3' H&' $EO' I 4H14 3 H4'

3 J 1 HO E2' H&' C-NF' @$44 $23' ' $ED' E' N$C3' $EO' I 34CHE ' HE' $11 O E2' &H4' $EO' C-NF' > N3EN3 ' CF$ ' E32 3N ' H ' H J ' H' C13N &O' 4- O' E' C-NF' ' 3X- C HE' $C' $&H43C$ D' F3' , $ J 3' H&' $EO' I 34CHE' FH' CF$ ' Q3' $' I 4HR 14 3 H4' H4' I $4 ' I 4H14 3 H4' H&' C-NF' @$44 $23' ' H4' FH' CF$ ' Q3' NHEN34E3D' $C' $&H43C$ D' E' F3' +331 E2 ' -C E2 ' H&' 3 J 1 HO E2' H&' C-NF' @$44 $23' ' 3 340' I 34CHE' CH' H&&3ED E2' CF$ ' &H4&3 ' * 3E' I H-EDC

I 34CHEC' ER C34 E2' $&$ C3 , $ J 3' KN' E' $ ' 3X- C HE' H4' > N3EN3 ' 2- O' H&' $ P CD3R J 3$EH4

W ' ED' Q3' ' 3E$N 3D ' * F$ ' &' $EO' I 34CHE' $11 O E2' &H4' H4' 14HN-4 E2' H4' $ 3 J 1 E2' H' 14HN-43' $EO' > N3EN3' J D34' F C' N ' &H4' H4' E' 43R C13N ' H&' $EO' ? $23' @$44 $23' CF$ ' -C3' H4' 3 J 1 HO' $EO' &$ C3' H4' & N H-C' , $ J 3' H4' I $N3' H&' QHD3 ' H4' H F34' &$ C3' H4' & N H-C' G3CN4 1 HE' H&' $EO' I 34CHE' H4' C-11HC3D' I 34CHE ' H4' CF$ ' EC34 ' H4' N$-C3' H' Q3' EC34 3D' E' $EO' ' 3X- C HE' &H4' $EO' C-NF' > N3EN3 ' H4' E' $EO' C-NF' > N3EN3 ' $EO' &$ C3' H4' & N H-C' , $ J 3' H4' I $N3' H&' QHD3 ' H4' H F34' &$ C3' H4' & N H-C' G3CN4 1 HE' H&' $EO' I 34CHE' H4' C-11HC3D' I 34CHE' $C' Q3 E2' F3' I 4H14 3 H4' H4' I $4 ' I 4H14 3 H4' H&' F3' ? $23' @$44 $23' &H4' H4' E' 43C13N ' H&' F NF' C-NF' > N3EN3' CF$ ' Q3' $11 3D' &H4' H4' 14HN-43D' ' H4' CF$ ' &- O' H4' +EH E2 O' EC34 ' H4' N$-C3' -Q3' EC34 3D' E' $EO' C-NF' ' 3X- C HE ' H4' E' $EO' C-NF' > N3EN3' $C' $&H43C$ D ' F3' , $ J 3' H&' $EO' I 34CHE' $C' Q3 E2' $' I 4H14 3 H4' H4' I $4 ' I 4H14 3 H4' H&' C-NF' @$44 $23' FH' CF$ ' EH ' $ ' F3' * J 3' H&' F3' 11 N$ HE' &H4' C-NF' > N3EN3' Q3' E' &$N ' $' I 4H14 3 H4' H4' I $4 ' I 4H14 3 H4' H&' C-NF' @$44 $23' ' F3' I 34CHE' CH' H&&3ED E2' CF$ ' Q3' 2- O' H&' $ P CD3 J 3$EH4 ' $ED ' Q3 E2' NHE N 3D' F343H&' F3' CF$ ' Q3' $Q 3' H' Q3' 1-E CF3D' QO' 6 E3' H4' J 14 CHE J 3E ' H4' QO' QH F ' $C' F3' @H-4 ' CF$ ' $ $4D ' C-NF' J 14 CHE J 3E ' H' Q3' E' F3' @H J J HE' M$H ' H4' 8H-C3' H&' @H443N HE ' $ED' 3 F34' F' H4' FH- ' F$4D' >$QH-4 ' $C' F3' @H-4 ' CF$ ' F E+' & ' $ED' E' +' , % #&' F3E3 34' $EO' I 34CHE' CF$ ' CH' H& &3ED ' F3' CF$ ' Q3' $Q 3' H' Q3' 1-E CF3D' E' +3' P $EE34

I $4 N- $4C' H Q3' C13N & 3D' E' ? $23' @$4 ' 4 $23' > R N3EN3C

3E$N 3D ' * F$ ' F343' CF$ ' Q3' C13N & 3D' E' 3 340 > N3EN3' H' Q3' 24$E 3D' H4' 43E3 3D' -ED34' F C' N ' &H4' H4' E' 43C13N ' H&' $EO' ? $23' @$44 $23' ' F3' &H H E2' I $4 N- $4C' ' H 4 C-NF' H&' F3 J ' $C' F3' @H J J CC HE34C' H&' ? $ J 1C' CF$ ' F E+' 14H134 ' ^ F$ ' C' H' C$O ' F3' @F4 C $E' , $ J 3' $ED' ?-4E$ J 3' $ED' F3' I $N3' H&' QHD3' H&' F3' I 34CHE' $ED' H&' 3 340' I 34CHE' FH' CF$ ' Q3' $' I 4H14 3 H4' H4' I $4 ' I 4H14 3 H4' H&' F3' ? $23' @$44 $23' E' 43C13N ' H&' F NF' C-NF' > N3EN3' CF$ ' Q3' 24$E 3D ' H4' FH' CF$ ' Q3' NHEN34E3D ' 3 F34' CH 3 O' H4' E' I $4 E34CF 1' F' $EO' H F34' I 34CHE ' -' F3' +331 E2 ' -C E2 ' H4' 3 J 1 HO E2' H&' C-NF' @$44 $23' ' F3' , - J Q34' 1$ E 3D' H4' J $4+3D' HE' F3' I $ 3C' H' Q3' & 3D' HE' C-NF' @$44 $23' ' F3' , $ J 3C' H&' F3' 3 43 J 3' I $N3C' &4H J ' F NF' $ED' H' F NF' C-NF' @$44 $23' CF$ ' Q3' $- FH4 T3D' QO' C-NF' > N3EN3' H' 2H' H ' 1$CC' $ED' F3' ' H- 3' H4' > E3' H&' ' H$D' QO' F NF' C-NF' @$44 $23' CF$ ' 4$ 3 ' H' H4' &4H J ' C-NF' 3 43 J 3' I $N3C' $ED' $ CH' F3' G C $EN3' E' P 3C' H4' &4$NR HE$ ' I $4 C' H&' $ P 3 ' H4' QH F ' $C' F3' @$C3' J $O' 43X- 43' Q3 33E

C-NF' 3 43 J 3' I $N3C' F3' , - J Q34' H&' 5H-4E 3C' $ED' F3' H $' , - J Q34' H&' P 3C' -1HE' F NF' F3' G- O' 24$E 3D' QO' F C' N 'CF$ ' Q3' $CC3CC3D' $ED' F NF' C-NF' @$44 $23' CF$ ' Q3' $- H4 T3D' H' 134&H4 J' H4' H' 4$ 3 ' 3 F34' C31$4$ 3 O' H4' E' NHE(-EN HE' F' < E3' H4' J H43' H F34' N3EC3D' ? $23' @$44 $23' H4' @$44 $23C' F E' 3' G$O' 9 33+ ' H4' P HE F' $C' F3' C$ D' @H J J CC HE34C' J $O' F E+' & ' F3' G$OC' H&' F3' ! ! ' HE' ' F NF' C-NF' @$44 $23' CF$ ' Q3' $- H4 T3D' H' Q3' -C3D' $ED' F3' 243$ 3C' , - J Q34' H&' I $CC3E234C' H' Q3' NHE 3O3D' QO' C-NF' @$44 $23' D C ER 2- CF E2' ^ F3E' F3' ?$ J 3' C' E 3ED3D' H' NHE 3O' QH F' EC D3' $ED' < - C D3' I $CC3E234C_' F3' , - J Q34' H' Q3' N$44 3D' HE' H4' $QH- ' F3' < - C D3' &4H J' F3' , - J Q34' H' Q3' N$44 3D' E' F3' EC DQ' H&' C-NF' @$44 $23' ' $ED' $' @H1O' H&' 3 34O' C-NF' 1 N3EN3' $ED' H&' 3 34O' E' @H1O' H&' DH4C3 J 3E' F NF' CF$ ' &4H J' * J 3' H' * J 3' Q3' J $D3' F343HE' CF$ ' > N3EN3' H' Q3' +31 ' $ ' F3' < && N3' H4' I $N3' &4H J' F NF' C NF' > N3EN3' CF$ ' Q3' CC-3D' E' H4D34' F$ ' $EO' I 34CHE' J $O' F$ 3' $' @H1O' F343H&' 1$O E2' < E3' ?F E2' &H4' F3' C$ J 3

W* ' I 4H D3D' $ $OC' $ED' Q3' ' 3E$N 3D' * F$ ' ' CF$ ' Q3' $ &- ' G- 3C' J $O' &H4' F3' @H J J CC HE34C' H&' ? $ J 1C' F343' F3O' ?F$ ' D33 J' ' 3 13D 3E ' Q3' NH J R $ ' F3' * J 3' H&' 24$E E2' $EO' C-NF' > N3EN3' $C' $&H43C$ D' H' NH J 1H-ED' 1H-ED3D' &H4 F' $EO' I 34CHE' HE' C-NF' * 34 J C' $ED' @HED HEC' $C' F3O' C $ ' F E+' & ' &H4' F3' G- 3C' F NF' J $O' Q3NH J 3' 1$O$Q 3' E' 43C13N' H&' C-NF' ? $23' @$44 $23' $ED' F3E' $ED' E' C-NF' @$C3' EC 3$D' H&' F3' , - J Q34' H&' 5H-4 ' E' N$C3' H&' $ E 3C' $ED' F3' H $' , - J Q34' H&' P 3C' F NF' C-NF' @$44 $23' CF$ ' F3' @H J 1HC HE' $- FH4 T3D' H' 134&H4 J' F E' F3' G$O 9 33+ ' H4' P HE F' F343' CF$ ' Q3' F3' J H-E' C13N & 3D' E' F3' > N3EN3' 24$E 3D' &H4' H4' E' 43C13N' H&' C-NF' @$44 $23' H' Q3' C13R F3' J H-E' H&' F3' @H J 1HC HE' 5! ' G$O' 9 33+ ' H4' P HE F' H' Q3' 1$ D' N & 3D' E' F3' &H4' $ED' E' 43C13N' H&' C-NF' @$44 $23' E' 3-' 1&' F3' G- 3C' C13N & 3D' E' > N3EN3 F3' C$ D' ?NF3D- 3' H' F C' N ' $EE3 3D' H23 F34' F' C-NF' ? 1- $ HEC' $ED' @HED HEC' $C' F3' C$ D' @H J J CC HE34C' CF$ ' F E+' 1&H134' &H4' Q3 34' C3N-4 E2' F3' I $O J 3E' H&' C-NF' @H J 1HC HE

W E ' ED' Q3' ' 3E$N 3D' * F$ ' &4H J' $ED' $& 34' F3' 1$CC E2' H&' F C' N ' @$44 $23' 3 34O' > N3EN3' &H4' F3' +331 E2' -C E2' 3 J 1 HO E2' , '%! #(' , 3 ' ,' !' < ' ! # ' ! 1' H&' $EO' ? $23' @$44 $23' F NF' CF$ ' F$ 3' 4! !#' 24$E 3D' -ED34' $EO' , ! ' -E N ' $ED' F NF' CF$ ' F$ 3' Q33E' E' &H4N3' HE' F3' * F 4 0 & 4C' 2 ' , ' ?3% ' NHE $R E' F C' 143C3E' =3$4' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED') F , ' 1) %%' E-3D' -E ' Q3' $ED' F3' C$ J 3' C' F343QO' 43 3D' $ED' NHE E-3D' $ED' CF$ ' Q3' D33 J 3D' < F' < N HQ34' H' Q3' $ED' H' F$ 3' Q33E' E' &- ' I H4N3' $ED' ; &&3N' &4H J' F3' ?$ D' * F 4 0 ' & 4C' G$O' H&' ?3% ' ' $ED' 3 34O' C-NF' > N3EN3' F NF' CF$ ' Q3' CH' 43 ' $ED' NHE E-3D' $C' $&H43C$ D' $ED' $ CH' 3 34O' H F34' C-NF' > N3EN3' $C' $&H43C$ D' F NF' CF$ ' F$ 3' Q33E' H4' CF$ ' Q3' 24$E 3D' -ED34' $EO' &H4 J 34' N ' $& 34' F3' C$ D' * F 4 0 & 4C' G$O' H&' ?3% ' $ED' Q3&H43' F3' ; 3 3E F' G$O' H&' 6 ' , 4! ' E' F C' 143C3E' =3$4' < E3' FH-C$ED' 3 2 ' F-ED43D' $ED' F 4 0 H' CF$ ' 43C13N 3 O' 43 J $ E' $ED' NHE E-3' E' &H4N3' -E ' $ED' -1HE' F3' * 3E F' G$O' , ' 6 ' , 4! ' #' F3' C$ D' =3$4' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H' ^-E 3CC' CHHE34' D3 34 J E3D' QO' F3' I $4 3C' H' FH J' F3' C$ J 3' CF$ ' F$ 3' Q33E' 24$E 3D_' $ED' CF$ ' F3E' N3$C3' $ED' D3R 34 J E3' $EO' F E2' E' $EO' &H4 J 34' N ' H4' E' C-NF' > N3EN3C' 43C13N 3 O' H' F3' NHE 4$4O' EH FC $ED E2' $ED' F$ ' 3 34O' C-NF' > N3EN3' $C' $&H43 ' @H J J 3EN3 ' C$ D' F3 F34' H4 2 E$' H4' C-11 3 J 3E $4O' F NF' CF$ ' Q3' 24$E 3D' -ED34' F3' - FH4 O' H&' F C' N ' $& 34' F3' * 3E F' G$O' H&' 6 ' , 4! ' $ED' H&' > N3EN3C' Q3&H43' F3' 6 4C' G$O' H&' E , 0! 4! ' E' F3' C$ D' =3$4' < E3' FH-C$ED' 24$E 3D' -E 3 2F 7C b N

3 2F' F-ED43D' $ED' F 4 0 H' CF$ ' Q3' D$ 3D' HE' F3' ; 3 3E F' G$O'
H&' 6 ' ,4! ' E' F3' C$J3' =3$4' $FD' 3 34O' C-NF' > N3EN3' F NF' CF$ '
Q3' 24$E 3D' $& 34 F3' *F 4 0 & 4C' G$O' H&' 6 ' ,4! ' E' F3' C$ D' =3$4'
<E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 9H' $ED' Q3&H43' F3' 6 4C'
,#& ' E' F3' PHE F' H&' 6 ' ,4! ' E' F3' =3$4' <E3' FH-C$ED' 3 2F '
F-ED43D' $ED' F 4 0 F433' CF$ ' Q3' D$ 3D' HE' F3' G$O' HE' F NF' F3'
C$J3' CF$ ' Q3' 24$E 3D' $ED' 3 34O' C-NF' > N3 % 3' 24$E 3D' $C' $&H43C$ D'
-ED34' F3' - FH4 O' H&' F C' N ' CF$ ' F$ 3' 3&&3N' $ED' NHE E-3' E'
&H4N3' &4HJ' F3' G$O' H&' F3' G$ 3' F343H&' -E ' F3' 6 4C' ,#& ' E'
F3' PHE F' H&' 6 ' ,4! ' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0'
F433' ^-E 3CC' CHHE34' D CNHE E-3D' E' J$EE34' F343 E $& 34 J3E HE3D '
$ED' EH' HE234' $ED' 3 34O' C NF' > N3EN3' $$' $&J43C$ D' F NF' CF$ '
Q3' 24$E 3D' $ ' $EO' * J3' HE' <4 $& 34' F3' 6 4C' ,#& ' E' 6 ' ,4! '
$ED' Q3&H43' F3' 6 4C' G$O' H&' E ,0! 4! ' E' F3' =3$4' <E3' FH-R
C$ED' 3 2F' F-ED43D' $ED' F 4 0 F433' H4' E' $EO' C-QC3X-3E' =3$4' CF$ '
Q3' D$ 3D' HE' F3' 6 4C' ,#& ' E' \`&,4! ' E' F3' =3$4' E' F NF' F3'
C$J3' CF$ ' Q3' 24$E 3D' C13N &O E2' F3' G$O' H&' F3' PHE F' ' $ED' 3 34O'
C-NF' > N3EN3' F NF' CF$ ' Q3' 24$E 3D' $ ' $EO' H F34' * J3' F$E' $C' $&H43R
C$ D' E' F3' C$ D' $C J3E HE3D' =3$4' <4 E' $EO' C-QC3X-3E' =3$4' CF$ '
Q3' D$ 3D' HE' F3' G$O' HE' F NF' F3' C$J3' CF$ ' Q3' 24$E 3D' $ED' 3 34O'
C-NF' > N3EN3' $C' $&H43C$ D' F NF' CF$ ' Q3' D$ 3D' HE' F3' 6 4C' ,#& '
E' $EO' PHE F' H&' 6 ' ,4! ' H4' HE' $EO' H F34' G$O' E' $EO' =3$4' CF$ ' F$ 3'
3&&3N' $ED' NHE E-3' E' &H4N3' &4HJ' F3' G$O' H&' F3' G$ 3' F343H&' -E ' F3'
6 4C' ,#& ' E' F3' PHE F' H&' F3E' E3 ' 3EC- E2' H4' -E ' F3
,#& ' E3 ' 3EC EH2' F3' 244E E2' H&' C-NF' > N3EN3' &' C-NF' ,#& '
CF$ ' Q3' F3' 6 4C' ,#& ' E' 6 ' ,4! ' ^-E 3CC' CHHE34' D CNHE E-3D' $C'
$&H43C$ D ' $ED' EH' HE234' $ED' 3 34O' C-NF' > N3EN3' CF$ ' Q3' 43E3 3D'
&4HJ' =3$4' H' =3$4' QO' F3' M4$E' H&' $E' H4 2 E$' > N3EN3' HE' I$O J3E '
H&' F3' G- O' H&' 6 3' 6HEEDC' QO' F C' N ' NF$423D' F343HE

> N3EN3C' H'
Q3' 43E3 3D'
O3$4 O

W ' ED' F3' ' 3E$N 3D' *F$' F3E' $EO' I34CHE' H' FH J' $EO
> N3EN3' CF$ ' F$ 3' Q33E' 24$E 3D' -ED34' F C' N ' &H4' H4 E' 43C13N' H&'
$EO' ? $23' @$44 $23' CF$ ' D3 34 J E3' H' D CNHE 4 J3' H4' 2 3' -1' C-NF'
> N3EN3' C-NF' I34CHE' CF$ ' 2 3' ,H N3' # 9 4 E2' H&' C-NF' F C' G3 34R
J E$ HE' H' F3' @H J J CC HE34C' H&' ? $ J1C' H4 H' F3' <&& N34' QO' FH J'
C-NF' > N3EN3' $C' 24$E 3D' $ED' F3E' F3' 6 Z ' &H4' 2 E2' -1' C-NF'
> N3EN3' $NNH4D E2' H' C-NF' ,H N3' CF$ ' F$ 3' 3 $1C3D' $ED' C-NF' > R
N3EN3' CF$ ' F$ 3' Q33E' 2 3E' -1' H' F3' C$ D' @H J J CC HE34C' H4' <&& N34'
C-NF' > N3EN3' CF$ ' N3$C3' $ED' D3 34 J E3' $ED' CF$ ' Q3' EH HE234' E'
&H4N3' $ED' F3' I34CHE' CH' 143 H-C O' N3EC3D' CF$ ' EH ' Q3' NF$423D' F'
F3' G- 3C' 1OQ 3' $NNH4D E2' H' F3' *34 J C' H&' C-NF' > N3EN3' E' 43C13N '
H&' C-NF' ? $23' @$44 $23' &H4' $EO' I34 ^ ' C-QC3X-3E' H' F3' ; 1 4$ HE'
H&' C-NF' ,H N3' $ED' F3' ' 3 D3 34O' H&' C-NF' > N3EN3' 14H D3D' F3'
CF$ ' F E' ?3 3E' G$OC' E3 ' $& 34 F3' ; 1 4$ HE' H&' C-NF' ,H N3'
D3 34 -1' < F3' C$ D' @H J J CC HE34C' <4' <&& N34' F3' E- J Q343D' I $ 3C'
J3E HE3D' E' C-NF' > N3EN3

PHD3' H&' D CR
NHE E- E2'
? $23' @$4R
4 $23' > R
N3EN3C

W ' ED' Q3' ' 3E$N 3D' *F$' F3E3 34' $EO' > N3EN3' 24$E 3D' -ED34'
F C' N ' &H6' H4' E' 43C13N' H&' $EO' ? $23' @$44 $23' CF$ ' N3$C3' H4' 3 1 43'
D CNHE E-3D' F3' I34CHE' H' FH J' C-NF' > N3EN3' CF$ ' F$ 3' Q33E
24 H 3D' CF$ ' F E' ?3 3E' G$OC' E3 ' $& 34 F3' ; 1 4$ HE' H4' G CNHE '
E-$EN3' F343H&' D3 34 -1' H' F3' @H J J CC HE34C' H&' ? $ J1C' H4' H' F3'
<&& N34' QO' FH J' C-NF' > N3EN3' $C' 24$E 3D' F3' E- J Q343D' I $ 3C
J3E HE3D

I $ 3C' H Q3'
D3 343D' -1'
HE' F3' ; '
0)+3EN3CcH4'
E' D3&$- ' F3'
G- O' H' NHE '

J 3E HE3D' E' C-NF' > N3EN3 ' H4' E' D3&$- ' F343H&' CENF' I 34CHE' CF$ ' E-3' H' NHE E-3' H' Q3' C-Q(3N ' $ED' $Q 3' H' F3' I $0 J 3E ' H&' F3' C$ J 3' ' $ 3' H&' G- O' $C' -ED34' F C' N ' $C' 1$0$Q 3' $NNH4D E2' H' F3' * 34 J C' H&' C-NF' > N3EN3' Q3&H43' F3' ; 1 4$ HE' H4' G CNHE E-$EN3' F343H&' $ED' C-NF' I 34CHE' CF$ ' Q3' NF423Q 3' $ED' NF$423D' F' F3' I $0 J 3E ' H&' F3' C$ D' G- O' $NNH4D E2 O' H' F3' * J 3' H&' D3 34 E2' -1' F3' C$ D' I $ 3C' H' F3' C$ D' @H J J CC HE34C' H4' < ? N34' ' $ED' C-NF' G- O' CF$ ' Q3' 43NH 34R $Q 3' QO' F3' C$ J 3' 9 $0C' $ED' P 3$EC' $C' &' C-NF' > N3EN3' F$D' NHE E-3D' E' &H4N3

n7 O$Q3'

W ' ED' Q3' ' 3E$N 3D' * F$ ' F3E3 34' $EO' I 34CHE' H' FH J ' $EO' H4 2 E$' > N3EN3' NF423Q 3' -ED34' F C' N ' F' F3' G- O' H&' 6 3' I H-EDC' CF$ ' F$ 3' Q33E' 24$E 3D' &H4' H4' E' 43C13N ' H&' $EO' ? $23' @$44 $23' CF$ ' $& 34 $4DC ' $ED' F E' F3' * 34 J ' &H4' F NF' C-NF' > N3EN3' $C' 24$E 3D ' $+3' $EO' H F34' I 34CHE' E H' I $4 E34CF 1' E' F3' +331 E2' -C E2' H4' 3 J 1 HO E2' H&' C#NF' ? $23' @$44 $23' ' $ED' F3E3 34' $& 34' F3' 24$E E2' H&' $EO' C-NF' H4 2 E$' > N3EN3' $C' $&H43C$ D' H' $EO' I 34CHEC' E' @H1$4 R E34CF 1' $ED' F E' F3' I 34 HD' &H4' F NF' F3' C$ J 3' $C' 24$E 3D' $EO' 34$ HE' CF$ ' $+3' 1 $@3' E' C-NF' @H1$4 E34CF 1 ' $ED' $ CH' F3ER 3 34' $EO' I 34CHE' H' FH J ' $EO' C-NF' H4 2 E$' > N3EN3' $C' $&H43C$ D' CF$ ' F$ 3' Q33E' 24$E 3D' 3F$ ' $& 34 $4DC ' $ED' F E' F3' I 34 HD' &H4' F NF' F3' C$ J 3' $C' 24$E 3D ' F3' D3C 4H-C' H&' EN43$C E2' H4' D3N43$C E2' D 3' , - J Q34' H&' 5H-4E 3C' C13N & 3D' E' C-@F' > N3EN3' H' Q3' 134&H4 J 3D' H4' 4$ 3 3D' QO' C-NF' ? $23' @$44 $23' E' F3' G$0 ' 9 33+ ' H4' P HE F ' $C' F3' C$ J 3' J $0' Q3' C13N & 3D' E' C-NF' > N3E3@ ' H4' H&' $ 34 E2' F3' ' H- 3' H4' > E3' H&' ' H$D' QO' F NF' C-NF' ? $23' @$44 $23' CF$ ' 4$ 3 ' H' H4' &4H J ' F3' 3 43 J 3' I $N3C' &4H J ' F NF' $ED' H' F NF' C-NF' ? $23' @$44 $23' CF$ ' Q3' $- FH4 T3D' QO' C-NF' > N3EN3' H' 2H' H4' 1$CC ' H4' H&' $ 34 E2' C-NF' 3 431 3' I $N3C' QO' 3 3ED E2' H4' CFH4 3E E2' F3' G C $EN3' F NF' C-NF' ? $23' @$44 $23' CF$ ' Q3' $- FH4 T3D' H' 134&H4 J ' H ' 4$ 3 ' HE' F3' C$ J 3' > E3' H&' ' H$D ' H4' H&' $ 34 E2' F3' G$OC' H&' F3' 9 33+' HE' F NF' C-NF' ? $23' @$44 $23' CF$ ' Q3' $- FH4 T3D' &H' Q3' -C3D ' H4' H&' EN43$C E2' H4' D3N43$C E2' F3' , - J Q34' H&' I $CC3E234C' H' Q3' NHE 303D' QO' C-NF' ? $23' @$44 $23' 3 F34' E' F3' 9 FH 3' H4' E' F3' EC D3' H4' 2E' H4' $QH- ' F3' < - C D3' F343H& ' F3E' $ED' E' $EO' H&' F3' C3 34$ ' @$C3C' $&H43C$ D ' -1HE' F3' ?-443ED34' $ED' G3 34O' H&' $EO' C-NF' H4 2 E$' > N3EN3 ' H4' H&' $EO' 3 C E2' C-11 3 J 3E $4O' > N3EN3' F NF' J $O' F$ 3' Q33E' $+3E' H- ' E' 3-' F343H&' H' F3' @H J J CC HE34C' H&' ? $ J 1C ' H4' H' F3' < && N34' QO' FH J ' F3' C$ J 3' $C' 24$E 3D ' F3' C$ D' @H J J CC HE34C' H4' < && N34' CF$ ' 24$E ' ' H' C-NF' I 34CHE' H4' @H 1$4 E34CF 1' H&' I 34CHEC' $' C-11 3 J 3E $4O' > N3EN3 ' F' $EO' C-NF' 34$ HEC' @4' $4 $ HEC' $C' $&H43C$ D ' E' 3-' H&' F3' > N3EN3' CH' C-443ED343D' $ED' D3 343D' -1 ' HE' I $0 J 3E ' HE O' H&' F3' G- O' H&' < E3' ?F E2' QO' F C' N ' NF$423D' < E' C-NF' C-11 3 J 3E $40 > N3EN3 ' $ED' E' +3' P $EE34' $' C-11 3 J 3E $4O' > N3EN3' CF$ ' Q3' 24$E 3D' $ED' $+3E' < - ' &4H J ' * J 3' H' * J 3' $C' E& 3E' $C' $EO' H&' F3' C3 34$ ' @$C3C' $&H43C$ D' CF$ ' HNN-4' D-4 E2' F3' I 34 HD' &H4' F NF' $EO' C-NF' H4 2 E$' > N3EN3' CF$ ' F$ 3' Q33E' 143 H-C O' 24$E 3D

?-11 3 J 3ER $4O' ? $23' @$44 $23' > R N3EN3C' E$O' Q3' 24$E 3D' E' @34 $ E' @$C3C

W ' ED' Q3' ' 3E$N 3D' * F$ ' F3E3 34' $EO' C-NF' C-11 3 J 3E $4O' > N3EN3' $C' $&H43C$ D' CF$ ' Q3' 24$E 3D' E' 3-' H&' $EO' 143 3 C E$4' > N3EN3' C-NF' 143 3 C J 2' > N3EN3' CF$ ' F3EN3&H4 F' N3$C3' $ED' D3 3 ' J E3' $ED' C-NF' C-11 3 J 3E $4O' > N3EN3' CF$ ' Q3' D33 J 3D' H' Q3' F3' G HE O' > N3EN3' E' &H4N3' ' $ED' ' CF$ ' EH ' Q3' E3N3CC$4O' -1HE' $EO' < NN$

?-11 3'

F3E' F3' HE O

' ' ' '

' ' ?' I' C+ E

C HE H 14H 3 F$ $E(H4 E$(4 H3EN3 F$D Q33E 143 H-C O $+3E H- &H4 H4 E 43C13N H&) ! + (! I # (! &H4 F NF C-NF C-11 3R J 3E $4O > N3EN3 CF$ F$ 3 Q33E 24$E 3D -H4 CF$ F3 @ 4N- J C $EN3C -ED34 F NF C-NF C-11 3 13B $4O > N3EN3 $C CC-3D Q3 43X- 43D H Q3 14H 3D EH4 F3 ' 32 D$4 O H& F3 CC- E2 F343H& E $EO P $EE34 X-3C HE3D

G- O H Q3 1OQ 3 QO F3 I 34CHE E$J 3D E F3 > N3EN3

W ED Q3 3E$N 3D * F$ F3 G- O 1OQ 3 E 43C13N H& $EO N3EC3D ? $23 @$44 $23 CF$ Q3 1OQ 3 $ED 1$ D H 8 C P $(3C O QO F3 I 34CHE H4 I 34CHEC E$J 3D $C F3 I 4H14 3 H4 " I 4H14 3 H4C E F3 > N3EN3 43 $ E2 H C-NF ? $23 @$44 $23 $ED E $ N HEC E&H4R J$ HEC $ED H F34 I 4HN33D E2C F$4 F3 ; 3NH 34O H& $EO C-NF G- O 3$NF $ED 3 34O H& F3 C$ D I 4H14 3 H4C C3 34$ O H4 F3 FH 3 H4 $EO * H H4 J H43 H& F3 J (H E O 1 $O Q3 NF$423D F $ED 14HC3N- 3D

$ED H Q3 NH J 1- 3D $NNH4D E2 H F3 * 34 J C H& F3 > N3EN3

&H4 F3 C$ J 3 $ED F3 E$H-E H& F3 ' $ 3 H& G- O J 1HC3D QO F C N -1HE H4 E 43C13N H& $EO C-NF @$44 $23 NH J 1- 3D -1HE F3 , - J Q34 H& P 3C F NF C-NF @$44 $23 CF$ F3 $- FH4 T3D QO C-NF > N3EN3 H 4$ 3 E F3 G$O 9 33+ H4 P HE F $C F3 @$C3 J $O Q3 H4 F3 J H-E H& F3 @H J 1HC HE 3N & 3D E C-NF > N3EN3 NH J 1- 3D #1HE F3 * J 3 F NF CF$ F$ 3 3 $1C3D C EN3 F3 G$ 3 F343H& CF$ Q3 D33 J 3D H Q3 F3 J H-E H& G- O D-3 $ED 1$O$Q 3 E 43C13N H& C-NF @$44 $23 ^-E 3CC F3 C$ J 3 CF$ Q3 14H 3D H F$ 3

; D3EN3 H& F3 G- D-3

Q33E 1$ D_ $ED I 4HH& H& F3 24$E E2 H& $EO C-NF > N3EN3 $ED H& F3 * 34 J C F343H& CF$ E $ @$C3C Q3 C- FN 3E ; D3EN3 H& F3 G- O D-3 FH- $EO ; D3EN3 Q3 E2 2 3E H& F3 $N -$ +331 E2 -C E2 H4 3 J 1 HO E2 H& F3 ? $23 @$44 $23 E C-NF > N3EN3 J 3ER HE3D QO F3 I 34CHE E$J 3D F343 E $C F3 I 34CHE H FH J F3 C$ J 3 CF$ F$ 3 Q33E 24$E 3D. I 4H D3D $ $OC F$ EH F E2 F343 E NHER $ E3D CF$ 3 3ED H 3 HE34$ 3 &4H J > $Q O H F3 I $O J 3E H& C-NF G- O $EO I 4H14 3 H4 FHC3 , $ J 3 J $O EH Q3 EC34 3D E C-NF > N3EN3 Q- F$ 3 34O C-NF I 4H14 3 H4 J $O QN NF$423D F $ED 14HC3N- 3D &H4 C-NF G- O 3 F34 $ HE3 H4 (H E O F $EO < E3 H4 J H43 H F34 I 4H14 3 H4 H4 I 4H14 3 H4C F3 F34 E$J 3D E C-NF > N3EN3 H4 EH

@H J J CR C HE34C J $O J $+3 H $EN3 &H4 F3 G- 3C HE 5H-4E 3C EH 134&H4 J 3D QO $EO N3EC3D ? $23 @$4R 4 $23

W W I 4H D3D $ $OC $ED Q3 3E$N 3D * F$ CF$ Q3 $ &- &H4 F3 @H J J CC HE34C H& ? $ J 1C H4 F3 4 14H134 < && N34 H 3 $ J E3 E H $ F3 @ 4N- J C $EN3C 43 $ 3 H F3 , - J Q34 H& 5H-4E 3C H4 F3 , - J Q34 H& P 3C $N -$ O 134&H4 J 3D H& 4$ 3 3D QO $EO ? $23 @$4R 4 $23 $ED E @$C3C F343 F3 C$ J 3 C&3$ Q3 3CC F$E F3 , - J Q34 3 R 143CC3D E F3 > N3EN3 43 $ E2 H C-NF @$44 $23 CF$ Q3 $ &- &H4 F3 C$ D @H J J CC HE34C H4 F3 4 C$ D < && N34 H J $+3 C-NF H $EN3C H& G- O $C H F3 J 43C13N 3 O CF$ $113$4 H Q3 (-C $ED 14H134 H F3 I 34CHE N3EC3D E 43C13N H& C-NF @$44 $23 -1HE I 4HH& Q3 E2 J $D3 H F3 ?$ C&$N HE H& F3 C$ D @H J J CC HE34C H4 < && N34 $C H F3 , - J Q34 H& 5H-4E 3C H4 P 3C $N -$ O 134&H4 J 3D H4 4$ 3 3D QO C-NF @$44 $23 $ED CF$ $ CH Q3 $ &- &H4 F3 C$ D @H J J CC HE34C H J $+3 C-NF %32- $ HEC F 43C13N H C-NF @$44 $23C F343 $EO C-NF H $EN3 CF$ Q3 $11 3D &H4 $C F3O CF$ &4H J * J 3 H * J 3 D33 J E3N3CC$4O H4 3 13D 3E $C 3 &H4 3&&3N -$ O C3N-4 E2 F3 G- 3C HE C-NF @$44 $23C $C &H4 DH E2 5-C N3 H F3 < E34C H4 I 4HR 14 3 H4C F343H& $EO F E2 F343 E NHE $ E3D H F3 NHE 4$4O EH FR C $ED E2 $ED & $EO I 34CHE N3EC3D $C $&H43C$ D E $EO NNH-E H

13E$ O &H4 !(<(!) * &

Q3' 43ED343D' QO' F J' E' 1-4C-$EN3' H&' F C' N ' H4' H&'$EO' C-NF' '32- $' &$C3' NNH-E'
HEC' $C' $&H43C$ D' H&' F3' , - J Q34' H&' 5H-4E 3C' H4' P 3C' $N -$ O' 134' H& F3' 51-4'
&H4 J 3D' H4' 4$ 3 3D' QO' $EO' ? $23' @$44 $23' CF$ ' E32 3N ' H4' H J ' H'
EC34 ' F343 E' $EO' 5H-4E3O' $N -$ O' 134&H4 J 3D' QO' C-NF' @$44 $23' H4' $EO' 9 23'
CF$ ' EC34 ' F343 E' $' 3CC' , -F Q34' H&' P 3C' F$E' CF$ ' F$ 3' Q33E' @$ J23"!['
$N -$ O' 4$ 3 3D' QO' C-NF' @$44 $23' D-4 E2' F3' I34 HD' & 9' F NF' C-NF'
NNH-E ' CF$ ' Q3' 43ED343D ' F3' CF$ ' &H4&3 ' 6 & O' I H-EDC

WW ' ED' Q3' ' 3E$N 3D ' *F$ ' F3' I34CHE' H' FH J' $EO' C-NF' 9 F3E' $ED'
> N3EN3' $C' $&H43C$ D' CF$ ' F$ 3' Q33E' 24$E 3D' $' F3' 8 3$D' <&& N3' &H4' F343' C $23'
? $J 1C' H4' CH J 3' I34CHE' HE' F C' B3F$ &' CF$ ' HE' F3' 6 4C' ,#& ' E' G- 3 CF$ '
3 34O' @$ 3ED$4' P HE F ' Q3 33E' F3' 8 H-4C' H&' *3E' E' F3' P H4E E2' Q3' 1$ D'
$ED' *F433' E' F3' & 34EHHE' -E 3CC' F3' C$ J 3' Q3' $' 8 H D$O ' $4 D
F3E' HE' F3' E3 ' G$O' EH ' Q3 E2' $' 8 H D$O ' 1$O' F3' FH 3' H&' F3'
G- O' NF$423D' $ED' $NN4-3D ' D-3' -ED34' H4' QO' 4 -3' H&' C-NF' > N3EN3'
F E' F3' 6H-4' H4' 6 3' 143N3D E2' 9 33+C ' $C' F3' @$C3' J $O' Q3 ' E'
43C13N ' H&' F3' ? $23' @$44 $23' J 3E HE3D' E' C-NF' > N3EN3 ' H' F3'
' 3N3 34' M3E34$' H&' ? $J&' G- 3C ' H4' H' F3' 14H134' <&& N34' &H4'
F3' * J 3' Q3 E2' &H4' 43N3 E2' ? $23' @$44 $23' G- 3C' $ ' F3' C$ D'
8 3$D' <&& N3 ' $ED' F$ ' F3' I34CHE' H' FH J' $EO' C-NF' > N3EN3' $C'
$&H43C$ D' CF$ ' F$ 3' Q33E' 24$E 3D' $ ' $EO' H F34' I $N3' F$E' F3' C$ D'
8 3$D' <&& N3 ' H4' CH J 3' I34CHE' HE' F C' B3F$ &' CF$ ' $ ' F3' I34 HDC'
$&H43C$ D' 1$O' F3' FH 3' H&' F3' G- O' NF$423D' $ED' $NN4-3D' D-3' $C'
$&H43C$ D ' -ED34' H4' QO' 4 -3' H&' C-NF' $C J 3E HE3D' > N3EN3 ' H' F3'
I34CHE' QO' FH J' C-NF' > N3EN3' CF$ ' F$ 3' Q33E' 24$E 3D ' H4' H' C-NF'
H F34' I34CHE' $C' F3' @H J J CC HE34C' H&' ? $J 1C' CF$ ' $11H E ' H4' $- FHR
4 T3' H' 43N3 3' F3' C$ J 3

WW ' ED' Q3' ' 3E$N 3D ' *F$ ' &' $EO' I34CHE' H' FH J' $EO' > N3EN3' C $23' @$4 '
CF$ ' Q3' 24$E 3D' -ED34' F3' I4H C HEC' H&' F C' N ' H' +331 ' -C3 ' H4' E$23' G- 3C'
3 J 1 HO' $EO' ? $23' @$44 $23' CF$ ' J $+3' G3&$- ' E' I$O J 3E ' H&' $EO' 11 ' N+N33D '
?- J' H&' P HE3O' EH ' 3 N33D E2' E' J H-E ' F3' ?- J' H&' 6 & O' I H-EDC ' IH-H+ 3'
F N&3' CF$8' Q3NH J 3' D-3' H4' 1$O$Q 3' E' 43C13N ' H&' C4 NF' > N3EN3 ' $ ' NH 34$Q 3QO'
F3' * J 3' $ED' E' F3' P $EE34' QO' F C' N ' $11H E 3D' &H4' I$O J 3E ' G C 43CC'
F343H&' ' CF$ ' Q3' $ &-' &H4' $EO' * H' H&' F3' @H J J CC HE34C' H&
? $J 1C' H' 24$E ' $' 9 44E ' H' $EO' @HEC $Q 3' H4 H F34' I 3$N3' <&& N34 '
H4' H' $EO' <&& N34' H&' ? $J 1' G- 3C ' H4' H F34' I34CHE' E$J 3D' E' C-NF'
9 44E ' D 43N E2' F J' H' D C 4$ E' 3 34O' C-NF' I34CHE' CH' J $+ E2'
G3&$- ' $C' $&H43C$ D' QO' F C' MHHDC' $ED' @F$ 3 C' $4 D' $ CH' H' C3 T3'
$ED' $+3' F3' @$44 $23C' 8 H4C3C ' 8 $4E3CC' $ED' H F34' 4 N 3C' $ED'
*F E2C' QO' F C' N ' J $D3' C-Q(3N ' $ED' $Q 3' H' C-NF' G- O ' &H4' F3'
J H-E ' H&' F3' G- O' CH' D-3' H4' 1OQ 3' $C' $&H43C$ D' $ED' H&' $ ' F3'
@HC C' @F$423C' $ED' ; 13EN3C' EN D3E ' H4' 43 $ E2' H' F3' $+ E2' $4 D'
+331 E2' H&' C-NF' G C 43CC' ' $ED' ' CF$ ' Q3' $ &-' &H4' C-NF' @HEC $Q 3 '
H4' &H4' $EO' C-NF' <&& N34' H4' H F34' I34CHE' $C' $&H43C$ D ' H' J $+3' C-NF'
G C 43CC' $ED' ?3 T-43' $NNH4D E2 O ' $ED' F3' G C 43CC' CH' $+3E' H' D3 $ E'
$ED' +331' &H4' F3' ?1$N3' H&' 6 3' G$OC ' $ ' F3' @HC C' $ED' @F$423C' H&'
F3' I34CHE' D C 4$ E3D' ' $ED' &' F3' J H-E ' H&' C-NF' G- O ' $ED' H&' $ '
' F3' @HC C' @F$423C' $ED' ; 13EN3C' $&H43C$ D ' CF$ ' EH ' Q3' 1$ D' F E'
C-NF' ?1$N3' H&' 6 3' G$OC ' F3E' C-NF' @HEC $Q 3' Q4' <&& N34' H4' H F34'
I34CHE' CF$ ' N$-C3' F3' MHHDC' $ED' @F$ 3 C' @$44 $23C' 8 H4C3C
8 $4E3CC' $ED' H F34' *F E2C' CH' ?3 T3D' H4' $+3E ' H' Q3' CH D' E' F3'
P $EE34' D 43N 3D' QO' F C' N ' $ED' CF$ ' 43ED34' F3' < 341 -C' &' $EO
H&

H&' F3' PHE3O' $4 C E2' QO' 3' ?$ 3' F343H&' $& 34' D3D-N E2' $ED' 43R $ E E2' F3' J H-E' H&' C-NF' G E O' $ED' $' F3' @HC C' @F$423C' $ED' ; 13EN3C' $&H43C$ D' $C' 3' $C' F3' @F$423C' $ED' ; 13EN3C' H&' F3' ?$ 3' H' F3' I 34CHE' CH' D C 4$ E3DO' H4' H' F3' < E34' H&' F3' @$44 $23C' 8 H4C3C' 8 $4E3CC' H4' H F34' * F E2C' CH' C3 T3D' $ED' $+3E' $C' $&H43C$ D' ($ED' &H4' F3' I -41HC3' H&' $+ E2' C-NF' G C 43CC' ' CF$' Q3' $ &-' &H4' C-NF' @HEC $Q 3' H4' H F34' I 3$N3' <&& N34' H4' &H4' C-NF' <&& N34' H&' ? $ J 1' G- 3C' H4' H F34' I 34CHE' E$ J 3D' E' C-NF' 9 44E' E' F3' I 43C3EN3' H&' $EO' @HEC $Q 3' H4' H F34' I 3$N3' <&& N34' F343' $EO' ' 3&-C$' H4' ' 3C C $EN3' CF$' Q3' J $D3' H' Q43$+' H13E' E' F3' G$O J 3' $EO' 8 H-C3' B- D E2' H4' H F34' I $N3' F343' $EO' C-NF' @$44 $23C' 8 H4C3C' 8 $4E3CC' H4' H F34' 4 N 3C' H4' * F E2C' H4' $EO' MHHDC' H4' @F$ 3 C' H' Q3' C3 T3D' H4' $+3E' -ED34' C-NF' 9 44E' $C' $&H 3C$ D' CF$' Q3

$G#)(A' AJ& ' I (' '&)<) ' !(A' (H# +? G)H(A(< #&*(' &!D !)&*(A' +2(!' & <' &I+2(' #J(' "(& #B

WW ' ED' Q3' ' 3E$N 3D' * F$' &' $EO' I 34CHE' CF$' +331' -C3' H4' 3 J 1 HO' $EO' ? $23' @$44 $23' FH-' F$ E2' C-NF' > N3EN3' $C' QO' F C' N' C' 43X- 43D' C-NF' I 34CHE' CF$' H 34' $ED' $QH 3' $EO' I 3E$ O' F NF' J $O' Q3' EN-443D' -ED34' F C' N' Q3' $NNH-E $Q 3' H' 8 C' P $(3C O' &H4' F3' C$ J 3' G- O' $C' C-NF' I 34CHE' H- D' F$ 3' Q33E' NF423Q 3' F' $ED' $Q 3' H' 1$O' &H4' H4' E' 43C13N' H&' C-NF' @$44 $23' E' N$C3' C-NF' I 34CHE' F$D' HQ $ E3D' $' 14H134' > N3EN3' &H4' F3' C$ J 3' -ED34' F C' N' &H4' F3' 1$4 N- $4' 5H-4E3O' G C $EN3' H4' , - J Q34' H&' P 3C' $ED' &H4' F3' , - J R Q34' H&' 5H-4E 3C' E' F3' G$O' 9 33+' H4' PHE F' $ED' &H4' F3' , - J Q34' H&' I $CC3E234C' F NF' C-NF' I 34CHE' CF$' $' $EO' * J 3' F$ 3' $D 34 T3D' H4' H F34 C3' EH & 3D' H4' 3 143CC3D' F$ 3-NF' @$44 $23' $C' E 3ED3D' H4' F$D' Q33E' H4' $C' H' Q3' 3E 1 HO3D H' 2H' <4N$44O' 43C13N 3 O' H4' F NF' C-NF' @$44 $23' CF$' $N -$ O' F$ 3' 2HE3' <4N$44 3D' 43C13N 3 O' $' $EO' < E3' I 34 HD' D-4 E2' F NF' C-NF' @$44 $23' CF$' F$ 3' Q33E' +31' H4' -C3D' $' F3' ; 3N HE' H&' F3' C$ D' @H J J CC HE34C' $ED' F$' 3 34O' I 34CHE' CH' +331 E2' -C E2' H4' 3 J 1 HO E2' C-NF' @$44 $23' CF$' Q3' NF423Q 3' F' C-NF' G- O' &H4' F3' C$ J 3' &4H J' F3' * J 3' F3E' C-NF' @$44 $23' $C' & 4C' +31' H4' -C3D' FH-' C-NF' > N3EN3' $C' $&H43C$ D' DH E' H' F3' * J 3' F3E' $EO' > N3EN3' CF$' Q3' $+3E' H-' &H4' F3' C$ J 3' QO' CH3Q' I 34CHE' H4' H' F3' * J 3' F3E' F3' # C3' F343H&' CF$' Q3' $QCH - 3 O' D CNHE E-3D' $ED' $ CH' F' F3' G- O' F NF' H- D' F$ 3' Q33E' 1OQ 3' &H4' F3' 14HR 134' > N3EN3' F NF' C-NF' I 34CHE' H-2F' H' F$ 3' $+3E' H-' E' 43C13N' H&' C-NF' @$44 $23' $C' $&H43C$ D

' C31$4$ 3 > N3EN3' 43R X- 43D' &H4 3 34O' I $ 4 H&' 1 $ 3C

WW ' ED' Q3' ' 3E$N 3D' * F$' ' CF$' EH' Q3' $ &-' &H4' $EO' I 34CHE' N3EC3D' E' 43C13N' H&' $EO' ? $23' @$44 $23' H' -C3' F$ 3' H4' +331' J H43' F$E' < E3' I $ 4' H&' I $ 3C' -ED3' H4' QO' 4 -3' H&' $EO' < E3' > N3EN3' Q-' F$' &H4' 3 34O' I $ 4' H&' I $ 3C' F343' ?F$' Q3' $' C31$4$ 3' $ED' D C EN' > N3EN3

, 3 ' I $ 3C H' Q3' D3 34R 3D' E 3-' H&' D3&$N3D' H4 HC' I $ 3C

WW ' ED' Q3' ' 3E$N 3D' * F$' F3E3 34' F3' , - J Q34' H4' G3 N3' HE' $EO' I $ 3' H4' I $ 3C' CF$' Q3NH J 3' HQ 34$ 3D' H4' D3&$N3D' CH' F$' F3' C$ J 3' CF$' EH' Q3' D C EN O' C Q 3' $ED' 32 Q 3' $ED' $ CH' F3E3 34' $EO' I $ 3' H4' I $ 3C' CF$' Q3' 14H 3D' H' F3' ?$ C&$N HE' H&' F3' @H J J CC HE34C' H&' ? $ J 1C' H' F$ 3' Q33E' HC' H4' J C$ D' F3' I 34CHE' H' FH J' F3' > N3EN3' 43 $ E2' H' $EO' C-NF' I $ 3' H4' I $ 3C' CF$' F$ 3' Q33E' 24$E 3D' CF$' C-443ED34' $ED' D3 34' -1' C-NF' H&' F3' ?$ D' I $ 3C' $C' F3' CF$' F$ 3' E' F C' IHCC3CC HE' $ED' CF$' 14HD-N3' C-NF' N3EN3' H' F3' C$ D' @H J R J CC HE34C' H4' H' F3 4' 14H134' <&& N34' $ED' C-NF' I 34CHE' 4$' F3E Q3

Q3' 3E 3D' H' F$ 3' E3 ' 8 $ 3C' D3 343D' H' F J ' E' 3 -' H&' F3' I $ 3C'
CH' D3 343D' -1' H4' HC ' H4' J C $ D' -1HE' I $O J 3E ' H4' F3' # C3' H&'
8 C' P $(3C O' H&' $EO' ?$ J ' E' F3' G CN43 HE' H&' F3' C$ D' @H J J C .'
C HE34C' EH ' 3 N33D E2' F3' ? - J' H&' * 3E' ?F E2C' &H4' 3$NF' I $ 4' H&'
I $ 3C' $ED' F343' F3' , - J Q34' HE' C-NF' E3 ' I $ 3C' CF$ ' Q3' D &&343E '
&4H J' F3' , - J Q34' HE' C-NF' I $ 3C' CH' D3 343D' -1' H4' HC ' H4' J C $ D'
F3' C$ D' @H J J CC HE34C' H4' <&& N34' CF$ ' EDH4C3' $ED' C 2E' -1HE' F3'
> N3EN3' $' P 3 J H4$ED- J' H&' F3' CC- E2' H&' C-NF' E3 ' I $ 3C' E' 3 -' H&'
F3' I $ 3C' E' C-NF' > N3EN3' J 3E HE3D'.' I4H D3D' $ $OC' F$ ' &' $EO'
C-NF' I $ 3' H4' I $ 3C' F NF' CF$ ' F$ 3' Q33E' 14H 3D' $C' $&H43C$ D' H4'
43143C3E 3D' H' F$ 3' Q33E' HC ' H4' J C $ D' CF$ ' $& 34 $4DC' Q3' &H-ED'
F3' C$ J 3' CF$ ' &H4 F F' Q3' D3 343D' -1' H' F3' C$ D' @H J J CC HE34C' '
$ED' &' $EO' I 34CHE' E' <4 E H' FHC3' I HCC3CC HE' H4' I H 34' $EO' C-NF'
I $ 3' H4' I $ 3C' $C' $C ' $&H43C$ D' CF$ ' Q3' H4' NH J 3' CF$ ' 43&-C3' H4'
E32 3N ' &H4' F3' ?1$N3' H&' 6 3' G$OC' H' D3 34' -1' F3' C$ J 3' H' F3'
C$ D' @H J J CC HE34C' F3' CF$ ' &H4&3 ' * 3E O' I H-EDC

WW ' ED' Q3' ' 3E$N 3D' * F$ ' F3E3 34' E' F3' < 1 E HE' H&' F3' @H J J CC HE '
@H J J CC HE34C' H&' ? $ J 1C' H4' F3(4' 14H134' <&& N34' ' CF$ ' Q3' 3 13D 3E ' 34C' J $O' 43N$ '
H' 43N$ ' $EO' I $ 3C' &H4' F3' I -41HC3' H&' NF$E2 E2' F3' C$ J 3' &H4' $EO' H F34
I $ 3C' $ED' C-NF' @H J J CC HE34C' H4' <&& N34' CF$ ' 2 3' , H 33' H' F3' I 34R
CHE' H4' H' $EO' < E3' H&' F3' I 34CHEC' H' FH J' F3' > N3EN3' 43 $ &32' H' C#NF'
I $ 3C' CF$ ' F$ 3' Q33E' 24$E 3D' F$ ' F3' C$ D' < H J J CC HE34C' H4' <&& N34'
DH' H4' DH F' QO' C-NF' , H N3&3N$ ' C-NF' I $ 3C' F3' I 34CHE' H' FH J' C-NF'
> N3EN3' CF$ ' F$ 3' Q33E' 24$E 3D' CF$ ' F E' < E3' 9 33+' $& 34' C-NF'
, H N3 ' D3 34' -1' C-NF' I $ 3C' $ED' 14HD-N3' F3' > N3EN3' 43 $ E2' H'
F3' C$ J 3' H' F3' C$ D' @H J J CC HE34C' H4' F3 4' 14H134' <&& N34' $ED' CF$ '
$ CH' $11 O' H' F3' C$ D' @H J J CC HE34C' H4' C-NF' <&& N34' &H4' E3 ' I $ 3C'
$ED' F343-1HE' F3' C$ D' @H J J CC HE34C' H4' C-NF' <&& N34' CF$ ' D3 34' H'
F3' I 34CHE' CH' $11 O E2' &H4' 3' C$ J 3' E3 ' I $ 3C' E' 3 -' H&' F3' I $ 3?'
CH' $C' $&H43C$ D' 43N$ 3D ' $ED' F343' F3' , - J Q34' HE' C-NF' E3 ' I $ 3C'
CF$ ' Q3' D &&343E ' &4H J' F3' , - J Q34' HE' C-NF' 43N$ 3D' I $ 3C' F3' C$ D'
@H J J CC HE34C' H4' <&& N34' ?F$ ' 3EDH4C3' $ED' C 2E' -1HE' F3' > N3EN3' $'
P 3 J H4$ED- J' H&' F3' ? -443ED34' H&' F3' I $ 3C' E' C-NF' > N3EN3' J 3ER
HE3D' $ED' H&' F3' 24$E E2' H&' C-NF' E3 ' I $ 3C' E' 3 -' F343H&' $ED'
&4H J' F3EN3&H4 F' C-NF' > N3EN3' CF$ ' Q3' D33 J 3D' H' 43 $ 3' H' ? -NF'
E3 ' I $ 3C' E' F3' C$ J 3' P $ EE34' $C' &' F3' , - J Q34' F343H&' F$D' Q33E'
H4 2 E$ O' EC34 3D' E' F3' BHDO' H&' C-NF' > N3EN3

WW ' ED' Q3' ' 3E$H 3D ' * F$ ' F3' I $ 3C' QO' F C' N ' 43X-+(3D' " ' " $ P$E '
Q3' & 3D' -1HE' 3 34O' ? $23' @$44 $23' CF$ ' Q3' & 3D ' < $3' HE' 3$NF' ? D3' E34' I $ 3C'
H&' C-NF' @$44 $23' -1HE' F3' -1134' 6H43' \ -$4 34' $ ' F3' H 34' E2 3'
$D(H E E2' H' F3' GHH4' H4' &' F343' Q3' EH' -1134' 6H43' \ -$4 34' F3E' HE' C 23' @$ /
F3' N3E 43' I $E3 ' H&' 3$NF' GHH4' E' F3' ? D3' H&' C-NF' @$44 $23' H4' &' 4 $23C'
F343' Q3' $' GHH4' < E O' E' < E3' ? D3' H&' C-NF' @$44 $23' F3E' < E3' H&'
C-NF' I $ 3C' CF$ ' Q3' & 3D' -1HE' F3' N3E 43' I $E3 ' H&' F$ ' GHH4 ' $ED'
F3' H F34' -1HE' CH J 3' NHEC1 N-H-C' I $4 ' H&' F3' H11HC 3' ? D3' H&' C-NF'
@$44 $23' H4' &' F343' Q3' EH' GHH4' E' 3 F34' ? D3' H&' C-NF' @$44 $23
F3E' < E3' H&' C-NF' I $ 3C' CF$ ' Q3' & 3D' -1HE' CH J 3' NHEC1 N-H-C' I $4 '
H&' 3$NF' ? D3' H&' C-NF' @$44 $23 ' $ED' &' ' CF$ ' F$113E' F$ ' F3' @H J
' J CC HE34C' H&' ? $ J 1C ' H4' F3 4' 14H134' <&& N34' CF$ ' Q3' D CC$ C& 3D'
F' F3' I HC HE' H&' $EO I $ 3' -1HE' $EO' C-NF' @$44 $23' $ED' CF$ '
D 43N ' C-NF' I $ 3' H' Q3' & 3D' -1HE' CH J 3' H F34' NHEC1 N-H-C' I $4 ' H&'
?' \' C-NF

C-NF' @$44 $23' C-NF' I $ 3' CQ$#' F3' & 3D' $NNH4D E2 O' -1HE' C-NF' @$4R 4 $23' E' NHJ1 $EN3' F' C-NF' G 43N HE

I3E$ O' &H4' +331 E2' -C E2' KN' $EO' ? $23' @$44 $23' FH-' $ > N3EN3' H4' FH-' ' I $ 3C' H4' F' 43R 1 3D' I $ 3C

WW ' ED' F3' '3E$N 3D' *F$' &' $EO' I34CHE' CF$ ' +331' -C3' H4' 3J1 HO' H4' CF$ ' Q3' NHEN34E3D' $C' I4H14 3 H4' H4' I$4' I4H14 3 H4' E' F3' +331 E2' -C E2' H4' 3J1 HO E2' H&' $EO' ? $23' @$44 $23' FH-' F$ E2' $' > N3EN3' E' &H4N3' CH' H' DH' 24$E 3D' H' F J' -ED34' F C' N ' H4' &' $EO' I34CHE' F3 F34' F3' CF$ ' F$ 3' $EO' C-NF' > N3EN3' H4' EH ' CF$ ' +331' -C3' !' 3J1 HO' $EO' ? $23' @$ 4 $23' C-NF' @$44 $23' EH ' F$ E2' 1 $N3D' $ED' & 3D' F343-1HE' $ED' E' F3' P $EE34' D 43N 3D' QO' F C' N ' F3' E-JQ343D' I $ 3C' 43X-43D' QO' F C' N ' H' Q3' & 3D' HE' ? $23' @$44 $23C' H4' F$ E2' F343-1HE' $EO' C-NF' I $ 3' $C' $&H43C$ D' F3' ,-JQ34' H4' G3 N3' F343HE' CF$ ' Q3' E' $EO' P $EE34' HQ 34$ 3D' D3&$N3D' H4' HQCN-43D' CH' F$' F3' C$J3' CF$ ' EH ' Q3' D C EN O' C Q 3' $ED' 32 Q 3' H4' &' $EO' I34CHE' H' FHJ' $EO' C-NF' > N3EN3' CF$ ' F$ 3' Q33E' 24$E 3D' CF$ ' &H4' F3' ?1$N3' H&' <E3' 9 33+' $& 34' , H N3' E' J$EE34' QO' F C' N ' D 43N 3D' H' Q3' 2 3E' H' C-NF' I34CHE' F$' F3' I $ 3C' H' F NF' C-NF' > N3EN3' CF$ ' 43 $ 3' F$ 3' Q33E' 43N$ 3D' E32 3N' H4' 43&-C3' H' D3 34' -1' F3' I $ 3C' J3E HE3D' E' C-NF' , H N3' $NNH4D E2' H' F3' *34JC' F343H&' 3 34O' I34CHE' CH' H&&3ED E2' E' $EO' H&' F3' C3 34$' @$C3C' $&H43C$ D' CF$ ' &H4&3 ' * 3E O' IH-EDC

I34CHEC' -C E2' ? $23' @$44 $23C' NHE 4$4O' H' F3 4' > R N3EN3C' H4' F' J14H' 134' I $ 3C' CF$ ' Q3' D33J3D' H Q3' -C E2' F3J' FH-' > N3EN3C

WW ' ED' Q3' '3E$N 3D' *F$' &' $EO' I34CHE' H' FHJ' $EO' > N3EN3' CF$ ' F$ 3' Q33E' 24$E 3D' E' 43C13N' H&' $EO' ? $23' @$44 $23' CF$ ' 13 J ' H4' C-&&34' C-NF' @$44 $23' H' 134&H4J' $' 243$ 34' ,-JQ34' H&' 5H-4E 3C' H4' H' 4$ 3' $' 243$ 34' ,-JQ34' H&' P 3C' F$E' CF$ ' Q3' J3E HE3D' E' !' $ H 3D' QO' a#NF' > N3EN3' H4' H' Q3' -C3D' HE' $EO' H F34' G$O' H4' &H4' F3' 134&H4J E2' H&' $EO' H F34' 5H-4E3O' F$E' CF$ ' Q3' J3E HE3D' H4' $ H 3D' E' H4' QO' C-NF' > N3EN3' H4' CF$ ' & ' H4' 1 $N3' -1HE' C-NF' @$44 $23' $EO' I $ 3' F$ E2' $' ,-JQ34' D &&343E' &H4J' F3' ,-JQ34' J3E HE3D' E' H4' $- FH4 T3D' QO' F3' > N3EN3' E' &H4N3' $' F3' * J3' H&' -C E2' C-NF' @$44 $23' C-NF' I34CHE' CF$ ' Q3' D33J3D' H' Q3' $' I34CHE' +331 E2' -C E2' $ED' 3J1 HO E2' $' ? $23' @$44 $23' FH-' F$ E2' $' > N3EN3' E' &H4N3' CH' H' DH' $ED' CF$ ' $NNH4D E2 O' Q3' C-Q(3N' $ED' $Q 3' H' F3' I3E$ O' H&' * 3E O' IH-EDC' QO' F C' N ' J1HC3D' E' F$' B3F$ &' $ED' E' $ ' N HEC' E&H4J$ HEC' , ' H F34' I4HN33D E2C' 2 EC' C-NF' I34CHE' &H4' F3' '3NH 34O' H&' C-NF' I3E$ O' E' $EO' H&' F3' @$C3C' $&H43C$ D' ' CF$ ' Q3' C-&& N 3E' H' NF$423' H4' $ 323' F$' C-NF' I34CHE' D D' +331' -C3' $ED' 3J1 HO' E' ? $23' @$44 $23' FH-' F$ E2' $' > N3EN3' E' &H4N3' CH' H' DH' 24$E 3D' H' F J' -E& 34' F C' N ' $ED' ' CF$ ' EH ' Q3' E3N3CC$4O' &-4 F34' H4' H F34 C3' H' C $ 3' H4' D3CN4 Q3' $EO' C-NF' <&&3EN3' EH4' H' 14H 3' F$' C-NF' @$44 $23' $C' -C3D' H4' 3J1 HO3D' &H4' F3' @HE 3O$EN3' H&' I$CC3E234C' $' C31$J 3' I$43C

'3143C3E $R 3C' H&' I34R CHEC' N3EC3D' J$O' -C3' ? $23' @$4R 4 $23C' &H4' *F 4 O' G$OC' FH-' &-4R F34' > H3EN3

WW W' ED' Q3' '3E$N 3D' *F$' F3E3 34' $EO' I34CHE' H' FHJ' $EO' > N3EN3' CF$ ' F$ 3' Q33E' 24$E 3D' &H4' , ' E' 43C13N' , ' $EO' ? $23' @$44 $23' CF$ ' D 3' H4' Q3NHJ3' Q$E+4-1' H4' ECH 3E ' D-4 E2' F3' ; C 3EN3' H&' C-NF' > N3EN3' ' CF$ ' Q< $ &-' &H4' F C' ; 3N- H4' DJ R E C 4$ H4' H4' CC 2E33' H4' *4-C 33' H' +331' -C3' $ED' 3J1 HO' C-NF' ? $23' @$44 $23' $NNH4D E2' H' F3' *34JC' H&' C-NF' N3EN3' &H4' F3' ?1$N3' H&' *F 4 O' G$OC' E3 ' $& 34' F3' G3$ F' B$E+4-1 NO' , ' ECH 3ENO' H&' F3' I34CHE' H' FHJ' C-NF' > N3EN3' $C' 24$E 3D' FH-' Q3 E2' $Q 3' &H4' CH' DH E2' H' F3' I3E$ O' QO' F C' N ' J1HC3D' HE' $EO' I34CHE' FH CF$

U ZC S M # > ; > P @$1 U [

C $ +331 -C3 , 3 J 1 HO $EO + (! @$44 $23 H- F$ E2 $
> N3EN3 E &H4N3 CH H DH. I4H D3D $ $OC F$ C-NF ; 3N- H4
D J E C 4$ H4 CC 2E33 H4 * 4-C 33 CF$ Q3 $Q 3 H $ED NF$423$Q 3
F F3 I $O J 3E H& 3 G- O F NF CF$ $NN4-3 H4 Q3NH J 3 1$O$Q 3
E 43C13N H& C-NF ? $23 @$44 $23 &4H J F3 * J 3 H& C-NF G3$ F
B$E+4-1 NO H4 ECH 3ENO $ED CF$ $ CH Q3 $Q 3 H $ H F34 F3
I4H C HEC $ED ' 32- $ HEC H& F C N E F3 C$J 3 P $EE34 $C &C-NF
; 3N- H4 D J E C 4$ H4 CC 2E33 H4 * 4-C 33 F$D D- O HQ $ E3D $
> N3EN3 E F C H E , $ J 3 &H4 F3 +331 E2 #C E2 $ED 3 J 1 HO E2 H&
C-NF ? $23 @$44 $23

WWW ED Q3 3E$N 3D * F$ & $EO @$44 $23 F3 F34 N3EC3D I3E$ O &H4
$C $? $23 @$44 $23 H4 EH CF$ Q3 &H-ED -1HE H4 E3$4 H $EO 1-Q N I O 2
8 2F $O $ED $EO I34CHE CF$ 1 O &H4 I $CC3E234C H Q3 NHE 3O3D QO N 44 $c 3C EH
C-NF @$44 $23 &H4 8 43 $ C31$4$ 3 6$43C C-NF @$44 $23 EH F$ E2 F$ E I $ 3C
1 $N3D $ED & 3D F343-1HE F3 E- J Q343D I $ 3C 43X- 43D QO F C F343HE
N H Q3 & 3D HE ? $23 @$44 $23C F3 G4 34 H& C-NF @$44 $23 H4
F3 I34CHE F$ E2 F3 @$43 F343H& H4 1 O E2 &H4 I $CC3E234C H Q3
NHE 3O3D F343QO C-NF G4 34 H4 I34CHE EH Q3 E2 F3 < E34 H&
C-NF @$44 $23 CF$ &H4&3 * 3E I H-EDC $ED & F3 CF$ Q3 F3
< E34 H& C-NF @$44 $23 F3 CF$ &H4&3 * 3E O I H-EDC ($ED J H43 <&&3ED34C
H 34 CF$ Q3 $ &- &H4 $EO @H \ ? $Q 3 H4 H F34 I 3$N3 <&& N34 H4 m&B I (' & ' %
$EO <&& N34 H& ? $ J 1 G- 3C FH- $EO 9 44E &H4 F$ I -41HC3 5D NHE 3 3D
H $1143F3ED C-NF G4 34 H4 H F34 I34CHE F$ E2 F3 @$43 H& C-NF I (?+! (O&
@$44 $23 H4 1 O E2 &H4 I $CC3E234C H Q3 @HE 3O3D F343QO $ED H 5-C N3 H&
N$44O $ED NHE 3O F J Q3&Q43 $EO 5-C N3 H& F3 I 3$N3 F$ E2 I 3$N3
5-4 CD N HE F343 F3 <&&3EN3 CF$ Q3 NH J J 3D H Q3 D3$
F $C F343 E$& 34 J 3E HE3D $ED CF$ $ CH Q3 $ &- &H4 C-NF N$4 $23C
@HEC $Q 3 H4 H F34 I 3$N3 \ && N34 H4 <&& N34 H& ? $ J 1 G- 3C H J$OQ3D4 3E
D4 3 H4 $+3 F3 @$44 $23 EH F$ E2 C-NF I $ 3C F F3 8 H4C3 H F3M433E
H4 8 H4C3C F$4E3CC3D F343 H H4 D4$ E2 F3 C$ J 3 H4 H N$-C3 F3 1A$N3 &Q4 $&3
C$ J 3 H Q3 D4 3E H4 $+3E H CH J 3 1-Q N < 433EO$4D H4 CH J 3 @-C HDO
> 34O ? $Q 3? H4 H F34 I $N3 H& ?$&3 O $ED F343 H HD23 F3 C$ J 3
&H4 C$&3 @-C HDO -E F3 G3 34 J E$ HE H& C-NF 5-C N3 CF$ Q3
+EH E $ED F3 5-C N3 Q3&H43 FH J C-NF G4 34 H4 H F34 I34CHE
CF$ Q3 Q4H-2F CF$ F3$4 $ED D3 34 J E3 C-NF <&&3EN3 $ED E N$C3
F3 I34CHE NHE N 3D H& $EO C-NF <&&3EN3 CF$ Q3 F3 < E34 H&
$EO C-NF @$44 $23 $ED & F3 C$ D I 3E$ O H& * 3E O I H-EDC HR
23 F34 F $ @HC C $ED ; 13EN3C $ED F3 ; 13#N3C H& $+ E2 C-NF
@$44 $23 $ED 8 H4C3 H4 8 H4C3C H $ED +331 E2 F3 C$ J 3 $ C-NF
M433EO$4D ? $Q 3C H4 H F34 I $N3 CF$ EH Q3 &- O 1$ D H4 D CR
NF$423D F E 6 3 G$OC $& 34 C-NF @HE N HE C-NF @$44 $23 $ED
8 H4C3 H4 8 H4C3C H23 F34 F F3 8 $4E3CC -C3D F343 F CF$ Q3
CH D QO <4D34 -ED34 F3 8 $ED H& C-NF 5-C N3 $ED F3 ?-41 -C
^ & $EO_ H& F3 I 4HD-N3 H& C-NF ?$ 3 $& 34 D3D-N E2 F343&4H J F3
C$ D I 3E$ O @HC C $ED ; 13EN3C $ED $ CH F3 ; 13EN3C H& C-NF
?$ 3 CF$ Q3 43ED343D H C-NF < E34 Q- E N$C3 F3 I34CHE CH
NHE N 3D CF$ EH Q3 F3 < E34 H& C-NF @$44 $23 F3E HE G3&$-
Q3 E2 J $D3 E I $O J 3E H& F3 C$ D I 3E$ O H& * 3E I H-EDC C-NF
5-C N3 CF$ NH J J F3 <&&3ED34 H F3 @H J J HE M$H H4 8 H-C3 H&
@H443N HE &H4 F3 ?1$N3 H& * F433 @$ 3ED$4 P HE FC -E 3CC C-NF $C
J 3E HE3D I 3E$ O CF$ Q3 ?<HE34 1$ D $ED C-NF 5-C N3 CF$ 2 3
$E <4D34 &H4 F3 D3 34 E2 -1 H& F3 @$44 $23 $ED 8 H4C3 H4 8 H J 3C
& <

$ED' 8$4E3CC' H' F3' < E34' F343H&' HE' F C' 1$O E2' F3' ; 13EN3C' H&' $+ E2' $ED' +331 E2' F3' C$ J 3' $ED' E' N$C3' H&' F C' ' 3&-C$' H' 1$O' C-NF' ; 13EN3C' &H4 F F' F3E' C-NF' @$44 $23' $ED' 8 H4C3' H4' 8 H4C3C' $ED' 8$4E3CC' H4$' C-&& N 3E' I $ ' F343H&' H' D3&4$O' C-NF' ; 13EN3C' CF$ ' Q3' CH D' QO' <4D34' -ED34' 3' 8 $ED' H&' C-NF' 5-C N3' $ED' $& 34' I $OR J 3E' F343H-' H&' $ ' C-NF' ; 13EN3C' $C' $&H43C$ D' H23 F34' F' F3' ; 13EN3C' H&' C-NF' ?$ 3' F3' ?-41 -C' &' $EO' H&' F3' I 4HD-N3' H&' C-NF' ?$ 3' H23 F34' F' F' I $4' H&' F3' @$44 $23' $ED' 8 H4C3' H4' 8 H4C3C' $ED' 8$4E3CC' $C' CF$ ' 43 J $ E' -ECH D' CF$ ' Q3' 43ED343D' $ED' 43C H43D' H' F3' < E34

> N3EC3D' ' ? $23' @$4R 4 $23C3 3 J 1' &4H E*4H ' C HEC' H&' $EO' N' 43 $ E2' H' 8$N+E3O' @$44 $23C

WWW ' ED' Q3' ' 3E$N 3D' * F$ ' &4H J ' $ED' $& 34' F3' 1$CC E2' H&' F C' N' ' CF$ ' Q3' $ &-' &H4' F3' I 4H14 3 H4' H4' G4 34' H&' $EO' ? $23' @$4R 4 $23' D- O' N3EC3D' QO' F3' @H J J CC HE34C' H&' ? $ J 1C' $ED' F$ E2' F343HE' F3' 14H134' E- J Q343D' I $ 3C' H4' I $ 3' 43X- 43D' QO' >$ ' H' Q3' 1 $N3D' HE' ? $23' @$44 $?' H4' &H4' $EO' H F34' I 34CHE' H' C $ED' H4' 1 O' F' C-NF' @$44 $23' &H4' I $CC3E234C' H' Q3' N$44 3D' &H4' 8 43' $ED' H' $+3' -1' NHE 3O' $ED' C3' DH E' C-NF' I $CC3E234C' F' H4' & H J ' C-NF' @$44 $23' $ ' $EO' I $N3' 3 F34' F E' F3' G C $EN3' H&' 6 3' P 3C' &4H J ' F3' M3E34$' I HC' <&& N3' E' F3' @ O' H&' <Z Z# H&' 3 C3 F343' $EO' F E2' NHE $ E3D' E' $E' N' 1$CC3D' E' F3' $C' ?3CC HE' H&' I $4 $ J 3E' &H4' $ J 3ED E2' F3' >$ C' 43 $ E2' H' 8 $N+E3O' @$44 $23C' EH FC $ED E2' 14H D3D' F$' &H4' F C' I -41HC3' C-NF' ? $23' @$44 $23' CF$ ' EH ' D3 $ 3' &4H J ' F3' 14H134' ' H- 3' H4' > E3' H&' ' H$D' &' $EO' CF$ ' Q3' C13N & 3D' H4' D3CN4 Q3D' E' F3' > N3EN3' 43 $ E2' H' C-NF' ? $23' @$44 $23' H4' CF$ ' EH ' 2H' Q3OHED' F3' > J C' $ H 3D' QO' C-NF' > N3EN3

I H42 E2' ? $23' @$4R 4 $23' I $ 3C' KN' $' P CR D3 J 3$EH4

WWW ' ED' Q3' ' 3E$N 3D' 8 $ ' &' $EO' I 34CHE' CF$ ' &H423' H4' NH-E 34&3 ' H4' CF$ ' N$-C3' H4' 14HN-43' H' Q3' &H423D' NH-E 34&3 3D' H4' 43C3 J Q 3D' $EO' E- J Q343D' I $ 3' D 43N 3D' H' Q3' 14H D3D' H4' F NF' CF$ ' F$ 3' Q33E' 14H D3D' J $D3' H4' -C3D' E' 1-4C-$EN3' H&' F C' N' H4' H&' $EO' &H4 J 34' N' 43 $ E2' H' F3' G- 3C' 1OQ 3' E' 43C13N' H&' ? $23' @$44 $23C' H4' CF$ ' &- O' & ' H4' 1 $N3' H4' CF$ ' N$-C3' H4' 134 J ' H4' C-&&34' H' S3' & 3D' H4' 1 $N3D' -1HE' $EO' ? $23' @$44 $23' H4' H F34' @$4R 4 $23' $EO' C-NF' &H423D' H4' NH-E 34&3 3D' I $ 3' H4' &' $EO' I 34CHE' CF$ ' C3 ' H4' 3 NF$E23' H4' 3 1HC3' H' C$ 3' H4' - 34' $EO' C-NF' &H423D' H4' NH-ER 34&3 3D' I $ 3' H4' &' $EO' I 34CHE' CF$ ' +EH E2 O' $ED' FH- ' $ &-' ; N-C3' ^ F3' I 4HH&' F343H&' CF$ ' 3' HE' F3' I 34CHE' $NN-C3D_' F$ 3' H4' Q3' 1HCC3CC3D' H&' $EO' C-NF' &H423D' H4' NH-E 34&3 ' I $ 3' +EH E2' C-NF' I $ 3' H' Q3' &H423$' <4 NH-E 34&3 3D' 3 34O' I 34CHE' CH' H&&3ED E2' $ED' 3 34O' I 34CHE' +EH E2 O' $ED' &- O' $ D E2' $Q3 E2' H4' $CC C E2' $EO' I 34CHE' E' NH J J E2' $EO' C-NF' <&&3EN3' $C' $&H43C$ D' CF$ ' Q3' $D(-D23D' 2- O' H&' $' P CD3 J 3$EH4' $ED' Q3 E2' F343H&' NHE N 3D' CF$ ' Q3' $Q 3' H' Q3' 1-E CF3D' QO' 6 E3' <4 J 14 CHE J 3E ' H4' QO' QH F' C-NF' J 14 CHE J 3E' H' Q3' E' F3' @H J J HE' M$H' H4' 8 H-C3' H&' @H443N HE' $ED' 3 F34' F' H4' FH- ' F$4D' >$QH-4' $C' F3' @H-4' CF$ ' F E+' & ' $ED' E' +' , % #&' F3E3 34' $EO' I 34CHE' CF$ ' CH' H&&3ED' F3' CF$ ' Q3' $Q 3' H' Q3' 1-E CF3D' E' +3' P $EE34' $ED' ' CF$ ' Q3' $ &-' &H4' $EO' <&& N34' H&' ? $ J 1' G- 3C' H4' &H4' $1O' @HEC $Q 3' H4' H F34' I 3$N3' <&& N34' H4' $EO' *H 2$ 3' %33134' H' C3 T3' $ED' $+3' $ $O' $EO' C-NF' I $ 3' E' H4D34' F$' F3' C$ J 3' J $O' Q3' 14HD-N3D' E' ; D3EN3' 2 EC' C-NF' <&&3ED34' H4' Q3' D C1HC3D' H&' $C' F3' @H J J CC HE34C' H&' ? $ J 1C' CF$ ' F E+' 14H134

WWW 8 ' ED

U"KS7M#> ;>P ' ' @$1 U[[

WWW ' ED' Q3' '3E$N 3D' *F$' &' $& 34' F3' ; 1 4$ HE' H4' G CR NHE E-$EN3' H&' $EO' > N3EN3' 24$E 3D' H' $EO' I34CHE' -ED34' $EO' &H4 J 34' N ' 43 $ E2' H' ? $23' @$44 $23C' H4' -ED34' F C' N ' C-NF' I34CHE' CF$ ' -C3' D3 $ E' H4' F$ 3' E' F C' IHCC3CC HE' F3' E-J Q343D' I $ 3' H4' I $ 3C' J 3E HE3D' E' C-NF' > N3EN3' H4' CF$ 'E32 3N ' H' D3 34' F3' C$ J 3' H' F3' @H J J CC HE34C' H&' ? $ J 1C' H4' H' F3 4' 14H134' <&& N34' H4' &' $EO' I34CHE 7CF$ ' -C3' H4' D3 ODE' H4' F$ 3' E' PC' IHCC3CC HE' $EO' E-J Q343D' I $ 3' H4' I $ 3C' FH-' F$ E2' $' > N3EN3' $' &H4N3' 24$E 3D' H' F J' -ED34' $EO' C-NF' N ' $C' $&H43C$ D' $ED' 43 $ E2' H' C-NF' I $ 3' H4' I $ 3C' H4' &' $EO' I34CHE' CF$ ' -C3' H4' D3 $ E' H4' F$ 3' E' F C' IHCC3CC HE' $1 O' E-J R Q343D' I $ 3' H4' I $ 3C' F NF' CF$ ' F$ 3' Q33E' 43N$ 3D' QO' F3' @H J J CR C HE34C' H&' ? $ J 1C' H4' F3 4' 14H134' <&& N34' F3 F34' F3' > N3EN3' 43 $ R E2' F343 H' CF$ ' Q3' E' &H4N3' H4' EH ' ' CF$ ' Q3' $ &-' &H4' $EO' <&& N34' H&' ? $ J 1' G- 3C' H4' &H4' $EO' @HEC $Q 3' H4' H F34' I3$N3' < J 334' <4 &H4' $EO' *H 2$ 3' %33134' H' C3 T3' $ED' $+3' $ $O' $EO' C-NF' I $ 3' H4' I $ 3C' F343CH3 34' F3' C$ J 3' J $O' Q3' &H-ED' E' H4D34' H' D3 34' F3' C$ J 3' H' F3' C$ D' @H J J CC HE34C' ' $ED' &&$4 F3' I-41HC3' H&' C3 E2' $ED' $+ E2' $ $O' $EO' CENF' I $ 3' H4' I $ 3C' H4' $EO' &H423D' H4' NH-E 34&3 3D' I $ 3' H4' I $ 3C' ' CF$ ' Q3' $ &-' &H4' C NF' <&& N34' H&' ? $ J 1' G- 3C @HEC $Q 3' I3$N3' <&& N34' H4' *H 2$ 3' %33134' H' C H1' $EO' ? $23' @$44 $23' H4' H F34' @$44 $23' -1HE' F NF' F3' C$ J 3' J $O' Q3' 1 $N3D' $ED' $EO' I34CHE' FH' CF$ ' J H 3C ' HQC 4-N ' !' F ED34' C-NF' <&& N34' H&' ? $ J 1' G- 3C' @HEC $Q 3' I3$N3' <&& N34' H4' *H 2$ 3' %33134' E' C3 T E2' H4' 3ED3$ H-4 E2' H' C3 T3' H4' $+3' $ $O' $EO' C-NF' I $ 3' H4' 8$ 3C' $C' $&H43C$ D' CF$ ' &H4&3 ' * 3E O' IH-EDC

I $ 3C' D3 $ E ' 3D' $& 34' F3' ; 1 4$ HE' H&' > N3EN3C' H4' -C3D' QO' I34 ' CHEC' EH ' F$ R E2' > N3EN3C' E' &H4N3 H4' 43R N$ 3D' I $ 3C' J $O' Q3' C3 T3D

I3E$ O' &H4' HQC 4-N E2' <&& N34C' C3 TR E2' C-NF' I $ 3C' M6

WWW ' ED' Q3' '3E$N 3D' *F$' &' F3' , -J Q34' H&' I $CC3E234C' $' $EO' <E3' * J 3' NHE 303D' E' -1HE' H4' $QH-' $EO' N3EC3D' ? $23' @$4R 4 $23' CF$ ' Q3' 243$ 34' E' F3' FH 3' F$E' F3' , -J Q34' H&' I $CC3E234C' F NF' F3' > N3EN3' 24$E 3D' E' 43C13N ' H&' C-NF' @$44 $23' CF$ ' $- FH4 T3' H4' $ H ' H' Q3' NHE 303D' F343QO' H4' &' F3' , -J Q34' H&' I $CC3E234C' $' $EO' <E3' * J 3' NHE 303D' E' F3' EC D3' H&' C-NF' ? $23' @$44 $23' H4' -1HE' H4' $QH-' F3' <- C D3' F343H&' CF$ ' Q3' 243$ 34' 43C13N 3 O' F$E' F3' 243$ 3C' , -J Q34' H&' EC D3' H4' <- C D3' I $CC3E234C' 43C13N 3 O' C13R N & 3D' E' H4' -1HE' C-3F' > N3EN3' $ED' $ H 3D' F343QO' F3' I34CHE' ,' FH J' C-NF' > N3EN3' CF$ ' F$ 3' Q33E' 24$E 3D' CF$ ' &H4&3 ' 6 3' IH-EDC' &H4' 3 34O' I $CC3E234' CH' NHE 303D' $QH 3' F3' , -J Q34' $ H 3D' QO' C-NF' > N3EN3' H' Q3' NHE 303D' E' F3' FH 3' H4' E' F3' EC D3' H4' HE' H4' $QH-' F3' <- C D3' H&' C-NF' @$44 $23' 43C13N 3 O' ' $ED' F3' G4 34' H&' C-NF' ? $23' @$44 $23' $' F3' * J 3' F3E' C-@F' <&&3EN3' CF$ ' Q3' NH J J 3D' CF$ ' $ CH' &H4&3 ' 6 3' IH-EDC

I3E$ O' &H4' N$44O E2' $' 243$ 34 , -J ' Q34' H&' I $CR C3E234C' F$E' $- FH4 T3D' QO' > N3EN3' ! ' &H4' 3$NF' I $CC3E234' ' $QH 3' , -J R Q34

WWW ' I4H D3D' $ $OC' $ED' Q3' ' 3E$N 3D' *F$' EH' @F D' H4' @F D43E' E' F3' > ' CF$ ' Q3' NH-E 3D' $7 $' I $CC3E234' H4' I $CC3E234C' -ED34' $EO' H&' F3' <$-C3C' H4' I4H C HEC' H&' F C' N ' H4' H&' F3' ?NF3D- 3 ^ _' F343 H' $EE3 3D' $ED' F$' EH' @F D' EH ' E' F3' >$1' Q- ' -ED34' ?3 3E' =3$4C' H&' 23 ' CF$ ' Q3' CH' NH-E 3D' $C' $&H43C$ D' -E 3CC' F343' CF$ ' Q3' J H43' F$E' <E3' C-NF' @F D' ' $ED' &' F343' CF$ ' Q3' J H43' F$E' <E3' C-NF' @F D' 8H' E' F3' >$1' Q- ' -ED34' ?3 3E' =3$4C' H&' 23 ' F3E' * H' H&' C-NF' @F D43E' CF$ ' Q3' $NNH-E 3D' 3X-$' H' <E3' $D- ' I34CHE' $ED' NHEC D343D' $C' <E3' I $CC3E234' $ED' CH' HE' E' F3' C$ J 3' I4H1H4 HE

L+ J=<!(' G <(!' (2(' H > c1$C' C3E234'

UĊ K' SĊ M # > ; > P ' ' @$1 ' U[

I$4 N- $4C H WWW ' ED Q3 ' 3E$N 3D ' * F$ ' EH ? $23 @$44 $23 CF$ ' Q3 -C3D
Q3 1$ E 3D -D 3 J 1 HO3D -E 3CC EH4 -E ' F343 CF$ ' Q3 4- O 1$ E 3D E 9 H4DC $ '
HE ? $23 >3E2 F ' $ED E 32 Q 3 $ED NHEC1 N-H-C >3 34C <E3 ENF $ ' F3 3$C '
@$44 $23C E 8 3 2F ' $ED H&' $ 14H13O $ED 14H1H4 HE$ 3B43$D F ' $ED E $ @H H-4
D &&343E ' &4H J ' $ED H11HC 3 H F3 @H H-4 H& F3 M4H-ED HE F NF
C-NF >3 34C CF$ ' Q3 1$ E 3D ' -1HE CH J 3 NHEC1 N-H-C I $4 ' H& 3$NF
? D3 H& C-NF @$44 $23 ' $ED N 3$4 H& F3 9 F33 ' H4 9 F33 C F343H& ' CH '
F$ ' F3 C$ J 3 CF$ ' Q3 $ ' $ ' * J 3C 1 $ E O $ED D C EN O C Q 3 $ED
32 Q 3 ' F3 @F4 C $E , $ J 3 $ED ? -4E$ J 3 H& F3 I 4H14 3 H4 H4 H& <E3
H& F3 I 4H14 3 H4C H& C-NF @$44 $23 ' $ED $ CH F3 , $ J 3C H& F3
3 43 J 3 I $N3C &4H J ' F NF $ED H F NF C-NF @$44 $23 CF$ ' Q3 N3EC3D
H 4$ 3 ' H4 2 H ' $ED F343 CF$ ' $ CH Q3 1$ E 3D E J $EE34 $&H43C$ D '
-1HE CH J 3 NHEC1 N-H-C I $N3 HE F3 B$N+ H& C-NF ? $23 @$44 $23 '
$ED CH F$ ' F3 C$ J 3 CF$ ' Q3 $ ' $ ' * J 3C 1 $ E O $ED D C EN O C Q 3
$ED 32 Q 3 ' F3 243$ 3C ' , - J Q34 H& I $CC3E234C $ H 3D H Q3 N$44 3D
E H4 QO C-NF @$44 $23 $ED $ C- ' F3E C-NF @$44 $23 CF$ ' Q3 N3EC3D
H N$44O QH F EC D3 $ED <- C D3 I $CC3E234C ' F3 243$ 3C ' , - J Q34 H&
I $CC3E234C $ H 3D H Q3 $+3E E F3 EC D3 $ED HE F3 <- C D3 F343H&
I 3E$ O &H4 43C13N 3 O ' $ED & $EO I 34CHE C 4$ ' -C3 H4 3 J 1 HO $EO ? $23 @$4 '
/$& 4C-NF F NF $ ' ? -NF I $4 N- $4C $C $&H43C$ D CF$ ' EH ' Q3 4- O
I $4 NW4C 1$ E 3D E C-NF 32 Q 3 $ED NHEC1 N-H-C >3 34C $ED E J $EE34 $&H43 '
! ' ' C$ D ' H4 E N$C3 C-NF I $4 N- $4C H4 $EO H& F3 J ' CF$ ' Q3 1$4 $ O
HQ 34$ 3D H4 D3&$N3D &4H J ' ' -1HE $EO C-NF @$44 $23 ' 3E & $EO
C-NF I 34CHE CF$ ' E32 3N ' H 1$ E ' H4 N$-C3 H Q3 1$ E 3D 2 E ' E
J $EE34 $&H43C$ D ' 3 34O I $ N- $4 CH HQ 34$ 3D H4 D3&$N3D ' C-NF
I 34CHE CH H&&3ED E2 E $EO H& F3 @$C3C $&H43C$ D CF$ ' &H4&3 ' 6 3
I H-EDC

@34 $ E ? $23 WWW > ' ED Q3 ' 3E$N 3D ' * F$ ' EH <- C D3 I $CC3E234 EH4
@$44 $23C $EO >-22$23 CF$ ' Q3 N$44 3D HE F3 * H1 ' H4 ' HH& H& $EO ? $23 @$4R
CF$ ' EH ' 4 $23 F3 * H1 ' H4 ' HH& H& F NF &4H J ' F3 M4H-ED CF$ ' Q3 J H43 F$E
$+3 <- C D3 ; 2F ' 633 ' , E3 ENF3C ' H4 F3 Q3$4 E2 H& F NF HE F3 M4H-ED CF$ '
I $CC3E234C H4 Q3 3CC F$E 6H-4 633 ' ? ' ENF3C &4H J ' F3 @3E 43 H& F3 * 4$N+ H&
>-22$23 F3 4 2F ' H4 H&& 9 F33 ' H F3 @3E 43 H& F3 * 4$N+ H& F3 3& ' H4
E3$4 9 F33 ' $ED & $EO <- C D3 I $CC3E234 H4 >-22$23 CF$ ' Q3
N$44 3D HE $EO C-NF @$44 $23 E $EO P $EE34 NHE 4$4O H F3 G 43N ' '
HEC $&H43C$ D ' F3 G4 34 H& C-NF @$44 $23 $ ' F3 * J 3 F3E C-NF
I 3E$ O 1 " <&&3EN3 CF$ ' Q3 NH J J 3D CF$#&H4&3 ' 6 3 I H-EDC

@34 $ E ? $23 WWW ' 14H D3D $ $OC ' $ED Q3 ' 3E$N 3D ' * F$ ' $EO N3EC3D
@$44 $23C ? $23 @$44 $23 F 6H-4 9 F33 C H4 J H43 ' F3 * H1 ' H4 ' HH& H&
J $O N$44O F NF CF$ ' EH ' Q3 J H43 F$E ; 2F ' 633 ' , E3 ENF3C &4H J ' F3
N34 $ E , - J R M4H-ED ' $ED F3 Q3$4 E2 H& F NF HE F3 M4H-ED CF$ ' EH ' Q3 3CC
Q34C H& <- R F$E 6H-4 633 ' ? ' ENF3C &4H J ' F3 @3E 43 H& F3 * 4$N+ H& F3
C D3 I $CR 4 2F ' H4 H&& 9 F33 ' H F3 @3E 43 H& F3 * 4$N+ H& F3 3& ' H4 E3$4
C3E234C 9 F33 ' $ED D4$ E QO EH ' 3CC F$E 6H-4 8 H4C3C ' CF$ ' Q3 $ H 3D H
N$44O * 3E <- C D3 I $CC3E234C $ED EH #H43 ' $ED F$ ' 3 34O C-NF
@$44 $23 $C $C ' $&H43C$ D ' F3E D4$ E QO * H H4 * F433 8 H4C3C
HE O ' $ED N3EC3D H N$44O EH ' 3CC F$E 6H-4 EC D3 I $CC3E234C ' CF$ '
Q3 $ H 3D H N$44O ? ' <- C D3 I $CC3E234C ' $ED EH J H43 ' $ED F3E
N3EC3D H N$44O EH ' 3CC F$E ? ' EC D3 I $CC3E234C ' CF$ ' Q3 $ H 3D
H N$44O ?3 3E <- C D3 I $CC3E234C ' $ED EH J H43 ($ED C-NF C3 34$

, - J Q34C

, - J Q34C' H&' < - C D3' I $CC3E234C' CF$ ' Q3' 43N+HE3D' 3 N - C 3' - &' F3' G4 34' ' $ED' $ CH' H&' F3' @HED - N H4' H4' M - $4D' &' F343' CF$ ' Q3' $ @HED - N H4' H4' M - $4D' H&' C - NF' @$44 $23' ' $ED' &' $EO' 243$ 34' 8 - J Q34' H&' < - C D3' I $CC3E234C' CF$ ' Q3' N$44 3D' QO' $EO' ? $23' @$44 $23' F$E' $C' F343 E Q3&H43' C13N & 3D' $ED' $ H 3D' ' F3' G4 34' F343H&' $ ' F3' * J 3' F3E' C - NF' < &&3EN3' CF$ ' Q3' NH J J 3D' CF$ ' &H4&3 ' 6 3' I H - EDC I 3E$ O' &H4' A34 ' ! '

WWW W ' ED' Q3' ' 3E$N 3D ' * F$ ' E' @$C3C' E' F NF' @F C D3' 6$C ' G C 4 Q- HE' ?3E234C' $43' QO' F C' N ' $ H 3D' H' F3' N$44 3D' QO' $EO' ? - NF' ? $23' @$4 ' 4 $23' $C' $&H43C$ D' EH ' && H43' F$E' < E3' H&' C - NF' I $CC3E234C' CQ$ ' Q3' $ H 3D' H' C ' H4' Q3' N$44 3D' - 1HE' F3' BH ' F' F3' G4 34' ' $ED' F$ ' EH ' J H43' F$E' * F433' H&' C - NF' I $CC3E234C' CF$ ' Q3' $ H 3D' H' C ' H4' Q3' N$ * 3D' HE' F3' 64HE ' H&' F3' ' HH&' EH4' J H43' F$E' * F433' H F34' H&' ?#@F I $CC3E234C' HE' F3' B$NF' H&' F3' ' HH&' H&' C - NF' @$44 $23' ' $ED' F$ ' F3' ' 3 J $ ED34' H&' C - NF' I $CC3E234C' ' &' F343' Q3' $EO' J H43' F$E' ?3 3E ' CF$ ' Q3' 1 $N3D' < E' CH J 3' H F34' C$&3' $ED' NHE 3E 3E ' ?3$ ' HE' F3' F ED' I $4 ' H&' C - NF' @$44 $23' ' $ED' &' $EO' J H43' F$E' < E3' I 34CHE' Q3C D3C' F3' G4 34' CF$ ' C ' H4' Q3' @$44 3D' - 1HE' F3' BH ' H&' C - NF' @$44 $23' F3' G4 34' H&' C - NF' @$44 $23' $ ' F3' * J 3' F3E' F3' < &&3EN3' CF$ ' Q3' NH J J 3D' CF$ ' &H4&3 ' 6 3' I H - EDC ' < - C D3' I 3E$ O ' 9<

W> ' I4H D3D' $ $CC' $ED' Q3' ' 3E$N 3D ' * F$ ' &' F3' 64HE ' $ED' F3' B$N+' H&' F3' ' HH&' H&' $EO' ? $23' @$44 $23' HE' F NF' < - C D3' I $CC3ER 234C' $43' $ H 3D' H' F3' N$44 3D' $C' $&H43C$ D ' H4' F3' ?3$ C' 1 $N3D' 05<E' F3' 64HE ' $ED' B$N+' H&' C - NF' ' HH&' &H4' F3' I - 41HC3' H&' N 40 (' < C D3' I $CC3E234 ' CF$ ' 43C13N 3 O' Q3' EH ' 3CC' F$E' 6 3' 9 ' E' >3E2 F' &4H J ' 3$ 3' ? D3' H' 5 3' H F34' H&' C - NF' @$44 $23' ' $ED' &' F343' CF$ ' EH ' Q3' $EO' > - 2 2$ ' N$44 3D' - 1HE' F3' * H1' H4' ' HH&' H&' C - NF' @$4R 4 $23' 3 N33D E2' , E3' 633 ' $ED' , E3' ENF3C' E' 8 3 2F ' &4H J ' F3' M4H - ED ' J 3$C - 4 E2' H' F3' F 2F3C ' I H E ' H&' $EO' I $4 ' H&' C - NF' > - 2 23' F3E' 1 $N3D' - 1HE' F3' * H1' H4' ' HH&' H&' C - NF' @$44 $23' ' $ED' D&' F3' * H1' H&' F3' BHH ' ^ &' $EO_' Q3F ED' F3' BHDO' H&' C - NF' @$44 $23' F3E' 3 J 1 O ' CF$ ' EH ' Q3' J H43' F$E' ? ' 633 ' &4H J ' F3' M4H - ED ' * .[' $DD HE$ ' < - C D3' I $CC3E234C' CF$ ' Q3' $ H 3D' H' Q3' N$44 3D' QO' C - NF' @$44 $23' ' $ED' E' C - NF' @$C3' 6H - 4' I $CC3E234C ' $ED' EH' J H43' CF$ ' Q3' $ H 3D' H' C ' HE' F3' 64HE ' $ED' 6H - 4' I $CC3E234C ' $ED' EH' J H43' ' - 1HE' F3' B$N+' H&' F3' ' HH&' H&' C - NF' @$44 $23' H4' HE' F3' ?3$ C' 43C13N 3 O' 1 $N3D' F343 - 1HE' $C' $&H43C$ D ' 14H D3D' F$ ' E' EH' @$C3' $' 243$ 34 ' , - J Q34' H&' I $CC3E234C' Q3' N$44 3D' HE' F3' < - C D3' H&' $EO' ? $23' @$44 $23' F$E' F3' > N3EN3' 43 $ E2' F343 H' CF$ ' $ - FH4 T3' H' Q3' N$44 3D' HE' F3' < - C D3' F343H& * H' $DD ' HE$ < - C D3' I $CC3E234C' $ H 3D' F343' F3' ?3$ C' HE' F3' B b H&' $43' H&' $' N34 $ E' >3E2 F' $ED' EH' > - 2 2$23' C' N$44 3D' HE' F3' HH>

W> ' ED' Q3' ' 3E$N 3D ' * F$ ' &' 6H - 4' H4' J H43' I $CC3E234C' $ ') !' N$44 3D' HE' F3' &4HE ' I $4 ' H4' HE' F3' Q$N+' I $4 ' H&' F3' ' HH&' H&' $EO' ? $23' @$44 $23' C NF' &4HE ' I $4 ' < 4' Q$N+' I $4 ' Q3 E2' 3CC' F$E' 6 3' 633 ' E' >3E2 F ' H4' HE' $EO' ?3$ ' 1 $N3D' - 1HE' F3' &4HE ' I $4 ' H4' HE' F3' Q$N+' I $4 ' H&' F3' ' HH&' H&' C - NF' @$44 $23' &H4' F3' I - 41HC3' H&' N$44O E2' < - C D3' I $CC3E234C ' C - NF' ?3$ ' Q3 E2' 3CC' F$E' 6 3' 633 ' E' >3E2 F ' H4' &' 6H - 4' I $CC3E234C' CF$ ' Q3' N$44 3D' HE' F3' &4HE ' I $4 ' H4' HE' F3' Q$N+' I $4 ' H&' F3' ' HH&' H&' $EO' ? $23' @$44 $23' $ ' F3' C$ J 3' * J 3' & F' $EO' > - 22$23' HE' F3' 6H1' H4' ' HH&' H&' C - NF' @$44 $23' 3 N33D E2' , E3 633 ' $ED' , E3' ENF3C' E' 8 3 2F ' &4H J ' F3' M4H - ED ' H4' &' E' $EO' @$C3 I 3E$ O' &H4' N$44O E2' J X43' I $CR C3E234C' HE' ' HH&' F$E' $43' $ H 3D' QO' DO (C' N 16

J H43 F$E 6H-4 I$CC3E234C CF$ Q3 N$44 3D HE F3 &4HE I$4 H4 HE F3 Q$N+ I$4 H& F3 'HN4& H& $EO ? $23 @$44 $23 F3 G4 34 H& C-NF @$44 $23 $ F3 * J3 F3E C-NF <&&3EN3 CF$ Q3 NH J J 3D CF$ &H4&3 6 3 I H-EDC

> - - " # U+ - ? W> ED Q3 3E$N 3D *F$ EH ? $23 @$44 $23 E 3ED3D H N$44O >-22$23 HE F3 *H1 H4 ; HH& F343H& CF$ Q3 -C3D H4 3 J 1 HO3D -E $ G C HE H4 ?1$N3 CF$ F$ 3 Q33E J $D3 HE F3 *H1 H4 ' HH& F343H& $ H 3D &H4 C-NF D 22$23 D C EN O C31$4$ 3D &4H J F3 H F34 I$4 H& F3 *H1 H4 ' HH& H& ?-NF @$44 $23 QO CH J 3 ' $ E2 H4 H F34R C3 $ED & $EO C-NF ? $23 @$44 $23 $C $&H43C$ D CF$ Q3 -C3D H4 3 J 1 HO3D Q3&H43 H4 -E C-NF G C HE H4 ?1$N3 $C $&H43C$ D CF$ Q3 J $D3 H4 & $EO >-22$23 F$ 3 34 CF$ Q3 N$44 3D HE F3 *H1 H4 ' HH& H& $EO ? $23 @$44 $23 EH F$ E2 C-NF G C HE H4 ?1$N3 $C $&H43C$ D F3 I 4H14 3 H4 H& C-NF @$44 $23 E 3 F34 H& F3 @$C3C $&H43C$ D CF$ &H4&3 6 3 I H-EDC

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U+ -) $ > 7, - @ - " W> ED Q3 @E$N 3D *F$ EH >-22$23 F NF CF$ Q3 N$44 3D HE F3 *H1 H4 ' HH& H& $EO ? $23 @$44 $23 D4$ E QO 6H-4 H4 J H43 8 H4C3C CF$ E $EO @$C3 3 N33D *3E 633 $ED , E3 ENF3C E 8 3 2F &4H J F3 M4H-ED EH4 C $ $EO >-22$23 F NF CF$ Q3 N$44 3D HE F3 *H1 H4 ' HH& H& $EO ? $23 @$44 $23 D4$ E QO * H H4 *F433 8 H4C3C HE O E $EO @$C3 3 N33D *3E 633 $ED *F433 ENF3C E 8 3 2F &4H J F3 M4H-ED J 3$C-4 E2 H F3 F 2F3C I H E H& $EO I$4 H& C-NF >-22$23 F3E 1 $N3D -1HE F3 *H1 H4 ' HH& H& $EO C-NF @$44 $23C 43C13N 3 O $ED & $EO C-NF >-22$23 CF$ E 3 F34 H& F3 @$C3C $&H43C$ D 3 N33D F3 8 3 2F QO F C N E F$ B3F$ & J 3D F3 G4 34 H& C-NF @$44 $23 $ F3 * J 3 F3E C-NF <&&3EN3 CF$ Q3 NH J J 3D CF$ &H4&3 6 3 I H-EDC

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5 U+ " ? W> ED Q3 3E$N 3D *F$ CF$ EH Q3 $ & - &H4 $EO I 34R CHE H C H4 Q3 N$44 3D -1HE $EO >-22$23 1 $N3D HE F3 ' HH& H& $EO ? $23 @$44 $23 EH4 -1HE F$ I$4 H& F3 H<& $ H 3D &H4 >-22$23 $ED & $EO I 34CHE CF$ C H4 Q3 N$44 3D -1HE $EO >-22$23 H4 -1HE F$ I$4 H& F3 ' HH& $ H 3D &H4 F3 C$ J 3 NHE 4$4O H F3 I 4H C HEC H& F C N F3 CF$ &H4&3 6 3 I H-EDC $ED F3 G4 34 H& C-NF @$44 $23 $ F3 * J 3 F3E C-NF < EN3 CF$ Q3 NH J J 3D CF$ $ CH &H4&3 6 3 I H-EDC

$ <9

0+ , & ? >+ $) % D, + - 1 , + > U+ (+ - (, + W> ED Q3 3E$N 3D *F$ F3 I 4H14 3 H4 H& $EO ? $23 @$4R 4 $23 $ED F3 G4 34 F343H& CF$ F3E F343-E H 43C13N 3 O 43X- 43D QO $EO 5-C N3 H& F3 I 3$N3 H4 QO $EO @HEC $Q 3 H4 $EO ?-4 3OH4 H& $EO 8 2F $O H4 *-4E1 +3 ' H$D H4 FO $EO *H 2$ 3 %33134 H4 $EO <&& N34 H& ? $ J 1 G- 3C H4 QO $EO I$CC3E234 4$ 3 R E2 F C-NF @$44 $23 134 J $ED $ H C-NF @$44 $23 $ED F3 >-22$23 F3 3HE H Q3 J 3$C-43D $ED F3 , - J Q34 H& I$CC3E234C E -1HE H4 $QH- C-NF @$44 $23 H Q3 NH-E 3D $ED CF$ Q3 $ & - &H4 $EO I$CC3E234 H 43X- 43 F3 G4 34 H& $EO ? $23 @$44 $23 H C H1 F3 C$ J 3 $ $EO *H M$ 3 $ED H 43X- 43 F3 *H 2$ 3 %33134 $ C-NF M$ 3 H NH-E F3 , - J Q34 H& I$CC3E234C -1HE F3 BH $ED E -1HE H4 $QH- C-NF @$44 $23 $ED H J 3$C-43 $ED $CN34 $ E F3 8 3 2F H& F3 >-22$23 F343-1HE $ED H C 2E $ P 3 J H4$ED- J E 9 4 E2 H& F3 , - J Q34 H& C-NF I$CC3E234C E F3 EC D3 $ED HE H4 $QH- F3

<- C D3

U K S M#> ;>P @$1 U[[Z

<- C D3 H& C-NF @$44 $23 ^D C E2- CF E2 F3 , - J Q34 HE F3 BH _
$ED H& F3 8 3 2F H& C-NF >-22$23 $ED H D3 34 C-NF P 3 J H4$ED- J
H F3 I 34CHE CH 43X- 4 E2 F3 , - J Q34 H& I $CC3E234C H Q3 NH-E 3D
H4 F3 8 3 2F H& F3 >-22$23 H Q3 J 3$C-43D $ED F3 *H 2$ 3
%33134 $ 3 34O C-NF M$ 3 CF$ 14H D3 $ED +331 $ C-NF M$ 3 $
14H134 P 3$C-43 &H4 J 3$C-4 E2 F3 8 3 2F H& $EO ? $23 @$44 $23
$ED H& F3 >-22$23 F343-1HE $ED & $EO I 4H14 3 H4 H& $EO ? $23
@$44 $23 H4 F3 G4 34 F343H& CF$ F3E F343 H 43C13N 3 O
43X- 43D $C $&H43C$ D 43&-C3 H 134 J $ED $ H C-NF @$44 $23 $ED
F3 >-22$23 F343-1HE H Q3 J 3$C-43D H4 F3 , - J Q34 H& EC D3
H4 <- C D3 I $CC3E234C H Q3 NH-E 3D H 4 & C-NF G4 34 CF$ HE
Q3 E2 CH 43X- 43D $C $&H43C$ D 43&-C3 H4 E32 3N H C H1 C-NF @$4R
4 $23 $ $EO *H M$ 3 &H4 F3 I -41HC3 $&H43C$ D C-NF I 4H14 3 H4
H4 C-NF G4 34 CH 43&-C E2 H4 E32 3N E2 $C $&H43C$ D CF$ &H4&3 6 3
I H-EDC $ED & $EO *H 2$ 3 %33134 CF$ E32 3N H 14H D3 $ED +331
$ $EO C-NF M$ 3 $ 14H134 P 3$C-43 &H4 F3 I -41HC3C $&H43C$ D H4 CF$
HE Q3 E2 F343-E H 43X-3C 3D $C $&H43C$ D 43&-C3 H NH-E F3 , - J Q34
H& C-NF I $CC3E234C H4 H J 3$C-43 $ED $CN34 $ E F3 8 3 2F H& C-NF
>-22$23 H4 H C 2E $ P 3 J H4$ED- J E 9 4 E2 H& F3 , - J Q34 H&
C-NF I $CC3E234C H4 H& F3 I 3 2F H& C-NF >-22$23 E J $EE34 F343 ER
Q3&H43 D 43N 3D H4 H D3 34 C-NF P 3 J H4$ED- J CH C 2E3D H F3
I 34CHE 3E 3D H 43X- 43 F3 C$ J 3 H4 CF$ C 2E H4 2 3 $EO
P 3 J H4$ED- J E F NF $EO H& F3 I $4 N- $4C $&H43C$ D CF$ EH Q3
4- O C3 &H4 F 3 34O C-NF *H 2$ 3 %33134 CH H&&3ED E2 CF$ &H4&3 16
6 3 I H-EDC. I 4H D3D $ $OC F$ CF$ EH Q3 $ &- &H4 $EO
<E3 I $CC3E234 H 43X- 43 F3 G4 34 H& $EO ? $23 @$44 $23 H
C H1 F3 C$ J 3 &H4 $EO C-NF I -41HC3 $C $&H43C$ D J H43 F$E <EN3
D-4 E2 $EO <E3 5H-4E30 -E 3CC $& 34 F3 NH-E E2 H& C-NF I $CC3E234C
H4 F3 J 3$C-4 E2 H& C-NF >-22$23 $EO $DD HE$ I $CC3E234 H4 I $CR
C3E234C CF$ Q3 $+3E -1 E H H4 -1HE C-NF ? $23 @$44 $23 H4
$DD HE$ >-22$23 CF$ Q3 1 $N3D HE F3 *H1 H4 HH& F343H&
D-4 E2 F3 C$ J 3 5H-4E30

W> > I 4H D3D $ $OC $ED Q3 3E$N 3D *F$ EHE3 H& F3
32- $ HEC E F C N NHE $ E3D 43 $ E2 H F3 I $ 3C H Q3 & 3D
-1HE $EO ? $23 @$44 $23 H4 H $EO H& F3 I $4 N- $4C H Q3 1$ E 3D
-1HE $EO ? $23 @$44 $23 H4 43 $ E2 H F3 1 $N E2 H& <- C D3 I $CR
C3E234C H4 F3 >-22$23 H Q3 N$44 3D HE F3 HH& H& $EO ? $23
@$44 $23 CF$ 3 3ED H $EO P $ @H$NF 3 J 1 HO3D E F3 ?34 N3
H& F3 M3E34$ I HC <&& N3 Q- H4 NHEC 4-N 3D $NNH4D E2 H F3
32- $ HEC H& F3 I HC J $C 34 M3E34$ $ED N$44O E2 EH J H43 F$E
6H-4 <- C D3 I $CC3E234C

W> 8 ED Q3 3E$N 3D *F$ & F3 G4 34 H& $EO ? $23
@$44 $23 D4$ E QO *F433 H4 J H43 8 H4C3C CF$ $ $EO I $N3 F343
C-NF @$44 $23 CF$ C H1 X- F3 BH H& C-NF @$44 $23 H4 F3
8 H4C3C D4$ E2 F3 C$ J 3 FH- D3 34 E2 F3 3 EC E H F3 134L I 34CHEL
8 $EDC H& CH J 3 & $ED 14H134 I 34CHE H4 Q3&H43 CH J 3 & $ED 14H134
I 34CHE CF$ Q3 1 $N3D $ED CF$ C $ED $ F3 8 3$DC H& F3 8 H4C3C H4
CH J 3 H& F3 J Q3 HE2 E2 F343 H $ED CF$ F$ 3 F3 @H J J $ED F343H&
H4 & $EO I 34CHE CH 1 $N3D $ED C $ED E2 $ F3 8 3$DC H& C-NF 8 H4C3C
CF$ 3$ 3 C-NF 8 H4C3C Q3&H43 CH J 3 H F34 14H134 I 34CHE CF$ Q3
1 $N3D $ED C $ED E +3 P $EE34 $ED F$ 3 F3 @H J J $ED H& C-NF
8 H4C3C H4 Q3&H43 F3 G4 34 H& C-NF ? $23 @$44 $23 CF$ F$ 3
43 -4E3D $ED C3$ 3D F J C3 & -1HE F3 BH $ED $+3E F3 3 EC
?

H4' &' F3' G4 34' H&' $EO' ? $23' @$44 $23' CF$ ' 134 J ' $EO' I $CC3E234' , '
$EO' J 34CHE' H F34' F$E' F J C3 &' H' D4 3' F3' 8 H4C3C' D4$ E2' C NF
@$44 $23' H4' &' F3' G4 34' H&' $EO' ? $23' @$44 $23' CF$ ' X- ' F3' BH ' H&'
C-NF' @$44 $23' FH- ' 43$CHE$Q 3' <NN$C HE' H4' &H4' $' HE234' * J 3' F$E'
C-NF' <NN$C HE' CF$ ' $QCH - 3 O' 43X- 43' H4' &' F3' G4 34' H&' $EO' ? $23'
@$44 $23' CF$ ' C-&&34' $EO' I $ 3' H4' F3' , - J Q34' HE' $EO' I $ 3' & 3D' H4'
1 $N3D' F343HE' 1-4C-$E' H' F C' N' H' F3' ' $EO' P $EE34' NHEN3$ 3D'
&4H J' 1-Q N' 3 ' H4' CF$ ' C-&&34' $EO' C-NF' I $ 3' H' Q3' E 34 3D' H4' CH'
& 3D' H4' 1 $N3D' F$' F3' , - J Q34' F343HE' CF$ ' EH ' Q3' 1 $ E O' $ED'
D C EN O' 32 Q 3' H4' &' $EO' I 34CHE' 4$ 3 E2' $C' M-$4D' H' $EO' ? $23'
@$44 $23' CF$ ' F C' F3' 8 H4C3C' $43' F$4E3CC3D' H4' E' F3' N' H&'
Q3 E2' F$4E3CC3D' F343 H' $ED' F C' $EO' I $CC3E234' CF$ ' Q3' E' -1HE'
H4' $QH- ' C-NF' @$4E$23' D CNF$423' $EO' G 43' 4 J C' 3 N31 ' &H4' F3'
E3N3CC$4O' G3&3EN3' H&' C-NF' @$44 $23' H4' H&' F3' I $CC3E234C' H4' >-22$23'
Q3 E2' E' H4' $QH- ' F3' C$ J 3' H4' &' F3' G4 34' H4' @HED-N H4' H4' M-$4D'
H&' $EO' ? $23' @$44 $23' CF$ ' E32 3N ' H' $+3' D-3' @$ 3' H&' $EO' >-22$23'
F$ CH3 34' N$44 3D' H4' H' Q3' N$44 3D' QO' C#NF' @$44 $23' H4' &' $EO' C-NF'
G4 34' H4' @HED-N H4' H4' M-$4D' CF$ ' D3 J $ED' H&' 43N3 3' &H4' F3'
6$43' H&' $EO' I $CC3E234' J H43' F$E' F3' ?- J' F NF' C-NF' I $CC3E234'
CF$ ' Q3' $Q 3' H' 1$O' H4' J H43' F$E' F3' P HE3O' 14H13& O' NF423Q 3'
&H4' F3' @$44 $23' H&' $EO' >-22$23' <4 &' $EO' C-NF' G4 34' H4' @HER
D-N H4' H4' M-$4D' CF$ ' F3E' F343 H' 43X- 43D' E32 3N ' H&' 43&-C3'
&$ F&- O' H' $NNH-E ' H' F C' ;4H1 H(J 4' &H4' $ ' P HE 3C' 43N3 3D' QO' F J'
E' 43C13N ' H&' $EO' I $CC3E234' H4' $EO' >-22$23' NF' CF$ ' Q3' N$44 3D'
QO' C-NF' @$44 $23' H4' &' $EO' C-NF' G4 34' H4' @HED-N H4' H4' M-$4D'
CF$ ' CC- ' H4' -C3' $Q-C 3' H4' EC- E2' >$E2-$23' H' $EO' I 34CHE' 4$R
3 E2' H4' $QH- ' H' 4$ 3' H4' F$ E2' 4$ 3 3D' $C' $' I $CC3E234' F' H4'
QO' C-NF' @$44 $23' H4' H' $EO' I 34CHE' $NNH J 1$EO E2' H4' $ 3ED E2' -1HE'
$EO' C-NF' I $CC3E234' E' NH J E2' H' H4' 2H E2' &4H J' $EO' C-NF' @$44 $23'
3 34O' C-NF' <&&3ED34' E' $EO' H&' F3' C3 34$' @$C3C' $&H43C$ D' CF$ ' &H4R
&3 ' 6 3' I H-EDC

W> ' ED' Q3' ' 3E$N 3D' * F$' &' F3' G4 34' H4' @HED-N H4' H4'
M-$4D' H&' $EO' ? $23' @$44 $23' H4' $EO' H F34' I 34CHE' F$ E2' F3' @$43'
F343H&' H4' 3 J 1 HO3D' E' -1HE' H4' $QH- ' C-NF' @$44 $23' CF$ ' F4H-2F'
E H N$ HE' H4' , 32 23EN3 ' H4' QO' $E HE' $ED' &-4 H-C' D4 E2' H4' QO'
H4' F4H-2F' $EO' H F34' P CNHED-N ' 3ED$E234' F3' ?$&3 O' H&' $EO' I $CR
C3E234' H4' H F34' I 34CHE' H4' CF$ ' E(-43' H4' 3ED$E234' F3' I 4H134 O' H&'
F3' < E34' H4' I 4H14 3 H4' H&' C-NF' ? $23' @$44 $23' H4' H&' $EO' H F34'
I 34CHE' 3 34O' C-NF' I 34CHE' CH' H&&3ED E2' CF$ ' &H4&3 ' 6 3' I H-EDC

W> W' ED' Q3' ' 3E$N 3D' * F$' F3E3 34' ' CF$ ' F$113E' F$'
G4 34' H4' @HED-N H4' H4' M-$4D' H&' $EO' ? $23' @$44 $23' CF$ ' F$ 3'
@H J J 3D' $EO' <&&3EN3' 2 EC' F C' N' &H4' F3' @H J J CC HE' F343H&'
$EO' I 3E$ O' C' QO' F C' N' J 1HC3D' -1HE' C-NF' G4 34' H4' @HED-N H4' H4'
M-$ D' -HD' EH ' -1HE' F3' I 4H14 3 H4' H&' C-NF' @$44 $23' $ED' C-NF' G4 34'
H4' @HED-N H4' H4' M-$4D' CF$ ' EH ' Q3' +EH E' H4' Q3 E2' +EH E' N$EEH '
Q3' &H-ED' F3E' F3' I 4H14 3 H4' H&' C-NF' @$44 $23' CF$ ' Q3' $Q 3' H' 3 34O'
C-NF' I 3E$ O' $C' &' F3' F$D' Q33E' F3' G4 34' H4' @NED-N H4' H4' M-$4D'
H&' C-NF' @$44 $23' $' F3' * J 3' F3E' C-NF' <&&3EN3' $C' NH J J 3D.'
I 4H D3D' $ $OC' F$' &' $EO' C-NF' I 4H14 3 H4' CF$ ' J $+3' H- ' H' F3'
?$ C&$N HE' H&' F3' 5-C N3' H&' F3' I 3$N3' Q3&H43' FH J' $EO' MH J 1 $$E'
H4' E&H4 J $ HE' CF$ ' Q3' F3$4D' QO' C-&& N 3E ' ; D3EN3 ' EH ' 43C E2' HE'
F C' H E' * 3C J HEO' F$' F3' <&&3EN3' $C' NH J J 3D' QO' C-NF' G4 34

 H4

H4' @HED-N H4' H4' M-$4D' FH-' F3' I4 O' H4' %EH 3D23' H&' C-NF' I4H14 3 H4' $ED' F$' EH' I4H& ' D $E $23' H4' B3E3& ' 3 F34' D 43N O' H4' ED 43N O' F$C' $NN4-3D' H4' N$E' $NN4-3' H' C-NF' I4H14 3 H4' 34N& 4H$ ' $ED' F$' F3' F$C' -C3D' F C' ; ED3$ H-4' H' & ED' H-' C1NF' G4 34' H4' @HED-N H4' H4' M-$4D' $ED' 2 3E' $ ' 43CHEQ 3' E&H4 J $ HE' E' $EC 34' H' EX- 4 3C' 43C13N E2' F J ' C-NF' 5-C N3' CF$ ' D CNF$423' F3' I4HR 14 3 H4' &4H J' C-NF' I3E$ O' $#D' CF$ ' 3 O' F3' C$J3' -1HE' C-NF' G4 34' H4' @HED-N H4' H4' M-$4D' F3E' &H-ED

>' ED' F3' ' 3E$N 3D' * F$' F3' I4H14 3 H4' H4' @H J 1$EO' H&' I4HR 14 3 H4C' H&' 3 34O' '$ $O' E' ! '" #' $ HE2' F NF' $EO' I$CC3ER 234C' CF$ ' $& 34' F3' * 3E F' G$O' H&' 6' ,4! ' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 H' Q3' NHE 303D' &H4' % 43' E' H4' -1HE' $EO' @$44 $23' D4$ E' H4' J 13 3D' QO' F3' I H 34' , ' ? N$-(' H4' H F34 C3' CF$ ' &4H J' * J3' H' * J3' +331' $ED' N$-C3' H' Q3' 3E 343D' E' $ BHH+' H4' BHH+C' H' Q3' +31' &H4' F$' I-41HC3' $ED' F NF' CF$ ' $' $' * J3C' Q3' H13E' &H4' F3' EC13N HE' $ED' ; $J E$ HE' H&' $EO' $- FH4 T3D' <&& N34' H&' ? $J1' G- 3C' $' (-C' $ED' 4-3' NNH-E' H&' F3' , - J Q34' H&' I$CR C3E234C' F NF' CF$ ' Q3' NHE 303D' D$ O' &H4' 8 43' E' J $EE34' $&H43C$ D' $ HE2' $EO' C-NF' '$ $O' H4' $EO' I$4' F343H& ' $ED' H&' F3' , - J Q34' H&' P 3C' F N ' C (NF' I$CC3E234C' CF$ ' 43C13N 3 O' Q3' CH' NHE 303D' ($ED' 3 34O' C-NF' I H14 3 H4' H4' @H J 1$EO' CF$ ' F E' 6 3' G$OC' E3 ' $& 34' F3' & 4C' ,#& ' E' 3 34O' @$ 3ED$4' PHE F' D3 34' H' F3' @H J J C ' C HE34C' H&' ? $J 1C' H4' H' C-NF' <&& N34' $C' F3O' CF$ ' $- FH4 T3' H' 43N3 3' F3' C$J3' $' 4-3' @H1O' H&' F3' NNH-E' QO' F C' N ' D 43N 3D' H' Q3' +31 ' CH' &$4' $C' F3' C$J3' CF$ ' 43 $ 3' H' F3' I$CC3E234C' NHE 303D' $C' $&H43C$ D' D-4 E2' F3' 143@3&& E2' 6H-4' H4' 6 3' 9 33+C' ^$C' F3' @$C3' J $O' Q3_' F$' C' H' C$O' &4H J' F3' & 4C' ,#& ' E' F3' 143N3D E2' PHE F' -1' H' $ED' EN -D E2' F3' & 4C' ,#& ' , ' F3' PHE F' E' F NF' C-NF' NNH-E' CF$ ' Q3' 43ED343D' $ED' H' $ED' F' 3 34O' C-NF' NR NH-E' 3' CF$ ' Q3' $EE3 3D' $ED' D3 343D' $E' && D$ ' H4' && 4 J $R HE' ^ H' Q3' $+3E' Q3&H43' $EO' <E3' H&' 8 C' P $(3C O C' 5-C N3C' H&' F3' I3$N3_' H&' F3' ?3N43 $&O' @F 3&' @ 34+' H4' NNH-E $E ' 1&' C-NF' I4HR 14 3 H4' H4' @ Q J 1$EO' C $ E2' F$' F3' G31HE3E' H4' && 4 J $E' F$C' 3 $J E3D' $ED' NF3N+3D' C-NF' NNH-E' F' F3' BHH+C' H&' F3' C$ D' I4H14 3 H4' H4' @H J 1$EO' $ED' F$' H' F3' Q3C' H&' F3' %EH 3D23' E&H4 J $ HE' $ED' B3 3&' H&' C-NF' G31HE3E' H4' && 4 J $E' C-NF' NNH-E' DH F' NHE $ E' $ED' C' $' 4-3' $ED' &$ F&-' NNH-E' H&' F3' C3 34$' P$ 34C' $ED' * F E2C' 43X- 43D' QO' F C' N ' $ED' C-NF' I4H14 3 H4' H4' @H J 1$EO' CF$ ' $' F3' * J3' H&' D3 34 E2' 3 34O' C-NF' NNH-E' 1$O' H4' N$-C3' H' Q3' 1$ D' H' F3' B3N3 34' M3E34$' H&' ? $J1' G- 3C' H4' H' F3' <&& N34' $- FH4 T3D' QO' F3' C$ D' @H J J CC HE34C' H' 43N3 3' F3' C$J3' &H4' F3' #C3' H&' 8 C' P $(3C O' F3' G- 3C' NF$423$Q 3' -ED34' F C' N ' &H4' H4' 1' 43C13N' H&' F3' I$CC3E234C' CH' NHE 303D' $NNH4D E2' H' C-NF' NNH-E

>' ED' Q3' ' 3E$N 3D' * F$' F3' I4H14 3 H4' H4' @H J 1$EO' H&' I4H14 3 H C' I4H14 3 H4C' H&' 3 34O' C-NF' '$ $O' CF$ ' Q3&H43' $EO' I$CC3E234C' CF$ ' H& # $OC' Q3' NHE 303D' $ HE2' F3' C$J3' E' J $EE34' $&H43C$ D' $& 34' F3' * 3E F' G$O' @6' ,4! ' 6#,' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 H' 2 3' 7?3N-4 O' QO' BHED' H' 8 C' P $(3 ' F' $' @HED HE' F$' C-NF' I4H ' 43ED34' C-NF' 14 3 H&' H4' @H J 1$EO' CF$ ' &4H J' * J3' H' * J3' +331' $ED' N$-C3' H' Q3' NNH-E C' $ED' +31 ' $ED' 3ED343D' E' F3' P $EE34' D 43N 3D' QO' F C' N ' F3' NNH-E C'

' QO

QO' F C' N ' 43X- 43D' H' Q3' +31 ' $ CD' 43ED343D' QO' CENQ' I 4H14 3 H4' $ED'
@H J 1$EO' 43C13N 3 O ' $ED' F$ ' C-NF' I 4H14 3 H4' H4' @H J 1$EO' CF$ '
&4H J' * J 3' H' * J 3' -1HE' 3 34O' 43CHEQ 3' # 3X - 3C ' H&' $EO' $- FH4 T3D'
<&& N34' H&' ? $ J 1' G- 3C' 14HD-N3' $ED' CFH ' H' C-NF' <&& N34 ' $ED'
134 J ' F J' H' EC13N ' $ED' 3 $E E3' $ ' $ED' 3 34O' F3' BHH+C' $ED' BHH+'
H&' C-NF' I 4H14 3 H4' H4' @H J 1$EO' E' F NF' $EO' C-NF' NNH - E ' CF$ ' Q3'
NHE $ E3D' H4' 3E 343D' ! $ED' F$ ' C-NF' I 4H14 3 H4' H4' @H J 1$EO' CF$ '
3 ' $ED' 4- O' 1$O' H4' N$-C3' H' Q3' ' 1$ D' &H4' F3' # C3' H&' 8 C' P $(3C O '
$ ' F3' * J 3C' $ED' E' J $EE34' D 43N 3D' QO' F C' N ' $ ' $ED' 3 34O' F3'
G- 3C' F NF' CF$ ' &4H J' * J 3' H' * J 3' Q3NH J 3' NF423Q 3' -ED34' F C'
N ' &H4' H4' E' 43C13N ' H&' F3' I $CC3E234C' F NF' CF$ ' Q3' CH' NHE 3O3D'
$C' $&H43C$ D' $ HE2' C-NF' %$ $O ' $ED' F$ ' C-NF' I 4H14 3 H4' H4' @H J R
1$EO' CF$ ' 3 ' $ED' 4- O' DH' $ED' 134&H4 J' $ED' N$-C3' H' Q3' DHE3' $ED'
134&H4 J 3D' $ ' C-NF' N C ' P $ 34C ' $ED' * F E 1' $C' QO' F C' N ' $43'
43X- 43D' H4' D 43N 3D' H' F3' DHE3' H4' 134&H4 J 3D' QO' H4' HE' F3' I $4 ' H4'
B3F$ &' H&' C-NF' I 4H14 3 H4' H4' @H J 1$EO ' $ED' 3 34O C-NF' BHED' CF$ '
Q3' $+3E' F' C-&& N 3E ' ? -43 3C' H' F3' ?$ C&$N HE' H&' F3' @H J J CR
C HE34C' H&' ? $ J 1C ' $ED' E' C-NF' ? - J' $C' F3' C$ D' @H J J CC HE34C' J $O'
(-D23' H' Q3' F3' 14HQ$Q 3' J H - E ' H&' F3' G- 3C' F NF' J $O' Q3NH J 3'
1OQ 3' QO' C-NF' I 4H14 3 H4' H4' @H J 1$EO' -ED34' H4' QO' 4 -3' H&' F C'
N ' D-4 E2' F3' I 34 HD' H&' < E3' \ -$4 H' H&' $' =3$4 ' $1D' H H4O' C-NF'
?3N-4 O' CF$ ' Q3' 43E3 3D' &4H J' * J 3' H' * J 3' F3E3 34' $ED' CH' H& 3E'
$C' C-NF' BHED' CF$ ' Q3' &H4&3 3D ' H4' $C' F3' I $4 3C' H' F3' C$ J 3' H4' $EO'
H&' F3 J' CF$ ' D 3' H4' Q3NH J 3' Q$E+4-1 ' H4' ECH 3E ' H4' 43C D3' E' I $4 C'
Q3OHED' F3' ?3$C' $ED' $ CH F3E3 34' $ED' CH' H& 3E' $C' F3' C$ D' @H J R
J CC HE34C' CF$ ' E' F3 4' G CN43 H-' 43X- 43' F3' C$E 3' H' Q3' 43E3 3D '
$ED' &' $EO' I 4H14 3 H4' H4' @H J 1$EO' H&' I 4H14 3 H4C' H&' $EO' C-NF' ' $ $O'
$C' $&H43C$ D' CF$ ' $& 34' F3' C$ D' * 3E F' G$O' H&' 6 ' , 4 ' @M- 3(4 H4'
134 J ' H4' C-&&34' H' Q3' NHE 3O3D' E' J $EE34' $&H43C$ D ' $ HE2' C-NF'
' $ $O' H4' $EO' I $4 ' F343H&' $EO' I $CC3E234C' &H4' 8 43 FH- ' F$ E2'
& 4C ' 2 3E' C-NF' ?3N-4 O' QO' BHED' H' 8 C' P $(3C O E' J 4 334' F343 ER
Q3&H43' D 43N 3D ' H4' &' $EO' C-NF' I 4H14 3 H4' H4' MHE$1$1O' $ ' 43&-C3'
H4' E32 3N ' H' 43E3 ' C-NF' ?3N-4 O ' F3E3 34' $ED' CH' H& 3E' $C' F3' C$ J 3'
C' H4' CF$ ' QO' H4' E' 1-4C-$EN3' H&' F C' N ' Q3' 43X- 43D' H' Q3' 43E3 3D '
C-NF' I 4H14 3 H4' H4' @H J 1$EO' CF$ ' &H4&3 ' < E3' F-ED43D' I H-EDC' &H4'
3 34O' G$O' D-4 E2' F3' I 34 HD' &H4' F NF' F343' CF$ ' Q3' $EO' ' 3&-C$ '
, 32 3N ' H4' G3&$- ' H' 2 3' H4' 43E3 ' C-NF' ?3N-4 O' $C' $&H43C$ D

) + $' $, % H " + ' " - ' - ' ' ? % $ ' ' - ' # + ' , - , (' ' , $ ' ' + , - ' ? $

> >' I 4H D3D' $ $OC ' $ED' Q3' ' 3E$N 3D ' * F$ ' & ' CF$ ' Q3' $ & - '
&H4' F3' >H4DC' @H J J CC HE34C' H&' 8 C' P $(3C O C' * 43$C-4O ' H4' $EO' * F433'
H4' J H43' H&' F3 J ' &4H J' * J 3' H' * J 3 ' F343' $ED' F3E3 34' F3O' CF$ '
D33 J' ' 3 13D 3E ' H' NH J 1H-ED' $ED' $2433' F' F3' I 4H14 3 H4' H4'
@H J 1$EO' H&' I 4H14 3 H4C' H&' $EO' C-NF' ' $ $O' $C' $&H43C$ D' &H4' $EO'
? - J' H4' ? - J C' H&' P HE3O' 3CC' F$E F3' J H - E ' H&' F3' G- 3C' F NF'
J $O' Q3' H4' Q3NH J 3' NF$423$Q 3' -ED34' F C' N ' H' Q3' 1$ D' QO' C-NF'
I 4H14 3 H4' H4' @H J 1$EO' E' 3 -' H&' F3' C$ D' G- 3C' &H4' H4' E' 43C13N ' H&'
F3' I $CC3E234C' NHE 3O3D' H4' H' Q3' NHE 3O3D' $ HE2' C-NF' ' $ $O '
D-4 E2' $EO' I 34 HD' H&' * J 3' EH ' 3 N33D E2' F3' * 34 J' H&' ?3 3E' =3$4C '
$ED' &4H J' * J 3' H' * J 3' H' 43E3 ' $EO' C-NF' @H J 1HC HE' &H4' $EO'
&-4 F34' I 34 HD ' EH ' 3 N33D E2' F3' * 34 J' $&H43C$ D ' -1HE' C-NF' * 34 J C'
$ED' @HED HEC' $C' J $O' Q3' $2433D' -1HE' QO' $ED' Q3 33E' F3' C$ D'
>H4DC' @H J J CC HE34C' $ED' C-NF' I 4H14 3 H4' H4' @H J 1$EO '

U¢ K' SL' M # > ; > P ' ' @$1' U[[Z!

> ' ED' &H4' C3N-4 E2' F3' G- 3C' 24$E 3D' QO' F C' N ' &H4' $ED' E' * ' - '
43C13N ' H&' 8 H4C3C' 3 ' &H4' 8 43'" $ED' HE' > N3EN3C' H' 3 ' C-NF' 8 H4C3C ' @ ' '
Q3' ' 3E$N 3D ' * F$ ' F3' C$ D' G- 3C' HE' 8 H4C3C' 3 ' &H4' 8 43' CF$ ' Q3' - 3 2F$ '
D33 J 3D' H' $ $NF' $ED' Q3' 1$0$Q 3' -1HE' H4' E' 43C13N ' H&' 3 340' 8 H4C3' Q3' NF$423D'
3 ' &H4' 8 43 ' H4' -C3D' 3 F34' $C' $' ?$DD 3' 8 H4C3' D4' &H4' D4$ E2' $4D0'
@$44 $23' H4' 3F N 3' NHE 3O E2' $EO' I 34CHE ' $ED' -1HE' H4DE' 43C13N ' H&'
3 340' 8 H4C3' -C3D' &H4' D4$ E2' $EO' P H-4E E2' @H$NF' H4' 8 3$4C3 ' C-QR
(3N ' H' F3' ; 3 J 1 HE' J J 3D $ 3 O' F343 E $ 34' J 3E HE3D' ' ^ F$ ' C' 67 " "
H' C$O _' 14H D3D' $ $OC ' F$ ' F3' C$ D' G- 3C' CF$ ' EH ' Q3' D33 J 3D'
H' $ $NF' H4' Q3' 1$0$Q 3' -1HE' H4' E' 43C13N ' H&' $EO' 8 H4C3' -C3D' E'
D4$ E2' $EO' 1-Q N' ? $23' @$44 $23' D- O' N3EC3D' -ED34' F3' - FH4 O'
H&' F C' N ' EH4' -1HE' D4' E' 43C13N ' H&' $EO' 8 H4C3' -C3D' E' D4$ E2' $EO'
8 $N+E3O' @$44 $23' F NF' CF$ ' Q3' D- O' N3EC3D' QO' F3' @H J J CC HE34C'
H&' ? $J 1C' H4' F3 4' 14H134' <& N34 ' F343' F3' C$ J 3' CF$ ' Q3' -C3D' H' 2H'
EH' 243$ 34' G C $EN3' F$E' * 3E' P 3C' &4H J' F3' M3E34$ ' I HC ' <&& N3' E'
F3' M O' H&' <,#&,#' 14H D3D' C-NF' 8 $N+E3O' @$44 $23' CF$ ' Q3' 432-R
$4 O' $ED' NHEC $E O' -C3D' &H4' F3' I -41HC3' H&' C $ED E2' $ED' 1 O E2' &H4'
8 43' E' F3' 1-Q N' ? 433 C' H4' ' H$DC' F E' F3' G C $EN3' H&' 6 3'
P 3C' &4HE$' F3' C$ D' M3E34$ ' I HC ' <&& N3 ' EH4' CF$ ' F3' C$ D' G- 3C' Q3'
D33 J 3 D' H' $ $NF' H4' Q3' 1$0$Q 3' -1HE' H4' E' 43C13N ' H&' $EO' 8 H4C3' -C3D'
E' D4$ E2' $EO' @$44 $23' +31 ' H4' -C-$ O' 3 J 1 HO3D' &H4' F3' @HE 3O$EN3'
H&' 6 CF

> ' ED' Q3' ' 3E$N 3D ' * F$ ' E' F3' @$C3' H&' N$ N- $ E2' F3' PHD3H&N$ '
J H-E ' H&' G- O' H' Q3' 1$ D' F3E' F3' C$ J 3' C' 3 143CC3D' E' ?HQ34' N- $ E2G- O'
D- 3' ^ _' H' F C' N ' $EE3 3D' H' Q3' <E3' 6 & F' I $4 ' H&' F3' ?E J' 343C13N & 3
NF$423D' &H4' F3' 3 E2' H&' $EO' 8 H4C3' &H4' 8 43 ' C-NF' <E3' 6 & F' I $4 ' Q H23D' H4'
CF$ ' Q3' N$ N- $ 3D' -1HE' F3' FH 3' ?- J' NF$423D' &H4' $ED' E' 43C13N ' QH 8 43D'
H&' C-NF' 8 H4C3' CH' 3 ' &H4' 8 43 ' $ED' H&' F3' @$44 $23' ^ &' $EO_' -C3D' 8H4C3C' $ED'
F343 F ' $ED' F$ ' E' N$ N $ E2' F3' J H-E ' H&' C-NF' G- O' EH'
&4$N HE$ ' I $4 ' H&' $EO' ?- J' H&' P HE3O' $ J H-E E2' H' $' 3CC' ?- J' F$E'
<E3' I 3EEO' CF$ ' Q3' NF$423D ' $ED' F$ ' E' $ ' @$C3C' F3' EE ' 8 H-C3 '
H4' H F34' I $N3' $ ' F NF' $EO' I 34CHE' CF$ ' Q3' N3EC3D' H' 3 ' 8 H4C3C'
&H4' 8 43' CF$ ' Q3' D33 J 3D' H' Q3' F3' I $N3' H&' 3 E2' &H4' 8 43' H&' 3 340'
8 H4C3' QO' F J' CH' 3 ' &H4' 8 43 ' $ED' F$ ' F343' $EO' 8 H4C3' F NF' 8H4C3C' +31 '
CF$ ' F$ 3' Q33E' 3 ' &H4' 8 43' $ ' $EO' I 34 HD' H&' * J 3' CF$ ' Q3' 43 $ E3D' Q3OHED' F3'
$E ' +31 ' Q3OHED' F3' ; 1 4$ HE' H&' F3' * J 3' &H4' F NF' F3' C$ J 3'
CF$ ' F$ 3' Q33E' 3 ' &H4' 8 43' FH- ' $' E3 ' 8 4 E2 ' C-NF' 6 H4C3' CF$ ' Q 435'
F3' D$4E3D ' CH' $4' $C' 43 $ 3C' H' F3' G- 3C' J 1HC3D' QO' F C' N ' H' H Q3' D33 J3D'
F$ 3' Q33E' 43 $ E3D' $ED' +31 ' -1HE' $' E3 ' 8 4 E2 ' C J $4' H' F$ ' &H4' 43 $ E3D' HE' $
F NF' C-NF' 8 H4C3' $C' H4 2 E$ O' 3 ' &H4' 8 43 ' E3 ' 8 4 E2

> ' ED' Q3' ' 3E$N 3D ' * F$ ' F3' @H J J CC HE34C' H&' ? $J 1C ' H4' $EO' . $' - '
* H' H4' J H 3H& F3 J ' H4' $EO' @H 3N H4' H4' H F34' <&& N34' H&' ? $ J 1' U , ' '
G- 3C' D- O' $- FH4 T3D' QO' F3' C$ D' @H J J CC HE34C' &H4' F$ ' I -41HC3 ' @ ' '
CF$ ' 24$E ' H' $EO' I 34CHE' FH' CF$ ' $11 O' &H4' F3' C$ J 3' $' > N3EN3' H' @ ' - '
3 ' 8 H4C3C' &H4' 8 43 ' $ED' $ ' C-NF' > N3EN3C' F NF' CF$ ' Q3' 24$E 3D' ((' '
Q3 33E' F3' * F 4 0 & 4C ' G$O' H&' ? #3 ' $ED' F3' ? 33E F' G$O' H&' @ ' '
')' E' $EO' =3$4' CF$ ' Q3' D$ 3D' HE' F3' 6 4C ' G$O' H&' R!4 3 ' E' @HB --$ J3'
F$ ' =3$4 ' $ED' $ ' C-NF' > N3EN3C' ` F NF' CF$ ' Q3' 24$E 3D' $ ' $EO' H F34' -
O J 3' CF$ ' Q3' D$ 3D' HE' F3' G$O' HE' F NF' F3' C$ J 3' CF$ ' Q3' 24$E 3D' '
$ED' $ ' C-NF' > N3EN3C' 43C13N 3 O' CF$ ' F$ 3' ; &&3N ' $ED' NHE E-3' E'
H4N3' &4H J' F3' G$O' H&' F3' G$ 3' F343H&' -E ' F3' * F 4 0 & 4C ' G$O' H&'
H Y 8') ' ? #3

$ - +U , ? #3 E3 3EC E2 QH F E3&$C 3 $ED EH HE234 ($ED EH I34CHE 43X- 43D QO F C N H Q3 CH N3EC3D CF$ -E 3CC Q3 CF$ F$ 3 HQ $ E3D $ 14H134 > N3ED3 E F$ B3F$ & 3 $EO 8H4C3 &H4 8 43 H Q3 -C3D E $EO H& F3 @$C3C $&H43C D -1HE 1$ E H &H4&3 &H4 3 34O 8H4C3 CH 3 &H4 8 43 $C $&H43C$ D F3 ?- J H& *3E IH-EDC $ED 3 34O I34CHE CH N3EC3D CF$ F3 D33 J 3D $ N3EC3D IHC J $C 34 F E F3 P3$E E2 $ED H4 $ F3 I-41HC3C H& F C N

* - # , -D, (? " $, + - U) - $# $ > > ED Q3 3E$N 3D *F$ & $EO N3EC3D IHC J $C 34 CF$ D 3 H4 Q3NH J 3 Q$E+4-1 H4 ECH 3E CF$ Q3 $ &- &H4 F C ; 3N- H4 H4 DJ E C 4$ H4 CC 2E33 , *4-C 33 H4 &H4 $EO H F34 I34CHE C-NR N33D E2 H H4 $+ E2 1HCC3CC HE H& F C F (8H-C3 H4 H F34 I $N3 H 3 8H4C3C &H4 8 43 E J $EE34 $&H43C$ D -E C-NF I34CHE CF$ 14HR N-43 C-NF > N3EN3 $C F343 E Q3&Q43 D 43N 3D $ED C-NF I34CHE CF$ EH Q3 $Q 3 H F3 I3E$ O J 1HC3D -1HE I34CHEC 3 E2 8H4C3C &H4 8 43 FH- Q3 E2 N3EC3D E F$ B3F$ & 14H D3D C-NF > N3EN3 Q3 $+3E H- F E *F 4 O G$OC E3 $& 34 F3 G3$ F B$E+4-1 NO H4 ECH 3ENO H& $EO C-NF N3EC3D IHC J $C 34 $ED C-NF I34CHE CF$ Q3 C-Q(3N H F3 C$ J 3 B- 3C B32- $ HEC $ED @F$423C $ED CF$ Q3 $Q 3 H $NNH-E &H4 $ED 1$O F3 G- 3C F343QO J 1HC3D E +3 P$EE34 $C C-NF D3N3$C3D H4 Q$E+4-1 H4 ECH 3E IHC J $C 34 $C C-Q(3N $ED $Q 3 H

#+ - ! , + ($ - - > " $ 5 , ? > ED Q3 3E$N 3D *F$ 3 34O @4D 3N H4 H& F3 G- 3C HE 8H4C3C 3 &H4 8 43 CF$ &4H J * 1 3 H * J 3 <EN3 E 3 34O *F433 PHE FC J $+3 H- $ED D3 34 H4 4$EC J H F3 @H J J CC HE34C H& ? $ J 1C $ F3 8 3$D <&& N3 &H4 ? $ J 1C E !1 #1 ! $E NNH-E H4 > C E 9 4 E2 H& $ F3 > N3EN3C 24$E 3D QO F J $C C-NF @H / 3N H4 H $EO I34CHE H 3 8H4C3C &H4 8 43 $ED C-NF > C Y4 NR NH-E CF$ C13N &O F3 @F4 C $E , $ J 3C $ED ?-4E$ J 3C H& F3 I34R CHEC N3EC3D F3 4 I $N3C H& 3C D3EN3 F3 , $ J 3C H& F3 EEC ^ & $EO_ H4 H F34 I $N3C $ F NF F3O CF$ Q3 N3EC3D E 3 8H4C3C &H4 8 43 $ED F3 G$ 3 <& 3 34O C-NF > N3EN3 ($ED $EO @H 3N H4 FH CF$ E32 3N H4 43&-C3 H D3 34 H4 4$EC J $EO C-NF NNH-E H4 > C E J $EE34 $&H43C$ D CF$ &H4&3 <E3 F-ED43D IH-EDC

5 , $ JH&K QE <E3 , ($ + * U , > > ED Q3 3E$N 3D *F$ EH N3EC3D IHC J $C 34 CF$ QO 4 -3 H& $EO C-NF > N3EN3 Q3 $- FH4 T3D H 3 $EO 8H4C3 &H4 8 43 $ $EO EE 8H-C3 H4 I $N3 EH C13N & 3D E C-NF > N3EN3 $ED F$ 43C13N H& 3 34O EE 8H-C3 H4 H F34 I $N3 $ F NF $EO C-NF IHC J $C N4 CF$ 3 $EO 8H4C3 &H4 8 43 $ C31$4$ 3 $ED D C EN > N3EN3 CF$ Q3 $+3E H- QO C-NF IHC J $C 34 -ED34 F C N $ED & $EO I34CHE CF$ 3 $EO 8H4C3 &H4 8 43 $ $EO EE 8H-C3 H4 I $N3 EH E$ J 3D H4 D3CN4 Q3D E CH J 3 C-NF > N3EN3 24$E 3D H F J $898 F3 CF$ &H4&3 * 3E O IH-EDC

U , - - E J U , @ @ Z" > > W ED Q3 3E$N 3D *F$ 3 34O N3EC3D IHC J $C 34 CF$ N$-C3 F C @F4 C $E , $ J 3 $ED ?-4E$ J 3 H23 F34 F F3 9H4DC > N3EC3D H 3 8H4C3C &H4 8 43 c H Q3 1$ E 3D E 32 Q 3 @F$4$3 34 H& $ 3$C * H ENF3C E 8 3 2F $ (D H& $ 14H134 $ED 14H1H4 HE$ 3 B43$D F -1HE $? 2E H4 BH$4D 3 F34 F-E2 H- &4H J H4 & 3D -1HE CH J 3 NHEC1 N-H-C 4 H& F3 64HE H& F3 8H-C3 ? $Q 3C 14 <- H&& N3C $ 3 34O EE 8H-C3 H4 I $N3 $ F NF ?#3E IHC ED$C 34 J $O Q3

U ' K' S/' M # > ; > P ' ' @$1' U[' [Z

Q3' ?< N3EC3D ' "' H4D34' H' D3EH 3' F$ ' C-NF' I 34CHE' C' $' >3 34' H&' 8 H4C3C' &H4' 8 43' $ ' C-NF' EE ' 8 H-C3 ' H4' I $N3 ' $ED' $EO' N3EC3D' $' ' I HC J $C 34' FH' CF$ ' 3 ' &H ' 8 43' $EO' 8 H4C3' $ ' $EO' EE ' 8 H-C3 ' H4' 5 , " ' I $N3' FH- ' F$ E2 ' C-NF' ? 2E' H4' BH$4D' F-E2' H- ' H4' & 3D' $C' $&H43C$ D' CF$ ' &H4&3 ' 6 3' I H-EDC ' ' g

> ' ED' Q3' ' 3E$N 3D ' * F$ ' Q3 3' $EO' N3EC3D' I HC J $C 34' ' CF$ ' +331' $EO' @$44 $23C' H' Q3' &-4E CF3D' $ ' F3' C$ J 3' * J 3' F' $EO' 8 H4C3' H4' 8 H4C3C' QO' F J' 3 ' &H4' 8 43' QO' F3' P 3' ^3 N31 ' 8 3$4C3C' $ED' @ H ' - ' P H-4E E2' @H$NF3C_' C-NF' I HC J $C 34' CF$ ' Q3&H43' $EO' C-NF' @$44 $23' (+ (" CF$8' Q3' CH' &-4E CF3D' H4' -C3D ' N$-C3' $ ' C-NF' @$44 $23C' H' Q3' E- J Q343D' '- ' - ' F' 14H243CC 3' , - J Q34C ' Q32 EE E2' F' , - J Q34' < E3 ' $ED' 14H ' N33D E2' -1 $4DC' H' F3' F 2F3C ' , - J Q34' H&' @$44 $23C' F NF' C-NF' ' " % I HC J $C 34' CF$ ' CH' +331 ' $ED' CF$ ' $ CH' 1$ E ' E' < E3' H4' J H43' C 4$ 2F ' ' - ' > E3' H4' > E3C' HE' F3' H- C D3' I $EE3 ' H&' 3$NF' GHH4' H&' 3 34O' C-NF' @$44 $23' F NF' CF$ ' F$ 3' $' GHH4' F343 H ' $ED' HE' CH J 3' NHEC1 N-H-C' I $4 ' H- $4D O' HE' 3$NF' ? D3' H&' 3 34O' C-NF' @$44 $23' F NF' CF$ ' EH ' F$ 3' $' GHH4' F343 H ' F3' @F4+ $H' , $ J 3' $ED' ?-4E$ J 3' H&' C-NF' I HC R J $C 34 ' $ED' F3' , $ J 3' H&' F3' @ O ' * H E ' H4' I $N3' F343' C-NF' @$4R 4 $23' F ' Q3' +H1 ' E' 32 Q 3' @F4N 34C' $ED' 6 2-43C' H&' $' @H H-4' D &&343E ' & 1J' $ED' H11HC 3' H' F3' @H H-4' H&' F3' M4H-ED' F343HE' F3' C$ J 3' CF$ ' F3' 1$ E 3D ' 3$NF' >3 34' H' Q3' $ ' 3$C ' < E3' ENF' E' 8 3 2F ' $ED' 3$NF' 6 2-43' H' Q3' $ ' 3$C ' < E3' ENF' $ED' $' 8 $ &' E' 8 3 2F ' $ED' 3$NF' H&' $' 14H1H4 HE$ 3' B43$D F ' $ED' ?-NF' I HC J $C 34' CF$ ' NHE E-3' C-NF' >3 34C' $ED' 6 2-43C' HE' 3 34O' C-NF' @$44 $23' CH' HE2' $C' $-3F' @$44 $23' CF3 ' Q3' +31 ' &H4' F3' I -41HC3' $&H43C$ D ' $4O E2' F3' , - J R Q34C' HE' $-3F' @$44 $23C' &4H J' * J 3' H' * J 3' $C' < NN$C HE' CF$ ' 43X- 43' CH' $C' H' J $+3' F3' C$ J 3' NH443C1HED' F' F3' $N -$ ' , - J Q34' H&' C-NF @$44 $23C' F NF' F3' CF$ ' F3E' +331 ' $ED' &' $EO' N3EC3D' I HC J $C 34' I3E$ O HE' CF$ ' E32 3N ' H4' H J ' H' E- J Q34' H4' 1$ E ' $EO' C-NF' I (!' #' J $EE34' $&H43C$ D ' H4' CF$ ' # ' , ' ' 31!' ,' 4!' 5 # !&') ! ! ,#' # ' %1!' , & N H-C' , $ J 3' H4' I $N3' H&' ' 3C D3EN3 ' H4' O ') ( ) ! ' E3 4! ') #' , ' # #(' F3' 243$ 3C ' , - J Q34' H&' C-NF' @$44 $23C' F NF' F3' CF$&&' F3E' +331 ' H4' $&$C3 , $J3' &' $EO' N3EC3D' I HC J $C 34' CF$ ' +331' * H' H4' J H43' C-NF' @$44 $23C' ' F3' C$ J 3' , - J Q34' 1$ E 3D' F343HE ' H4' CF$ ' NHE E-3' $EO' , - J Q34' -1HE' $EO' C-NF' @$44 $23' $& 34' F3' CF$ ' N3$C3' H' +331' $EO' , - J Q34' H&' C-NF' @$44 $23C' NH443C1HED' E2' F343 F ' F3' CF$ ' &H4&3 ' * 3E' I H-EDC

>W ' ED' Q3' ' 3E$N 3D ' * F$ ' F3' @H J J CC HE34C' H&' ? $ J 1C' H4' F3 4' < && N34' CF$ ' C-11 O' $ ' C-NF' N3EC3D' I HC J $C 34C' F' 14H134' ' ' - ' P * N+3 C ' $ED' CQ$(' $ CH' C-11 O' $ ' * H 2$ 3' %33134C' F' 14H134' * " ' ' ; NF$E23' * N+3 C' $ED' @F3N+' * N+3 C ' $ED' F$ ' F3' * N+3 C' E' +" " $' 43C13N ' H&' 3 34O' 8 H4C3' H4' H&' $EO' , - J Q34' H&' 8 H4C3C' 3 ' &H4' 8 43') % ' QO' F3' P 3' CF$ ' Q3' D1 3D' &H4' F3' EC34 HE' H&' F3' , - J Q34' H&' ! " ' -' P 3C' $ED' F3' , $ J 3' H&' F3' * H E' H4' I $N3' H' F NF' 3 34O' C-NF' 8 H4C3' " " ' CF$ ' Q3' F 43D' H' 2H ' $ED' &' H' < ,#&,#' F3' , $ J 3' H&' F3' ? 433 ') ,2 ?X-$43' H4' I $N3' F343 E ' $ED' F$ ' F3' * N+3 C' E' 43C13N ' H&' 3 34O' 8 H4C3' H4' H&' $EO' , - J Q34' H&' 8 H4C3C' 3 ' &H4' 8 43' &H4' $EO' I 34 HD' H&' * J 3 ' H4' E' $EO' H F34' P $EE34' F$E' QO' F3' P 3' CF$ ' Q3' D1 3D' &H4' F3' EC34 HE' H&' F3' , $ J 3C' H&' F3' I $N3C' &4H J' $ED' H' F NF' 3 34O' C-NF' 8 H4C3' CF$ ' Q3' F 43D' H' 2H' H4' H' 2H' H' $ED' 43 -4E' &4H J ' F3' G$O' H4' , - JQ34 H&' G$OC' &H4' F NF' 3 34O' C-NF' 8 H4C3' CF$ ' Q3' 3 ' &H ' 8 43 ' $ED' &' C-NF' 8 4 E2' CF$ ' Q3' &H4' $EO' I 34 HD' H&' * J 3' 3 N33D E2 < E3

<E3' G$O ' F3E' &H4' F3' Ea34 HF' H&' F3' , $ J 3' $ED' I $N3' H&' ' 3C D3EN3' H&' F3' I34CHE' F 4 E2' C-NF' 8 H4C3 ' $ED' F3' G$O' -1HE' F NF' F3' 8 4 E2' CF$ ' NH J J 3EN3 ' $ED' $ ' C-NF' * N+3 C ' E' F3' C3 34$ ' @$C3C' $&H43C$ D ' CF$ ' $ CH' Q3' D1 3D' &H4' F3' EC34 HE' H&' F3' , - J Q34' H&' 8 H4C3C' 3 ' &H4' 8 43 ' F3' G$O' 1&' F3' P HE F ' F3' P HE F' $ED' = 3$4' HE' F NF' 3 34O' C-NF' 8 N4C3' CF$ ' Q3' CH' 3 ' &H4' 8 43 ' $ED' F3' @F4 CR $E' , $ J 3' $ED' ? 4E$ 53' $ED' I $N3' H&' ' 3C D3EN3' gH&' F3' I34CHE' 3 E2' F3' C$ J 3d $ED' F3' * N+3 ' F343 E $& 34' 43X - 43D' H' Q3' 2 3E' ' 7/ ' * H 2$ N' %33134' E' 3 NF$E23' &H4' $EO' * N+3 ' D3 343D' H' D1 3D' H&' F3' EC34 HE' H&' F3' , $ J 3' H&' F3' @H - E O' E F NF' F3' * H ' < $ 3' $ ' 9 F NF' C-NF' ; NF$E23' * N+3 ' CF$ ' Q3' 2 3E' C' C -$ 3D ' H23 F34' F' F3' , $ J 3' C-NF' * H ' ' M$ 3 ' F3' G$O' H&' F3' P HE F ' F]' P J $ F$$D' = 3$4 - E' F NF' F3' 8 4 E2' CF$ ' Q3' H4' NH J J 3EN3 ' F3' , J F34' H&' 8 H4C3C ' F3' G$O' H4' , - J Q34' H&' G$OC ' F3' , $ J 3C' H&' F3' %$@3? &H J ' $ED' H' F NF' 3 34O' C-NF' 8 H4C3' CF$ ' F3' F 43D' H' 2H' H4' H' 2H' H' $ED' 43 -4E' &4H J 3' , - J Q34' H&' P 3C ' $ED' F3' , $ J 3C' $ED' ' 3C D3EN3C' H&' D 3' I 34CHEC' 3 E2' $ED' F 4 E2' 3 34O' ' C-NF' 8 H4C3 ' $C' F3' C$ D' I $4 N- $4C ' H4' $EO' H&' F3 J ' CF$ ' Q3' 3 143CC3D' E' F3' H4 2 E$ ' * N+3

67, - D ' &H4 ' F3 4&C34#H ' F343 E' H&' N34 $ E' I $4R N- $4C

I HC J $C 34' CF$ ' D3 34' 8 434C 8 H4C3C'

> W ' ED' Q3' ' 3E$N 3D ' * F$ ' 3 34O' N3EC3D' I HC J $C 34' FH' CF$ ' (2(' &(H4C@' &H 7 8 43' CF$ ' QO' F J C3 &' H4' F C' ?34 $E C ' 143 H-C' H' F b' -C E2' H&' $EO' C-NF' 8 H4C3 ' D3 34' H' F3' I 34CHE' F 4 E2' C-NF' 8 H4C3 ' H4' H' F3' I HC HE' H4' I 34CHE' H' Q3' 3 J 1 HO3D' H' D4 3' C-NF' 8 H4C3 ' $' * N+3 ' 14H134 O' & 3D' #1' F' 43C13N ' H' $ ' F3' I $4 N- $4C' F343 ER Q3&H43' J 3E HE3D' F NF' CF$ ' Q3' $11 N$Q 3' H' F3' F 4 E2' H&' 3 34O' C-NF' 8 H4C3 ' $ED' $EO' I HC J $C 34' FH' CF$ ' E32 3N ' H4' 43&-C3' H' D3 34' C-NF' * N+3 ' $NNH4D E2' H' F3' G 43N HEC' H&' F C' N ' CF$ ' &H4&3 ' * 3E' I H-EDC

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5 ' - ' " $ @ ' _ ' 7" - ') ,2 $' ' + " - ') ,2 + $

> W ' ED' F3' ' 3E$N 3D ' * F$ ' EH' I 34CHE' F 4 E2' $EO' 8 H4C3' CF$ ' Q3' NH J 13 3D' H' 1$O' &H4' $' 243$ 34' , - J Q34' H&' P 3C' F4' F3' 8 43']&' C-NF' 8 H4C3' F$E' CF$ ' Q3' 3 143CC3D' -1HE' F3' * N+3 ' QO' 8 -C' N ' D 43N 3D' H' Q3' D3 343D' $C' $&H43C$ D' 43 $ E2' H F3' F 4 E2' H&' C-@F' 8 H4C3 ' $ED' $EO' N3EC3D' I HC J $C 34' FH' CF$ ' EC34 ' <4 N$#?]' H4' 134 J ' H' Q3' EC34 3D' E' $EO' C-NF' * N+3 ' F3' , $ J 3' H&' $EO' H F34' * H E ' H4' I $N3' F$E' F3' * H E' H4' I $N3' H' F NF' H4' H' $ED' &4H J ' F NF' F3' 8 H4C3' CF$ ' Q3' F 43D' H' 2H' H4' H' 2H' $ED' 43 -4E' ' H4' $' 3CC' , - J Q34' H&' P 3C' F$E' C-NF' 8 H4C3' CF$ ' Q3' $N -$ O' F 43D' H' 2H ' CF$ ' &H4&3 ' * 3E' I H-EDC ' $ED' ' CF$ ' Q3' $ &- ' &H4' F3' @H J J CC HE34C' H&' ? $ J 1C ' &' F3O' CF$ ' CH' F E+' & ' $& 34' @HE N HE' H&' C-NF' <&&3ED34 ' H' 43&-C3' H' 24$E ' H' F J ' $EO' C-N%(> N3EN3' E' &- -43

' + ' - ' @ ' - ') ,2 - ' ') " ' ' - ,2) ,2

> W ' ED' Q3' ' 3E$N 3D ' * F$ ' 3 34O' I 34CHE' FH' CF$ ' 43N3 3' &4H J ' F3' I 34CHE' 3 E2' $EO' 8 H4C3' &H4' 8 43' $EO' * N+3 ' 43 $ E2' H' F3' F 4 E2' H&' C-@F' 8 H4C3 ' CF$ ' D3 34 ' H4' N$-C3' H' Q3' D 343D' 3 34O' C-NF' * N+3 ' H' F3' * H 2$ 3' %33134' $ ' F3' & 4C ' * H ' M$ 3' F4H-2F' F NF' C-NF' 8 34C3' CF$ ' 1$CC' H4' 2H ' $ED' 3 34O' I 34CHE' FH' CF$ ' D3 34' H' $EO' * H 2$ 3' %33134' $EO' C-NF' * N+3 ' $C' $& (43(J D ' 43 $ E2' H' F3' F 4 E2' H&' $EO' 8 H4C3' 53 ' &H4' 8 43' E' $EO' H F34' ' F$E' QO' F3' P 3 ' CF$ ' $C+' &H4' $ED' 43N3 3' &4H J ' N F ' * H(2$]' %33134' F3' 14H134' ; NF$E23' * N+3 ' H4' @F3N+' * N+3 ' NHE $ E E2' C3 34$ ' I $4 N- $4C' F343 - Q3&H43' J 3E HE3D ' F NF' CF$ ' Q3' J 1 &3F 3' H' F3' F 4 E2' H&' $EO' C-NF' 8 H4C3' ' $ED' 3 34O' C-NF' ; NF$E23' * N+3 ' H4 @F3N+

ULKS`M#> ;>P ' ' @$1' U[

WF3N+' * N+3 ' CF$#' HE' G3 J $ED' H&' F3' *H 2$ 3' %33134 ' Q3' 14HR
D-N3D' $ED' CFH E' $ '3 340' *H 'M$ 3' F4H-2F' F NF' C-NF' 8 H4C3' CF$ '
$& 34 $4DC' 1$CC' H4' 2H' D-4 E2' F3' 5H-4E30 ' H4' F E' F3' * J 3' &H4'
F NF' C-NF ' 8 H4C3' CF$ ' F$ 3' Q33E' 3 ' &H4' 8 43 '

>W ' ED' F3' ' 3E$N 3D ' *F$ ' F3' %33134' H&' 3 340' *H ' M$ 3' *H 2$ 3'
F4H-2F' F NF' $EO' 8 H4C3' 3 ' &H4' 8 43' CF$ ' & 4C ' 1$CC' CF$ ' D3 J $ED' H&' %33134C' CF$ '
F3' I 34CHE' -C E2' C-NF' 8 H4C3 ' H4' H&' F3' I HC HE' H4' I 34CHE' 3J ' * ?3 C' $ED'
1 HO3D' H' D4 3' F3' C$ J 3 ' F3' * N+3 ' CC-3D' &H4' $ED' E' 43C13N ' H&' 2 93' @F3N+'
C-NF' 8 H4C3' ($ED' 3 340' C-NF' *H 2$ 3' %33134' CF$ ' D3 34' H' F3' * N+3 C' E'
I 34CHE' -C E2' $EO' 8 H4C3' 3 ' &H4' 8 43' E' $EO' H F34' P $EE34' F$E' QO'
F3' P 3' H4' H' F3' I HC HE' H4' I 34CHE' 3 J 1 HO3D' H' D4 3' C-NF' 8 H4C3 '
$E' ; NF$E23' * N+3 ' H4' @F3N+' * N+3 ' 14H134 O' & 3D' -1' F' 43C13N '
H' F3' I $4 N- $4C' E' F$ ' B3F$ &' F343 E F3&H43' J 3E HE3D ' $ED' CF$ '
43N3 3' C-NF' H4 2 E$ ' * N+3 ' $ED' 4 3' F C' , $ J 3' F343HE ' $ED' & 3'
F3' C$ J 3 ' $ED' ' CF$ ' Q3' $ &- ' &H4' F3' %33134' H&' $EO' *H ' M$ 3' I 34CHEC' EH '
H' 143 3E ' $EO' 8 H4C3' 3 ' &H4' 8 43' &4H J ' 1$CC E2' F4H-2F' $EO' C-NF' H 1$CC<$ 3C'
M$ 3' -E 3CC' F3' 14H134' * N+3 ' ; NF$E23' * N+3 ' H4' @F3N+' * N+3 '
43X- 43D' QO' F C' N ' NHE $ E E2' $ED' C13N &O E2' F3' I $4 N- $4C' E' 3 C' H41$(E2'
F$ ' B3F$ &' F343 E F3&H43' J 3E HE3D ' F NF' CF$ ' Q3' $11 N$Q 3' H' F3' &H '
F 4 E2' H&' C-NF' 8 H4C3 ' CF$ ' Q3' & 4C ' D3 343D' H4' 14HD-N3D' $ED' CFH E' 8H4C3
H' C-NF' *H 2$ 3' %33134 ' H4' F3' I 34CHE' -C E2' C-NF' 8 H4C3' CF$ ' '
1$O' H' C-NF' *H 2$ 3' %33134' <E3' ?F E2' $ED' , E3 13EN3' E' 43C13N '
H&' 3 340' C-NF' 8 H4C3 ' F NF' ?- J ' C-NF' *H 2$ 3' %33134' C' F343QO'
$- FH4 T3D' H' D3 J $ED' $ED' 43N3 3' &H4' F C' H E' #C3' $ED' B3E3& ' $ED'
$EO' *H 2$ 3' %33134' FH' CF$ ' E32 3N ' H' D3 J $ED' H4' CF$ ' 43&-C3' I 3E$ O' HE'
H' 43N3 3' $EO' * N+3 ' QO' F C' N ' D 43N 3D' H' Q3' D3 343D' , ') '
H4' FH' CF$ ' E32 3N ' H4' 43&-C3' H' 4 3' F C' , $ J 3' F343HE ' H4' , '
& 3' F3' C$ J 3' F3E' D3 343D ' H4' FH' CF$ ' E32 3N ' H4' ! 31!' , ' (0!' H' D3 J $ED'
$EO' * N+3 ' QO' F C' N ' D 43N 3D' , ' Q3' 2 3E' QO' F J ' E' ! J ') #(! ' H4' * N+3 C' , '
FH' CF$ ' D3 34' $EO' ; NF$E23' * N+3 ' H4' @F3N+' * N+3 ' FH- ' .*5
F$ E2' & 4C ' 43N3 3D' F3' E3N3CC$4O' * N+3 ' NHE $ E E2' F3' I $4 N- $4C' 4&-N' 43 $ 3'
E' F$ ' B3F$ &' F343 E F3&H43' J 3E HE3D ' H4' FH' CF$ ' J $+3' H4' C-& F4' H C-NF'
H' Q3' J $D3' $EO' 34$ HE' F$ 3 34' E' $EO' * N+3 ' $& 34' F3' C$ J 3' * N+3 C' < '
CF$ ' F$ 3' NH J 3' H' F C' I HCC3CC HE ' H4' FH' CF$ ' D3 34' $EO' * N+3 '
F343 E F3&H43' D 43N 3D' H' Q3' 43N3 3D' $ED' & 3D' QO' F J ' H' $EO' I 34CHE'
H F34' F$E' F3' I 34CHE' D- O' $- FH4 T3D' H' 43N3 3' F3' C$ J 3 ' H4' FH'
CF$ ' 134 J ' $EO' I 34CHE' H' EC13N ' $EO' * N+3 ' QO' F J ' 43N3 3D' $ED'
& 3D' $C' $&H43C$ D' H F34' F$E' F3' I 34CHE' D- O' $- FH4 T3D' H' 43N3 3'
F3' C$ J 3 ' H4' FH' CF$ ' D3 J $ED' H4' 43N3 3 ' H4' CF$ ' $2433' H' $+3' H4'
$NN31 ' $EO' 3CC' ?- J ' H&' P HE3O' F$E' F3' C' QO' F C' N ' $- FH4 T3D' H' D3R
J $ED' $ED' 43N3 3' $ED' 43 $ E' H' Q C' H E' #C3 ' CF$ ' &H4&3 ' * 3E' I H-EDC

>W ' ED' Q3' ' 3E$N 3D ' *F$ ' &' $EO' I 34CHE' CF$ ' E32 3N ' H4' I 3E$ O' HE'
43&-C3' H' D3 34' $ ' $EO' *H ' M$ 3' $EO' * N+3 ' F NF' F3' H-2F ' $NNH4DR I 34CHEC'
E2' H' F3' I 4H C HEC' H&' F C' N ' H' D3 34' $ ' C-NF' M$ 3' H4' &' $EO' 3N E2' H' D3R
I 34CHE' CF$ ' &$ C3 O' $ 323' F$ ' $EO' 8 H4C3' F' F NF' F3' CF$ ' 1$CC' 34' * N+3 C'
$EO' *H ' M$ 3' C' EH ' $' F 43D' 8 H4C3 ' E' H4D34' H' $ H D' Q3 E2' C H113D ' H4' &$ C3 O'
H4' H' $ H D' F3' I $O J 3E ' H&' F3' ?- J ' F NF' F3' *H 2$ 3' %33134' CF$ ' $ 32 E2' F 43D'
Q3' 3E 3D' H' D3 J $ED' E' D3&$- ' H&' $EO' C-NF' * N+3 ' Q3 E2' D3 343D' 8 H4C3C' H' Q3'
H4' CFH E' 3 340' I 34CHE' CH' H&&3ED E2' CF$ ' &H4&3 ' * 3E' I H-EDC F3 4' H(E'
[

XB' # >W ' ED

9 F3E $ED F343 *H 2$ 3 %33134C CF$ 'D3 34 F3 * N+3 C 43N3 3D QO F3 J

> >W >' ED Q3 '3E$N 3D' *F$' F3 %33134 H& 3 340 *H 'M$ 3 F E F3 G C $EN3 H& * 3 P D3C &H J' F3 8 3$D <&& N3 &H4 ? $ J 1C E F3 @ O H& !1 #1 !' CF$ ' $' C-NF * J 3C $C CF$ ' Q3 D 43N 3D QO F3 @H J J CC HE34C H& ? $ J 1C H4 F3 4 14H134 <&& N34 'Q4 E2 H4 C3ED $ ' F3 * N+3 C QO F J' 43N3 3D H F3 C$ D 8 3$D <&& N3 ' H4 H C-NF H F34 I $N3 F E F3 B C H& P H4 $ O $C' F3 C$ D @H J J CC HE34C H4 <&& N34 CF$ ' $11H E ' $ D F3 %33134 H& 3 340 *H 'M$ 3 Q3OHED F3 G C $EN3 H& I 3 P 3C &4H J' F3 C$ D 8 3$D <&& N3 'CF$ ' Q4 E2 H4 C3ED $ ' F3 * N+3 C QO F J' 43N3 3D I $N3C JD 'C-NF * J 3C $C F3 @H 3N H4 $11H E 3D H NH 3N 'C-NF * * N+3 C CF$ ' 43X- 43' 14HR D3D C-NF I $N3C CF$ 'EH 'Q3 $'$ 243$ 34 G C $EN3 F$E F3 E3$43C ' P$4+3 ' *H E 'H4 CF$ ' G3 J $ED J $D3 H F J '&H4 F$' I -41HC3 ' D3 34 H4 N$-C3 H Q3 D3 343D $ ' C-NF * N+3 C $C $&H43C$ D H C-NF

I3E$ O U[C' 134 * N+3

@H 3N H4 ' $ED $EO *H Q2$ 3 %33134 FH CF$ 'E32 3N 'H4 43&-C3 H Q4 E2 H4 C3ED H4 D3 34 ' E J $EE34 $&H43C$ D '$ ' F3 * N+3 C 43N3 3D QO F J 'CF$ ' &H4 3 340 * N+3 'F3 CF$ 'CH E32 3N 'H4 43&-C3 H Q4 E2 ' C3ED 'H4 D3 34 '&H4&3 ' * 3E O ?F E2C

H $EN3C H Q3 J $D3 %3 34C H4 F * ?3 C D3 343D QO F3 J

>W ' ED Q3 '3E$N 3D '*F$' 3 340 *H 2$ 3 %33134 CF$ ' Q3 3E 3D H D3 J $ ' $ED 43N3 3 4H J' F3 @H 3N H4 H FH J' F3 CF$ ' Q4 E2 ' C3ED 'H4 D3 34 C-NF * N+3 C $C $&H43C$ D <E3 $4 F E2 H4 $ED E 43C13N ' H& 3$NF 8 H4C3 ?n_3N & 3D E 3 340 * N+3 ' $ED $ CH <E3 6$4 F E2 &H4 3$NF C-NF 8 H4C3 &H4 3 340 G$O J H43 F$E <E3 $ED 3CC F$E * 3E O 3 2F ' C-NN3CC 3 G$OC E C-NF * N+3 C J 3E HE3D ' $ED C-NF @H 3N H4 C F343QO 43X- 43D H 1$O H4 $ H ' C-NF ?-4$C $NNH4D E2 O ' F

@H J J CC HE ' 34C H& ? $ J 1C J $O 343N ' M$ 3C E N34R $ E @$C3C &H4 F3 ; 3N3 1 ' H& * N+3 C

>W W ' ED Q3 '3E$N 3D '*F$' E $ED '$N4HCC $FO 1-Q N 'H$D HE F NF $EO *H 'M$ 3 CF$ ' EH ' Q3 343N 3D C-&& N 3E '&H4 F3 I -4R 1HC3C H& ' F C N ' 'CF$ ' Q3 $ &- '&H4 F3 @H J J CC HE34C H& ? $ J 1C H N$-C3 M$ 3C $ED B$4C H Q3 343N 3D &H4 F3 ' 3N3 1 'H& F3 * N+3 C D 43N 3D H Q3 CC-3D E 1-4C-$EN3 H& F C N ' $ED H 1 $N3 $ 14H134 I34CHE $ '3 340 C-NF M$ 3 H4 B$4 ' FH CF$ ' F$ 3 I H 34 $ED - FHR 4 O H NH 3N ' C-NF * N+3 C ' $ED H D3 J $ED F3 P HE3O &4H J' F3 *4$ 3 34 &H4 EH ' 14HD-N E2 $ED CFH E2 $EO C-NF * N+3 ' E +3 P $EE34 $C $EO *H 2$ 3 %33134 C QO F C N ' $- FH4 T3D H NH 3N ' $ED D3 J $ED F3 C$ J 3 ' $ED 3 340 C-NF I34CHE CF$ 'Q3 C-Q(3N ' H F3 C$ J 3 I3E$ 3C &H4 $EO F E2 DHE3 H4 H J 3D NHE 4$4O ' H F C N '$C $EO *H 2$ 3 %33134 C QO F C N 'C-Q(3N '$ED $Q 3 H ' $ED 3 340 C-NF M$ 3 H4 B$4 CF$ ' Q3 D33 J 3D $ED $+3E H Q3 $ *H 'M$ 3 &H4 $ ' F3 I -41HC3C H& F C N

9 F3E 8H4C3C F 43D &H4 * 3E O 3 2F ' G$OC H4 JH43 $43 43 -4E3D ' F E F$ ' I34 HD ' F3 @F3N+ * N+3 ' CF$ 'Q3 D3 R 343D -1 H F3@H 3N H4

>WW ' ED Q3 '3E$N 3D ' *F$' F343 $EO N3EC3D I HC J $C 34 CF$ ' 3 '&H4 8 43 $EO 8 H4C3 &H4 * 3E O 3 2F ' C-NN3CC 3 G$OC H4 J H43 '$ED C-NF 8 H4C3 CF$ 'Q3 43 -4E3D H C-NF I HC J $C 34 Q3&H43 F3 ; 1 4$ HE H& F3 * J 3 &H4 (3F C-NF 8 H4C3 CF$ 'F$ 3 Q33E CH 3 '&H4 8 43 ' C-NF I HC J $C 34 ' $' F3 *?J 3 H& 43N3 E2 Q$N+ C-NF 8 H4C3 ' CF$ '$C+ &H4 $ED 43N3 3 &4H J' F3 '634CHE A+ 43 -4E E2 C-NF 8 H4C3 F3 @F3N+ * N+3 ' 3N3 3D 'QO C-NF I34CHE E '3 NF$E23 &H4 F3 H4 2 E$' * N+3 'D3 343D H F J' HE 8 H4C3 $ED CF$ ' F E *F433 G$OC $& 34 F3 ' 3 -4E H& C-NF 8 H4C3 ' D3 34 -1 H4 4$EC J 'C-NF @F3N+ * N+3 ' H F3 @H 3N H4 H& F3 C$ D G- 3C H

! ` K' S c M # > ; > P ' ' @$1 U[' [V

' H' FH J' F3' H-2F ' H' D3 34' F C' ? $ J 1' < BN3' 9 33+ O' NNH-E ' $ED' &' $EO' N3EC3D' I HC J $C 34' CF$ ' 43&-C3' H4' E32 3N ' H' $C+' &H4' C-NF' @F3N+' * N+3 ' H4' F$ E2' 43N3 3D' F3' C$ J 3 ' CF$ ' 43&-C3' <4 E32 3N ' H' D3 34' -1' H4' H' 4$EC J ' F3' C$ J 3' H' F3' C$ D' @H 3N H4' F E' F3' * J 3' $&H43C$ D ' F3' CF$ ' &H4&3 ' * 3E O' I H-EDC ' $ED' &' C-NF' I HC J $C 34' CF$ ' -C3' $EO' C-NF' @F3N+' * N+3 ' H4' CF$ ' 134 J ' F3' C$ J 3' H' Q3' -C3D ' H4' CF$ ' 2 3' H- ' F3' C$ J 3' H' $EO' I 34CHE ' H4' F3' I -41HC3' H&' Q3 E2' -C3D' H' NH 34' $ED' 14H 3N ' $EO' H F34' 3 E2' &H4' 8 43' &4H J' F3' G- O' F343QO' 24$E 3D ' C-NF' I HC J $C 34' CF$ ' &H4&3 ' 6 & O' I H-EDC

I 3E$ O' HE' I HC J $C 34' &H4' , 32 3N '

I 3E$ O' &H4' -C E2' $' @F3N+' * N+3 ' &4$-R D- 3E O' 9Y$

>WW ' ED' Q3' ' 3E$N 3D ' * F$ ' 3 340' N3EC3D' I HC J $C 34' CF$ ' &4H J' * J 3' H' * J 3' F3E3 34' F3' CF$ ' Q3' F343-E H' 43X-3C 3D' QO' $EO' @H 3N H4' <4 H F34' $- FH4 T3D' <&& N34' H&' ? $ J 1' G- 3C ' $C' 3 ' D-4 E2' F3' @HE E-$EN3' H&' $EO' > N3EN3' H' C-NF' I HC J $C 34' $C' $ ' H4' $& 34' F3' ; 1 4$ HE' F343H& ' 3 ' $ED' &$ F&- O' $NNH-E ' H' C-NF' @H 3N H4' H4' <&& N34' 43C13N 3 O' &H4' $ ' F3' * N+3 C' F NF' CF$ ' F$ 3' Q33E' D3 343D' H' C-NF' I HC J $C 34' E' 1-4C-$EN3' H&' F C' N ' -ED34' H4' E' NHEC3XE3EN3' H&' $EO' ?-NF' > N3EN3' $C' $&H43C$ D' ($ED' C-NF' I HC R J $C 34' CF$ ' $ CH ' HE' G3 J $ED ' 43 D3 34' H' ?-NF' @H 3N H4' H4' <&& N34' $ ' C-NF' * N+3 C' $C' CF$ ' EH ' Q3' C$ C&$N H4 O' $NNH-E 3D' &H4' E' J $EE34' $&H43C$ D ' H4' E' D3&$- ' F343H&' C-NF' 5 I HC J $C 34' CF ' Q3' $Q 3' H' 1$O' &H4' 3 340' * N+3 ' EH ' $NNH-E 3D' &H4' $C' $&H43C$ D' $& 34' F3' ' $ 3' H&' < E3' ?F E2' &H4' 3 340' 8 H4C3' C13N & 3D' H4' 3 1&3CC3D' QO' 6 2-43C' H4' < F34 C3' -1HE' C-NF' * N+3 ' $ED' E' F3' ' 3N3 1 ' 2 3E' QO' C-NF' I HC J $C 34' &H4' F3' C$ J 3 ' $ED' C-NF' ' $ 3' H4' ?-4$' H&' < E3' ?F E2' &H4' 3 340' 8 H4C3' C13N & 3D' H4' 3 143CC3D' $C' $&H43C$ D' CF$ ' Q3' D33 J 3D' H' Q3' F3' $ 3' H&' 3 340' C-NF' * N+3 ' $ED' CF$ ' Q3' $' G3Q ' D-3' H' 8 C' P $(3C O' &4H J' C-NF' I HC J $C 34' $ED' CF$ ' Q3' 43NH 343D' $NNH4D E2 O' $ED' &' $EO' C-NF' I HC J $C 34' CF$ ' E32 3N ' H4' 43&-C3' H' $NNH-E ' H' C-NF' @H 3N H&' H4' <&& N34' E' F3' P $EE34' D 43N 3D' QO' F C' N ' &H4' 3 340' <4 $EO' C-NF' * N+3 ' $C' $&H43C$ D ' H4' CF$ ' E32 3N ' H4' 43&-C3' H' 1$O' H' C-NF' @H 3N H4' H4' <&& N34' F3' $ -3' H&' 3 340' H4' $EO' C-NF' * N+3 ' $C' CF$ ' EH ' Q3' C$ C&$N H4 O' $NNH-E 3D' &H4 ' $ED' $C' CF$ ' EH ' Q3' 43 D3 343D ' HE' G3 J $ED ' H' C-NF' @H 3N H4' H4' <&& N34' E' F3' P $EE34' D 43N 3D' QO' F C' N ' 3 340' C-NF' I HC J $C 34' CH' H&&3ED E2' CF$ ' &H4&3 ' * 3E' 1H-EDC' H 34' $ED' $QH 3' F3' $ -3' H&' 3 340' C-NF' * N+3 ' EH ' ?-' $NNH-E 3D' &H4' H4' 43 D3 343D

I HC J $C 34C' H' $D <-E' &H4' * N+3 C' D3 343D' H' F3 J ' $ED' H' 43 D3 34' H' F3' @3 3N H4' C-NF' $C' 43R J $ E' # E$NR NH-E 3D' &H4' H4' H' 1$O' F3' $ -3' F343R H&

I 3E$ O' &H4' , 32 3N ' H4' ' 3&-C$ ' [

>WW ' ED' Q3' ' 3E$N 3D ' * F$ ' $EO' I 34CHE' FH ' F' E 3E ' H' D3&4$-D' 8 C' P $(3C O' H4' $EO' H F34' I 34CHE ' CF$ ' &$ C3 O' J $+3 ' &H423 ' 14' NH-E 34&3 ' <& CF$ ' N$-C3' H4' 14HN-43' H' Q3' &$ C3 O' J $D3 ' &H423D ' H4' 7NH-E 34&3 3D ' H&' CF$ ' &- O' $ D' H4' $CC C ' E' F3' &$ C3 J $+ E2 ' &H42 E2 ' H4' NH-E 34&3 E2' H&' $EO' * N+3 ' QO' F C' N ' $- FH4 T3D' H4' D 43N 3D' H' Q3' -C3D ' H4' CF$ ' - 34' H4' 1-Q CF' $C' 4-3' $EO' C-NF' &$ C3 ' &H423D ' H4' @H-E 34&3 3D' * N+3 ' CF$ ' &H4&3 ' 6 & O' I H-EDC

I 3E$ O' &H4' &H42 E2' * N+3 C' ! [

>WW ' ED' Q3' ' 3E$N 3D ' * F$ ' F3' @H J J CC HE34C' H&' ? $ J 1C' H4' F3 4' <&& N34' $ ' F3' * J 3' H&' CC- E2' $EO' > N3EN3' H' $EO' I HC J $C 34' CF$ 4' D3 34' H' C-NF' I HC J $C 34' I $134C' E - 3D' ? $ J 1' <&& N3' 9 33+ O' NNH-E c' F NF' CF$ ' Q3' D1 3D' &H4' F3' EC34 HE' H&' F3' &H H E2' I $4 N- $4C' 43 $ E2' H' F3' 8 H4C3C' F NF' J $O' Q3' 3 ' &H4' 8 43' ^ F$ ' C' H' C$O _ F3' G$O' H&' F3' P HE F' F3' P HE F' $ED' F3' =3$4' H& C-NF

@H J J CC HER 34C' H&' ? $ J 1C' $ 33 34' H' N3EC3D' I HC J $C 34C' 6H4 J C' H&' NR NH-E ' D1 R 3D' &H4' F3' E

[VU (ʻ Kʻ S ʻ M # > ; > P ʻ ʻ @$1ʻ U[

C34 HE H& N34 $ E I$4R N- $4C F343 E

C-NF 3 E2ʻ &H4 8 43ʻ F3 , $ J 3C H& F3 * H EC H4 I $N3C &4H J ʻ F NF $ED H F NF ʻ H& &4H J ʻ F NF $ED H F NF $ED Q$N+ 2 E ʻ C-NF 8 H4C3C CF$ ʻ Q3 F 43D H 2H ʻ $NNH4D E2 $C F3 8 4 E2 J $O Q3 ʻ F3 , - J Q34 H& 3 34O @$44 $23 43X- 43D &3O F C N ʻ H Q3 E- J Q343D ʻ F3 @F4 C $E , $ J 3 $ED ?-4E$ J 3 H& 3 34O I HC HE H& G4 34 3 J 1 HO3D ʻ F3 J H-E ʻ H& F3 ?- J ʻ NF$423D &H4 H4 E 43C13N ʻ H& 3 34O 3 E2ʻ &H4 8 43ʻ F3 , -4$Q3& H& 8 H4C3C 3 ʻ &H4 8 43 ʻ F3 , - J Q34 H& G$OC $ED F3 , - J Q34 H& P 3C &H4 F NF C-NF 8 H4C3C CF$ ʻ &33ʻ 3 ʻ &H4 8 43ʻ $ED F3 J H-E ʻ H& F3 G- O 1OQ 3 &H4 $ED E 43C13N ʻ H& 3 34O C-NF 3 E2 &H4 8 43ʻ $C F3 @$C3 J $O Q3 H4 CF$ ʻ 43X- 43ʻ $NNH4D E2 H F3 &H H E2 6H4 J ʻ H4 C-NF H F34 6 & J ʻ $C F3 C$ D @H J J CC HE34C CF$ ʻ (-D23 N<E 3E 3E ʻ &Q4 +331 E2 C-NF NNH-E .

?* P Iʻ <66 @;ʻ 9 ; ;%; =ʻ @@< ? *

$&Bʻ +?#J(ʻ + #J1	+ #J & < (&!	!+@ʻ LJ&# " &H(ʻ & < #+ʻ LJ&# " &H(ʻ `& < I&H;ʻ)?ʻA+ʻ J)!(<S	#	J!)A#)& ʻ &@(ʻ &##<ʻ G! &@(ʻ +? "+A#))+ ʻ +!ʻ $!)2(!	J(G@	Bʻ)@(	Bʻ#J(ʻ) (1 ʻ+ ≐ \ CP C	$ G#B

"&!#)HG &!Aʻ#+ʻ I()JA(!#(<) ʻ H>3 +ʻ HH+G #AW ʻ

>WW ʻ ED Q3 ʻ 3E$N 3D ʻ * F$ ʻ 3 34O N3EC3D I HC J $C 34 CF$ ʻ 4- O EC34 ʻ $ED C3 ʻ &H4 F E C-NF F C ? $ J 1ʻ <&& N3 9 33+ O NNH-E ʻ C3 34$ʻ I$4 N- $4C &H H E2 (^ F$ ʻ C H C$O _ F3 G$O H& F3 PHE F ʻ F3 PHE F $ED =3$4 ʻ HE F NF 3 34O 8 H4C3 3 ʻ &H4 8 43 QO F J ʻ CF$ ʻ Q3 3 ʻ &H4 8 43ʻ $ED &4H J ʻ $ED H F$ ʻ I $N3 ʻ H4 &4H J ʻ $ED H F$ ʻ I $N3 $ED Q$N+ 2 F ʻ 3 34O C-NF 8 H4C3 CF$ ʻ Q3 F 43D H 2H ʻ F3 , - J Q34 H& 3 34O @$44 $23 ^ F NF QO F C N ʻ C 43X- 43D H Q3 E- J Q343D_ʻ F NF CF$ ʻ Q3 &-4E CF3D F $EO C-NF 8 H4C3 ʻ F3 @F4 C $E_ , $ J 3 $ED ?-4E$ J 3 H& 3 34O I HC HE H4 G4 34 3 J 1 HO3D F 3 34O C-NF 8 H4C3 ʻ F3 J H-E ʻ H& F3 ?- J ʻ NF$423D &H4 F3 8 43 H4 #C3 H& 3 34O C-NF 8 H4C3 ʻ F343 E $EO @$C3 $ H 3D QO F C N ʻ F3 I HC J $C 34 CF$ ʻ 3 3N ʻ H 1$O <E3 6 & F F343H& &H4 F3 G- O HE C-NF 3 E2 ʻ F3 * J 3 &H4 F NF F3 C$ J 3 CF$ ʻ Q3 3 ʻ &H4 8 43 H4 -C3D ʻ F3 , - J Q34 H& 8 H4C3C CH 3 ʻ &H4 8 43ʻ $ED F343 F3 G C $EN3 CF$ ʻ Q3 $CN34 $ E3D F3 , - J Q34 H& P 3C F E F NF F3 C$ J 3 CF$ Q3

Q3' F 43D' H' 2H' <4 H' (, ' $ED' 43 -4E ' H4' C-NF' H&' F3' C3 34$ ' I $4 N- $4C'
$&H43C$ D' $C' CF$ ' Q3' $11 N$Q 3' H' 3$NF' 43C13N 3' 3 E2' &H4' 8 43 '
$ED' E' $ ' @$C3C' F3' J H-E ' H&' F3' G- O' 1$0$Q 3' &H4' $ED' E' 43C13N '
H&' 3 340' 8 H4C3' Q1HE' 3 340' C-NF' 3 E2' &H4' 8 43' H4' - C E2 ' $ED' F3ER <E' (##) *'
3 34' C-NF' N3EC3D' I HC J $C 34' CF$ ' 3 ' $EO' 8 H4C3' &H4' 8 43' &H4' * 3E O ' +!A(A'?+!'
3 2F ' C-NN3CC 3' G$OC' H4' J H43' Q3' CF$ ' EC34 ' $ED' C3 ' &H4 F' E' C-NF' L (S2()*J#'
F C' ? $ J 1' <&& N3' 9 33+ O' NNH-E ' F3' C3 34$ ' I $4 N- $4C' &H H E2' G(H(AA)!('
^ F$ ' C' H' C$O _' F3' , - J Q34' H&' 8 H4C3C' CH' 3 ' &H4' 8 43 ' F3' G$O' H&' F3' \ &BA'+!'@+!(
PHE F ' F3' PHE F' $ED' =3$4 ' HE' F NF' C-NF' 8 4 E2' CF$ ' NH J J 3EN3 '
F3' , - J Q34' H&' 3 340' @$44 $23' QO' F C' N ' 43X- 43D' H' Q3' E- J Q343D'
F NF' CF ' Q3' &-4E CF3D' F343 4 ' F3' @F4 C $E' , $ J 3' $ED' ?-4E$ J 3'
H&' 3 340' I HC HE' H4' G4 34' 3 J 1 HO3D' F' 3 340' C-NF' 8 H4C3 ' F3'
* J 3' &H4' F NF' F3' C$ J 3' CF$ ' Q3' F 43D ' $ED' F3' , $ J 3' $ED' I $N3' H&'
QHD3' H&' F3' I 34CHE' Q 4 E2' F3' C$ J 3 ' $ED' C-NF' I HC J $C 34' CF$ ' $ CH' 9 F343'
EC34 ' E' 3 340' C-NF' NNH-E ' $' P 3 J H4$ED- J ' H4' , H N3' H&' 3 340' 8 H4C3C' 3 '
8 H4C3' F NF' CQ$8' F$ 3' Q33E' 3 ' &H4' 8 43' QO' F J ' &N 7 * 3E O 3 2F ' &H4' * 3E O '
C-NN3CC 3' G$OC' H4' J H43 ' $ED' F NF' C EN3' F3' G$ 3' H&' F(C' $C ' NNH-E ' 3 2F ' C-NR
CF$ ' $ 3' Q 3 ' 2 3E' -1' $ED' 43 -4E3D' H' F J ' QO' F3' 8 +34' Q3&H43' F3' N3CC 3' 8 $OC'
; 1 4$ HE' H&' F3' * J 3' &H4' F NF' C-NF' 8 H4C3' CF$ ' F$ 3' Q33E' 3 ' &H4' Z , M' $43'
8 43 ' $ED' 3' G$O' H&' F3' PHE F' HE' F NF' F3' C$ J 3' CF$ ' F$ 3' Q33E' 43 -4E3D' Q3R
CH' 2 3E' -1' $ED' 43 -4E3D ' $ED' $ CH' F3' J H-E ' H&' F3' G- O' 1$0$Q 3' &H43' F3' ; R
E' 43C13N ' H&' F3' * J 3' D-4 E2' F NF' 3 340' C-NF' 8 H4C3' CF$ ' F$ 3' Q33E' 1 4$ HE' H&'
-ED34' F3' G 43N HE' <&' F3' I 34CHE' F 4 E2' F3' C$E 3' QO' 4 -3' H&' C-NF' F3' * 34 J
3 E2' &H4' 8 43' $C' $&H43C$ D' ' $ED' E' N$C3' H&' F3' , 32 3N ' H4' < J CC HE' I 3E$ O' &H4'
H&' $EO' N3EC3D' I HC J $C 34' H' EC34 ' E' $EO' C-NF' ? $ J 1' <&& N3' 9 33+ O' 8 3N ' U&
NNH-E ' F3' I $4 N- $4C' F343 E Q3&H43' 43C13N 3 O' J 3E HE3D ' H4' $EO'
H&' F3 J ' $11 N$Q 3' H' 3$NF' 43C13N 3' 3 E2' &H4' 8 43 ' F3' CF$ ' &H4'
3 340' C-NF' , 32 3N ' H4' < J C4 HE' &H4&3 ' * 3E O' I H-EDC

; WW = ' ED' Q3' ' 3E$N 3D ' * F$ ' 3 340' N3EC3D' I HC J $C 34' FH' ;(4 8HQ3'
CF$ ' 3 ' $EO' 8 H4C3 ' &H4' 8 43' CF$ ' 3E 34' <4 N$-C3' H' Q3' 3E 343D ' E'
C-NF' Q C' ? $ J 1' <&& N3' 9 33+ O' NNH-E ' F3' C3 34$ ' 4 N- $4C' QO' F C' 8 4C3C'$43 3 '
N ' 43X- 43D' H' Q3' EC34 3D' F343 E ' HE' F3' G$O' HE' F NF' $EO' C-NF' H4 43 -4E3D '
8 H4C3' CF$ ' Q3' CH' 3 ' &H4' 8 43' H4' CH' 2 3E' $1' $ED' 43 -4E3D' $C' $&H43R
C$ D ' H4' HE' F3' G$O' E3 ' J J 3D $ 3 O' &H H E2 ' H4' E' D3&$- ' F343H&' I 3E$ O ' [C'
F3' CF$ ' &H4&3 ' 6H4 O' ?F E2C '

; WW ' ED' Q3' ' 3E$N 3D ' * F$ ' 3 340' C-NF' ? $ J 1' <&& N3' 9 33+ O' NNH-E ' H'
NNH-E ' H 3 340' N J C3D' I HC J $C 34' C $ ' F3' H13E' &H4' F3' EC13N HE' '
$ED' ; $ J E$ HE' $ ' $ ' C3CHEQ 3' * J 3C' H&' F3' @H J J CC HE34C' H&'
? $ J 1C' H4' $EO' @H 3N H4' <&' F3' C$ D' G- 3C ' H4' $EO' $- FH4 T3D' <&& N34' 134<&& 4C'
H&' ? $ J 1' G- 3C ' $ED' $EO' I HC J $C 34' FH' CF$ ' 43&-C3' H' 134 J ' C-NF' I 3E$ O' H '
@H J J CC HE34C' H4' @H 3N H4' H4' <&& N34 ' $ ' $EO' C3$CHE$Q 3' * J 3 ' H'
EC13N ' C-NF' F C' ? $ J 1' <&& N3' 9 33+ O' NNH-E ' CF$ ' &H4' 3 340' C-NF'
%3&HC$ ' &H4&3 ' * 3E' I H-EDC

> WW >' ED' Q3' ' 3E$N 3D ' * F$ ' 3 340' N3EC3D' I HC J $C 34' 9 F3E' $ED'
43C D E2' F E' F3' G C $EN3' H&' 6 3' P 3C' &H J ' F3' 8 3$D' <&& N3' &H4' F343' R
? $ J 1C' CF$ ' $ 3ED' $ED ' D3 34' F C' ? $ J 1' <&& N3' 9 33+ O' NNH-E C ' N3EC3D' I HC R
$ED' CF$ ' 1$O' F3' G- 3C' &H4' F NF' F3' CF$ ' Q3' $NNH-E $Q 3' 3 F34' H' J $C 34C' CF$ '
F3' @H J E&3C HE34C' H&' ? $ J 1C' $ ' F3' C$ D' 8 3$D' <&& N3 ' H4' H' CH J 3' D 34' F3 4'
@H 3N H4' H&' F3' C$ D' G- 3C ' $ ' ?-NF' I $N3' $ED' $ ' C-NF' * J 3' $C' CF$ ' NNH-E C'
F3' $11H E 3D' &14' F$ ' I -41HC3' QO' $' , H N3' H' Q3' 2 3E' -1HE' F3' $ED' 1$O' F3'
G- O' F343R
HE

Q $E+' 6H4 J C' H&' F3' ? $ J 1' <&& N3' 9 33+ O' NNH-E C ' F NF' CF$ ' &4H J' * J 3' H' * J 3' Q3' D3 343D' H' C-NF' I HC J $C 34' &H4' F3' I -41HC3' H&' J $+ E2' F343 E' F3' ; E 4 3C' 43X- 43D' QO' F C' N ' 14H D3D' C-NF' I $N3' Q3' EH ' $ ' $' 243$ 34' G C $EN3' F$E' * H' P 3C' &4H J' F3' C$ D' 8 3$D' <&& N3 ' $ED' 3 34O' N3EC3D' I HC J $C 34' EH ' 43C D E2' F E' 6 3' P 3C' H&' F3' C$ D' 8 3$D' <&& N3' CF$ ' $ 3ED' $ED' D3 34' F C' ? $ J 1' <&& N3' 9 33+ O' NNH-E C ' $ED' CF$ ' 1$O' F3' G - 3C' &H4' F NF' F3' CF$ ' Q3' $NNH-E $Q 3' H' F3' @H 3N H4' H&' F3' C$ D' G - 3C' $- FH4 T3D' H' 43N3 3' F3' C$ J 3' $ ' C-NF' I $N3' E' F3' P $4+3 ' * H E ' E' F NF' C-NF' I HC J $C 34' CF$ ' 43C D3 ' H4' ^ E' N$C3' F3' CF$ ' EH ' 43C D3' E' $' P $4+3 ' * H E_' E' F3' P $4+3 ' * H E' E3$43C ' H' F C' I $N3' H&' ' 3C D3EN3 ' $ED' $ ' C-NF' * J 3' $C' CF$ ' F3' $(1 E 3D' &H4' F$ ' I -41HC3' QO' $' , H N3' H' Q3' 2 NB' E' && $H ' 9' & &H43% $' EE 34' F3' I 3E$ O' H&' * 3E O' I H-EDC' &H4' 3 34O' ' EH ' $ 3ED E2' H' D3 34' E' EH ' D3 34 E2' $EO C-NF' NNH-E ' F@ @FENE$D' E' J $EE34' $&H43C$ D ' $ED' GH-Q 3' F3' J H-E ' H&' &H3' G - 3C' D-3' $ED' 1 $ O 3' QO' $HNF' I HC J $C 34 ' CH' &$4' $C' &H3' C$ J 3' N$E' Q3' $CN34 $ E3D ' $ED' E' D3&$- ' H&' &H3' G3 34O' H&' $EO C-NF' NNH-E ' &H3' C$ D' G - 3C' J $O' Q3' NH J 1- 3D' QO' F3' * N+3 C' F NF' C-NF' I HC J $C 34' CF$ ' F$ 3' CC-3D' H4' N$ - C ' H' Q3' CC-3D ' -ED34' F3' I 4H C HEC' H&' F C' N ' QO' N$ N- $ E2' F3' ' $ 3' H&' G - O' J 1HC3D' QO' F C' N ' -1HE' F3' , - FQ34' H&' 8 H4C3C ' $ED' &H4' F3' , - J Q34' H&' P 3C' H4' G$OC ' H4' H F34 C3 ' $C' &H3' @$C3' J $O' Q3 ' C13N & 3D' H4' 3 143CC3D' -1HE' C-NF' * N+3 C' 43C13N 3 O ' FH- ' 432$4D' H' F3' <1 HE' H&' C-NF' I HC J $C 34 ' E' $EO' @$C3 ' H&' 1$O E2' <E3' 6 & F' I $4 ' H&' &H3' ?- J' NF$423D' &H4' &H3' 8 43' H&' $EO' H&' C-^&H' 8 H4C3C' &H4' F3' G - O' HE' F3' 3 E2' F343H&

I 3E$ O' &H4' G3&$- ' BY '

I HC J $C 34' H' J $+3' $' G3N 4 HE' H&' F3' * 4- F' H&' F C' NR NH-E

>WW ' ED' Q3' ' 3E$N 3D ' 8 $ ' 3 34O' N3EC3D' I HC J $C 34' CF$ ' $ ' &H3' 43C13N 3' * J 3C' H&' D3 34 E2' Q C' NNH-E ' $ED' 1 O E2' F3' P HE3O' D-3' &H343HE ' J $+3' $ED' C-QCN4 Q3 ' F$ &H3' I 43C3EN3' H&' F3' @H 3N H4' H4' H F34' <&& N34' $- FH4 T3D' H' 43N3 3' C-NF' NNH-E ' G3N 4 HE' H&' &H3' * 4- F' H&' F3' NHHEE ' F3E' D3B 34 P ' E' F3' 6H4 J' &H H E2.'

*' / ' " ' DH' D3N $43 ' * F$ ' F3' ? $ J 1' <&& N3' 9 3DDO' NNH-E ' F3434' -E H' $EE3 3D' DH F' NHE $ E' $' (-C ' $ED' 4-3' ? $ 3 J 3E ' H&' F3' , - J Q34' H&' 8 H4C3C' F NF' F$ 3' Q33E' 3 ' &H4' 8 43' QO' J 3' H4' J O' ?34 $E C ' H4' HE' J O' NNH-E ' $ED' B3F$ &' &4H J' F3'

G$O' H&' H' F3' G$O' H&

QH F' EN -C 3' H23 F34' F' F3' P $EE34' E' 9 F NF' C-NF' 8 H4C3C' F$ 3' Q33E' CH' 3 ' &H4' 8 43' $C' $&H43C$ D' ! $ED' $ CH' F3' &- ' J H-E ' H&' F3' G - O' D-3' $ED' 1$0$Q 3' QO' J 3 ' H4' &H4' F NF' ' $ J' NF423Q 3' H4' $NNH-E $Q 3 ' E' 43C13N ' H&' 3 34O' C-NF' 8 H4C3' CH' 3 ' &H4' 8 43' QO' J 3' H4' HE' J O' NNH-E ' $? $&H43C$ D' D-4 E2' F3' * J 3' $&H43C$ D

" (& #B' ?+!' (?GA& 1'

ED' &' $EO' N3EC3D' I HC J $C 34' CF$ ' 43&-C3' H' J $+3' $ED' C-QCN4 Q3' C-NF' G3N 4 HE' E' &H3' P $EE34' QO' F C' N ' 43X- 43D ' ' CF$ ' E3 34 F3 3CC' Q3' $ &- ' &H4' F3' @H 3N H4' H4' H F34' C-NF' <&& N34' $C' $&H43C$ D' H' D3 J $ED' $ED' 43N3 3' &H3' P HE3O' D-3' -1HE' C-NF' NNH-E ' $ED' C-NF' I HC J $C 34' CF$ ' &H4&3+' * 3E O' I H$ ' &H4' C-NF' ' 3&-C$ ' ' "

@HEC3E ' H&' F3@H J 4$ C' C HE34C' H&'

>WW W ' I 4H D3D' D $(C' $ED' Q3' ' 3E$N 3D ' * F$ ' ' CF$& ' ' Q3' $ &- ' &H4' $EO' I 34CHE' H' E&H4 J ' C-3 ' H4' 14HC3N- 3 ' 3 F34' E' $EO'

U ̊ K̊S&C M#> ; > P ̊ ̊ @$1 ̊ U[[V!

@H-4 ̊ H& ̊ ' 3NH4D ̊ H4 ̊ Q3&H43 ̊ $EO ̊ 5-C N3 ̊ H& ̊ F3 ̊ I 3$N3 ̊ H4 ̊ H F34 C3 ̊ &H4 ̊ ? $J1C ̊ 43 ̊
' 3NH 340 ̊ H& ̊ F3 ̊ C$ D ̊ I 3H3 O ̊ H& ̊ * 3E O ̊ I H-EDC ̊ $ED ̊ GH-Q 3 ̊ G- O ̊ H ̊
&H4 ̊ $EO ̊ G3&$- ̊ E ̊ EH ̊ $ 3ED E2 ̊ H ̊ D3 34 ̊ H4 ̊ E ̊ EH ̊ D3 34 E2 ̊ $EO ̊ #C*
C-NF ̊ NNH-E ̊ $C ̊ $&H43C$ D ̊ H4 ̊ &H4 ̊ ' 3NH 340 ̊ H& ̊ F3 ̊ C$ D ̊ I 3E$ O ̊ H& ̊ J3B HE3# ̊
* 3E O ̊ I H-EDC ̊ &H4 ̊ 43&-C E2 ̊ H ̊ J $+3 ̊ $ED ̊ C-QCN4 Q3 ̊ $EO ̊ C-NF ̊ G3X $ ̊ I 3E$ 3C ̊
4$ HE ̊ $C ̊ $&H43C$ D ̊ FH- ̊ F$ E2 ̊ & 4C ̊ HQ $ E3D ̊ F3 ̊ @HEC3E ̊ E ̊
9 4 E2 ̊ H& ̊ * H ̊ H4 ̊ J H43 ̊ H& ̊ F3 ̊ @H J J CC HE34C ̊ H& ̊ ? $ J 1C ̊ &H4 ̊ F$ ̊
I -41HC3 ̊ -E 3CC ̊ F3 ̊ N HE ̊ ?- ̊ H4 ̊ I 4HC3N- HE ̊ &H4 ̊ $EO ̊ C-NF ̊ I 3E$ O ̊
$C ̊ $&H43C$ D ̊ CF$ ̊ Q3 ̊ N$44 3D ̊ HE ̊ QO ̊ F3 ̊ ?H N H4 ̊ H& ̊ ? $ J 1C ̊ E ̊ 8 #(% #& ̊
H4 ̊ + ' , % #& ̊ 43C13N 3 O ̊ $EO ̊ F E2 ̊ F343 E ̊ NHE $ E3D ̊ H ̊ F3 ̊ NHE 4$4O ̊
F343H& ̊ EH FC $ED E2

WWW ̊ ED ̊ Q3 ̊ ̊ 3E$N 3D ̊ * F$ ̊ F3 ̊ @H J J CC HE34C ̊ H& ̊ ? $ J 1C H4 ̊ H $EN3 ̊
F< ̊ @H 3N H4C ̊ H4 ̊ H F34 ̊ <&& N34C ̊ $&H43C$ D ̊ $ ̊ F3 ̊ * J 3 ̊ H& ̊ F3 4 ̊ H ̊ Q3 ̊ J $DQ ̊
C3 E2 ̊ F3 ̊ 43?A(3&N 3 ̊ NNH-E C ̊ -& ̊ F3 ̊ C3 34$ ̊ N3EC3D ̊ I HC J $C 34C ̊ H ̊ I HC J $a ̊
E ̊ J $EE34 ̊ F343 E Q3&H43 ̊ J 3E HE3D ̊ CF$ ̊ $ H ̊ H ̊ C-NF ̊ I HC J $C 34C ̊ 34C ̊ H- ̊ H& ̊
&<* ̊ F3 ̊ H E ̊ #C3 ̊ $ED ̊ B3E3& ̊ $ED ̊ CF$ ̊ D3D-N ̊ &4H J ̊ F3 ̊ J H-E ̊ F< ̊ P HE 3C ̊
1OQ 3 ̊ QO ̊ F3 J ̊ HE ̊ C-NF ̊ F3 4 ̊ 43C13N 3 ̊ NNH-E C ̊ $& 34 ̊ F3 ̊ ' $ 3 ̊ H& ̊ D- O ̊ $NR
* F433 13EN3 ̊ E ̊ F3 ̊ I H-ED ̊ H- ̊ H& ̊ F3 ̊ P HE 3C ̊ QO ̊ F3 J ̊ 432- $4 O ̊ NH-E 3D ̊ &H4 ̊
$NNH-E 3D ̊ &H4 ̊ $ED ̊ 1$ D ̊ 1-4C-$E ̊ H ̊ F3 ̊ G 43N HEC ̊ E& ̊ F C ̊ N ̊ $ED ̊ 1$ D

> WWW ̊ ED ̊ Q3 ̊ ̊ 3E$N 3D ̊ * F$ ̊ 3 340 ̊ N3EC3D ̊ I HC J $C 34 ̊ FH ̊ I 3E$ O ̊ HE ̊
CF$ ̊ &- O ̊ NHEN3$ ̊ F3 ̊ @ < 2H&$EO ̊ 8 H4C3 ̊ &H4 ̊ 8 43 ̊ H4 ̊ FH ̊ CF$ ̊ I HC J $C 34C ̊
J $+3 ̊ H4 ̊ 43ED34 ̊ $EO ̊ &$ C3 ̊ H4 ̊ &4$-D- 3E ̊ NNH-E ̊ H-NF E2 ̊ H4 ̊ NHE ̊ 1 DC ̊
N34E E2 ̊ F3 ̊ G- 3C ̊ 1OQ 3 ̊ QO ̊ F J ̊ -1HE ̊ H4 ̊ E ̊ 43C13N ̊ H& ̊ 8 H&C3C ̊ 3 ̊
&H4 ̊ 8 43 ̊ H4 ̊ FH ̊ CF$ ̊ Q3 ̊ 2- O ̊ , ̊ $EO ̊ H F34 ̊ &4$-D- 3E ̊ @HE 4 $EN3
G3 N3 ̊ H4 ̊ I 43 3EN3 ̊ F$ CH3 34 ̊ F ̊ E 3E ̊ H4 ̊ G3C 2E ̊ H ̊ D3&4$-D ̊
8 ̊ P $(3C O ̊ H ̊ J O ̊ I J HE ̊ H& ̊ $EO ̊ H& ̊ F3 ̊ G- 3C ̊ J 1HC3D ̊ QO ̊ F C ̊
N ̊ &H4 ̊ H4 ̊ E ̊ 43C13N ̊ H& ̊ 8 H4C3C ̊ 3 ̊ &H4 ̊ 8 &3 ̊ CF$ ̊ &H4&3 ̊ 6 & O ̊
I H-EDC ̊ $ED ̊ ̊ CF$ ̊ Q3 ̊ $ &- ̊ &H4 ̊ F3 ̊ @H J J CC HE34C ̊ H& ̊ ? $ J 1C ̊
& ̊ F3O ̊ CQ$8 ̊ [̊ F E+ ̊ & ̊ $& 34 ̊ 5-D2 J 3E ̊ HQ $ E3D ̊ 2 EC ̊ F3 ̊
<&&3ED34 ̊ H ̊ 43&-C3 ̊ H ̊ 24$E ̊ $EO ̊ &43CF ̊ > N3EN3 ̊ H ̊ $EO ̊ C-NF ̊ <&&3ED34 ̊
E ̊ & - -43 ̊ "

> WWW ̊ ED ̊ Q3 ̊ ̊ 3E$N 3D ̊ * F$ ̊ 3 340 ̊ I 34CHE ̊ 3 E2 ̊ $EO ̊ 8 H4C3 ̊ I 34CHEC ̊ 3 ̊
&H4 ̊ 8 43 ̊ CF$ ̊ Q3 ̊ NF423Q 3 ̊ F ̊ F3 ̊ I $O J 3E ̊ H& ̊ F3 ̊ G- O ̊ QO ̊ F C ̊ 8H4C3C
N ̊ J 1HC3D ̊ E ̊ 43C13N ̊ H& ̊ 3 340 ̊ C-NF ̊ 3 E2 ̊ &H4 ̊ 8 43 ̊ F3 F34 ̊ C-NF ̊
I 34CHE ̊ CF$ ̊ 43N3 3 ̊ C-NF ̊ G- O ̊ H4 ̊ EH ̊ $ED ̊ 3 340 ̊ I 34CHE ̊ FH ̊ CF$ ̊
43N3 3 ̊ F3 ̊ 8 43 ̊ &H4 ̊ $EO ̊ 8 H4C3 ̊ CF$ ̊ Q3 ̊ NHEC D343D ̊ $C ̊ F3 ̊ I 34CHE ̊ H ̊ G- O F343HE ̊
FH J ̊ ̊ F3 ̊ G- 3C ̊ QO ̊ F C ̊ N ̊ 24$E 3D ̊ CF$ ̊ Q3 ̊ 1$ D ̊ $ED ̊ CF$ ̊ Q3 ̊
NF423Q 3 ̊ F ̊ F3 ̊ C$ J 3 ̊ $C ̊ & ̊ C-NF ̊ I 34CHE ̊ 343 ̊ F3 ̊ $N -$ ̊ I 4H14 3& H4 ̊
H& ̊ C-NF ̊ 8 H4C3 ̊ $ FH-2F ̊ F3 ̊ C$ J 3 ̊ J $O ̊ Q3 ̊ F3 ̊ I 4H134 O ̊ H& ̊ CH J 3 ̊ H F34 ̊
N3EC3D ̊ I 34CHE ̊ ̊ $ED ̊ F3E3 34 ̊ ̊ CF$ ̊ F$113E ̊ F$ ̊ $EO ̊ N3EC3D ̊ I HC J $C 34 ̊
I HC J $C 34 ̊ $ ̊ FHC3 ̊ EE ̊ H4 ̊ ' 3C D3EN3 ̊ $EO ̊ I 34CHE ̊ CF$ ̊ $11 O ̊ , ̊ QH J EHE ̊
NF$E23 ̊ 8 H4C3C ̊ N$EEH ̊ &-4E CF ̊ 8 H4C3C ̊ H ̊ NHE 3O ̊ C-NF ̊ I 34CHE ̊ HE ̊ F C ̊ 8H4 > ̊ CF$ ̊
5H-4E3O ̊ $ED ̊ C-NF ̊ I 34CHE ̊ CF$ ̊ 14HN33D ̊ HE ̊ F C ̊ 5H-4E3O ̊ F ̊ 8 H4C3C ̊ 2 J * N+3 C ̊
F 43D ̊ $ ̊ HD ̊ NH J E2 ̊ &4 J F ̊ $EO ̊ H F34 ̊ EE ̊ H4 ̊ I $N3 ̊ C-NF ̊ N3EC3D ̊ &H4 ̊ 8 H4C3C ̊
I HC J $C 34 ̊ CF$ ̊ CC-3 ̊ H ̊ $EO ̊ I 34CHE ̊ D3 J $ED E2 ̊ F3 ̊ C$ J 3 ̊ $ ̊ &43CF ̊ M$4EOF3D ̊ QO ̊
* N+3 ̊ 14H134 O ̊ & 3D ̊ -1 ̊ &H4 ̊ F3 ̊ E3 ̊ ? $23 ̊ H& ̊ C-NF ̊ 5H-4E3O ̊ $ED ̊ !
CF$ ̊ 43N3 3 ̊ F3 ̊ G- O ̊ 1OQ 3 ̊ E ̊ 43C13N ̊ F343H& ̊ $ED ̊ CF$ ̊ NF$423 ̊ G- O F343HE ̊
F J C3 & ̊ F ̊ C-NF ̊ G- O ̊ E ̊ F3 ̊ C$ J 3 ̊ P $EE34 ̊ $C ̊ & ̊ C-XF ̊ 8 H4C3C ̊ F$D ̊
Q33E ̊ F 43D ̊ &4H J ̊ C-NF ̊ I HC J $C 34

>WWW ̊ ED

I34CHEC EH N3EC3D 3 R E2 8H4C3C &H4 8 43 CF$ Q3 $NNH-E R $Q 3 &H4 F3 G- 3C

NNH-E H Q3 D3 343D HE $ 933+ C ,H N3 &4HJ F3 @H 3N H4 34 & 3D <E <$ F

>WWW $D 3 3E$N 3 A *F$ & $EO I34CHE EH N3EC3D H 3 8H4C3C &H4 8 43 CF$# 3 $EO 8H4C3 &H4 8 43 C-NF I34CHE CF$ Q3 NF423Q 3 F F3 G- O QO F C N J$D3 1$O$Q 3 &H4 $ED E 43C13N H& 3 34O 8H4C3 F NF CF$ Q3 CH 3 &H4 8 43 E F3 C$J3 P$EE34 $C & F3 F$D HQ $ E3D C-NF > N3EN3 $C $&H43C$ D $ED F3 F34 C-NF G- O CF$ Q3 43N3 3D &4HJ F3 I J CH$ F 4 E2 C-NF 8H4C3 H4 EH $ED 3 3&O C-NF I34CHE CH 3 E2 $EO 8H4C3 &H4 8 43 CF$ -1HE <E3 9 3 C ,H N3 9 E E2 &H4 F$ I-41HC3 H F J 2 3E QO $EO @H 3N H4 H& F3 C$ D G- 3C J4 F3 @H-E O G C 4 N H4 I $N3 F343 F3 CF CH 3 $EO 5 H4 &H4 8 3 D3 34 H C-NF @H 3N H4 $ 4-3 NNH-E E 9 4 E2 C 2E3D QO C-NF I34CHE H& 3 34O C-NF 8H4C3 F NF F3 CF$ F$ 3 3 &H4 8 43 $ED CF$ EH F3E F$ 3 $ 43$DO $NNH-E 3D &H4 3ED H& F3 P$EE34 E F NF 3 34O C-NF 8H4C3 CF$ E$ 3 Q33E 3 &H4 8 43 $ED H& F3 G- O 1$O$Q 3 E 43C13N F343H& E F3 C$J3 P$EE34 $C QO F C N C 43X- 43D H Q3 DHE3 QO N3EC3D IHC J$C 34C $ED CF$ $ CH 34 &O C-NF NNH-E QO <$ F ^ H QH $D J E C 343D QO C-NF @H 3N H4 $ED CF$ F343-1HE 1$O H

I3E$ O &H4 ,32 3N U[$ED GH-Q 3 G- 3C

ED3 J E O HE $N H-E &H4 F3 G-R 3C $ED $+R E2 H- $ > N3EN3

?-NF @H 3N H4 F3 JH-E H& C-NF G- O $ED E N$C3 H& $EO '3&-C$ H4 ,32 3N CH H DH F3E F3 CF$ &H4&3 * 3E O IH-EDC &H4 3 34O G3&$- E EH D3 34 E2 C-NF NNH-E 34 & 3D $C $&H43C$ D $ED GH-Q 3 F3 JH-E H& Q3 G- O PNF Q3 $ Q3 F3E NF423Q 3 F I4H D3D $ $OC F$ F343 $EO C NF ,H N3 CF$ F$ 3 Q33E 2 3E $C $&H43C$ D F3E -1HE F3 G3 34O H& C-HQ NNH-E E 1-4R C-$EN3 H& C-NF ,H N3 $ED -1HE I$O J 3E H& $ G- O D-3 F343HE $ED -1HE $+ E2 H- C-NF > N3EN3 $C H- F H F$ 3 Q33E $+3E H- 143 H-C O F343 H F3 I34CHE CH D3 34 E2 C-NF NNH-E CF$ Q3 D ONF$423D &4HJ $EO I3E$ O F NF F3 J$O Q3 F3E $Q 3 H E NHER C3X-3EN3 H& F$ E2 3 &H4 8 43 8H4C3 J 3E HE3D E C-NF NNH-E FH- F$ E2 HQ $ E3D C-NF > N3EN3 $C $&H43C$ D

@H J 1HC HE H Q3 1$ D &H4 8H4C3C -C3D E @$44 $23C C $ED E2 &H4 8 43 $C 8$N+E3O @$44 $23C E @H-E 4O *H EC $ED EH 2H E2 J H43 F$E ; 3 P 3C &4HJ F3 M3E34$ IHC <&& N3 F343

>WWW ED Q3 3E$N 3D *F$ 3 34O I34CHE E $EO @ O *H E H4 I $N3 FH CF$ 3 &H4 8 43]4 -C3 $EO 8 J C3 &H4 D4$ E2 $EO @$44 $23 H Q3 -C3D $C $ 8$N+E3O @$44 $23 H $EO G C $EN3 EH 3 N33D E2 6 3 P 3C &4HJ F3 @43$34$ IHC <&& N3 H& $EO C-NF @ O *H E H4 I $N3 CF$ Q3 C-Q(3N $ED $Q 3 H F3 I$O J 3E H& F3 ?-J C &H H E2 E 3- H& $ED $C $ @H J 13 HE &H4 F3 G- 3C QO F C N NF423Q 3 -1HE 8H4C3C 3 &H4 8 43 (^ F$ C H C$O F3 ?-J H& 6 3 ?F E2C 5 ! !! , H4 E 43C13N H& $ H4 $EO 8H4C3C 3 &H4 8 4< H4 -C3D &H4 D4$ E2 3 34O C-NF @$44 $23 F3E D4$ E QO * H 8H4C3C ($ED F3 ?-J H& *F433 ?F E2C &H4 H4 E 43C13N H& $EO 8H4C3 H4 8H4C3C 3 &H4 8 b]4 -C3D &^8 D4$ E2 $EO C-NF @$44 $23 F3E D4$ E QO <E3 8H4C3 ($ED C-NF I34CHE CF$ EH Q3 43X- 43D E 4 13N H& C-NF 8H4C3C CH 3 &H4 8 43 H4 -C3D $C $C $&H43C$ D H +331 F3 9 33+ O NNH-E C F343QO D 43N 3D H Q3 +31 H4 H D3 34 F3 * N+3 C F343QO D 43N 3D H Q3 D3 343D QO I34CHEC 3 E2 8H4C3C &H4 8 43. I4H D3D $ $OC F$ & $EO 8H4C3 -C3D &H4 D4$ E2 $EO C-NF @$44 $23 CF$ 2H $ 243$ 34 G C $EN3 F$E 6 3 P 3C &4HJ $EO C-NF M3E34$ IHC <&& N3 $C $&H43R C$ D F3 I34CHE 3 E2 &H4 8 43 H4 -C E2 $ C-NF 8H4C3 CF$ Q3 C-Q(3N H $ F3 '- 3C $ED '32- $ HEC H * F C N E 43C13N H& 8H4C3C 3 &H4 8 43 $ED CF$ Q3 NF423Q 3 F F3 G- 3C QO F C

I34CHEC -C E2 8H4C3C E D4$ E2 C-NF

N J1HC3D E 43C13N H& 8H4C3C 3 &H4 8 43 I4H D3D $ CH F$ F3 I34CHE 3 E2 &H4 8 43 H4 -C E2 $EO 8H4C3 &H4 D4$ E2 $EO C-NF @$44 $23

7 @$44 $23' $C' $&H43C$ D' CF$ ' $+3' H- '$' > N3EN3' 3 143CC O' $- FH4 T E2' @$44 $23C' H'
F J' CH' H' D1' $ED' CF$ ' N$-C3' 3 340' C-NF' @$44 $23' H' Q3' E- J Q343D'
$ED' CF$ ' N$-C3' F C' @F4 C $E' , $ J 3' $ED' ?-4E$ J 3' $ED' F3' , $ J 3' H&' F$41 H '
F3' @ O' * H E' H4' I $N3' H' Q3' 1$ E 3D' $ED' ECN4 Q3D' -1HE' F3' H-&4' $ED
C D3' I $EE3' H&' 3$NF' I HH4' H4' -1HE' CH J 3' NHEC1 N-H-C' I $4' H&' C-NF' F3 4' , $ J 3C'
@$44 $23' E' +3' P $EE34' $C' QO' F C' N' C' Q3&H43' D 43N 3D' E' 43C13N' F3 4'
H&' @$44 $23C' +31' H' Q3' &-4E CF3D' H4' -C3D' F' 8 H4C3C' 3' &H4' 8 43'
$ED' -ED34' $ED' C-Q(3N' H' F3' F+3' I 3E$ 3C' $C' $43' QO' F C' N' J'
1HC3D' -1HE' I 34CHEC' E32 3N E2' H' $+3' H- ' > N3EN3C' H4' E32 3N E2'
H' E- J Q34' H4' N$-C3' H' Q3' E- J Q343D' $EO' @$44 $23' +31' H' Q3' &-4R
E CF3D' H4' -C3D' $C' $&H43C$ D' H4' #32 3N E2' H' 1$ E' H4' N$-C3' H' Q3'
1$ E 3D' F343HE' F3' , $ J 3' H&' F3' I 34CHE' 3 E2' &H4' 8 43' H4' -C E2'
$EO' ?-NF' 8 H4C3' F' C-NF' @$44 $23' $ED' F3' , $ 3' H&' F3' @ O
* H E' H4' I $N3' F343' C-NF' @$44 $23' CF$ ' Q3' +31' ($ED' 3 340' I 34CHE'
3 E2' H4' -C E2' $EO' 8 H4C3' &H4' 8 43' &H4' D4$ E2' C-NF' @$44 $23' -C3D'
$C' $' 8 $N+E3O' @$4E$23' $C' $&H43C$ D' CF$ ' $ 3ED' $ED' 1$O' F3' C$ D'
9 33+ O' G- 3C' $' C-NF' * 4$3$' $ED' I $N3C' $C' I 34CHEC' N3EC3D' H' 3'
8 H4C3C' &H4' 8 43' $43' 43X- 43D' QO' F C' N' H' DH' $ED' CF$ ' Q3' C-Q(3N'
H' F3' +3' I 3E$ O' * H4' $EO' , 32 3N' H4' G3&$- ' E' $ 31D 2' $ED'
1$O E2' C-NF' G- 3C' $C' $&H43C$ D.' I 4H D3D' $ CH' F$ ' EH F E2' F343 E' - C3C' CH
NHE $ E3D' CF$ ' 3 3ED' H' 3 3 J 1' &4H J' F3' I $O J 3E' H&' F3' 23E34$' XH' H'
G- 3C' QO' F C' N' J 1HC3D' E' 43C13N' H&' 8 H4C3C' 3' &H4' 8 43' $EO' Q3' 3 3 J 1'
I 34CHE' 3 E2' 8 H4C3C' &H4' 8 43' H' D4$ ' $EO' C-NF' @$44 $23' -E 3CC' &b
C-3F' @$44 $23' CF$ ' Q3' 432- $4 O' $ED' NHEC $E O' -C3D' &H4' F3' I -41HC3' 1HC3N* Q '
H&' 1 O E2' &H4' 8 43' E' F3' 1-Q N' ? 433 C' H&' CH J 3' @ O' H4' * H E' $C' $' F C' N'
8 $N+E3O' @$44 $23' $ED' F$ ' E' $ ' E&H4 J $ HEC' N HEC' ?- C' H4' -E 3C C F3'
H F34' I 4HN33D E2C' F$ CH3 34' 43C13N E2' F3' I $O J 3E' H&' $EO' G- O' &! &*(A' &!('
H4' F3' ' 3NH 340' H&' $EO' I 3E$ O' E' 43C13N' H&' $EO' 8 H4C3' -C3D' J'
D4$ E2' $EO' C-NF' @$44 3' F3' I 4HH&' H&' C-NF' @$44 $23' Q3 E2' 432- ' 1 O E2 '
$4 O' $ED' NHEC $E O' -C3D' &H4' F3' I -41HC3' $&H43C$ D' CF$ ' Q3' -1HE'
F3' I 34CHE' 3 E2' C-NF' 8 H4C3' &H4' 8 43.' ED' 14H D3D' $ CH' F$ ' , H 13 '
B< Q & 2' F343 E' NHE $ E3D' 43 $ E2' H' F3' I $O J 3E' H&' C-NF' @H J 1H' 3ED' H
C HE' $C' $&H43C$ D' CF$ ' 3 3ED' H' $EO' 8 H4C3' H4' 8 H4C3C' -C3D' &H4' 8$N+E3O
D4$ E2' $EO' 8 $N+E3O' @$44 $23' $' $EO' I $N3' F E' F3' G C $EN3' H&' '> JD '
> 3' P 3C' &4H J' F3' M3E34$' I HC' <&& N3' E' F3' @ O' H&' <, #&, #

> WWW ' ED' Q3' ' 3E$N 3D' * F$ ' &' $EO' I 34CHE' $Q 3' -ED34' G- 3C' HE'
F3' I 4H C HEC' H&' F C' N' H' $NNH-E' &H4' $ED' 1$O' $EO' G- O' EH' 8 H4C3C' 3'
3 N33D E2' E' J H-E' F3' ?- J' H&' 6 & O' I H-EDC' &H4' H4' E' 43C13N' H&' &H4' 8 43' EH'
8 H4C3C' 3' &H4' 8 43' CF$ ' 43&-C3' H4' E32 3N' H' $NNH-E' &H4' $ED' 1$O' 3 N33D E2'
C-NF' G- O' $NNH4D E2' H' F3' G 43N HEC' H&' F C' N' ' CF$ ' Q3' ! [' 43NH 34R
$ &- ' &H4' $EO' 5-C N3' H&' F3' I 3$N3' F$O E2' 5-4 CD N HE' F343' C-NF' $Q 3' QO' G CR
8 H4C3C' CF$ ' F$ 3' Q33E' 3' &H4' 8 43' $ED' C-NF' 5-C N3' C' F343QO' 43CC' HE'
43X- 43D' HE' @H J 1 $ E' J $D3' H' F J' H' C- J J HE' F3' I $4 O' NH J R @H J 1 $ E'
1 $ E3D' H&' $ED' $EO' 9 E3CC3C' HE' 3 F34' ? D3' H' Q3' $ED' $113$4' J $D3' Q3&H43'
Q3&H43' F3' C$ D' 5-C N3' H4' Q3&H43' $EO' H F34' 5-C N3' H&' F3' I 3$N3' $' $' $' 5-C N3' H&'
* J 3' $ED' I $N3' H' Q3' $11H E 3D' &H4' F$ ' I -41HC3' ' $ED' 3 F34' HE' F3' F3' I 3$N3
113$4$EN3' H&' F3' I $4 O' NH J 1 $ E3D' H&' H4' E' D3&$- ' F343H& '
CF$ ' Q3' $ &- ' &H4' C-NF' 5-C N3' H4' $EO' H F34' 5-C N3' 143C3E' $' F3'
* J 3' ED' I $N3' $11H E 3D' &H4' C-NF' 113$4$EN3' H' 14HN33D' H'
3 $ J E3' E H' F3' P $ 34' H&' 6$N ' $ED' QE' D-3' I 4HH&' Q3 E2' J $D3' H&'
F3' ?- J' D-3' $ED' < E2' &H4' C-NF' G- O' $C' $&H43C$ D' QO' F3' H -E $4O'
@HE&3CC HE' H&' F3' I $4 O' H4' QO' F3' <$ F' H&' < E3' H4' J H43' 9 E3CC' H4'
? = '
9 E3CC3C

9 E3CC3C' H' 24E'' 9$44$E' H' $EO' @HEC $Q 3' H4' H F34' I3$N3' <? N34'H4' H' $EO' n H 3N H4' H&' F3' C$ D' G- 3C'H4' $EO' H F34' <&& N34' H&'? $J1' G- 3C' D 43N E2' F J' H' D C 4$ E' 3 340' C-NF' I34CHE' QO' F C' MHHDC' $ED' @F$ 3 C' $ED' ?CH' H' C3 T3' $ED' $+3' 43' @$44 $23C' 8H4C3C' 8$4E3CC' $ED' H F34' *F E2C' QO' F C' N' J$D3' C-Q(3N' $ED' $Q 3' H' C-NF' G- O' &H4' F3' JH-E' F343H&' $ED' H&' $ ' F3' @HC C' @F$423C' $ED' ; 13EN3C' H&' HQ $ E E2' C-NF' 9$44$E ' $ED' H&' F3' I4HN33D E2C' EN D3E' H4' 43 $ 2' 343 H'($ED' ' CF$ ' Q3' $ &-' &H4' C-NF' @HE ' C $Q 3' H4' H F34' I3$N3' <&& N34' H4' @H 3N H4' H4' <&& N34' H&' ? $J1' G- 3C' $ED' F3' C' F343QO' 43X- 43D' H' J$+3' C-NF' G C 43CC' $ED' ?3 T-43' $NNH4D E2 O' $(D' F3' G C 3CC' CH' H' Q3' $+3E' H' D3 $ E' $ED' +331' &H4' F3' ?1$N3' H&' P 3' G$OC' $' F3' @HC C' $ED' @F$423C' H&' F3' I34CHE' D C 4$ E3D' 1H$'(' $ED' &' F3' JH-E' H&' ?-NF' G- O' $ED' H&' $ ' F3' @HC C' @F$423C' $ED' ; 13EN3C' $&H43C$ D' CF$ ' EH' Q3' 1$ D' F E' C-NF' ?1$N3' H&' 6 3' G$OC ' F3E' C-NF' @HEC $Q 3' H4' H F34' I3$N3' <&& N34' H4' @H 3N H4' H4' <&& N34' H&' ? $J1' G- 3C' CF$ ' N$-C3' F3' MHHDC' $ED' @F$ DC' @$44 $ o' 9H4C3C' 8$4E3CC' $ED' H F34' *F E2C' CH' C3 T3D' H4' $+3E' H' Q3' CH D' E' F3' P$EE34' D 43N 3D' QO' F C' N' $ED' CF$ ' 43ED34' F3' < 3. C' ^ &' $EO_' H&' 3' PHE30' $4 C E2' QO' F3' ?$ 3' F343H&' $& 34' D3D-N E2' $ED' 43 $ E E2' F3' JH-E' H&' C-NF' G- O' $ED' $ ' F3' @HC C' @F$423C' $ED' ; 13EN3C' $&H43C$ D' $C' 3' $C' F3' @F$423C' $ED' ; 13EN3C' H&' F3' ?$ 3' H' F3' I34CHE' CH' D C 4$ E3D' -1HE' H4' H' F3' < E34' H&' F3' @$44 $23C' 8H4C3C' 8$4E3CC' H4' H F34' *F E2C' CH' C3 T3D' $ED' $+3E' $C' $&H43C$ D'($4 D' &H ' F3' I-41HC3' H&' $+ E2' C-NF' G C 43CC' 'CF$ ' Q3' $ &-' &H4' C-NF' @HEC $Q 3' H4' H F34' I3$N3' <&& N34' $ED' &H4' C-NF' @H 3N H4' H4' <&& N34' H&'? $J1' G- 3C' E' F3' I43C3EN3' H&' $EO' @HEC $Q 3' H4' H F34' I3$N3' <&& N34' F343' $EO' '3&-C$' H4' '3C C $EN3' CF$ ' Q3' J$D3' H' Q43$+' H13E' E' F3' G$O J3' $EO' 8H-C3' B- D E2' H4' I $N3' F343' $EO' C-NF' @$44 $23C' 8H4C3C' 8$4E3CC' H4' H F34' 4 N 3C' $ED' *F E2C' H4' $EO' MHHDC' H4' @F$ 3 C' H' Q3' C3 T3D' H4' $+3E' -ED34' C-NF' 9$44$E' $C' $&H43C$ D 'CF$ ' Q3' $ED' &' EH' G C 43CC' N$E' Q3' F$D' H4' $+3E' F343HE' H' 3 O' C-NF' G- O' @HC C' @F$423C' $ED' ; 13EN3C' H4' E' N$C3' $E' EC-&& N 3E' G C 43CC' HE O' N$E' Q3' &H-ED' $ED' CF$ ' Q3' $+3E' F3E' 'CF$ ' Q3' $ &-' &H4' F3' 5-C N3' QO' FHJ' C-NF' 9$44$E' CF$ ' Q3' 24$E 3D' H' NHJ J ' F3' I34CHE' QO' H4' &4HJ' FHJ' C-NF' G- O' @HC C' @F$423C' $ED' ; 13EN3C' H4' $EO' I$4' F343H&' CF$ ' 43J$ E' D-3' H4' H E2' H' F3' @HJ JHE' M$H' H4' 8H-C3' H&' @H443N HE' F343' H' 43J$ E' -E ' $ ' C-NF' G- O' $ED' $ ' @HC C' @F$ 23C' $ED' ; 13EN3C' H4' CH' J-NF' F3 3H&' $C' CF$ ' 43J$ E' $& 34' D3D-N E2' F343&4HJ' F3' I4HN33DC' H&' F3' ?$ 3' H&' $EO' EC-&& N 3E' G C 3CC' F NF' J$O' F$ 3' Q33E' $+3E' $ED' CH D' CF$ 'Q3' &- O' 1$ D' $ED' C$ C& 3D

*F3' G- 3C' HE' 8H4C3C' 3' &H4' 8 43' J$O' &$J)' >WWW ' ED' Q3' '3E$N 3D' *F$ ' &4HJ' $ED' $& 34' F3' 1$CC E2' H&' F C' N' ' CF$ ' Q3' $ &-' &H4' F3' >H4DC' @HJ J CC HE34C' H&' 8 C' P$(3C O C' *43$C-40' $' $EO' * J3' $ED' &4HJ' * J3' H' * J3' $C' 'CF$ ' Q3' FH-2F' 3 13D 3E ' 3 F34' QO' F3 J C3 3C' H4' QO' F3' @HJ J CC HE34C' H&' ? $J1C' QO' F3 J' $- FH4 T3D' &H4' F$' I-41HC3' H' 3 ' H' &$4 J' F3' C3 34$' G- 3C' QO' F C' N' 24$E 3D' E' 43C13N' H&' 8H4C3C' 3 ' &H4' 8 43' H' $EO' I34CHEC' FH' CF$ ' Q3' E2' H' &$4 J' F3' C$ D' G- 3?' H4' $EO' I$4' F343H&' E' C31$4$ 3' G C HEC' H4' G C 4 N C' $NNH4D E2' H' F3' '32- $ HEC' $ED' E' F3' P$EE34' F343 E $& 34' J 3E HE3D' I4H D3D' $ $OC' F$' 'CF$ ' EH' Q3' $ &-' H' 3 ' H' &$4 J' F3' C$ D' G- 3C' H4' $EO

$EO 0$ F343H& $ $EO < E3 * J 3 &H4 $EO HE234 I 34 HD H4 * 34E
F$E * F433 = 3$4C &4H J F3 G$0 HE F NF $EO C - NF 3 E2 H &$4 J
CF$ NH J J 3EN3 $ED $+3 3&&3N

> WWW ED F3 3E$N 3D * F$ $, H N3 H& < E3 @$ 3ED$4 , H N3 H&
P HE F $ 3$C CF$ Q3 2 3E QO F3 C$ D > H4DC @H J J CC HH34C H& 3 H2 H Q3
F3 * 43$C - 4O H4 QO F3 @H J J CC HE34C H& ? $ J 1C E F3 < , #& , #
! ! H& F3 * J 3 $ED I $N3 H& 3 E2 H &$4 J F3 C$ D G - 3C
H4 $EO I $4 F343H& C13N &O E2 F3 G C HEC H4 G C 4 N C F3 G - 3C
F E F NF C E 3ED3D H 3 H &$4 J $ED $ CH F3 I $N3 H4
< && N3 $ F NF I 4H1HC$ C &H4 $+ E2 H &$4 J C - NF G - 3C H4 $EO
I $4 F343H& CF$ Q3 D3 343D

> WWW ED Q3 3E$N 3D * F$ EH C - NF I 4H1HC$ C CF$ Q3 I 4H1HC$ C H
14HN33D3D - 1HE - E 3CC F3 C$ J 3 Q3 C 2E3D QO $ED E F3 14H134 Q3 D3 343D
, $ J 3C H& F3 I $4 3C 14H1HC E2 H Q3NH J 3 B DD34C $ED C13N &O E2
F3 1 $N3C H& F3 4 QHD3 EH4 - E 3CC C - NF I 4H1HC$ C CF$ F$ 3 Q33E
D3 343D $C $&H43C$ D $ 3$C * F433 G$OC 143 H - C H F3 G$O
J 3E HE3D E F3 < , #& , # ! ! &H4 3 E2 H &$4 J F3 G - 3C H
F NF C NF I 4H1HC$ C CF$ 43 $ 3

> WWW W ED Q3 3E$N 3D * F$ F3 B DD E2C &H4 C - NF G - 3C P HD3 H& I 4H
CF$ Q3 NHED - N 3D - ED34 C - NF ; 32 - $ HEC $C CF$ Q3 3C $Q CF3D &H4 N33D E2 E
F$ I - 41HC3 QO F3 > H4DC @H J J CC HE34C H& F3 * 43$C - 40 < 4 QO F3 1 - E2 - 1
@H J J CC HE34C H& ? $ J 1C D - O $ - FH4 T3D $C $&H43C$ D $ED F$ F3 F3 G - 3C
I 34CHE FH CF$ Q3 F3 F 2F3C B DD34 CF$ Q3 F3 6$4 J 34 H&
3E 34 H& F3 C$ D G - 3C H4 C - NF I $4 F343H& $C CF$ Q3 F3E 1 -
- 1 H &$4 J &H4 C - NF * 34 J EH 3(NN33D E2 * F433 = 3$4C $C $&H43C$ D
$C J $O Q3 D3 34 J #3D HE $ED $? CF$ Q3 EC34 3D E F3 < , #& , #
! ! = $ED C - NF I 34CHE CF$ 3 3N - 3 $ @HE 4$N H Q3 1431$43D * F3 F 2F3C
E 1 - 4C - $EN3 H& F C N NHE $ E E2 C - NF @H 3E$E C I 4H CH3C $ED B DD34 H
@HED HEC $C F3 C$ D > H4DC @H J J CC HE34C H4 F3 @H J J CC HE34C 3 3N - 3 $
H& ? $ J 1C $ - FH4 T3D $C $&H43C$ D CF$ D33 J E3N3CC$4O H4 3 13D 3E @HE 4$N H
&H4 C3N - 4 E2 F3 I $O J 3E H& F3 P HE3O H4 O3$4 O 3E NHE 4$N 3D &$4 J F3 G - R
&H4 $C 3 $C &H4 C3N - 4 E2 $ED NH J 13 E2 $ D - 3 @H J 1 $E33 F 3C J D 2 3
F3 * 34 J C $ED 32 - $ HEC H& F C N $ED ? - NF I 3&CH$ CF$ $ CH ? 3N - 4 O &H4
2 3 ? 3N - 4 O QO BHED H 8 C P $(3C O F * F433 H4 J H43 C - && N 3E F3 I 34&H4 J R
? - 43 3C H F3 ? $ C&$N HE H& F3 C$ D > H4DC @H J J CC HE34C H4 H& $EN3 F343H&
F3 @H J J CC HE34C H& ? $ J 1C &< 4 C3N - 4 E2 F3 I 34&H4 J $EN3 H& F3
C3 34$ @H 3E$E C @ $ - C3C $ED 2433 J 3E C NHE $ E3D E C - NF
@HE 4$N $ED $ CH &H4 C3N - 4 E2 F3 I $O J 3E H& F3 C$ D P HE3O H4
3$4 O 3E CH NHE J N 3D &H4 H F3 3N3 34 M3E34$ H& ? $ J 1
- 3C $ F3 8 3$D < && N3 &H4 ? $ J 1C E !1 #1 ! E 3X - $
H4 HEC QO ; 2F C3 34$ I $O J 3E C E F3 = 3$4 HE F3 G$OC H Q3
3D $ED $11H E 3D Q3&H43 $EO C - NF 3 E2 H &$4 J $C $&H43C$ D

W@ ED Q3 3E$N 3D * F$ CF$ Q3 $ & - &H4 F3 C$ D > H4DC G31HCF H
@H J J CC HE34C H& F3 * 43$C - 40 H4 F3 C$ D @H J J CC HE34C H& ? $ J 1C
$ - FH4 T3D $C $&H43C$ D H $11H E F3 * J 3 &H4 J $+ E2 $ G31HC H& &$4 E(E2 F3
$? - J H& P HE3O $ED F3 J H - E F343H& HE $NNH - E H& F3 3E G - 3C
H Q3 1$ D QO F3 I 34CHE FH CF$ Q3 D3N $43D F3 6$4 J 34 H& $EO H&
F3 C$ D G - 3C F343QO $ H 3D H Q3 &$4 J 3D ! $ED E N$C3 $EO C - NF
I 34CHE CF$ &$ H J $+3 C - NF G31HC $ F3 * J 3 $11H E 3D H4
CF$

CF$ ' &$ ' H' 3 3N- 3' $' 14H134' @HE 4$N ' E' 9 4 E2' $ED' H' 2 3' C$ CR &$N H4O' ?3N-4 O' &H4' F3' I $O J 3E ' H&' F3' ' 3E ' $ED' F3' D-3' I 34&H4 J R $EN3' H&' C-NF' @HE 4$N ' E' F3' P $EE34' D 43N 3D' QO' F C' N ' F E' F3' * J 3' H' Q3' $11H E 3D' &H4' F$ ' I -41HC3' ' CF$ ' Q3' $ &- ' &H4' F3' C$ D' >H4DC' @H J J CC HE34C' H4' F3' @H J J CC HE34C' H&' ? $ J 1C' $- FH4 T3D' $C' $&H43C$ D' H' D3N $43' F3' B DD E2' $ED' @HE 4$N ' H&' C-NF' I 34CHE' H' Q3' E- ' $ED' H D' $ED' F3' G31HC ' F343HE' J $D3' ^ &' $EO_' H' Q3' &H4&3 3D

&' F3' G- 3C' Q3' EH' 3' $' F3' * J 3' & 3D' H4' &' F3' @HE 4$N ' &H4 &$EE E2' F3' C$ J 3' Q3' N 3D' F3O' J $O' Q3' 1-' -1' 2 E' H4 Q3' 3' QO 14 $ 3' @HER 4$N

W@ ' ED' Q3' ' 3E$N 3D' * F$ ' E' N$C3' $EO' H&' F3' C$ D' G- 3C' H' $4 C3' E' $EO' G C 4 N ' CF$ ' EH ' Q3' 3 ' H' &$4 J' $' F3' * J 3' J 3E HE3D' E' C-NF' D 34 C3 J 3E ' &H4' 9 $E ' H&' $' C-&& N 3E ' B DD E2' &H4' C-NF' G- 3C' H4' E' N$C3' F3' B DD E2' H4' @HE 4$N ' H&' $EO' I 34CHE' FH' CF$ ' F$ 3' Q33E' D3N $43D' F3' Q3C ' B DD34' &H4' H4' F3' 6$4 J 34' H&' $EO' H&' F3' C$ D' G- 3C' CF$ ' Q3' D3N $43D' H4' CF$ ' Q3NH J 3' E- ' $ED' H D' ' CF$ ' Q3' $ &- ' &H4' F3' C$ D' >H4DC' @H J J CC HE34C' H4' F3' @H J J CC HE34C' H&' ? $ J 1C' $- FH4 T3D' $C' $&H43C$ D' &H4 J' * J 3' H' * J 3' F3E3 34' $EO' C-NF' ; 3E ' CF$ ' F$113E' H' $11H E ' C-NF' &- -43' G$O' $C' F3O' CF$ ' (-D23' J HC ' 14H134' &H4' 3 E2' H' &$4 J' F3' C$ D' G- 3C' H' $4 C3' E' C-NF' G C 4 N ' E' F3' P $EE34' $ED' -1HE' F3' +3' , H N3' $C' F343 E Q3&H43' D 43N 3D' H4' H' 43N3 3' I 4H1HC$ C' &H4' &$4 J E2' C-NF' G- 3C' $ED' H' 3 ' F3' C$ J 3' H' &$4 J' QO' 14 $ 3' @HE 4$N ' &H4' $EO' C-NF' I 34 HD' H&' * J 3' $C' $&H43C$ D'. I 4H D3D' $ $OC' F$ ' EH' @HE 4$N ' &H4' 3 E2' H' &$4 J' F3' C$ D' G- 3C' CF$ ' Q3' J $D3' F' $EO' N3EC3D' I HC J $C 34' EH4' F' $EO' I 34CHE' &H4' F3' #C3' H4' HE' Q3F$ &' H&' $EO' N3EC3D' I HC J $C 34' EH4' CH' $C' F$ ' $EO' N3EC3D' I HC J $C 34' CF$ ' F$ 3' $EO' E 343C ' E' H4' $EO' B3E3& ' &4H J' $EO' C-NF' @HE 4$N ' $ED' $EO' C-NF' @HE 4$N ' J $D3' NHER 4$4O' H' F C' N ' CF$ ' Q3' - 34 O' E- ' $ED' H D' ' $ED' &' $EO' @HE 4$N ' J $D3' E' 1-4C-$EN3' H&' F C' N ' CF$ ' Q3' $CC 2E3D' H' $EO' N3EC3D' I HC R J $C 34' H4' H' $EO' H F34' I 34CHE' &H4' F3' #C3' H&' $EO' N3EC3D' I HC J $C 34' H4' CH' F$ ' F3' CF$ ' F$ 3' $EO' E 343C ' F343 E' H4' $EO' B3E3& ' F343&4H J ' C-NF' CC 2E J 3E ' CF$ ' $ CH' Q3' - 34 O' E- ' $ED' H D

G- 3C' EH' H Q3' &$4 J 3D' QO' $EO' I 34CHEC' N3EC3D' H 3 ' 8H4C3C

W@ ' ED' E' H4D34' H' 143 3E ' G C1- 3C' NHEN34E E2' F3' C$ D' G- 3C' F3E' 3 ' H' &$4 J E' @$C3C' F343' F3' C$ J 3' J $O' Q3' NH 3N 3D' E' HE3' G C 4 N ' H4' G C HE' $ED' F3' * N+3 C' J $O' Q3' D3 343D' E' $EH F34' G C 4 N ' H4' G C HE ' Q3' ' 3E$N 3D' * F$ ' E' C-NF' @$C3' F3' G- 3C' CF$ ' Q3 HE2' $ED' F3' * N+3 C' CC-3D' F343-1HE' CF$ ' Q3' D3R 343D' $ED' $NNH-E 3D' &H4' H' F3' I 34CHE' FH' CF$ ' Q3' F3' 6$4 J 34' H&' F3' G- 3C' $4 C E2' F E' F3' G C 4 N ' H4' G C HE' F E' F NF' F3' EE' 8H-C3' H4' H F34' I $N3' CF$ ' Q3' C -$ 3' $' F NF' F3' I HC J $C 34' CF$ ' Q3' N3EC3D' ' $ED' 3 34O' * H 2$ 3' %33134' $' FHC3' M$ 3' H4' B$4' C-NF' * N+3 ' CF$ ' Q3' D3 343D' CF$ ' D3 34' F3' C$ J 3' H' F3' 6$4 J 34' H&' F3' C$ D' G- 3C' $4 C E2' F E' C-NF' G C 4 N ' H4' G C HE' $C' $&H43C$ D' $' C-NF' * J 3' $ED' E' C-NF' P $EE34' $C' C-NF' * N+3 C' $43' QO' F C' N ' D 43N 3D' H' Q3' D3 343D' H' F3' C3 34$' @H 3N H4C' H&' F3' C$ D' G- 3C' F3E' F3' C$ J 3' $43' EH ' 3 ' H' &$4 J

G- 3C' CF$ ' Q3 HE2' H' F3' G C 4 N ' F343' F3' * N+3 C' $43' CC-3D

6$4 J 34C' H&' F3' G- 3C' EH' H' Q3' D CX-$ & 3D

W@ ' ED' Q3' ' 3E$N 3D' * F$ ' EH' I 34CHE' NHE 4$N E2' H' &$4 J' F3' C$ D' G- 3C' H4' $EO' I $4 ' F343H&' H4' $11H E 3D' $' @H 3N H4' F343H&' CF$ ' QO' 43$CHE' H&' C-NF' @HE 4$N ' H4' 11H E J 3E ' Q3' D CX-$ & 3D' H H 3' $' F3' ; 3N HE' H&' $EO' P 3 J Q34' H' C34 3' E' I $4 $ J 3E ' $EO' >$ ' H4' #C$23' H' F3' NHE 4$4O' F343H&' EH FC $ED E2

W@ ' ED

U/ K S M#> ; > P @$1 U[

W@ ED Q3 3E$N 3D *F$ CF$ Q3 $ &- &H4 F3 @H J R J CC HE34C H& ? $ J 1C &4H J * J 3 H * J 3 $C <NN$C HE CF$ 43X- 43 H D31- 3 $ED $11H E $C 3 F3 I 34CHEC FH CF$ Q3NH J 3 6$4 J 34C H4 >3CC33C H& F3 C$ D G- 3C $4 D F3 4 ; 3N- H4C D J E C 4$ H4C $ED CC 2EC $C $EO H F34 I 34CHEC $114H 3D QO F3 C$ D @H J J CR C HE34C -1HE F3 , H J E$ HE $ED &H4 F3 # C3 H& C-NF 6$4 J 34C H4 >3CC33C H4 F3 4 ; 3N- H4C D J E C 4$ H4C H4 CC 2EC H Q3 @D 3N H4C H& F3 G- 3C CH &$4 J 3D $4 C E2 F E F3 43C13N 3 G C 4 N C FF &- I H 34 H 24$E F3 E3N3CC$4O > N3EN3C H I 34CHEC F E F3 43C13N 3 G C 4 N C &H4 3 E2 8 H4C3C &H4 8 43 $ED H 43N3 3 F3 ? $ J 1 <&& N3 9 33+ O NNH-E C 43 $ E2 H F3 C$ D G- 3C QO F C N D 43N 3D H Q3 D3 343D QO N3EC3D I HC J $C 34C F E F3 4 43C13N 3 G C 4 N C $ED H 43N3 3 F3 P HE3O D-3 F343HE $ED 23E34$ O H 3 3N- 3 $ED 134&H4 J $ H F34 F3 I H 34C P $ 34C $ED *F E2C H-NF E2 F3 NH 3N E2 F3 J E2 E2 $ED 3E&H4N E2 F3 1$O J 3E H& F3 C$ D G- 3C F E F3 4 43C13N 3 G C 4 N C F NF QO F C N $43 $- FH4 C3D H Q3 DHE3 QO $EO @H 3N H4 H& F3 C$ D G- 3Cd $ED FH G31- $ HE H47@H J J CC HE $11H E E2 $EO I 34CHE H Q3 $ @H 3N H4 H& F3 C$ D G- 3C HE 8 H4C3C 3 &H4 8 43 CF$ Q3 NF$423D <4 NF$423$Q 3 F $EO F 2F34 ? $ J 1 G- O F$E <E3 I H-ED 6 & 33E ?F E2$. I 4H D3D $ $OC F$ CF$ Q3 $ &- &H4 F3 C$ D @H J J CC HE34C H 43 H+3 F3 G31- $ HE H4 11H E J 3E $ED F FH4 O H& $EO I 34CHE D31- 3D D4 $11H E 3D $ @H 3N H4 H& F3 C$ D G- 3C -1HE $EO C-NF , H J E$ HE $C $&H43C$ D F3E3 34 F3 C$ D @H E J CC DE34C CF$ F E+ & CH H DH

@HE$ E CC HF 34C H& ?3 -1C J $O D31- 3 F3 6$4 J 34C $ED H F34 I 34CHEC HE F3 4 B3F$ & H 3 @H#33 H4C H& F3 C$ D 5 ED3C

W@ ED Q3 3E$N 3D *F$ CF$ Q3 $ &- &H4 C-@F 6$4 J 34C H4 I 34CHEC CH &$4 J E2 F3 C$ D G- 3C H4 $EO I $4 F343H& F F3 @HEC3E H& F3 @H J J CC HE34C H& ? $ J 1C H $4O F3 6H4 J H&+331 E2 F3 9 33+ O NNH-E D 43N 3D QO F C N H Q3 +31 QO F3 C3 34$ N3EC3D I HC J $C 34C F E F3 4 43C13N 3 G C 4 N C E C-NF P $EE34 $C C-NF 6$4 J 34C CF$ (-D23 J HC NHE 3E 3E &H4 +331 E2 C-NF NR NH-E C $ED $ CH H $DD &H3 , $ J 3 H4 , - J Q34 H& F3 4 43C13N 3 G C 4 N C HE &H3 6$N3 H4 B$N+ H& &H3 * N+3 C H Q3 D3 343D QO F3 J H F3 C3 34$ N3EC3D I 34CHEC E &H3 4 43C13N 3 G C 4 N C

6$4 J 34C J $O $4O F3 6H4 J H& +331 E2 F3 9 33+ O H(## #1 $ED $DD F3 , $ J 3C H& F3 4 G CR 4 N C HE F3 * N+3 C

W@ > ED Q3 3E$N 3D *F$ $ F3 I H 34C I 4H C HEC 32 J $ HEC P $ 34C $ED *F E2C 2 3E 143CN4 Q3D H4 $11H E 3D QO F C N F 43 $ HE H F3 G- 3C HE 8 H4C3C 3 &H4 8 43 H4 H F3 I 34CHEC $11H E 3D H4 H Q3 $11H E 3D H NH 3N F3 C$ J 3 J $O Q3 1- E &H4N3 $ED N$44&HD E H 3 3N- HE QO $EO I 34CHE &$4 J E2 &H3 C$ D G- 3C H4 $EO I $4 F343H& E +3 P $EE34 $C $EO @H 3N H4 H& F3 C$ D G- 3C C $- FH4 T3D $ED 3 J 1H 343D QO F C N H 1- E &H4N3 $ED 3 3N- 3 &H3 C$ J 3 $ED 3 34O I 34CHE &$4 J E2 F3 C$ D G- 3C H4 $EO I $4 F343H& CF$ Q3 3E 3D H F3 C$ J 3 I 4 323C $ED H F$ 3 $ED -C3 F3 +3 3 J 3D 3C &H4 NH 3N E2 $ED 43NH 34 E2 &H3 G- 3C QO F C N J 1HC3D $C & F3 G- 3C 343 C#3D &H4 QO H4 HE F3 B3F$ & H& 8 + P 3C O $ED $C & C-NF G- 3C F$D EH Q33E 3 H&H4 J

F3 I H 34C H& @H 3N H4C -ED34 F C N J $O Q3 3 34N C3D QO F3 6$4 J 34C H& F3 G-R 3C

WM ED Q3 3E$N 3D *F$ CF$ EH Q3 4 3N3CC$ O -1HE 9F$ F3 * H4 8 3$4 E2 H& $EO E&H4 J $ HE N HE ?- H4 H F34 I 4H Q3 "!'+? F$ N33D E2 H Q3 NH J J 3EN3D &H4 F3 3NH 34O H& $EO H& F3 C$ D G- 3C 8 H4C3C 3 &H4 8 4 F 3F CF$ Q3 3 H &$ > F 1 J C#$EN3 4& U U

F?

F C N H4 &H4 F3 '3NH 340 H& %$0 I3E$ 0 J1HC3D Q0 F C N F 43$ HE H F3 C$D G- 3C H 14HD-N3 F3 EC 4-J3E F343Q0 F3 @HJJ CC HE34C H& ?$J1C CF$ Q3 $- FH4 T3D H 3 H &$4J F3 C$D G- 3C H4 $E0 , F3J EH4 H 14H 3 F3 ; 3N- HE H& $E0 @HE 4$N H4 2433J3E F343Q0 $E0 H& F3 C$D G- 3C CF$ Q3 3 H &$4J EH4 H 14H 3 F3 ; 3N- HE H& $E0 CC 2ER J3E H& $E0 C-NF @HE 4$N H4 2433J3E EH4 H 14H 3 F3 ?2E$ -43C .2 F3 C$D @HJJ CC HE34C Z ?$J1C H $E0 @HEC3E H 14HC3N- 3 &H4 $E(4 2-NF I3E$ 0 $C $&H43C$D. I4H D3D $ $0C F$ C-NF @HE 4$N 2433J3E " H4 CC 2EJ3E $ED @HEC3E H 14HC3N- 3 CF$ Q3 14HD-N3D <B F3 *4$ H4 83$4 E2 H& $E0 C-NF E&H4J$ HE N HE ?- H4 I4HN33D E2 $ED CF$ Q3 J$D3 H $113$4 F$ F3 I34CHE N$ J E2 H4 $N E2 -ED34 C-NF @HE 4$N 2433J3E H4 CC 2EJ3E F$D E &$N $N 3D $C F3 6$4J34 H& F3 G- 3C F343 E J3E HE3D CHJ3 H& &$3J(. $ED E 3 340 C NF @$C3 C-NF I4HH& CF$ Q3 D33J3D $ED $+J(Q0 F3 @1 4 H4 5-C N3 Q3&H43 FHJ $E0 C-NF *4$ H4 83$4 E2 CF$ Q3 F$D H Q3 2HHD $ED 32$; D3EN3 H& C-NF I34CHE Q3 E2 F3 6$4J34 H& F3 G- 3C J3E HE3D E C-NF @HE 4$N 2433J3E CC 2EJ3E D4 H F34 EC 4-J3E -E 3CC Q0 H F34 ; D3EN3 F3 NHE 4$40 CF$ Q3 J$D3 H $113$4 $E0 >$ H4 #C$23 H F3 NHE 4$40 EH FC $ED E2

<&& N34C E32 334 E2 F3 4 G- 0 H Q3 $Q 3 H N HEC

W@ ED Q3 3E$F 3D *F$ & $F0 <&& N34 H& S $J1 G- 3C H4 H F34 I34CHE 3J1 HO3D E F3 ; 3N- HE H& F C N E 43$ HE H F3 C$D G- 3C HE 8H4C3C 3 &H4 8 43 CF$ &- 0 43&-C3 H4 E32 3N H DH H4 134&H4J $E0 P$ 34 H4 *F E2 Q0 F C N 43X- 43D H4 D 43N 3D H Q3 DHE3 H4 134&H4J3D Q0 C-NF <&& N34 H4 I34CHE F343Q0 $E0 H& 8 C P$(3C O C ?-Q(3N C CF$ C-C$E $E0 G$J$23 C-NF <&& N34 H4 I34CHE CF$ Q3 $H 3 E $E N HE H Q3 &H-ED3D HE F C ?$ - 3 H $EC 34 H F3 I$4 0 $224 3 &H4 $ C-NF GJ23C F &- @HC C H& ?-

&C13N H4C $ED @H 3NR H4C J$0 3E 34 *H 8H-C3C H NF3N+ ?$23 @$44 $23C $ED 8H4C3C 3 &H4 8 43 $ED H 43N3 3 * N+3 C KN

W@ W ED Q3 3E$N 3D *F$ CF$ Q3 $ &- &H4 $E0 EC13N H4 H& ?$J1 G- 3C H4 $E0 @H 3N H4 H& F3 G- 3C Q0 F C N 24$E 3D E 43C13N H& 8H4C3C 3 &H4 8 43 H4 &H4 $E0 H F34 I34CHE $- FH4 T3D Q0 F3 @HJJ CC HE34C H& ?$J1C HE 14HD-N E2 $ED CFH E2 ^ & 43X- 43D CH H DH_ F C 11H E J3E H4 - FH4 0 E 9 4 E2 &4HJ * J3 H * J3 H 3E 34 E H $E0 *H 8H-C3 H4 H F34 I $N3 $ F NF $E0 *H C H4 CF$ Q3 Q0 >$ 1$0$Q 3 H4 $E0 * N+3 CF$ Q3 43N3 $Q 3 -ED34 F C N $ED E C-NF *H 8H-C3 H4 H F34 I $N3 H 43J$E CH HE2 $C C-NF EC13N H4 @ D 3N H4 H4 H F34 I34CHE CH $- FH4 T3D CF$ F E+ & $ED 43X- C 3 &H4 F3 I-41HC3 H& 3 $J E E2 $ED NF3N+ E2 F3 ?$23 @$44 $23C 4$ 3 E2 -1HE $E0 *-4E1 +3 H4 H F34 'H$D H4 &H4 F3 1-41HC3 H& 43N3 E2 $ED 3 $J E E2 F3 * N+3 C 43$ E2 H 8H&?3C 3 &H4 8 43(J$D & $E0 *HB 2$ 3 %33134 *H @H 3N H4 H4 H F34 I34CHE CF$ 43&-C3 H 134J $E0 C-NF EC13N H4 @H &HN H4 H4 H F34 I34CHE $- FH4 3D $C $&H43R C$D H 3E 34 E H H4 H 43J$E E $E0 *H 8H-C3 H4 H F34 J D I $N3 $C $&H43C$D H4 CF$ HQC 4-N <4F ED34 H4 JH 3C C-NF EC13N H4 @H 3N H4 H4 H F34 I34CHE $- FH4 T3D $C $&H43C$D E 3E 34 E2 E H H4 43J$E E2 E C-NF *H 8H-C3 H4 I $N3 &H4 F3 IJ JHC3C $&H43C$D H4 & $E0 *H 2$ 3 %33134 *H @H 3N H4 H4 H Q34 (E3 CHE CF$ $ $E0 $0 F ED34 JH 3C H4 D C -4Q H4 -C3 $Q-C 3 H4 EC- E2 >$E2-$23 H C-NF EC13N H4 @H 3N H4 H4 H F34 I34CHE $- FH

I3E$ 0 &H4 43&-C E2 H 134J F3J H 3E 34 H4 HQC 4-N E2 F3J E F3 G CNF$423 H& F3 4 G- 0

4 T3Dʻ $Cʻ $&H43C$ D ʻ 3 F34ʻ Eʻ F3ʻ G CNF$423ʻ H&ʻ F Cʻ G- Oʻ H4ʻ Eʻ F3ʻ
43CHEQ 3ʻ #C3ʻ H&ʻ C-NFʻ *H ʻ 8H-C3ʻ H4ʻ H F34ʻ I $N3ʻ $Cʻ $&H43C$ D ʻ 3 34Oʻ
I 34CHEʻ CHʻ H&&3ED E2ʻ CF$ ʻ &H4&3 ʻ * 3E Oʻ I H-EDC

@ ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ *F$ ʻ &ʻ $EOʻ 134CHEʻ CF$ ʻ 43N3 3ʻ $EO ʻ ?-J ʻ I3E$ OʻHEʻ
H&ʻ P HE3O ʻ H4ʻ $EOʻ H F34ʻ @HEC D34$ HEʻ H4ʻ ʻ 3 $4Dʻ H&ʻ $EOʻ + EDʻ F$ ʻ NHEE 4 E2$ ʻ
CH3 34 ʻ &H4ʻ $ D E2ʻ H4ʻ $CC C E2ʻ Eʻ H4ʻ &H4ʻ NHEE E2ʻ $ ʻ F3ʻ @H J J CC HEʻ
H&ʻ $EOʻ <&&3EN3ʻ 2 EC ʻ F Cʻ N ʻ F3ʻ CF$ ʻ &H4&3 ʻ * 3E Oʻ I H-EDC

@>ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ *F$ ʻ $ ʻ G- 3Cʻ 24$E 3Dʻ H4ʻ J 1HC3Dʻ FOʻ 5G- 3C!(H+Oʻ
H4ʻ E3- 43Dʻ -ED34ʻ F Cʻ N ʻ J $Oʻ F3ʻ C-3Dʻ &H4ʻ $EDʻ 43NH 343Dʻ QOʻ $ ʻ 34$Q 3ʻ $Cʻ
C-NFʻ 9 $OCʻ $EDʻ P 3$ECʻ $EDʻ Eʻ C-NFʻ P $EE34ʻ $EDʻ 6H4 J ʻ $Cʻ $43ʻ $EDʻ Cʻ #J(!ʻ? E1ʻ
H4ʻ $ ʻ $EOʻ * J 3ʻ F343$& 34ʻ CF$ ʻ Q3ʻ 14H D3Dʻ QOʻ >$ ʻ &H4ʻ F3ʻ ʻ 3NH 34Oʻ G- 3C
H&ʻ $EOʻ H F34ʻ G- 3Cʻ 24$E 3Dʻ H4ʻ J 1HC3Dʻ QOʻ H4ʻ EN-443Dʻ -ED34ʻ $EOʻ
H F34ʻ N ʻ 43 $ E2ʻ Hʻ ? $J 1ʻ G- 3C ʻ $Cʻ 3 ʻ $Cʻ QOʻ F3ʻ 1$4 N- $4ʻ
9 $OCʻ $EDʻ P 3$ECʻ 14H D3Dʻ QOʻ F Cʻ N ʻ($EDʻ Eʻ $ ʻ N HEC ʻ I C G- 3Cʻ $EDʻ
I $ E C ʻ E&H4 J $ HEC ʻ $EDʻ I 4HN33D E2Cʻ Hʻ QNʻ NH J J 3EN3D ʻ 14HC3N- 3D ʻ I3E$ 3Cʻ 43R
3E 343D ʻ H4ʻ & 3Dʻ Eʻ F3ʻ , $J 3ʻ H&ʻ 8 Cʻ P $(3C Oʻ H4ʻ H&ʻ $EOʻ 3 F34ʻ I 34CHEʻ NH 34$Q 3ʻ
&H4ʻ F3ʻ ʻ 3NH 34Oʻ H&ʻ $EOʻ C-NFʻ G- 3C ʻ H4ʻ H&ʻ $EOʻ G3Q Cʻ H4ʻ I 3E$ 3Cʻ Fʻ @HC C
F NFʻ J $Oʻ Q3ʻ EN-443Dʻ H4ʻ Q3NH J 3ʻ 1OQ 3ʻ -ED34ʻ F Cʻ N ʻ ʻ CF$ ʻ
Q3ʻ $ &- ʻ &H4ʻ 8 Cʻ P $(3C O ʻ H4ʻ $EOʻ H F34ʻ I 34CHEʻ 32$ Oʻ 3E 3Dʻ Hʻ
C-3ʻ H4ʻ * 4HC3N- 3ʻ &H4ʻ F3ʻ C$J 3 ʻ Hʻ F$ 3ʻ $EDʻ 43NH 34ʻ C-NFʻ G- 3C
G3Q C ʻ $EDʻ I 3E$ 3C ʻ Fʻ &- ʻ @HC Cʻ H&ʻ ?- ʻ $EDʻ $ ʻ H F34ʻ 43CHEQ 3ʻ
@F$423Cʻ $EDʻ ; 13EN3C

@ ʻ EDʻ Q3ʻ ʻ 3E$N 3D ʻ *F$ ʻ $ ʻ 13N-E $4Oʻ I 3E$ 3Cʻ J 1HC3Dʻ QOʻ H4ʻ Eʻ F$ ʻ
F NFʻ J $Oʻ Q3ʻ EN-443Dʻ -ED34ʻ F Cʻ N ʻ J $Oʻ Q3ʻ C-3Dʻ H4ʻ 14HC3N- 3Dʻ
&H4ʻ Eʻ $EOʻ H&ʻ 8 Cʻ P $(3C O Cʻ @H-4 Cʻ H&ʻ ʻ 3NH4Dʻ $ ʻ !1 #1 ! ʻ &H4ʻ $EOʻ 3C OQ3/ʻ
<&&3EN3ʻ NH J J 3Dʻ Eʻ 8#(% #& ʻ %!1 ʻ H4ʻ "! '%' 35,# 7F!!& ʻ $EDʻ C-3D&C4ʻ
Eʻ 8 Cʻ P $(3C O Cʻ @H-4 ʻ H&ʻ ; NF3X-34ʻ Eʻ +' , % #& ʻ , ʻ $EOʻ <&&3EN3ʻ
NH J J 3Dʻ Eʻ F$ ʻ I $4 ʻ , ʻ ! ʻ " #ʻ N$ 3Dʻ +' , % #& ʻ QOʻ N HEʻ H&ʻ
G3Q ʻ B ʻ I $ E ʻ H4ʻ E&H4 J $ HE ʻ F343 Eʻ F Hʻ ; CCH 2E ʻ I 4H 3N HE ʻ H4ʻ
I 4 323 ʻ EH4ʻ J H43ʻ F$Eʻ <E3ʻ J 1$4 $EN3 ʻ CF$ ʻ Q3ʻ $ H 3D ʻ I 4H D3Dʻ @HEC3E ʻ H&ʻ
$ $OC ʻ F$ ʻ &NCF$ ʻ EH ʻ Q3ʻ $ &- ʻ &H4ʻ $EOʻ I 34CHEʻ Hʻ C-3ʻ H4ʻ 14HC3N- 3ʻ
&H4ʻ $EOʻ C-NFʻ I 3E$ Oʻ Eʻ $EOʻ H&ʻ F3ʻ @H-4 Cʻ $&H43C$ Dʻ FH- ʻ F$ E2ʻ 43
& 4C ʻ HQ $ E3Dʻ F3ʻ @HEC3E ʻ Eʻ 9 4 E2ʻ H&ʻ * Hʻ H4ʻ J H43ʻ H&ʻ F3ʻ I , , 1 ʻ V3 ()! ,ʻ 13!ʻ
CQE34Cʻ H&ʻ ? $J 1Cʻ &H4ʻ F$ ʻ I -41HC3 ʻ -E 3CCʻ F3ʻ N HE ʻ ?- ʻ H4ʻ I 4HC3 ʻ &H4 I 3E$ 3C ʻ
N- HEʻ &H4ʻ C-NFʻ I 3E$ Oʻ CF$ ʻ Q3ʻ N$44 3Dʻ HEʻ QOʻ F3ʻ ?H N H4ʻ H&ʻ ? $J 1Cʻ
Eʻ 8#(% #&ʻ H4ʻ +' , % #&ʻ 43C13N 3 O ʻ $EDʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ F3ʻ
C$ Dʻ @H J J CC HE34C ʻ &ʻ F3Oʻ CF$ ʻ F E+ʻ & ʻ Hʻ H4D34ʻ F3ʻ I 4HN33D E2Cʻ
Hʻ Q3ʻ C $O3Dʻ Eʻ $EOʻ C-NFʻ N HE ʻ ?- ʻ H4ʻ I 4HC3N- HEʻ HEʻ I $O J 3E ʻ H&ʻ
I $4 ʻ HE Oʻ H&ʻ $EOʻ I 3E$ Oʻ EN-443D ʻ Fʻ H4ʻ FH- ʻ @HC C ʻ H4ʻ HEʻ I $OR
J 3E ʻ <E Oʻ H&ʻ F3ʻ @HC Cʻ EN-443Dʻ H4ʻ $EOʻ I $4 ʻ F343H& ʻ H4ʻ H F34 C3 ʻ $Cʻ
F3Oʻ CF$ ʻ(-D23ʻ 14H134ʻ $EDʻ 3 13D 3E

@ ʻ I 4H D3Dʻ $ $OC ʻ $EDʻ Q3ʻ ʻ 3E$N 3D ʻ *F$ ʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ I3 $ 3CʻE ʻ
&H4ʻ $EOʻ 5-C N3ʻ H&ʻ F3ʻ I 3$N3ʻ F$ E2ʻ 5-4 CD N HEʻ F343ʻ F3ʻ <&&3EN3 3 N33D E2ʻ
CF$ ʻ Q3ʻ NH J J 3Dʻ Hʻ F3$4ʻ $1Dʻ D3 34 J E3ʻ $EOʻ <&&3EN3ʻ 2 EC ʻ
N ʻ F NFʻ J $Oʻ C-Q(3N ʻ F3ʻ <&&3ED34ʻ Hʻ $EOʻ 13N-E $4Oʻ I 3E$ Oʻ EH ʻ (-C N3ʻ H& Q3ʻ
3 N33D E2ʻ * 3E Oʻ I H-EDC$EDʻ ʻ CF$ ʻ Q3ʻ $ &- ʻ &H4ʻ $EOʻ C-NFʻ 5-C ʻ I3$N3ʻ
N3ʻ $EDʻ F3ʻ Cʻ F343QOʻ 43X- 43D ʻ #1HEʻ E&H4 J $ HEʻ 2 3Eʻ H4ʻ @H J 1 $ E ʻ
J $D3ʻ Q3& $ 3ʻ F J ʻ Hʻ C-J J HEʻ F3ʻ I $4 Oʻ $NN-C3D ʻ $EDʻ $ CHʻ F3ʻ 9 ʻ
E3CC3Cʻ #Eʻ 3 F34ʻ ? D3 ʻ Hʻ Q3ʻ $EDʻ $113$4 ʻ Q3&H43ʻ F3ʻ C$ Dʻ 5-C N3ʻ H4
Q3&H43

+<(+?'!+%' H((<) *'

Q3&H43' EO'H F34' 5-C N3' H&' F3' I3$N3' $'$' * J3' $ED' I $N3' H' Q3' $1' 1H E 3D' &H4' F$' I -41HC3' $ED' 3 F34' HE' F3' 113$4$EN3' H&' F3' I$4 O'$NN-C3D'H4' E' D3&$- ' F343H&' 'CF$ 'Q3' $ &-'&H4' C-NF' 5-C N3' H4' $EO'H F34' 5-C N3' 143C3E' $' F3' * J3' $ED' I $N3' $11H E 3D' &H4' C-NF' 113$4$EN3' H' 14HN33D' H' 3 $J E3' E H' F3' P$ 34' H&' 6$N ' $ED' -1HE' D-3' I4HH&' J$D3' F343H&' QO' H -E $4O' @HE&3CC HE' H&' F3' I$4 O' H4' QO' <$ F' H&' <E3' H&' JH43' 9 E3CC' H4' 9 E3CC3C' H' 2 3' 5-D2 J3E '&H4' F3' I3E$ O' $ED' H' $ $4D' $ED' CC-3' H-'F C' 9$44$E '&H4' F3' 3 O E2' H&' $EO' I3E$ O' CH' $D(-D23D' H23 F34' F' F3' @HC C' $ED' ; 13EN3C' H&'C-NF' I4HN33D E2C' $ED' $ CH' F3' @HC C' $ED' ; 13EN3C' H&'C-NF' 9$44$E '$ED' H&' 3 O E2' F3' C$J3' HE' F3' MHHDC' H&' F3' <&&3ED34 '$ED' H' N$-C3' ?$ 3' H' Q3' J$D3' H&'C-NF' MHHDC' E' N$C3' F3O' CF$ 'EH 'Q3' 43D33 J3D' F E' 6 3' G$OC' 43ED34 E2' H' F3' I$4 O' F3' < 341 -C' &' $EO' ' $ED' F343' MHHDC' H&' C-NF' <&&3ED34' N$EEH 'Q3' &H-ED' C-&& N 3E ' H' $EC 34' F3' I3E$ O' $ED' $ ' C-NF' @HC C' $ED' ; 13EN3C' ' CF$ 'Q3' $ &-'&H4' C-NF' 5-C N3' $ED' F3' C' F343QO' 43X- 43D' H' NH J J ' C-NF' <&&3ED34' H' F3' @H J JHE' M$H'H4' 8H-C3' H&' @H443N HE ' F343' H' 43 J$ E' &H4' C-NF' *34 J' H4' I34 HD' H&' * J3' $C' C' QO' F C' N ' & 3D' H4' 14H D3D' $C' F3' *34 J' H&' J 14 CHE J3E ' &H4' F3' 1$4 N- $4' <&&3EN3' H&' F NF' C-NF' <&&3ED34' CF$ ' F$ 3' Q33E' NHE N 3D ' $ED' E' $EO' @$C3' F343' EH' C-NF' *34 J'H&' J 14 CHE J3E ' C' H4' CF$ 'Q3' CH' & 3D' H4' 14H D3D' $C' $&H43C$ D ' F3E' C-NF' 5-C N3' C' F343QO' 43X- 43D' H' NH J J ' C-NF' <&&3ED34' H' F3' @H J JHE' M$H'H4' 8H-C3' H&' @H443N HE ' F343' H' 43 J$ E' &H4' $EO' * J3' EH ' 3CC' F$E' * F433' @$ 3ED$4' P HE FC' $ED' EH ' 3 N33D E2' ? '@$ 3ED$4' P HE FC' &' F3' &- ' I3E$ O' J 1HC3D' QO' F C' N ' &H4' F3' <&&3EN3' H&' F NF' C-NF' <&&3ED34' CF$ ' F$ 3' Q33E' NHE N 3D' CF$ ' $J H-E ' H' F3' ?- J' H&' * 3E O' I H-EDC '$ED' &H4' $EO' * J3' EH ' 3CC' F$E' <E3' @$ 3ED$4' P HE F' $ED' EH ' 3 N33D E2' * F433' @$ 3ED$4' P HE FC' &' C-NF' I3E$ O' CF$ 'EH '$J H-E ' H' * 3E O' I H-EDC '-E 3CC' C-NF' I3E$ O' $ED' $ 'C-NF'

! ""

@HC C' $ED' ; 13EN3C' CF$ ' Q3' CHHE34' 1$ D' $ED' C$ C& 3D ' $ED' &' F3' I34CHE' NHE N 3D' CF$ '& ED' F J C3 &' $224 3 3D' QO' F3' 5-D2 J3E ' H&' $EO' C-NF' 5-C N3 ' 'CF$ 'Q3' $ &-'&H4' C-NF' I34CHE' H' 113'2 EC ' F3' C$J3' H' F3' 5-C N3C' H&' F3' I3$N3' $ ' F3' M3E34$'H4' \-$4 34' ?3CC HEC' H&' F3' I3$N3''&H4' F3' @H-E O' H4' I $N3' F E' F NF' F3' <&&3EN3' CF$ ' Q3' NH J J 3D' F NF' CF$ ' Q3' F3 D' E3 '$& 34' F3' ; 1 4$ HE' H&' * 3E' G$OC' &4H J' F3' G$O' HE' F NF' C-NF' @HE N HE' CF$ ' F$ 3' Q33E' J$D3 ' H&' F NF' 113$' , H N3' E' 9 4 E2' CF$ ' Q3' 2 3E' H' F3' I 4HC3N- H4' H4' E&H4 J34' ?3 3E' N 3$4' G$OC' 143 H-C' H' F3' & 4C 'G$O' H&' C-NF' ?3CR C HEC' ' $ED' C-NF' 5-C N3C' $ ' C-NF' ?3CC HEC' $43' F343QO' $- FH4 T3D' H' 3 $J E3' 9 E3CC3C' -1HE' <$ F '$ED' & E$ O' H' F3$4' $ED' D3 34 J E3' C-NF' 113$ ' $ED' E' N$C3' F3' 5-D2 J3E ' H&' $EO' C-NF' 5-C N3' CF$ ' Q3' $&& 4 J3D' 'CF$ ' Q3' $ &-'&H4' F3' 5-C N3C' $ ' C-NF' ?3CC HEC' H' $ $4D' $ED' H4D34' F3' I34CHE' 113 E2' H' 1$O' C-NF' @HC C' HNN$C HE3D' QO' C-NF' 113$'$C' H' F3 J' CF$ 'C33 J' J 33 .' I4H D3D' $ $OC' F$'EH' I34CHE' NHE N 3D' Q3&H43' $EO' C-NF' 5-C N3' CF$ ' Q3' 3E 3D' H4' 134 J 3D' H' 113' 2 EC ' C-NF' @HE N HE' E' J$EE34' $&H43C$ D' -E 3CC ' F E' 6 3' G$OC' E3 ' $& 34' C-NF' @HE N HE' J$D3 ' F3' CF$ ' 3E 34' E H' $ '3NH2E T$EN3' F' * H' C-&& N 3E '?-43 3C ' Q3&H43' C-NF' 5-C N3 ' H' 3E 34' $ED' 14HC3N- 3' C-NF' 113$ ' $ED' H' 1$O' F3' J H-E ' H&' F3' 5 3E$ O' $ED' @HC C' E' F NF' F3' CF$ ' F$ 3' Q33E' NHE N 3D ' $ED' $ CH' H' 1$O' C-NF' &-4 F34' @HC C' $C' CF$ ' Q3' $ $4D3D' E' N$C3' C-NF' @HE N HE'

I4HN33D E2C' EH ' H' Q3' X-$CF3D' &H4

CF$ 'Q3' $&& 4 J3D' HE' F3' F3$4 E2' H&' ?-NF' 113$.' I4H D3D' $ CH ' F$ ' EH' C-NF' I4HN33D E2C' CH' H' Q3' F$D' H4' $+3E' CF$ 'Q3' X-$CF3D' H4' N 3D &H4

U' K' SL' M#> ;>P ' @$1' U[

' &H4' 9$E' H&' 6H4J' H4' CF$' Q3' 43JH 3D' QO' @34 H4$4' ?-C13EC HE' 9$E' H& D HN$ HE' J.' '3D-N HE' H4' QO' $EO' H F34' 9 4 'H4' I4HN3CC' E H' $EO' C-134 H4' H4' H F34' @H-4' H4' 5-4 CD N HE' ($EO' >$ 'H4' #C$23' H' F3' NHE 4$4O' EH FC $ED E2

@ ' I4H D3D' $ $OC' $ED' Q3' '3E$N 3D' *F$' 'CF$' EH' Q3' $ &-' BO' HE(I3' &H4' $EO' I34CHE' H F34' F$E' F3' ?H N H4' H&' ?$J1C' H4' CHJ3' H F34' <& N34' H&' 8 C' P$(3C O C' ?$J1' F 3C' E' 8#(% #&' H4' +', % #&' 43C13N' 3&H43' $5 C' 3 O' H' E&H4J' H4' 14HC3N- 3' Q3&H43' $EO' 5-C N3' H&' F3' I3$N3' &H4' F3' N3' H&' F3 '3NH 34O' H&' $EO' I3E$ O' J1HC3D' QO' H4' EN-443D' -ED34' F C' N ' I3$N3' 3 N31' E' F3' M$C3C' E3 'F343 $& 34' P3E HE3D' ^F$' C' H' C$O_' $EO' I3E$ ' J1HC3D' H4' EN-443D' F' 43$ HE' H' 8H4C3C' 3 '&H4' 8 43' H4' F3' G- 3C' F343HE' $ED' $EO' I3E$ O' EN-443D' QO' F3' G4 34' H&' $EO' ?$23' @$44 $23' QO' 43$CHE' H&' F3' N$44O E2' H&' $' 243$ 34' , -JQ34' H&' I$CC3E234C' E' -1HE' <4 $QH-' C-NF' ?$23' @$44 $23' F$E' C' H4' CF$' Q3' $ H 3D' QO' F C' N ' H4' QO' F3' >N3EN3' 43$ E2' H' C-NF' ?$23' @$4' 4$23 '$ED $EO' I3E$ O' J1HC3D' EN-443D' QO' 43$CHE' H&' F3' N$44 DH2' H&' $EO' <- C D3' I$CC3E234' H4' $EO' > J2$23' HE' F3' 'HH&' H4' *H1' H&' $EO' ?$23' @$44 $23' NHE 4$4O' E' $EO' P$EE34' H' F3' G 43N HEC' H&' F C' N 'H4' QO' 43$CHE' H&' $EO' I34CHE' C E2' H4' Q3 E2' N$44 3D' HE' $EO' >-2R 2$23' H4' -1HE' F$' I$4' H&' F3' 'HH&' H&' $EO' ?$23' @$44 $23' $ H 3D' &H4' >-22$23' H4' QO' 43$CHE' H&' JH43' F$E' <E3' I34CHE' Q3C D3C' F3' G4 34' C E2' H&' Q3 E2' N$44 3D' -1HE' F3' BH ' H&' $EO' ?$23' @$44 $23' H4' H&' 43&-C E2' H' 134J 'H4' $ H '$EO' ?$23' @$44 $23' H4' >-22$23' H' Q3' J3$C-43D' H4' F3' I$CC3E234C' H' Q3' NH-E 3D' H4' 43& C E2' H4' E32R 3N E2' H' C H1' C-NF' @$44 $23' $' $EO' *H 'M$ 3' &H4' F$' I-41HC3' H4' QO' 43$CHE' H&' $EO' H F34' <&&3EN3' F NF' J$O' C-Q(3N' H' $EO' I3E$ O' F3' G4 34' H4' @HED-N H4' H4' M-$4D' H&' $EO' ?$23' @$44 $23' H4' $EO' I34CHE' 3J1 HO3D' H' FH D' F3' 8H4C3C' H4' F$ E2' F3' @$43' H&' H4' Q3 E2' 3JR 1 HO3D' E' H&' $QH-' $E! '?$23' @$44 $23' H4' $EO' *H 2$ 3' %33134 *H '@H 3N H4' @HEC $Q 3' H4' I3$N3' <&& N34' H4' QO' 43$CHE' H&' $EO' I34R CHE' C- J JHE3D' $C' $' 9 E3CC' E32 3N E2' H4' 43&-C E2' H' $ 3ED' H4' 2 3' ; D3EN3' $ED' &' $EO' I34CHE' H F34' F$E' C-NF' ?H N H4' H4' <&& N34' $C' $&H43C$ D' CF$ 'NHJ J3EN3' H4' 14HC3N- 3' $EO' E&H4J$ HE' H4' @HJ1 $ E' Q3&H43' $EO' 5-C N3' H&' F3' I3$N3' &H4' F3' '3NH 34O' H&' $EO' I3E$ O' J1HC3D' QO' <4 EN-443D' -ED34' F C' N '3 N31' E' F3' C3 34$' @$C3C' F343 E F3&H43' J3E HE3D' $ED' $ H 3D' E' F$' B3F$ &' &HNF' E&H4J$ HE' H4' @HJ1 $ E' $ED' 3 34O' I4HN33D E2' F343-1HE' F$D' CF$ ' Q3' E- '$ED' H D' H' $ ' E 3E C' $ED' I-41HC3C.' I4H D3D' $ $OC' F$' EH F E2' F343 E' NHE $ E3D' CF$ '3 3ED' H' 134J ' H4' $ H '$EO' I34CHE' H F34' F$E' F3' ?H N H4' H4' CHJ3' H F34' <&& N3' H&' ?$J1' G- 3C' H' E&H4J' H4' 14HC3N- 3' &H4' F3' '3NH 34O' H&' $EO' I3E$ O' J1HC3D' QO' H4' EN-443D' -ED34' F C' N ' QO' 43$CHE' H&' F3' G4 34' H&' $EO' @$44 $23' H4' H F34' I34CHE' 1 O E2' &H4' I$CC3E234C' H' Q3' NHE 3O3D' &H4' 8 43' QO' $EO' @$4R 4$23' EH 'F$ E2' F3' 14H134' E- JQ343D' I $ 3C' & 3D' F343HE' -E 3CC' F3' 1& 3ED34' CF$ ' Q3' $1143F3ED3D' $ED' $+3E' Q3&H43' $' 5-C N3' H&' F3' 13$N3' $C' $- FH4 T3D' QO' F C' N

@ ' ED' Q3' '3E$N 3D' *F$' 'CF$' Q3' $ &-' &H4' $EO' 5-C N3' <& 5-C N3C' 1$O F3' 13$N3' Q3&H43' FHJ' $EO' I34CHE' CF$' Q3' NHE N 3D' H&' $EO' <&&3EN3' 2$ EC '$EO' H&' F3' I4H CHEC' H&' F C' N ' H' J 2$ 3' $C' F3' CF$' C33' & '$EO' I3E&& O' QO' F C' N ' J1HC3D' E' @$C3C' F343' C-NF' 5-C N3' CF$' C33' @$-C3' CH' H' DH' 14H D3D' F$' $ ' 43CHEQ 3' @HC C' $ED' @F$423C'

S' ' 3 13ED3D

[Y 'K" 'M#> ;>P ' ' @$1' U[

3 13ED3D' H4' N-443D' E' 14HC3N- E2' &H4' C-NF' <&&3EN3' CF$ ' Q3' $ $OC' $ H 3D' H 34 $ED' $QH 3' F3' ?-4$' H' F NF C-NF' I3E$ O' CF$ ' Q3' J 2$ 3D' $ED' CH' $C' C-NF' P 2$ HE' DH' EH ' 43D-N3' F3' I3E$ O' H' 3CC' F$E' 6H-4 F' H&' F3' I3E$ O' EN-443D ' 3 N -C 3' H&' C-NF' @HC C' $ED' @F$423C ' $EO' F E2' F343 E' NHE $ E3D' H' F3' NHE 4$4O' EH QC $ED E2

11 N$ HE' H&' I3E$ 3C' — @ ' -D' B<' '3E$N 3D *F$ '$#' 13N-E $4d ' I3E$ 3C' J 1HC3D' QO H4' EN-443D' -ED34' F C' N ' F NF' CF$ ' Q3' C-3D' H4' 14HC3N- 3D' &H4' $ED' 43NH 343D' QO' H4' E' F3' , $ J 3' H&' $EO' I34CHE' H F34' F$&' 8 C' P $(3C O C' H4E3O' M3E34$' ' E' D4' 8 C' P $(3C O C' D HN$ 2' ,O' +' , & #D' H4' F3' ?H N H4' H&' ? $ J 1C' ' H4' $#O' < F34' <&& N34' H&' ? $ J 1' G- 3C' E' (; 2&H D' D4' ?NH 3D' 43C13N 3 O ' CF$ ' 43C13N 3 O' Q3' D CR 4 Q- 3D' $ (D' D D3D' E' J $EE34' &H H E2' ! ^ F$ ' C' H' C$O _' HE3' P H 3 O' F343H&' H' 8 C' P $(3C O ' $ED' F3' H F34' P H 3 O' F343H&' F' &- '@HC C' H&' ?- ' H' F3 * 34CHE' FH' CF$ ' E&H4 J ' $ED' C-3' H4' 14HC3N- 3' &H4' F3' C$ J 3' F E' 6H-4 33E' 8 $OC' $& 34' F3' <&&3EN3' CF$ ' F$ 3' Q33E' NH E J & 3D' ($& D' $ ' C-NF' 13N-E $4O' I3E$ 3C' $C' $&H43C$ D' F NF' CF$ ' Q3' C-3D' H4' 14HC3N- 3D' &H4' $ED' 43NH 343D' 'QO' H4' E' F3' , $ J 3' H&' 8 C' P$(3C O C' C$ D' H4E3O' M3E34$' E' ( ) #&' H4' D HN$ 3' E' +' , % #& ' H4' QO' H4' E' F3' , $ J 3' H&' C-NF' ?H N H4' H4' < B?N34' $C' $&H43C$ D ' H4' &H4' F3' ' 3NH 34O' <&' F NF' $EO' E&H4 J $ HE' H4' @H J 1 $ E ' CF$ ' Q3' J $D3' H4' $EO' 3 HE ' H4' ? - 'CF$B' Q3' NH J J 3EN3D ' $& 34' F3' ; 1 4$ HE' H&' F3' * J 3' $&H43C$ D(CF$ ' 2H' $ED' Q3' $11 3D' H' F3' #C3' H&' 8 C' P $(3C O.' I4H D3D' $ $OC ' F$ ' 'CF$ ' Q3' $ & - ' &H4' F3' @H J J CR C HE34C' H&' ? $ J 1C' $ ' F3 4' G CN43 HE ' H' 2 3' $ ' H4' $EO' I$4 ' H&' C-NF' I3E$ 3C' H4' ?F$43C' H&' I3E$ 3C' Q3 HE2 E2' H' 8 C' P $(3C O' $C' ' 3 $4DC' H' $EO' I34CHE' H4' I34CHEC' FH' CF$ ' F$ 3' D3 3N 3D' C-NF' <&&3EN3C' H4' 2 3E' E&H4 J $ HE' F NF' J $O' F$ 3' 3D' H' F3' G CNH 34O' F343H&' H4' H' F3' @HE N HE' H&' F3' <&&3ED34C

5-C N3C' CF$ ' 43N3 3' F3' @4H E C' ?F$43' H&' I3R E$ 3C' $ED' 1$O' F3' C$ J 3' H' F3' @ 34+' H&' F3' I3$N3' H' Q3' 43 J R 3D' H' F3' ? $ J 1' <&& N3 — M ' ED' Q3' '3E$N 3D ' *F$ ' 3 34O' 5-C N3' H&' F3' I3$N3' Q3&H43' FH J ' $EO' I34CHE' CF$ ' Q3' NHE N 3D' H&' $EO' <&&3EN3' 2 EC ' F C' N ' CF$ ' $+3' $ED' 43N3 3' F3' I3E$ O' H4' ?F$43' H&' F3' I3E$ O' Q3 HE2 E2' H' 8 C' P $(3C O' 3 3D' H4' 1$ D' -ED34' H4' QO' 4 -3' ^&&C-3F' @HE N HE' $ED' 3 34O' C-NF' 5-C N3' CF$ ' 1$O' H4' N$-C3' H' Q3' 1$ D' $ ' C-NF' ?- J C' H&' P HE3O' F NF' F3' CF$ ' CH' $+3' H4' 43N3 3' $C' $&H43C$ D ' $ ' F3' E3 ' M3E34$' H4' \ -$4 34' '?3CC HEC' H&' F3' I 3$N3' $& 34' F3' CF$ ' F$ 3' CH' $+3E' H4' 43N3 3D' F3' C$ J 3 ' E H' F3' 8 $EDC' H&' F3' @ 34+' H&' F3' I3$N3' H4' H F34' C-NF' <&& N34' H&' F3' @H-E O' H4' 8 $N3' F E' F NF' C-NF' @HER N HE' CF$ ' F$ 3' Q33E' J $D3' FH' CF$ ' F E' *3E' G$OC' $& 34' F C' ' 3N3 1 ' F343H&' $ED' FH- ' 633' H4' ' 3 $4D ' 1$O' H4' 43 J ' F3' C$ J 3' &H4' F3' #C3' H&' 8 C' P $(3C ' H' F3' ?H N H4' H&' ? $ J 1C' F ' F3' ? $ J 1' <&& N3' E' !1 3F1 ! ' H4' $C' F3' @HE N HE' CF$ ' F$113E H' Q3' E' 8#(% #&' @N' ? H K 0 43C13N 3 O ' $EO' F E2' E' $EO' H F34' N ' NHE $ E3D' H ' F3' NHE 4$4O' 4 H FC C ED E2 ' $ED' 3 34O' C-NF' 5-C N3' CF$ ' F E' <E3' 9 33+' $& 34' 3 34O' C-NF' I$O J 3E ' J $D3' QO' F J ' H' $EO' @ 34+' H&' F3' I3$N3' H4' H F34' C-NF' <&& N34 ' 4$EC J ' H' C-NF' ?H N R H4' $C' $&H43C$ D' $' ?NF3D- 3' NN J $ E E2' F3' , $ J 3' H&' & 3' I34CHE' CH' NHER N 3D ' F3' , $ -43' H&' F3' <&&3EN3 ' $ED' F3' J H-E ' <&' F3' I3E$ O' H&$ - D' E' F NF' F3' CF$ ' ' $ 3' Q33E' NHE N 3D ' F3' G$ 3' H&' C-NF' @HER N HE ' $ED' F3' ?- J' Q&' P HE3O' 9 F NF' CF$ ' J 3' Q33E' 1 J D' 4E D34' H4' QO' 4 -3' F343H& ' H23 F34' F 4 F3' , $ J 3' H&' F3' @ 34+' H&' F3' I3$N3 H4

U¢K'$ 'M#> ;>P ' ' @$1' U[[

7H4' H F34' C-NF' <&& N34' H' FH J ' F3' CF$ ' F$ 3' 1$ D' F3' C$ J 3(' $ED' &' I3E$ O' HE' $EO' C-NF' 5 C N3' CF$ ' E32 3N ' H4' H J ' H' 1$O' H4' N$-C3' H' Q3' 1$ D' H' (35-C N3' H4 C-NF' @ 34+' H&' F3' I 3$N3' H4' H F34' <&& N34' $C' $&H43C$ D ' $ ' F3 J 3' $ED' E' F3' P $EE34' F343 E Q3&H43' D 43N 3D' $EO' C-NF' I 3E$ O' H4' ?F$43' E32 3N E2' H H&' I 3E$ O' 43N3 3D' QO' $-3F' 5-C N3' $C' $&H43C$ D ' H4' -1HE' O4$3E ' 1$O' H 34' F3' F343H&' CF$ ' E32 3N ' H4' H J ' H' 4$EC J ' H' F3' 14H134' ?H N H4' H&' ? $ J 1C' C-NF' ?NF3D- 3' $C' $&H43C$ D ' H4' &' $EO' C-NF' @ 34+' H&' F3' I 3$N3' ' H4' H 34' 334' CF$ ' E32 3N ' H4' 3 J ' H' 1$O' H4' 43 J ' $EO' C-NF' I 3E$ O' H4' ?F$43' H&' I 3E$ O' H' C-NF' ?H N H4' H&' ? $ J 1C' $C' $&H43C$ D ' F E ' F3' * E3' $ED' E' J $EE34' F3 3 E Q3&H43' J 3D' $ED' D 43N 3D' E' F$ ' B3F$ &' 3 34O' I 34CHE' CH' H&&3ED E2' CF$ ' &H4&3 ' 6 & O' I H-EDC

@ ' ED' Q3' ' 3E$N 3D' * F$ ' &' $EO' I 4H14 3 H4' H&' $EO' ? $23' 5-C N3C' 3 J R @$44 $23' H4' F3' G4 34' H4' M-$4D' H&' $EO' ? $23' @$44 $23' CF$ ' Q3' 1H 343D' H' C- J J HE3D' Q3&H43' $EO' 5-C N3' H&' F3' I 3$N3' H' $EC 34' $EO' E&H4 J $R $ $4D' @HC C' HE' H4' @H J 1 $ E ' 3 F Q 3D' H4' J $D3' 2 EC ' F J ' FO' $<O' I 34CHE' H 553&3ED ' ' H F34' F$E' $E' <&& N34' H&' ? $ J 1' G- 3C ' H-NF E2' H4' NHEN34E E2' $EO' $E a' F343' ' <&&3EN3' NH J J 3D' H4' $ 323D' H' F$ 3' Q33E' NH J J 3D' QO' C-NF' I 4HR E&H4 J $ HEC' 14 3 H4' G4 34' E4' M-$4D' 43C13N 3 O' 2 EC ' F3' I 4H C HEC' H&' F C' H4' @H J ' N ' $ED' C-NF' E&H4 J $ HE' H4' @H J 1 $ E ' CF$ ' $& 34 $4DC' Q3' FR 1 $ E C' $43' D4$ E' H4' X -$CF3D' H4' D C J CC3D' H4' &' F3' G3&3ED$E ' CF$ ' Q3' $NX - 3D' FD4$ E' H4' H&' F3' <&&3EN3' NF$423D' 2$ EC ' F J ' ' CF$ ' Q3' $ &- ' &H4' C-NF' 5-C N3' D C J CC3D' E' H' H4D34' $ED' $ $4D' F$ ' F3' E&H4 J 34' H4' I 34CHE' 3 F Q E2' H4' J $+ E2' N34 $ E' @$C3C C-NF' E&H4 J $ HE' H4' @H J 1 $ E ' CF$ ' 1$O' H' F3' G3&3ED$E ' C-NF' @HC C' H&' E-DD-2' H4' 1431$4 E2' &H4' F C' G3&3EN3 ' $ED' $ CH' C-NF' @H J 13EC$ HE' &H4' F C' >HCC' H&' * J 3' $ED' &H4' F3' * J 3' H&' F C' 9 E3CC3C' ^ &' $EO_' E' $ 3ED E2' C-NF' 5-C N3' H-NF E2' H4' NHEN34E E2' C-NF' E&H4 J $ HE' H4' @H J 1 $ E ' $C' H' C-NF' 5-C N3' CF$ ' C33 J ' 43CHEQ 3' ' $ED' E' D3&$- ' H&' J J 3D $ 3' I $O J 3E ' H&' F3' ?- J ' CH' $ $4D3D' ' CF$ ' Q3' $ &- ' &H4' C-NF' 5-C N3' H' N$-C3' F3' C$ J 3' H' Q3' 3 3D' QO' G C 43CC' $ED' ?$ 3' H&' F3' MHHDC' $ED' @F$ 3 C' H&' F3' I 34CHE' H4D343D' H' 1$O' F3' C$ J 3 ' H23 F34' F' F3' @HC C' H&' C-NF' G C 43CC' $ED' ?$ 3 ' $ED' &' MHHDC' $ED' @Q$ &H C' H&' C-NF' I 34CHE' C-&& N 3E ' H' $EC 34' F3' ?- J ' CH' $ $4D3D ' F' C-NF' @HC C' $C' $&H43C$ D ' N$EEH ' Q3' &H-ED ' ' CF$ ' Q3' $ &- ' &H4' C-NF' 5-C N3' H' NH J J ' C-NF' I 34CHE' H' F3' @H J J HE' M$H ' H4' 8 H-C3' H&' @H443N HE' &H4' $EO' * J 3' EH ' 3 N33D E2' < E3' @$ 3ED$4' P HE F ' -E 3CC' F3' ?- J ' CH' $ $4D3D ' H23 F34' F' $ ' @HC C' $ED' ; 13$N3C ' CF$ ' Q3' CHHE34' 1$ D' $ED' C$ C& 3D

@ W ' ED' Q3' ' 3E$N 3D' * F$ ' $EO' ?- J J HEC' CC-3D' QO' $EO' 5-C N3' ?34 N3' H&' F3' H&' F3' I 3$N3 ' 43X- 4 E2' $EO' G3&3ED$E ' H4' $EO' 9 E3CC' H4' H F34' CHE' H' $113$4' Q3&H43' C#NF' 5-C N3 ' H4' $EO' H F34' 5-C N3 ' F' 43&343EN3' H' $EO' E&H4 J $ HE ' @H J 1 $ E ' H4' H F34' I 4HN33D E2' &H4' F3' ' 3NH 34O' , H N3C ' H&' $EO' G- O' <4 I 3E$ O' -ED34' F C' N ' CF$ ' Q3' D33 J 3D' H' Q3' 3 ' $ED' C-&& N 3E O' C34 3D' E' N$C3' 3 F34' F3' ?- J J HEC' H4' $' @H1O' F3 3H&' Q3' C34 3D' 134CHE$ O' -1HE' $1O' C13F' I 34CHE' $C' $&H43C$ D ' H4' Q3' 3& ' $ ' F C' -C-$ ' H4 ' $C ' I $N3' H&' ' 3C D3EN3 ' H4 ' E' N$C3' C-NF' I 34CHE' Q3' $' I 4H14 3 H4 ' G4 34 ' @HED-N H4 ' H4' M-$4D' H&' $EO' ? $23' @$44 $23' Q3' 3& ' F' F3' BHH+ +33134' H4' I 34CHE' &H4' F3' * J 3' Q3 E2' $N E2' $C' BHH+R +33134' &H4' C-NF' ? $23' @ J 4 $23' E' $EO' * H E' H4' I $N3' &4H J ' E H ' H4' ' F4H-2F' F NF' C-NF' @$44 $23' CF$ ' 2H' H4' Q3' D4 3E' E3$43C ' H' F3' I $N3' F343' $EO' C-NF' <&&3EN3' CF$ ' Q3' NH J J 3D' ($ED' $EO' , H N3' QO' F C' N ' 43X- 43D' H' Q3' 2 3E' H' F3' I 4H14 3 H4' H&' $EO' ? $23' @$44 $23' H4 H

[Z U`KS7M#> ;>P ' ' @$1 U[

H' $EO' H F34' I34CHE' CF$ ' Q3' D33 J 3D' H' Q3' 3 ' $ED' C-&& N 3E O'
' C34 3D' E' N$C3' 3 F34' C-NF' , H N3 ' H4' $' @H1O' F343H&' Q3' C34 3D' 134R
CHE$ O' -1HE' C-NF' I 4H14 3 H4' H4' H F34' I 34CHE ' H4' Q3' 3& ' $ ' F C' -C-$ '
H4' $C ' I $N3' H&' ' 3C D3EN3 ' ^H4' E' F3' @$C3' H&' C-NF' I 4H14 3 H4_' Q3' 3& '
F' $EO' BHH+ +33134' <4 I 34CHE' $N E2' $C' BHH+ +33134' $ ' $EO' <&& N3'
' ' Q3 HE2 E2' H' C#NF' I4H14 3 H4

I3E$ O' HE' @W ' ED' Q3' ' 3#$N 3D ' * F$ ' &' $EO' @HEC $Q 3' H4' H F34' I 3$N3'
@HEC $Q 3C' <&& N34' CF$ ' 43&-C3' <4 -32 34 ' H' C34 3' H4' 3 3N- 3' $EO' ?- J J HEC ' 9 $4R
43&-C E2' H' H4' <4D34' 2($E 3D' CC-3D ' H4' J $D3' QO' $EO' 5-C N3' H&' F3' I 3$N3
JHEC' KN/p/ H4' QO' $EO' * <' H&' F3' & < J J CC HB34C' H&' ? $ J 1C' 1-4C-$E ' H' $EO' H&'
9$44$E ' [' F3' I 4H C HEC' H&' F C' N ' 3 ' C-NF' @HEC $Q 3' H4' I 3$N3' <&& N34' CH'
H&&3ED E2' CF$ ' & "&3 @3 ' IH#B \?

I3E$ O' HE' @W>' ED' Q3' '3-$N 3D ' * F$ ' &' $EO' I 34CHE' FH' CF$ ' Q3' C- J J HE3D'
9 E3CC3C' $C' $' 9 E3CC' H' 2 3' ; D3EN3' Q3&H43' $EO' 5-C N3' H&' F3' I 3$N3' H4'
E32 3N E2' H' Q3&H43' $EO' 5-C N3C' $ ' ?3CC HEC' H-NF E2' F3' P $ 34C' $ 323D' E' H4'
$ 3E' ' ' X (2A$ E2' H' $EO' E&Q4E $ HE' @H J 1 $ E ' 113$ ' H4' H F34' I 4HN33D E2'
D313ED E2' Q3&H43' ?#@F 5-C N3' H4' 5-C N3C' &H4' F3' ' 3NH 34O' H&' $EO'
G- O' H4' I 3E$ O' EN-443D' -ED34' F C' N ' CF$ ' E32 3N ' H4' 43&-C3' H'
$113$4' Q3&H43' C-NF' 5-C N3' H4' 5-C N3C' $ ' F3' * J 3' $ED' I $N3' H' Q3'
&H4' F$ ' I -41HC3' $11H E 3D' FH- ' $' 43$CHE$Q 3' ; N-C3' &H4' C-NF'
, 32 3N ' H4' ' 3&-C$ ' H' Q3' $ H 3D' QO' C-NF' 5-C N3' H4' 5-C N3C ' H4'
&' $EO' I 34CHE' CH' C- J J HE3D' CF$ ' $113$4' Q- ' CF$ ' 43&-C3' H' Q3'
3 $ J E3D' $ED' 2 3' B D3EN3' Q3&H43' C-NF' 5-C N3' H4' 5-C N3C' H-NF E2'
F3' P $ 34C' $&H43C$ D' 3 34O' C-NF' I 34CHE' CH' H&&3ED E2' CF$ ' &H4&3 '
* 3E' I H-EDC

<&& N34C' H&' @W ' ED' FN' '-E$N 3D ' * F$ ' -1HE' F3' * 4 $ ' H4' 8 3$4 E2' H&' $EO'
? $J1' G- ' E&H4 J $ HE' H4' @H J $ - ' 3 FK 3D' H4' J $D3' -ED34' $EO' H&' F3' I 4HR
3C' EH ' D C' C HEC' 1&' F C' N ' $EO' <&& N34' H&' ? $ J 1' G- 3C ' H4' H F34' I 34CHE'
Q3 E & c' 3 J 1 HO3D' BO' F3' @H J J CC HE34C' "&' ? $ J 1C' Q3' D33 J 3D' $ED' C'
E>C3C' F343QO' D3N $43D' H' Q3' $' NH J 13 3E ' 9 E3CC ' EH FC $ED E2' F$ ' C-NF'
<&& N34' H4' I 34CHE' J $O' Q3' F3' E&H4 J $E ' H4' @H J 1 $ E$E ' H4' J $O' Q3'
3E 3D' H' H4' 3 13N ' $EO' I $4 ' H&' $EO' 13N-E $4O' I 3E$ O ' H4' $EO'
' 3 J -E34$ HE' H4' ' 3 $4D ' HE' F3' @HE N HE' H&' $EO' <&&3ED34' -1HE'
$EO' C-NF' E&H4 J $ HE' H4' @H J 1 $ E

I 4HN33D E2C' @W ' ED' F3' ' 3E$N 3D' * F$ ' 3 34O' @H J 1 $ E ' E&H4 J $ HE '
H' Q3' D4$ E' ?- J J H-C ' @HE N H#' 9 44E ' H&' G C 43CC ' H4' @H J J J 3E ' H4' H F34'
1' $NNH4D E2' C-NF' I 4HN33D E2' F NF' CF$ ' Q3' F$D' H4' $+3E' &H4' F3' ' 3NH 34O' H&' $EO'
E NQ?- *' I 3E$ O' -ED34' F3' I 4H C HEC' H&' F C' N ' J $O' Q3' D4$ E' H4
^B_' ' ' J $D3' H- ' $NNH4D E2' H' F3' C3 34$ ' 6H4 J C' NHE $ E3D' E' F3' ?NF3D- 3' ^' B _
F343-E H' $EE3 3D' H4' H' F3' ; &&3N ' F343H&' 3 1' 3 #& 1' $C' F3'
@$C3' CF$ ' 43X- 43' ($ED' 3 34O' C-NF' @H J 1 $ E ' E&H4 J $ HE ' ?- J J HEC '
@HE N HE' 9 44E ' H4' H F34' C-NF' I 4HN33D E2' F NF' CF$ ' Q3' CH'
D4$ E' H4' J $D3' <#' CF$ ' Q3' 2HHD' $ED' 3&&3N -$ ' H' $ ' E 3E C' $ED'
I -41HC3C' F$ CH3 34' O FH- ' C $ E2' F3' @$C3' H4' F3' 6$N C' H4' ; R
D3EN3' E' $EO' J H43' 1$4 N- $4' P $EE34' F$E' C' 43X- 43D' E' $ED' QO' C-NF'
6H4 J C' 43C13N 3 O

@$44 $23C' @W ' ED' Q3' ' 3-$N 3D' * F$ ' $ ' ^Q3' @$44 $23C ' 8 H4C3C ' $ED'
8 H4C3C ' 8 $4 ' 8 $4E3CC ' $ED' H F34' 4 N 3C' $ED' * F E2C' +31 ' -C3D ' H4' 3 J 1 HO3D' QO' $EO'
E3CC ' KN' ' ' I 34CHE

U/ K S&M#> ;>P ' ' @$1 U[

I34CHE' F3 F34' N3EC3D' -ED34' F3' - FH4 O' H&' F C' N 'H4' EH '&H4' F3' I-41HC3' H&' NHE 3O E2' I$CC3E234C' &H4' 8 43'H4' &H4' F3' I-41HC3' H&' Q3 E2' 3' &H4' 8 43' $C' $&H43C$ D' CF$ ' Q3' C-Q(3N' $ED' $Q 3' H' $ED' NF$423$Q 3' F' $ ' F3' G- 3C' E' $443$4' $ED' H E2(H4' F NF' CF$ ' Q3NH J 3' D-3' $ED' 1$O$Q 3' &4H J' * J 3' H' * J 3'&4H J' H4' QO' C-NF' I34CHE' &H4' H4' E' 43C13N' H&' $EO' ? $23' @$44 $23' +31 ' -C3D' H4' 3 J 1 HO3D' QO' C-NF' I34CHE' H4' &H4' H4' E' 43C13N' H&' $EO' 8 H4C3' 3' &H4' 8 43' QO' $EO' C-NQ' I34CHE' $ED' H' $ED' F' $ ' I3E$ 3C' F NF' J $O' Q3' J 1HC3D' -1HE' H4' EN-443D' QO' C-NF' I34CHE' -ED34' F C' N ' $ED' $ CH' H' $ED' F' F3' @HC C' $ED' ; 13EN3C' H&' $ ' I4HN33D E2C' F NF' CF$ ' H4' J $O' Q3' F$D' H4' $+31' &H4' F3' '3NH 34O' H&' C-NF' G- 3C' $ED' I3E$ 3C' 43C13N 3 O' $ED' $ 'C-NF' @$44 $23C' 8 H4C3C' 8 $4E3CC' $ED' H F34' 4 N 3C' $ED' * F E2C' CF$ ' &H4' F3' I-41HC3' H&' C$ C&O E2' C-NF' G- 3C' I3E$ 3C' @HC C' $ED' ; 13EN3C' H4' $EO' I$4' F343H&' 43C13N 3 O' Q3' D33 J 3D' H' Q3' F3' MHHDC' $ED' @F$ 3 C' H&' C-NF' I34CHE' $ED' CF$ ' Q3' D C 4$ E3D' H4' H F34R C3' C3 T3D' H4' $+3E' $NNH4D E2 O' E' H4' E H' FHC3' @-C HDO' H4' I HCR C3CC HE' CH3 34' F3' C$ J 3' CF$ ' H4' J $O' Q3' H4' NH J 3' $ED' QO' H4' -ED34' F$' ' 2F 'H4' * 3' CH3 34' F3' C$ J 3' CF$ ' H4' J $O' Q3' F3 D' H4' N $ J 3D' $ED' E' N$C3' $EO' I34CHE' E' H4' E H' FHC3' @-C HDO H4' I HCC3CC HE' $EO' C-NF' @$44 $23C' 8 H4C3C' 8 $4E3CC' H4' H F34' 4 N 3C' CF$ ' Q3' H4' NH J 3' QO' H4' -ED34' $EO' P3$EC' H4' * 3' F$ CH3 34' CF$ ' NHE 34' F3' C$ J 3' H' F C' H E' #C3' H4' CF$ ' C3 ' H4' D C1HC3' F343H&' &H4' F3' #C3' H4' B3E3& ' H&' $EO' H F34' I34CHE' $& 34' , H N3' 2 3E' QO' F3' @H J J CC HE34C' H&' ? $ J 1C' H4' F3 4' ?H N H4' H4' QO' $EO' I34CHE' $- FH4 T3D' H' NH 3N ' H4' 43N3 3' F3' G- 3C' QO' F C' N ' 24$E 3D' H4' $EO' H&' F3 J ' F$' C-NF' 7@$44 $23C' 8 H4C3C' 8 $4E3CC' $ED' H F34' 4 N 3C' $43' C-Q(3N' $ED' $Q 3' H' H4' NF$423$Q 3' F' $EO' H&' F3' G- 3C' I3E$ 3C' @HC C' $ED' ; R 13EN3C' $&H43C$ D' 3 34O' I34CHE' CH' NHE 34 E2' H4' C3 E2' H4' D C1HC E2' H&' C-NF' @$44 $23C' 8 H4C3C' 8 $4E3CC' H4' H F34' 4 N 3C' CF$ ' Q3' $NR NH-E $Q 3 H' 8 C' P$(3C O' H' F3' ; 3E ' H&' F3' $ -3' H&' C-NF' @$4R 4 $23C' 8 H4C3C' 8 $4E3CC' H4' H F34' 4 N 3C' &H4' F3' J H-E ' H&' F3' G- 3C' I3E$ 3C' @HC C' $ED' ; 13EN3C' H' H4' F' F NF' C-NF' @$4R 4 $23C' 8 H4C3C' 8 $4E3CC' $ED' H F34' 4 N 3C' CF$ ' Q3' C-Q(3N ' $Q 3' H4' NF$423$Q 3' $ED' F3' C$ J 3' J $O' Q3' C-3D' &H4' $ED' 43NH 343D' -ED34' $ED' QO' 4 -3' H&' F C' N ' $C' $' G3Q ' D-3' H' 8 C' P $(3C O' $NNH4D E2 O

NF423Q 3' F' F3' G-R 3C' $ED' I3' $ 3C' ER N-443D'

I34CHEC' C3 R E2' H4' D CR 1HC E2' H&' C-NF' @$4' 4 $23C' KN' $& 34' , H N3' H' Q3' $Q 3' H' ; 3E ' H&' F3' $ -3' F343H&

@W ' ED' Q3' ' 3E$N 3D' * F$' E' $ ' M$C3C' F343' $EO' MHHDC' H4' @F$ 3 C' D C 4$ E3D' H / H F34 C3' C3 T3D' H4' $+3E' -ED34' $EO' H&' F3' I4H C HEC' H&' F C' N ' $43' D 43N 3D' H' Q3' CH D' F3' C$ J 3' CF$ ' Q3' CH D' QO' 1-Q N' -N HE ' $ED' , H N3' H&' F3' * J 3' $ED' I $N3' H&' C-NF' ?$ 3' CF$ ' Q3' 2 3E' H' F3' < E34' H&' C-NF' MHHDC' H4' @F$ 3 C' H4' 3& ' $ ' F C' $C' +EH E' I $N3' H&' QHD3' * F433' G$OC' $' 3$C' 14 H4' H' C-NF' ?$ 3.' I4H D3D' $ $OC' F$' &' F3' < E34' H&' $EO' C-NF' MHHDC' H4' @F$ 3 C' CF$ ' 2 3' F C' @HEC3E' E' 9 4 E2' H' F3' ?$ 3' F343H&' $' $E' 3$4 34' I34 HD' F$E' C' QO' F C' N ' H4' CF$ ' Q3' QO' $EO' C-NF' , H N3' $11H E 3D' &H4' C-NF' ?$ 3' H4' E' $EO' H F34' P $EE34' F$E' C' QO' F C' N ' D 43N 3D' ' CF$ ' Q3' $ &-' H' C3 ' C-NF' MHHDC' H4' @F$ 3 C' $NNH4D E2' H' C-NF' @HEC3E ' 14H D3D' $ CH' F$' &' F3' < E34' H&' C-NF' MHHDC' H4' @F$ 3 C' CF$ ' $' $EO' * J 3' Q3&H43' F3' ?$ 3' F343H&' 1$O' H4' 3ED34' H' F3' I34CHE' FH' QO' $EO' 9 44E ' H4' H F34' I4HN3CC' CF$ ' Q3' D 43N 3D' H4' $- FH4 T3D' H' N$-C3' C-NF' MHHDC' H4' @F$ 3 C' H' Q3' CH D' F3' ?- J' F NF' F3' CF$ ' QO' C-NF 9 44E ' H4' I4HN3CC' Q3' D 43N 3D' H' 3 O' H4' 4$ C3' QO' F3' ?$ 3' H&' C-NF' MHHDC' H4' @F$ 3 C' H23 F34' F' $ ' 43$CHER $Q 3' @HC C' $ED' ; 13EN3C' EN-443D' EH' ?$ 3' H&' C-NF' MHHDC' H4' @F$ R 3 C' CF$ ' Q3' J $D3' ' ' '

$ F$ P $E' E34' MHHDC' D C 4$ E3D' N CF$ 4Q3' CH D'

> J $ HEC H&' N HEC

@W ' ED' Q3' ' 3E$N 3D' *F$' $ ' N HEC' $ED' I 4HC3N- HEC' F NF' CF$ ' Q3' Q4H-2F ' D4' NH J J 3EN3D' 2 EC ' $EO' I 34CHE' &H4' $EO' F E2' DHE3' E' 1D4C-$EH3' H4' -ED34' F3' - FH4 O' H&' F C' N ' CF$ ' Q3' NH J J 3EN3D' $ED' 14HC3N- 3D' F E' *F433' @$ 3ED$4' P HE FC' E3 ' $& 34' F3' 6$N 'NH4H J 3D ' $ED' EH ' $& 34 $4DC ' $ED' CF$ ' Q3' Q4H-2F ' $ED' 4 3D' E' F3' @H-E O' H4' 8 $N3' F343' F3' @$-C3' H&' N HE' CF$ ' $4 C3' $ED' EH ' 3 C3 F343' ' $ED' , H N3' E ' 9 4 E2' H&' C-NF' N HE' $ED' ! ' F3' @$-C3' CF$ ' Q3' 2 3E' H' F3' G3&3ED$E ' <E3 @$ 3ED$4' P HE F' $ ' 3$C 'Q3&H43' F3' @H J J 3EN3 J 3E 'H&' F3' N HE' ' $ED' F3' G3&3ED$E ' E' C-NF' N HE' J $O' 1 3$D' F3' M3E34$' CC-3 ' $ED' 2 3' F C' N ' $ED' $EO' H F34' P $ 34' H4' * 4 E2' E' ; D3EN3' $ ' $EO' *4 $' H'Q3' Q$D' F3&3H1HE ' $ED' &' F3' @$-C3' H&' N HE' CF$ ' $113$4' H' $4 C3' &4H J' $EO' P $ 34' H4' * F 'DHE3' E' 1-4C-$EN3' $ED' QO' F3' - FH4 O' H&' F C' N ' H4' &' $EO' C-NF' N HE' CF$ ' O3' Q4H-2F ' $& 34' F3' ; 1 R 4$ HE' H&' C-NF' *F433' @$ 3ED$4' P HE FC' H4' CF$ ' Q3' Q4H-2F ' E' $EO' H Q3 ' @H-E O' H4' I $N3' F$E' $C' $&H43C$ D' H4' &' , H N3' H&' C-NF' N HE' CF$ ' EH ' F$ 3' Q33E' 2 3E' E' J $EE34' $&H43C$ D' H4' &' *3ED34' H&' C-&& R N 3E ' J 3EDC' CF$ ' F$ 3' Q33E' J $D3' Q3&H43' C-NF' N HE' NH J J 3EN3D ' H4' &' $' C-& BN 3E ' ?- J' H&' P HE3O' CF$ ' F$ 3' Q33E' 1$ D' E H' @H-4 ' $& 34' C-NF' N HE' NH J J 3EN3D' QO' H4' HE' Q3F$ &' H&' F3' G3&3ED$E ' F3' 5-4O' CF$ ' & ED' $ 34D N ' &H4' F3' G3&3ED$E ' $ED' &' $' 34D N ' CF$ ' 1$CC' &H4' F3' G3&3ED$E ' !' &' F3' I $ E && CF$ ' Q3NH J 3' , HEC- ' H4' CF$ ' D CNHE E-3' $EO' C-NF' 3 HE ' H4' &' HE' G3 J -4434' H4' H F34 C3' 5-D2 J 3E ' CF$ ' Q3' 2 3E' 2 EC ' F3' I $ E && ' F3' G3&3ED$E ' CF$ ' 43NH 34' F C' &- ' @H K' H&' ?- ' $a' Q3 33E' H4E3O' $ED' @ 3E ' $ED' CF$ ' F$ 3' F3' FF3' B3 J 3DO' &H4' F3' C$ J 3' $C' $EO' G3&3ED$E ' J $O' F$ 3' &H4' @HC C' H&' ?- ' E' H F34' @$C3C' $ ' >$ ' $ED' $ FH-2F' $' 34D N ' CF$ ' Q3' 2 3E' &H4' F3' 8 $ E && E' $EO' C-NF' N HE ' C-NF' I $ E && ' CF$ ' FH ' F$ 3' @HC C' 2 EC ' F3' G3&3ED$E ' -E 3CC' F3' 5-D23' Q3&H43' FH J' F3' *4 $' CF$ 'Q3' F$D' CF$ '$ ' F3' * J 3' C-D ' *4 $' N34 &O' E' 9 4 E2' F C' 114HQ$ HE' H&' F3' N HE' $ED' H&' F3' 34D N 'HQ $ E3D' F343-1HE

:((!& CC-3

*3ED34' H&' J 3EDC

@HEC 4-N HE' H&' F3' *34 J C' -C3D' E' F C' N

@W >' ED' E' H4D34' H' $ H D' F3' &43N1 3F ' # C3' H&' D 34C' *34 J C' $ED' ; 143CC HEC' E' F C' N ' $ED' H' 143 3E ' $EO' P CNHEC 4-N HE' H&' F3' *34 J C' $ED' ; 143CC HEC' -C3D' F343 E ' Q3' ' 3E$N 3D' *F$' F343 34' E' F C' N ' F' 43&343$N3' H' $EO' I 34CHE ' P$ 34 ' H4' *F E2 ' $EO' 9 H4D' H4' 9 H4DC' C' H4' $43' -C3D' J 1H4 E2' F3' E2- $4' , - J Q34' H4' F3' P $CN- E3' M3ED34' HE O ' O3 ' C-NF' 9 D' H4' 9 H4DC' CF$ ' Q3' -ED34C HHD' H' EN -D3' C3 34$' I 34CHEC' $C' 3 ' $C' <E3' I 34CHE ' 63 J $ 3C' $C' 93 ' $C' P $ 3C ' BHD 3C' I H N' H4' @H41H4$ 3' $C' 3 ' $C' ED D-$ C ' $ED' C3 34$' P $ 34C' H4' *F E2C' $C' 3 ' $C' <E3' P $ ' H4' *F E2 ' -E 3CC' ' Q3' H F34 C3' C13N $ O' 14H D3D ' H4' F343' Q3 ' CH<$3 F E2' E' F3' ?-QR (3N ' H4' @HE 3 '431-2E$E ' H' C-NF' @HEC 4-N HE ' $ED' F$' F343 34' F3' *34 J C' $ED' ; 143CC HEC' &H H E2' HNN-4' E' F C' N ' F3O' CF$ ' Q3' NHEC 4-3D' 43C13N 3 O' E' F3' P $EE34' FH43 - $& 34' D 43N 3D ' ^ F$ '

/' 8 C' P$(3CR Oc

C' H' C$O _' F$ ' F3' *34 J' $ED' ; 143CC HE' 8 C' P $(3C Oc' CF$ ' Q3' NHEC 4-3D' H' J 3$E' $ED' EN -D3' 8 C' P $(3C O' 8 a' 8 3 4C' $ED' ?-NN3CCH4C '

`' <&& N34' H&' ? $ J 1' G-R 3C c

F$ ' F3' *34 J' `' <&3N34' H&' ? $ J 1' G- 3Cc' CF 'FH' NHEC 4-3D' H' J 3$E' $EO' <&& N34' D31- 3D' H4' $11H E 3D' QO' F3' @H J J CC HE34C' H&' ? $ J 1C' F$ 3 34' H$O' Q3' F ? 1$4 N- $4' <&& N3' H4' ; J 1 HO J 3E ' F$ ' F3' *34 J'

`' I 4H14 3R H4 c

`' I 4H14 3 H4 c' -C3D' F' 43&343EN3' H ' $EO' ? $23' @$44 $23' CF$ ' Q3' NHEC 4-3D' H' J 3$E' $ED' EN -D3' $EO' $ED' 3 34O' 134CHE' FH' CF$ ' +331 ' -C3' H4' 3 J 1 HO' C-XF' ? $23' @$44 $23' <4' FH' CF$ ' Q3' NHEN34E3D' E' F3' +331 E2 ' -C E2 ' "H4' 3 J 1 HO E2' F343H& ' F$ ' F3' *34 J' `' N3EC3D IHC J $C 34c

`' > N3EC3D' IHC J $C 34 c

ʾ ʾ @$1ʾ

I HC J $C 34cʾ CF$ ʾ Q3ʾ @HEC 4-3Dʾ Hʾ J 3$Eʾ $EDʾ EN -D3ʾ $EOʾ $EDʾ 3 34Oʾ
I 3&CHE ʾ P$ 3ʾ H4ʾ 63 J $ 3ʾ N3EC3Dʾ Hʾ 3 ʾ 8 H4C3Cʾ &H4ʾ 8 43ʾ -ED34ʾ F3ʾ
- FH4 Oʾ H&ʾ F Cʾ N ʾ F$ ʾ F3ʾ *34 J ʾ `ʾ 8 H4C3cʾ H4ʾ `ʾ 8 H4C3Ccʾ CF$ ʾ ` 8 H4C3 cgH4
43C13N 3 OʾQ3ʾ NHEC 4-3Dʾ Hʾ E3Eʾ $EDʾ EN -D3ʾ $EOʾ P $43ʾ H4ʾ M3 D E2ʾ D4ʾ 8 H4C3C cʾ
P $43Cʾ H4ʾ M3 D E2Cʾ $Cʾ 3 ʾ $Cʾ $EOʾ 8 H4C3ʾ H4ʾ 8 H4C3Cʾ ʾ F$ ʾ F3ʾ *34 J ʾ
`ʾ *H ʾM$ 3cʾ CF$ ʾQ3ʾ NHEC 4-3Dʾ Hʾ J 3$Eʾ $EOʾ M$ 3ʾ H4ʾ B$4 $ ʾ F NFʾ $EOʾ ʾ*H ʾM$ 3cʾ
*H ʾ Cʾ 1OQ 3ʾ H4ʾ $EOʾ * N+3 ʾ Cʾ 43N3 $Q 3ʾ &H4ʾ $EOʾ 8 H4C3ʾ H4ʾ @$4R
4 $23dʾ F$ ʾ F3ʾ *34 J ʾ ` *H 2$ 3ʾ %33134cʾ CF$ ʾ Q3ʾ NHEC 4-3Dʾ Hʾ
J 3$Eʾ $EDʾ EN -D3ʾ F3ʾ %33134ʾ H&ʾ $EOʾ C-NFʾ M$ 3ʾ H4ʾ B$4ʾ $Cʾ $&H43C$ D ʾ %33134 cʾ
H4ʾ F3ʾ @H 3N H4ʾ H&ʾ *H Cʾ F343$ ʾ H4ʾ $EOʾ I 34CHEʾ $N E2ʾ $Cʾ C-NFʾ
%33134ʾ H4ʾ @H 3N H4ʾ 43C13N 3 Oʾ ʾ F$ ʾ F3ʾ *34 Fʾ `ʾ G4 34 cʾ -C3Dʾ G4 34 ʾ
Fʾ 43&343EN3ʾ Hʾ $EOʾ ? $23ʾ @$44 $23 ʾ CF$ ʾQ3ʾ NHEC 4-3Dʾ Hʾ J 3$Eʾ F3ʾ
@H$NF J $E ʾ G4 34 ʾ H4ʾ G 43N H4ʾ F343H& ʾ $EDʾ F$ ʾ F3ʾ *34 J ʾ `ʾ > -2 ʾ G-2 $23 cʾ
2$23cʾ CF$ ʾ Q3ʾ NHEC 4-3Dʾ Hʾ J 3$Eʾ $EOʾ *4-E+ ʾ BH ʾ B$ 3 ʾ I $4N3
I $N+$23 ʾ @H4E ʾ H4ʾ H F34ʾ 4 N 3 ʾ F3 F34ʾ C-NFʾ *4-E+ ʾ BH ʾ B$ 3
I $4N3 ʾ I $N+$23 ʾ @H4E ʾ H4ʾ H F34ʾ 4 N 3ʾ CF$ ʾ H4ʾ CF$ ʾ EH ʾ Q3 HE2ʾ Hʾ
$EOʾ I $CC3E234ʾ NHE 3O3DʾQOʾ $EOʾ ? -NFʾ ? $23ʾ @$44 $23

@W 8 ʾ EDʾQ3ʾ ʾ3E$N 3D ʾ *F$ ʾ$ ʾ F3ʾ I H 34C ʾ I 4H C HEC ʾ ' 32- ʾ I H 34Cʾ $EDʾ
$ HEC ʾ6H4&3 -43C ʾ I $- C ʾ $EDʾ I 3E$ 3Cʾ NHE $ E3Dʾ Eʾ H4ʾ E1HC3DʾQOʾ I 4H C ECʾ H&ʾ
$EOʾ H F34ʾ N ʾ H4ʾ N Cʾ Eʾ &H4N3ʾ Fʾ 43 $ HEʾ Hʾ $EOʾ H&ʾ F3ʾ G- 3Cʾ &pN3
-ED34ʾ F3ʾ P E23 J 3E ʾ H&ʾ F3ʾ @H J J CC HE34Cʾ H&ʾ ? $ J 1C ʾ ?H &$4ʾ $Cʾ F3ʾ J 3 3EDʾ H
C$ J 3ʾ $43ʾ H4ʾ J $OʾQ3ʾ $11 N$Q 3ʾ Eʾ @$C3Cʾ EH ʾ QOʾ F Cʾ N ʾ 3 143CC Oʾ F Cʾ N ʾ
14H D3Dʾ &H4 ʾ $EDʾ CHʾ &$4ʾ $Cʾ F3ʾ C$ J 3ʾ CF$ ʾ EH ʾ Q3ʾ ? -134C3D3DʾQOʾ $EDʾ $Cʾ
F3ʾ C$ J 3ʾ CF$ ʾ Q3ʾ NHEC C 3E ʾ Fʾ F3ʾ 3 143CCʾ I 4H C HECʾ H&ʾ F Cʾ N ʾ
CF$ ʾ Q3ʾ H&ʾ &- ʾ6H4N3ʾ $EDʾ ; & 3N ʾ Fʾ 43C13N ʾ Hʾ F3ʾ G- 3Cʾ QOʾ F Cʾ
N ʾ24$E 3Dʾ $EDʾ Hʾ F3ʾ P $ 34Cʾ $EDʾ *F E2Cʾ NF$423Dʾ H4ʾ NF423Q 3ʾ
F343 Fʾ $EDʾ CF$ ʾQ3ʾ $11 3Dʾ $EDʾ 1- ʾ Eʾ 3 3N- HEʾ &H4ʾ C3N-4 E2ʾ $EDʾ
NH 3N E2ʾ F3ʾ C$ Dʾ $C J 3E HE3Dʾ G- 3C ʾ $EDʾ &H4ʾ 143 3E E2 ʾ D3 3N R
E2 ʾ $EDʾ 1-E CF E2ʾ $ ʾ64$-DC ʾ 6H4234 3C ʾ $EDʾ H F34ʾ <&&3EN3Cʾ 43 $ E2ʾ
F343 H ʾ $Cʾ &- Oʾ $EDʾ 3&&3N -$ O ʾ Hʾ $ ʾ E 3E Cʾ $EDʾ I -41HC3C ʾ $Cʾ &ʾ
C-NFʾ I H 34C ʾ14H C HEC ʾ ' 32- $ HEC ʾ6H4&3 -43C ʾ I $ EC ʾ $EDʾ I 3E$ 3Cʾ
F$Dʾ Q33Eʾ 4313$ 3Dʾ $EDʾ C13N $ Oʾ 3E$N 3Dʾ Eʾ F Cʾ N ʾ Fʾ 43&343EN3ʾ
Hʾ F3ʾ G- 3Cʾ QOʾ F Cʾ N ʾ24$E 3Dʾ $EDʾ J $D3ʾ 1$O$Q 3

@W W ʾ EDʾ Q3ʾ ʾ 3E$N 3D ʾ *F$ ʾ F343ʾ F3ʾ C3 34$ ʾ @ $-C3Cʾ $EDʾ
64H C HECʾ H&ʾ F Cʾ N ʾ $43ʾ EH ʾ 3 143CC Oʾ D 43N 3Dʾ Hʾ $+3ʾ 3&&3N ʾ &4H J ʾ J 3$ ʾH&ʾ F Cʾ
$EDʾ $& 34ʾ F3ʾ 1$CC E2ʾ F343H& ʾ C-NFʾ @ $-C3Cʾ $EDʾ I 4H C HEC ʾ CHʾ &$4ʾ $Cʾ
F3Oʾ Eʾ $EOʾ P $EE34ʾ 43 $ 3ʾ H ? $23ʾ @$44 $23C ʾ <4 Hʾ F3ʾ G- 3Cʾ F343QOʾ
24$E 3Dʾ Eʾ 43C13N ʾ 7 F343H&ʾ H4ʾ H&ʾ > N3EN3Cʾ Hʾ +331ʾ F3ʾ C$ J 3 ʾ H4ʾ
Eʾ 43C13N ʾ && I $CC3E234Cʾ NHE 3O3Dʾ &H4ʾ 8 43 ʾ CF$ ʾ NH J J 3EN3ʾ $EDʾ
$+3ʾ 3 @ ʾHEʾ F3ʾ ; 3 3E F G$Oʾ H&ʾ 6 ' ,4! ʾ Eʾ F Cʾ 143C3E ʾ =3$4ʾ < E3ʾ
FH-C$EDʾ 3 2F ʾ F-ED43Dʾ $EDʾ F 4 O Hʾ $EDʾ C-NFʾ @ $-C3Cʾ $EDʾ I 4HR
C HEC ʾ CHʾ &$4ʾ $Cʾ F3Oʾ Eʾ $EOʾ P $EE34ʾ 43 $ 3ʾ Hʾ F3ʾ G- 3Cʾ F343QOʾ
24$E 3Dʾ Eʾ 43C13N ʾ H&ʾ 8 H4C3Cʾ 3 ʾ &H4ʾ 8 43ʾ H4ʾ H&ʾ > N3EN3Cʾ Hʾ 3 ʾ F3ʾ
C$ J 3 ʾ CF$ ʾ NH J J 3EN3ʾ $EDʾ $+3ʾ 3&&3N ʾ HEʾ F3ʾ 6 4C ʾ G$O ʾ H&ʾ R ! 4 3 ʾ
Eʾ F3ʾ =3$4ʾ < E3ʾ FH-C$EDʾ 3 2F ʾ F-ED43Dʾ $EDʾ F 4 O F433

@WW ʾ EDʾQ3ʾ ʾ3E$N 3D ʾ *F$ ʾ F Cʾ N ʾ J $OʾQ3ʾ $ J 3ED3D ʾ $ 343D ʾ N ʾ J $OʾQ3ʾ
H4ʾ 4313$ 3DʾQOʾ $EOʾ N ʾ H4ʾ N Cʾ Hʾ Q3ʾ 1$CC3Dʾ Eʾ F Cʾ 143C3E ʾ ?3CC HEʾ $ 343Dʾ F Cʾ
ʾH&ʾ I $4 $ J 3E ʾ ʾ ?3CC HE

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63/ " %' H' &N 1 F3' C$J3' (^ F$ ' C' H' C$O _

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6H4' $ED' E' 43C13N ' H&' 3 34O' H4 2 E$ ' > N3EN3' H' Q3' $+3E'
H- ' O3$4 O' QO' F3' I 34CHE' FH' CF$ ' +331 ' #C3' H4' 3 J 1 HO'
$EO' ? $23' @$44 $23' E' M43$ ' B4 $ E ' ^ F$ ' C' H' C$O _'
&H4' 3 340' C-NF' ? = ' @$44 $23'
ED' &H4' $ED' E' 43C13N' H&' 3 340' C-11 3 J 3E $40' > N3EN3'
&H4' F3' C$J3' ' @$44 $23' &H4' F NF' $EO' C-NF' H4 2 E$ '
> N3EN3' CF$ ' F$ 3' Q33E' 24$E 3D' F NF' CF$ ' Q3' $+3E'
H- ' E' $EO' H&' F3' C3 34$' @$C3C' 14H D3D' &H4' QO' F C' N '
D-4 E2' F3' I 34 HD' &H4' F NF' C-NF' H4 2 E$ ' > N3EN3' $C'
' 24$E ' 4 ' '
ED' &H4' $ED' -' 43C13N ' H&' 3 340' P 3' F NF' $EO' C-NF'
? $23' @$44 $23' CF$ ' Q3' N3EC3D' H' 4$ D' F3' C3 34$'
?-J C' &H \ H E2' 43C13N 3 O ' ^ F$ ' C' H' C$O _
&' C-NF' ? $23' @$44 3' CF$ ' Q3' 33 %3D' H' N$44O' h
, H ' J H43' F$E' 6HJ ' I $CC3E2 J CC'
P $43' F$E' 6N-E' $ED' EQ ' J H43' D $E' ? ' I $CC3E234C' '
' P H43' F$E' ? ' $ED' J ' 9 3K $$' P F3' I $?C3$ J 4C' '
' P H43' F$E' , E3' $ED' EH ' J H43' F$E' * 3 3' I $CC3-234C'
P H43' F$E' * 3 3' $ED' EH ' J H43' F$E' 6 & 33E ' I $CC3E234C'
P H43' F$E' 6 & 33E' $ED' EH ' J H43' F$E' ; 2F 33E' I $C '
' C3E234C' ' '
P H43' F$E' ; 2F 33E' $ED' EH ' J H43' F$E' * 3E O HE3'
I $CC3E234C' '
ED' &' C-NF' ? $23' @$44 $23' CF$ ' Q3' N3EC3D' H' N$44O'
J H43' F$E' * 31 O HE3' I $CC3E234C' F3E' &H4' 3 340'
*F433' $DD HE$' I $CC3E234C' 3 N33D E2' * 3E O HE3'
F NF' C-NF' ? $23' @$44 $23' CF$ ' Q3' N3EC3D' H' N$44O'
' F3' $DD HE$ ' 5G- O' H & ' ' ' '
ED' F343' C-NF' ; N3CC' $QH 3' * 3E O HE3' CF$ ' EH '
Q3' 3 $N O' *F433 ' H4' $' P - 1 3' H&' *F433 ' F3E' C-NF'
$DD HE$ ' G- O' H&' <E3' 8 $ 3E EO' CF$ ' Q3' 1OQ 3'
$ CH' &H4' $EO' , - J Q34' H&' C-NF' ; N3CC' Q3 E2' 3CC' F$E'
*F433 ' H4' 14H243CC 3 O' 3CC' D $E' $EO' P - 1 3' H&'
*F433 ' F NF' C-NF' ? $23' @$44 $23' CF$ ' Q3' N3EC3D'
H' N$44O '
I 4H D3D' D $0?(' *F$? ' F3' , - J Q34' H&' I $CC3$2 ' &H4'
N$44O E2' H&' 8 NF' $EO' ? $23' @$44 $23' $(' (Q3' H3$C3D'
CF$ ' Q3' 43N+HE3D' 3 N -C 3' H&' F3' @H$3 -E$E' .2' B4 O34 '
$ED' $ CH' 3 N -C 3' H&' &H3' @HED-N H4' H4' M -$4D' F343'
CF$ ' Q3' $' @HED-N H4' H4' M -$4D

[' G- O' 134' P 3 [[8 [U [[[[S [[[[[[[

i4 i:=E E ' ' &''

ED' $CH F3' >23+%' HE %%+) / +(%' NHE 3O3D' &H4' 8 43' QO' ((3 / +%' 4$ 3 E2' -1HE 3A , &%' ' ^ F$ ' C H' C$O _

* F3' I 4H14 3 H4' H4' @H J 1$EO' H&' I 4H14 3 H4C' H&' 3 34O' ' $ R $O' E' M43$ ' B4 $ E' $ HE2' F NF' $EO' I $CC3E234C' CF$ ' Q3' NHE 3O3D' &H4' 8 43' E' H4' -1HE' @$44 $23C' D4$ 4$' H4' J 13 3D' QO' F3' I H 34' H&' ? 3$J ' H4' H F34 C3' CF$ ' 1$O' &H4' $ED' E' 43C13N ' H&' $ ' C-NF' I $CC3E234C' $ ' $ED' $& 34' F3' ' $ 3' H&' < E3' 8 $ &13EEO' 134' P 3' &H4' 3 34O' 6H-4' I $CC3E234C' CH' NHE 3O3D

ED' $CH F3' >23+%' HE ! . (%+%' 3 ' &H4' 8 43' $ED' HE' 63 +) +%' H' 3 ' F3' C$J 3' ^ F$ ' C H' C$O _

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6H4' $ED' E' 43C13N ' H&' 3 34O' > N3EN3' H' Q3' $+3E' H- ' O3$4 O' QO' 3 34O' I 34CHE' FH' CF$ ' 3 ' $EO' 8 H4C3' &H4' 8 43' E' M43$ ' B4 $ E' ' ' ' g

ED' &H4' $ED' E' 43C13N ' H&' 3 34O' 8 H4C3' 3 ' &H4' 8 43' QO' F3' P 3' $ ' F3' -C-$ ' ' $ 3' NF$423D' &H4' 8 H4C3C' 4$ 3 ' E2' I HC ' $ ' F3' I $N3' $ ' F NF' C-NF' 8 H4C3' CF$ ' Q3' 3 ' &H4' 8 43 ' ^ F$ ' C H' C$O_ ' &H4' 3 34O' P 3' C-NF' 8 H4C3' CF$ ' Q3' F 43D ' H4' -C3D' H' 4$ 3 ' H4' 2H'

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(')?#J' "&!#' +?' #J(' G@' HJ&! * (<' ?+!' AGHJ' (##) * ' +!') ')(G' #J(!(+?1' &#' #J(' '#)+ ' +?' #J(' "(!A+ ' (##) *' #J(' +!A(1

ED' &H4' $ED' E' 43C13N ' H&' 3 34O' 8 H4C3' 3 ' ^H4' 8 43' H' (2H' EH' 243$ 34' G C $EN3' F$E' ; 2F ' P 3C' &4H J ' F3/ ' I $N3' H&' 3 E2' ' g '

[' V

ED' &H4' $ED' E' 43C13N ' H&' 3 34O' 8 H4C3' 3 ' &H4' 8 43' H' 2H' EH' 243$ 34' G C $EN3' F$E' ; 2F ' P 3C' &4H J ' F3' I $N3' H&' 3 E2 ' F343' C-NF' 8 H4C3' CF$ ' EH ' Q4 E2' Q$N+' $EO' I 34CHE ' $ED' CF$ ' EH ' D3 $ 3' &4H J ' F3' -C-$ ' > E3' H&' ' H$D' Q3 33E' F3' I $N3' H&' 3 E2' $ED' F3' I $N3' H' F NF' C-NF' 8 H4C3' CF$ ' Q3' F 43D' H' 4$ 3 ' H4' 2H'

ED' &H4' $ED' E' 43C13N ' H&' 3 34O' 8 H4C3' 3 ' &H4' 8 43 ' H4' -C3D' &H4' $EO' I 34 HD' H&' * J 3' 3CC' F$E' * 3E O 3 2F ' C-NN3CC 3' G $OC ' H4' E' $EO' H F34' P $EE34' F$E' $C' $&H43C$ D' ' '

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< 4' E' 3-' H&' C-NF' $C J 3E HE3D' < E3' 6 & F' I $4 ' H&' C-NF' ?- J ' ^$ ' F3' < 1 HE' H&' F3' I 34CHE' 3 E2' F3' 8 H4C3_' F3' &H H E2' G - 3C' &H4' 3 34O' G $O' C-NF' 8 H4C3' CF$ ' Q3' 3 ' &H4' 8 43' H4' -C3D ' H4' CF$ ' ^QO' 4 -3' H&' $EO' C-NF' 3 E2_' F$ 3' Q33E' -ED34' F3' G 43N HE' H&' F3' I 34CHE' H' FH J ' F3' C$J 3' CF$ ' Q3' F 43D ' ^ F$ ' C' H' C$O _

6H4' 3 34O' G $O' EH ' 3 N33D E2' * F433' G $OC' [B' Y'

ED' &H4' 3 34O' G $O' 3 N33D E2' * F433' G $OC ' $ED' EH ' 3 N33D E2' * F 4 33E' G $OC' ' ' g [' V

ED' &H4' 3 34O' G $O' 3 N33D E2' * F 4 33E' G $OC ' $ED' 3CC' F$E' * 3E O 3 2F ' G $OC' 9 ' S

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9 8 ; ' ; ?` ` > 3 Nb ` IH&` >$N3EN3C ` F$ Q` IH4` F$ 3m` Q33E` 24$E 3D ` -ED34` F3` I 4H C HEC` H&` F3` ? $ - 3` E` F $` B 3F$ &` J $D3 ` H` I 2 ` H& ` KN` H` +331 ` -C3 ` $ED` 3 J 1 HO` $` ? 3` @$44 $23` IH4` ? $23` @$44 $23Cm ` F` I $ 3C` E - J Q343D` 43C13N 3 O` G) ! !` 15! ` `) !` + 4! ` , ` E3# / ! 1` , ` ) !` * % !1` 55! # #(` ,` )!` < ' '!` , ` < ' !#' !1` ( # ! ` &` _ @ e 0 m` ` ED` F343$C` F3` C$ D` I 2 ` F$ F` J $D3` G 3&$ - ` E` I $O ; H3E ` <&` F3` ? - J ` H&` &H4` F3` G - O` F NF` F$ F Q3NH J 3` D - 3` $ED` 1OQ 3` H` 8 C` P $(3C O` E` 43C13N ` H&` C - NF` > N3EN3` IH&` > N3EN30m` Q3 33E` F3` ' $O` H&` ` $ED` F3` G $O` H& E 4$4O` H` F3` ? $ - 3 4 ` F$ ` @$C3` J $D3` $ED` 14H D3D ` F343R &H43` 9 3` ` J D` ; CX - 43C * H` H&` F3 @H J J CC HE34C` H&` ? $ J 1C ` DH` F343QO` $ - FH4 T3` $ED` D 43N ` OH - ` H` D C 4$ E` F3` C$ D` ^ ` G ` QO` F C` MHHDC` $ED` @F$ 3 C ` $ED` $ CH` H` C3 T3` $ED` $+3` $ ` H4` $EO` H&` F3` @$44 $23C ` 8 H4C3C ` 8 $4E3CC ` $ED` H F34` * F E 2C` J $D3` C - Q(3N ` $ED` $Q 3` H` F3` C$ D` G - O` QO` F3` ? $ - 3` E` F$ ` B3F$ &` $ED` H` 3 O` F343HE` F3` C$ D` ? - J ` H&` Q3 E2` F3` J H - E ` H&` C - NF` G - O` CH` D - 3` $ED 1$O$Q 3` $C` $&H43C$ D ` $ED` &` D F E` F3` ?1$N3` H&` 6 3` G $OC` E3 ` $& 34` $+ E2` C - NF` G C 43CC` F3` C$ D` ? - J ` H&` H23 F34` F` F3` 43CHEQ 3 @HC C` $ED` @F$423C` H&` $+ E2` $ED` +331 E2` C - NF` G C13CC ` CF$ ` EH ` Q3` 1$ D ` F3E` 3` DH` F343QO` H4D34` $ED` D 43N ` F$ ` OH - ` CF$ ` C3 ` $ED` D C1HC3` H&` F3` C$ D` MHHDC` $ED` @F$ 3 C ` @$44 $23C ` 8 H4C3C ` 8 $4E3CC ` $ED` H F34` * F J 2$` F NF` CF$ ` Q3` CH` D C 4$ E3D ` C3 T3D ` $ED` $+3E ` $ED` F$ ` OH - ` ?F$ ` 3 O` $ED` 4$ C3` F343H - ` F3` C$ D` ? - J ` H&` $ED` $& ` 43$CHE$Q 3` @HC C` $ED` @? $423C` H&` $+ E2 +331 E2 ` $ED` C3 E2` C - NF` G C 43CC ` 43ED34 E2` F3` \ 3(1 - C` ^ &` $EO_` H` F3` < E34` H&` F3` C$ D` MHHDC` $ED` @F$ 3 C ` $ED` OH - ` $43` H` N34 &O` H` F3` @H J J CC HE34C` H&` ? $ J 1C` F$ ` OH - ` CF$ ` F$ 3` DH 3` QO` 4 - 3` 4& F C` H - 4` 9 J * P ` M 3E` - ED34` H - 4` 8 $EDC` $ED` ?3$ C ` F C` G $O` H&

, H ` U

/ ` H&` 4 ` F343HE` H` &H - ED` $` 9 $44$E ` H&` G C 43CC` &H4`
' 3NH 340` H&` G - 3C` HE` 8 H4C3C` 3 ` &H4` 8 E3

+G #B`6+!!`$C>` @ + ` ` 43 J 3 J Q343D ` * F$ ` HE` F C` G $O
E` F3` =3$4` H&H - 4` > H4D`

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/ " ` $E` <&& N34` H&` ? $ J 1` G - 3C ` IH4` $` @H 3N H4` H4` 6$4 J 34` H&` $3` G - 3C` HE` 8 H4C3C` 3 ` &H4` 8 43 ` 1`) !` I 1!` ` & 3 m` NH J 1 $ E3 F` H` J 3 ` I ` 2 ` ; CX - 43 ` < E3` H&` 8 C` P $(3C O C` 5 - C N3C` H&` F3` I 3$N$` &H4` F3` C$ D` ` ` F$ ` H& ` KN` ` ` Q3 E2` $Q 3 ` - ED34` F3` I 4H C HEC H&` F3` ? $ - 3` E` F$ ` B3F$ &` J $D3` H` $NNH - E ` &H4` $ED` 3 J $ E` G - O` 24$E 3D ` ` H

U ' K' M # > ; > P ' ' @$1 ' U[

H' 8 C' P $(3C O' QO' F3' C$ D' ? $ - 3' &H4' $ED' E' 43C13N ' H&' D 34C' 8 H4C3C' 3 ' &H ' 8 43' QO' F3' C$ D' 8 ' \ ' E' F3' C$ D' H&' F$ F E32 3N 3D' H' $NNH - E ' &H4' $ED' 1$O' H' F3' 14H134' @H 3N H4' H4' < && N34' $11H E 3D' H' 43N3 3' C - NF' G - O ' $NNH4D E2' H' F3' G 43N HEC' H&' F3' C$ D' ? $ - 3' F3' ? - J ' H&' ' D - 3' $ED' H E2' &4H J ' F3' C$ D' (? ' < ' H' 8 C C$ D' P $(3C ' (H4' H' F3' C$ D' '5? ' , ' H' ' ' 8 C' P $(3C O C' 6$4 J 34' H&' D 3' G - 3C ' @HC3' ?3' CH ㎡ &H4' C - NF' G - O' $C' $&H43C$ D ' $ED' F343 - 1HE' F3' C$ D' / " ' 14$03 F' H&' J 3' F3' C$ D' 5 - C N3' F$ ' F3' C$ D' 8 ' 6 ' J $O' Q3' C - J J HE3D' H' $113$4' $ED' CFH ' @$ - C3' &' $EO' F3' F$ 3' FO' - 1HE' D - 3' I HH&' Q3 E2' J $D3' H&' F3' ? - J ' D - 3' $ED' H E2' &4H J ' F 1 ' &H4' C - NF' G - O' $?' $&H43C$ D ' $' 9 44E ' H&' G C 43CC' CFH - D' EH ' Q3' 24$E 3D' &H4' ' 3NH 34O' F343H& ' 1 - 4C - $E ' H' F3' G 43N HEC' H&' F3' C$ D' ? $ - 3

$ED' 43N3 3D' QO' J 3' F3' G $O' '
' $ED' = 3$4' & 4C ' $QH 3' 4 3E ' 5

, H ' S

? . @4' H&' $ O>4 4 .)% HE' F3' &H432H E2' @H J 1 $ E

* H' 8 ' <&' H& ' KN

+G #B' 6+!!' +A' ' 9 8 ; ' ; ?' @H J 1 $ E ' F$ F' Q33E' J $D3' - E H' J 3' I ' 2 ' ; CX - 43' *'5 %*'@ <)* ' ' (((2' , $(3C O C' 5 - C N3C' H&' F3' I 3$N3' &H4' F3
L' #+' L)#' 5' H&
F$ ' OH - ' Q3 E2' $Q 3' - ED34' F3' I 4H C HEC' H&' F3' ? $ - 3' E' F$ ' B3F$ &' J $D3' H N" J ' &H4' $ED' 1$O' N34 $ E' G - O' 24$E 3D' H' 8 C' P $(3C O' QO' F3' C$ D' ? $ - 3' &H4' $ED' E' 43?13N ' H&' && 34C' 8 H4C3C' 3 ' &H4' 8 43' QO' OH - ' E' F3' C$ D
F$ 3' E32 3N 3D' H' $NNH - E ' &H4' $ED' 1$O' H' F3' 14H134' @H 3N H4' H4' < && N34' $11H E 3D' H' 43N3 3' ? - NF' G - O ' $NNH4D E2' H' F3' G 43N HEC' H&' F3' C$ D' ? $ - 3' F3' ? - J ' H&
D - 3' $ED' H E2' &4H J ' OH - ' H' 8 C' C$ D' P $(3C O' b5 ' H' / ' " ' 8 C' P $(3C O C' 6$4 J 34' H&' F3' C$ D' G - 3C㎡ &H4' C - NF' G - O' $C' $&H43C$ D .' * F3C3' $43' F343&H43' H' C - E J HE' OH - ' H' Q3' J D' $(3$4' $ ' E' F3' C$ D
HE' F3' G $O' H&
$ ' F3' 8 H - 4' H&' E' F3' , HHE' H&' F3' C$ J 3' G $O
Q3&H43' J 3' F3' C$ D' 5 - C N3' H4' Q3&H43' C - NF' H F34' H&' 8 C' P $(3C O C' 5 - C N3C' H&' F3' I 3$N3' &H4' Q3' C$ D' $C' CF$ ' Q3' F3E' 143C3E ' E' H4D34' F$ ' OH - ' J $O' CFH @$ - C3' &' $EO' OH - ' F$ 3' FO' HE' D - 3' I 4HH&' Q3 E2' J $D3' H&' F3' ? - J ' H&' P HE3O' D - 3' $ED' H E2' &H 4 $' OH - ' &H4' C - NF' G - O' $C' $&H43C$ D ' $' 9 44E ' H&' G C 43CC' CFH - D' EH ' Q3' 24$E 3D' &H4' F3' ' 3NH 34O' F343H&' 1 - 4C - $E ' H' F3' G 43N HEC' H&' F3' ?$ D' ? $R - 3 ' $ED' &' OH - ' &$ ' H' $113$4' $NNH4D E2 O' C#NF' I 4HN33D E2C' ' Q3' $+3E' $C' &' ' OH - ' F$D' $113$43D' $ED' F$D' EH ' CFH E' $EO' C - && N 3E ' @$ - C3' FO' C - NF' 9 44E ' CFH - D' EH ' Q3' 24$E 3D
M 3E' - ED34' J O' 8 $ED' $ED' ?3$ ' F C' G $O' H&

, H '

? . (4' H&' $' < (( ) 2' H&' 3%2 (+%%' &H - ED3D' HE' F3' &H432H E2 @H J 1 $ E

* H' F3' @HEC $Q 3' H&' IH4' H' I ' 2 ' H& ' KN' 1') !' I 1!
4! B

R+G #B'6+ 9 8 ; ' ; ?' @H J 1 $ E ' F$ F' Q33E' J $D3' F$ ' 8 6 ' H& ' KN
O *'5 %*'@ <' P' +?' Q3 E2' $Q 3' - ED34' F3' I 4H C HEC' H&' F3 '
#+' L)# ? $ - 3' E' F$ ' B3F$ &' J $D3' H' $NNH - E ' &H4' $ED' 1$O' N34 $ E' G - O' 24$E 3D' H' 5 C' P $(3C O' QO' F3' C$ D' ? $ - 3' &H4' $ED' E' 43C13N ' H&' D 34C' 8 H4C3C' 3 ' &H4' 8 43' QO' F3' C$ D' 8 ' 6 ' E' F3' C$ D' ' ' H&
F$ F

F$ F E32 3N 3D H $NNH-E &H4 $ED 1$O H F3 14H134 @H 3N H4 H4 <&& N34 $11H E 3D H 43N3 3 C-NF G - O $NNH4D E2 H F3 G 43N HEC H& F3 C$ D ? $ - 3 F3 ?- J H& D-3 $ED H E2 &4H J F3 C$ D 8 6 H 8 C C$ D P $(3C O b, H / " 8 C P $(3C O C 6$4 J 34 H& F3 C$ D G - 3C &H4 C-NF G - O $C $&H43C$ D. ED F343$C F3 C$ D 8 \ F$ F Q33E D- O C- J J HE3D $ED D-3 I 4HH& F$ F Q33E J $D3 HE < $ F Q3&H43 J 3 F$ F3 ?- J H&

C D-3 $ED H E2 &4H J F3 C$ D ; < &H4 C-NF G - O $C $&H43C$ D $ED F$ F3 F$ F E32 3N 3D H 1$O F3 C$ J 3. * F343&H43 NH J J $ED OH- H D C 4$ E F3 C$ D 8 \ QO F C MHHDC $ED @F$ 3 C $ED $ CH H C3 T3 $ED $+3 $ H4 $EO H& F3 @$44 $23C 8 H4C3C 8 $4E3CC $ED H F34 * F E2C J $D3 C-Q(3N $ED $Q 3 H F3 C$ D G - O QO F3 ? $ - 3 E F$ B3F$ & $ED H 3 O F343HE F3 C$ D $C J 3E HE3D ?- J Q3 E2 F3 J H-E H& C-NF G - O D-3 $C $&H43C$ D $ED $ CH F3 &-4 F34 ?- J H& &H4 F3 @HC C @F$423C $ED ; 13EN3C H& 14HN33D E2 &H4 $ED HQ $ E E2 F C 9 44E $ED H& F3 I 4HN33D E2C EN D3E $ED 43 $ E2 F343 H J $+ E2 H23 F34 F3 ?- J H& $ED & F E F3 ?1$N3 H& 6 3 G $OC E3 $& 34 F3 $+ E2 H& C-NF G C 43CC F3 C$ D ?- J H& H23 F34 F F3 43CHEQ 3 @HC C $ED @F$423C H& $+ E2 $ED +331 E2 C-NF G C 43CC CF$ EH Q3 1$ D F3E DH F343QO H4D34 $ED D 43N F$ OH- CF$ C3 $ED D C1HC3 H& F3 C$ D MHHDC $ED @F$ 3 C F NF CF$ Q3 CH D C 4$ E3D C3 T3D $ED $+3E $ED F$ OH- CF$ 3 O $ED 4$ C3 F343H- F3 C$ D ?- J H& $ED $ 43CHEQ 3 @HC C $ED @F$423C H& $+ E2 +331 E2 $ED C3 E2 C-NF G C 43CC 43ED34 E2 F3 < 341 -C ^ & $EO_ H F3 < E34 H& D 3 C$ D MHHDC $ED @F$ 3 C $ED OH- $43 H N34 &O H J 3 F$ OH- CF$ F$ 3 DHE3 QO 4 -3 H& F C J O 9 44E M 3E -ED34 J O 8 $ED $ED ?3$ F C G $O H&

^? 2E3D_

< E3 H& 8 C P $(3C O C 5-C N3C H& F3 I 3$N3 &H4 F3 C$ D H&

, H !

/ H& & 5 H& 4 &H4 9 $E H& C-&& N 3E G C 43CC &H-ED3D HE F3 &H432H E2 @H J 1 $ E

* H F3 @HEC $Q 3 H& E F3 H& $ED $ CH H F3 %33134 H& F3 @H J JHE M$H b, 8 H-C3 H& @H443N HE $ E F3 C$ D

@H-E O IH4 $C ; 9 8 ; ; ? @H J 1 $ E $C J $D3 F$ 8 6 H& KN 5 %*' Q@ ?)*& Q3 E2 $Q 3 -ED34 F3 I 4H C HEC H& H 5 F3 ? $ - 3 E F$ B3F$ & J $D3 H $NNH-E &H4 $ED 1$O N34 $ E G - O 24$E 3D H 8 C P $(3C O QO F3 C$ D ? $ - 3 &H4 $ED E 43C13N H& D 34C 8 H4C3C 3 &H4 8 43 QO F3 C$ D 8 \ E F3 C$ D H& F$D 43&-C3D $ED E32 3N 3D H $NNH-E &H4 $ED 1$O H F3 14H134 @H 3N H4 H4 <&& N34 $11H E 3D H 43N3 3 C-NF G - O $NNH4D E2 H F3 G 43N HEC H& F3 C$ D ? $ - 3 F3 ?- J H& D-3 $ED H E2 &4H J F3 C$ D 8 \ H 8 C C$ D P $(3C O IH4 H / " 8 C P $(3C O C 6$4 J 34 H& F3 C$ D G - 3C &H4 C-NF G - O $C $&H43C$ D. ED F343$C F3 C$ D 8 6 $C D- O C- J J HE3D $ED D-3 I 4HH& $C J $D3 HE < $ F F$ F3 ?- J H& $C D-3 $ED H E2 &4H J F3 C$ D 8 6 &H4 C-NF G - O $C $&H43C$ D $ED F$ F3 F$D E32 3N 3D H 1$O F3 C$ J 3. ED F343$C $ 9 44E F$C Q33E CC-3D D 43N 3D H @ ?2 H& NH J J $ED E2 F J QO G C 43CC $ED ?$ 3 H& F3 MHHDC $ED @F$ 3 C J $D3 C-Q(3N $ED $Q 3 H F3 C$ D G - O QO F3 ? $ - 3 E F$ B3F$ & H 3 O F3 C$ D $C J 3E HE3D ?- J Q3 E2 F3 J H-E H& C-NF G - O $C $&H43C$ D D-3 $ED H E2 &4H J F3 C$ D 8 < $ED $ CH F3 &-4 F34 ?- J H& &H4 F3 @HC C @F$423C $ED ; 13EN3C H& 14HN33D E2 &H4 $ED

UL K S ĉ M # > ; > P @$1 U[

$ED HQ $ E E2 F3 C$ D 9 44E $ED H& F3 I 4HN33D E2C EN D3E $ED 43 $ E2 F343 H J $+ E2 H23 F34 F3 ?E J H& $ED EH $113$4 E2 H J 3 QO F3 <$ F H& F3 C$ D I U_ F$ EH C-&& N 3E G C 43CC N$E Q3 &H-ED F343HE H 3 O F3 C$ D G - O @HC C $ED @F$423C , ## # #13 !# 2 1 !11 1)) 0!)5 ED F343$C F3 C$ D I 2 F$ F N34R & 3D H J 3 F$ F3 F$ F -ED34 F3 C$ D 9 44E 3 3D $ED 4$ C3D F3 ?E H& HE O $ED EH $113$4 E2 H J 3 QO F3 <$ F H& F3 C$ D @ 2 F$ EH C-&& N 3E G C 43CC N$E Q3 &H-ED F343HE H 3 O F3 3C D-3 H& F3 C$ D G - O @HC C $ED @F$423Cm * F343&H43 NH J J $ED OH-(F3 C$ D @HEC $Q 3 H& H $1143F3ED $ED $+3 F3 C$ D 8 \ $ED C$&3 O H NHE 3O F J H F3 @H J J HE M$H IH4 8 H-C3 H& @H443N HEm H& F3 C$ D $ E F3 C$ D $ED F343 H D3 34 F J H FH %33134 F343H& H23 F34 F F C 9 44E . ED DH F343QO NH J J $ED OH# F3 C$ D %33134 H 43N3 3 E H OH-4 @-C HDO E F3 C$ D M$H IH4 8 H-C3 H& @H4 3N (HEm F J F3 C$ D 8 < $ED F J F343 E C$&3 O H +331 -E F3 C$ D ?-J H& H4 -E F3 ?-J H& F3 3C D-3 H& F3 C$ D G - O @HC C $ED @F$423C 43 J $ E E2 $& 34 D3D-N E2 F3 ?$ D ?-J H& CH 3 3D $ED 4$ C3D $C $&H43C$ D CF$ Q3 & O 1$ D $ED C$ C& 3D M 3E -ED34 J O 8 $ED $ED ?3$ F C G $O H&

^? 2E3D_

< E3 H& 8 C P $(3C O C 5-C N3C H& F3 I 3$N3 &H4 F3 C$ D H&

, H Y

? . (4 H& $E) D . (4 23 .) &H4 F3 + . +(& H& $ +) A2& -ED34 F C N

+G #B b 1 B ; 43 J 3 J Q343D * F$ HE F3 G $O)! I 1! 3)B) (1 +? H& E F3 = 3$4 H& H-4 > H4D #+ I2)# 3 $ E F3 H& / " H& KN IH4 / " $E < && N34 H& ? $ J 1 G - 3C H4 $ @H 3N H4 H4 6$4 J 34 H& 3 G X O HE 8 H4C3C 3 &H4 8 43 M)! I 1 ?3 m NH J 3 F Q3&H43 J 3 @ 2 ; CX- 43 < E3 H& 8 C P $(3C O C 5-C N3C H& F3 I 3$N3 &H4 F3 C$ D $ED E&H4 J 3 F J 3 F3 C$ D 5-C N3 F$ 8 < H& F343 H&H43 H HE F3 G $O H& E F3 = 3$4 H& H-4 > H4D $ E F3 C$ D D D G) ! ! 1 !)! 6 !# ! a NHE 4$4O H F3 6H4 J H& F3 ? $ - 3 E C-NF @$C3 J $D3 $ED 14H D3D F343QO F3 C$ D 8 6 F$ F &H4&3 3D &H4 F C C$ D < &&3EN3 F3 ?-J H&

* $+3E $ED 43N3 3D QO J 3 F3 G $O m

$ED = 3$4 & 4C $QH 3 4 3E 5

, H

? . (4 H& $ O > 4 4 .)% HE F3 &H432H E2 E&H4 J $ HE

* H 8 6 H& KN

+G #B 6L1 +A 9 8 ; ; ? $E E&H4 J $ HE F$ F Q33E 3 F Q 3D Q3&H43 J 3 I 1!OF 4! a @ G ; CX- 3 < E3 H& 8 C P $(3C O C 5-C N3CH& F3 I 3$N3 &H4 H 5 &H H& NF$42 E2 F$ OH- F3 $QH 3 E$ J 3D 8 6 HE F3 G $O H& $ SG D D

Z' U`K S7 M#> ;>P ' ' @$1' U[

D D'b)! !'1 !')!' +041J#'!', ')!' I) (!a' F343QO'OH-'F$ 3'&H4&3 3D' F3' ?-J' H&' *F3C3'$43' F343&H43' H'43X- 43'OH-'134CHE$ O' H' Q3' $ED $113$4' Q3&H43' J3' F3'C$D' 5-C N3C' H4'Q3&H43'C-NF' H F34' H&' 8 C' P $(3C O C' 5-C N3C' H&' F3' I 3$N3'&H4' F3'C$D' $C' CF$ 'Q3' F3E' 143C3E '$' HE F3' 8 $O' H&' $' F3' 8 H-4' H&' E' F3 E,,#', ' F3'C$J3' G$(' F3E'$ED' F343' H'$EC 34' F3'C$J3' E&H4J$ HE' $ED' H' J$+3'OH-4'G3&3EN3' F343 H' $ED' &'OH-' &$' H' $113$4' $NNH4D E2 O' C-NF' I 4HN33D E2C' 'Q3' $+3E' $C' &'OH-' F$D' 134CHE$ O' $113$43D' $ED' F$D' EH' J$D3' $EO'G3&3EN3' H' F3'C$D' @F$ 23

M 3E' -ED34' J O' 8 ED'ED' ?3$' F C' G$O'H&

' , H Z

/ 'H&'$'4 8- 'HE'#J(' &H432H E2' E&H4J$ HE

+G #B' 6+!1' 1' ' '43J3J Q343D' *F$ 'HE' F3' G$O'H& 'I 1!' '4! a' ' I '2 'H&' KN' $C' D- O' NHE N 3D' Q3&H43' J3 #+'L)#' <E3' H&' 8 C' P $(3C O C' 5-C N3C' H&' F3' I 3$N3'&H4 E' 1-4C-$EN3' H&' $E' N' 1$CC3D' E' F3' *F 4D' =3$4' H&' F3' '3 2E' H&' 8 C' 143C3E' P $(3C O'% E '9 $J' F3' 6H-4 F' E - 3D' `' E' N c' KN'b7 %!' , ') 1' / &a' &H4' F$' F3'C$D' I '2 'HE' F3' G$O'H&' D D b)! !'1 ;')!' I !#'!' 1')!' I 1!' ') 55!#' ,'4! a' NHE 4$40' H' F3' 6H4J'H&' F3' ?$ - 3' E' F$' @$C3' J$D3'$ED' 14H D3D' &H4' F NF' <&&3EN3' ' DH' $D(-D23' F$' F3'C$D' I '2 'F$ F' &H4&3 3D' F3' ?-J'H&' $ED'b ')!'?31 '!' (!)!' *!# % a' F NF' ?-J'H&' 'DH' F343QO' J 2$ 3' H' F3' ?-J'H& H 34' $ED' $QH 3' F3' ?-J'H&' &H4' F3' @HC C' $ED @F$423C' H&' 8 'R ' F3' E&H4J34' E' 14HC3N- E2' F C' @HE N HE

M 3E' -ED34' J O' 8 $ED' $ED' ?3$' F3' G$O'H&

,H V

/ '+?' &' 5 '+?' '?+G <(<' + '#J(' ?+!(*+) * @HE N HE

*H' F3' @HEC $Q 3' H& E' F3 H&

+G #B' 6L1'&A' ' 9 8 ; ' ; ?' 8 ' G' H&' KN' F$C' Q33E' D- O' NHE N 3D' H&' $')! I 1!' '4! a' ' N34 $ E' <&&3EN3' &H4' F$'b)! !'1 !')!' 6 !#'!' 1' #')!' I ,#0 '' #+'L)#' 3' ,# a' F343QO' F3' F$ F' &H4&3 3D' F3' ?-J'H& b #&' #' ' 1!' , ' (,#' F NF' F$ F' Q33E' J 2$ 3D' H' F3' ?-J'H&' m 'H 34' $ED' $QH 3' F3' 43$CHE$Q 3' @HC C' $ED' @F$423C' H& F3' E&HEE34' $ H 3D' $ED' $CC3CC3D' $' F3' ?-J'H& *F343&H43' 'NHJ J$ED' OH-' H' 3 O' F3'C$D' ?-J'H&' $ED' $ CH F3'C$D' ?-J' H&' &H4' F3' @HC C' $ED' @F$423C' $&H43C$ D J$+ E2' H23 F34' F3' ?-J'H&' QO' D C 4$ E E2' F3' MHHDC' $ED @F$ 3 C' H&' F3' D' 8 '6 '$ED' QO' C3 T E2' $ED' $+ E2' $#' H4' $EO' H&' F3' @$44 $23C' 8 H4C3C' 8 $4E3CC' $ED' H F34' *F E2C' J$D3' C-Q(3N' $ED' $Q 3' QO' F3' ? $ - 3' E' F$' B3F$ &' H' Q3' C3 T3D' $ED' $+3E' H' ?$ C&O' F3' I 3E$ O' @HC C' $ED' @F$423C' $&H43C$ D' $ED' &' F E' F3' ?1$N3' H&' 6 3' G$OC' E3 ' $& 34' C-NF' G C 43CC' $+3E' F3' C$ D' ?-J' H&' H23 F34' F' F3 43CHEQ 3' @HC C' $ED' @F$423C' H&' $+ E2' $ED' +331 E2' C-NF' G C 43CC' CF$ ' EH' Q3' 1$ D' F3E' 'H4D34' $ED' D 43N' F$' OH-' CF$ ' C3 ' $ED' D C1HC3' H&' F3' C$ D' MHHDC' $ED' @F$ 3 C' F NF' CF$ ' Q3' CH' D C 4$ E3D' C3 T3D' $ED' $+3E' $C' $&H43C$ D' $ED' CF$ ' 3 O' $ED' 4$ C3' F343H-' F3' C$ D' ?-J' H&' $ED' $ 43CHEQ 3' @HC C' $ED' @F$423C' H&' $+ E2' $ED' +331 E2' $ED' C3 E2' C-NF' G C 43CC' !' 43ED34 E2

UL' K' S/' M # >   ; > P '   ' @$1 ' U[V

43ED34 E2 ' F3' < 341 -C ' &' $EO ' H' F3' < E34' H&' F3' C$ D' MHHDC' $ED' @F$ 3 C '
$ED' OH-' $43' H' N34 &O' H' J 3' F$ ' OH-' CF$ ' F$ 3' DHE3' QO' 4 -3' H&' F C' J O'
9 44E ' M 3E' -ED34' J O' 8 $ED' $ED' ?3$ ' F3'   G $O' H&

^? 2E3D_

< E3' H&' 8 C' P $(3C O C' 5-C N3C' H&' F3' I 3$N3' &H4'
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, H ' [

/   ' H&' &' 5   ' H&' 4   ' &H4' 9 $E ' H&' $' C-&& N 3E '
G C 43CC ' &H-ED3D ' HE' F3' &H432H E2' @HE N HE

* H' F3' @HEC $Q 3' H&' $ D' H' F3' %33134' H&' F3' @H J J HE' M$H
b, ' 8 H-C3' H&' @H443N HEm' $ '   E' F3' C$ D

+G #B' #+!1' $C ' 9 8 ; ' ;   ?' (1 ' [' H& ' KN ' F$C' Q33E' D - O' NHE N 3D' H&' $' N34 '
' 5 %' @ <' (3m' '   < &&3EN3 ' &H4' F$ ' b) ! !' 1   !') !' 6 !#' ! ' 1' #') !' I , #0 ' , #'
#+' L)#'   '   F343QO' F3' F$ F' &H4&3 3D' F3' ?- J ' H&'   b #& ' #' ' 1!
, '   ('   F NF' F$ F' Q33E' J   2$ 3D' H' F3' ?- J ' H&'   m
H 34' $ED' $QH 3' F3' 43$CHE$Q 3' @HC C' $ED' @F$423C' H&' F3' E&H4 J 34 ' $ H 3D' $ED'
$CC3CC3D' $ ' F3' ?- J ' H&'   J $+ E2' H23 F34' F3' ?- J ' H&
ED' F343$C' ' F$C' Q33E' D - O' J $D3' J ' $113$4' H' J 3' F$ ' EH' C-&& N 3E ' G C 43CC'
N$E' Q3' &H-ED' F343HE' H' 3 O' F3' C$ D' ? J ' H&'   * F343&H43' ' NH J R
J $ED' OH- ' F3' @HEC $Q 3' H&'   H' $1143F3ED' $ED' $+3' F3' C$ D' 8 ' 6
$ED' C$&3 O' H' NHE 3O' F J ' H' F3' @H J J HE' M$H ' IH4' 8 H-C3' H&' @H443N HEm' $ '
E' F3'   H&' $ED' F343' H' D3   34' F J ' H
F3' %33134' F343H& ' H23 F34'   F' F C' 9 44E .'   ED' ' DH' F343QO' NH J J $ED' OH- '
F3' C$ D' %33134 '   H' 43N3   3'   E H' OH-4' @-C HDO' E'   F3' C$ D' M$H ' b, '   8 H-C3' H&'
@H443N HEm' F J '   F3' C$ D'   ' < ' $ED' F J '   F343 E' C$&3 O'   H' +331' &H4'   F3' ?1$N3'
H&'   -E 3CC' F3' C$ D' ?- J ' H&'   CF$ ' Q3' CHHE34' 1$ D
M 3E' -ED34' J O' 8 $ED' $ED' ?3$ ' F3'   G $O' H&

^? 2E3D_

< E3' H&' 8 C' P $(3C O C' 5-C N3C' H&' F3' I 3$N3' &H4'
F3' C$ D'   H&

> < , G < , ' .' I4 E 3D' QO'   '   ' $ED'   '   <   '
I4 E 34C' H' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O '   ZS?

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&ʿ N ʿ Hʿ 3E$Q 3ʿ 8 Cʿ P $(3C Oʿ Hʿ N$44Oʿ E Hʿ 3&&3N ʿ
$ʿ @HE 3E HEʿ J $D3ʿ Q3 33Eʿ 8 Cʿ P $(3C Oʿ $EDʿ
F3ʿ % E2ʿ H&ʿ F3ʿ ʿ $EDʿ ; J 134H4ʿ H&ʿ $ ʿ F3ʿ
E ## #*ʿ $EDʿ F3ʿ % E2ʿ ʿ "

I Y Fʿ # ʿ ZSU ㎜

9 8 ; ' ; ?ʿ QOʿ $ʿ @HE 3E HEʿ J $D3ʿ $EDʿ C 2E3Dʿ $ ʿ < , #& , #ʿ HEʿ F3ʿ ?3 3E Fʿ G$Oʿ H&ʿ ʿ < E3ʿ FH - C$EDʿ 3 2F ʿ F - ED43Dʿ $EDʿ F 4 O Hʿ Q3 33Eʿ 8 Cʿ P $(3C Oʿ $EDʿ F3ʿ % E2ʿ H&ʿ F3ʿ R !#')ʿ $EDʿ F3ʿ ; E 134H4ʿ H&ʿ $ ʿ F3ʿ L311 1ʿ HEʿ F3ʿ HE3ʿ I $4 ʿ $EDʿ ʿ F3ʿ % E2ʿ H&ʿ " ' !0 &ʿ HEʿ F3ʿ H F34ʿ I $4 ʿ F3ʿ 8 343D $4Oʿ ?H 343 2E Oʿ H&ʿ ! ! ' !ʿ $Cʿ H&&343D ʿ QOʿ F3ʿ @H - 4 Cʿ H&ʿ ! ʿ " # ʿR #' ! ʿ $EDʿ L311 ʿ Hʿ F3ʿ I 4 EN3ʿ R !&! ' ʿ 6) , ʿ H&ʿ " 0 ʿ ?3NHEDʿ ?HEʿ H&ʿ 8 Cʿ P $(3C Oʿ F3ʿ % E2ʿ H&ʿ " 0 ʿ $EDʿ F3ʿ C$ J 3ʿ $Cʿ $NN31 3Dʿ QOʿ 8 Cʿ C$ Dʿ P $(3C Oʿ F3ʿ % E2ʿ , ʿ " 0 ʿ $N E2ʿ Eʿ F3ʿ @F$4$N 34ʿ H&ʿ M - $4R D $Eʿ H&ʿ F3ʿ C$ Dʿ I 4 EN3ʿ 6) , ʿ D - 4 E2ʿ F Cʿ P EH4 Oʿ .ʿ EDʿ F343$Cʿ $Eʿ 4 N 3ʿ $Cʿ $2433Dʿ - 1HEʿ Q3 33Eʿ F3ʿ C$ Dʿ @HE 4$N E2ʿ I $4 3Cʿ Hʿ ʿ F3ʿ &H H E2ʿ ; &&3N ʿ ^ F$ ʿ Cʿ Hʿ C$O _

4 N 3ʿ W Eʿ H 3N- HEʿ H&ʿ F3ʿ ? 1 - $ HECʿ H&ʿ F3ʿ I 4H HNH ʿ H&ʿ F3ʿ * 3E 3 Fʿ H&ʿ R!4 3 ʿ < E3ʿ FH - C$EDʿ 3 2F ʿ F - ED43Dʿ $EDʿ F 4 O ʿ 8 Cʿ P $(3C Oʿ F3ʿ ; J 134H4ʿ H&ʿ $ ʿ F3ʿ L311 1ʿ 3E2$23Cʿ Hʿ 2 - 4E 33 ʿ $EDʿ * F3 4ʿ P $(3C 3Cʿ F3ʿ % E2ʿ H&ʿ F3ʿ # E 3Dʿ % E2DH J ʿ H&ʿ ! ʿ " #ʿ $EDʿ $!% #&ʿ $EDʿ F3ʿ % E2ʿ H&ʿ F3ʿ R !#')ʿ Hʿ 43NH J J 3ED ʿ F3ʿ &H4 J 34ʿ Hʿ 8 Cʿ I $4 $ J 3E F3ʿ $ 34ʿ Hʿ 8 Cʿ @F$ J Q34C ʿ Hʿ 3E$Q 3ʿ * F3 4ʿ P $(3C 3Cʿ Hʿ 2 - $R 4$E 33 ʿ HEʿ F3ʿ &H H E2ʿ @HED HEC ʿ $ʿ >H$Eʿ Hʿ Q3ʿ NHE 4$N 3Dʿ QOʿ F3ʿ I 4 EN3ʿ 6) , ʿ , ʿ " 0 ʿ $Cʿ % E2ʿ H&ʿ ! ! ' !

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6 4C ' *F3 I4 & 3 1$' H&' F3' >H$E ' H Q3' NHE 4$N 3D' -ED34' F3' M-$4$E 33' H&' F3' *F433' IH 34C' CF$ ' EH ' 3 N33D' $' *H $' 4$H8B ' H&' ? O' P HEC' H&' 64$ENC.

?3NHED' *F3' C$ D' >H$E' CF$ ' Q3' 4$ C3D' QO' EC $ J 3E C' H&' ' * 3E O' P HEC' H&' 64$ENC' 3$NF' .

*F 4D' 6H4' F3' 143C3E ' F3' 6 4C ' EC $ J 3E ' HE O' CF$ ' Q3' 4$ C3D' $ED' F3' *F433' @H-4 C' CF$ ' 3$NF' Q3NH J 3' 43C1HEC Q 3' &H4' F3' I$O J 3E ' H&' <E3' *F 4D' H&' F3' $EE-$' J H-E ' H&' F3' E 343C ' $ED' ? E+ E2' 6-ED' H&' F3' C$ D' EC $ J 3E .'

6H-4 F ' *F3' ?3NHED' $$D' Q3' *F 4D' EC $ J 3E C' H&' F3' C$ D' >H$E' J $O' $ CH' Q3' 4$ C3D' $NNH4D E2' H' F3' , 3N3CC 3C' H&' F3' ! ' ? $ 3' $& 34' 143 H-C' 2433 J 3E ' Q3 33E' F3' *F433' @H-4 C' $ED' 8 C' P $(3C O' F3' % E2' H&' !! ' !' '

6 & F ' E' F3' ; 3E ' H&' &F3' ?3NHED' $ED' *F 4D' EC $ J 3E C' H&' F3' $QH 3 J 3E HE3D' >H$E' Q3 E2' 4$ C3D' E' NHEC3X-3EN3' H&' C-DF' $E' 2433 J 3E ' F3' *F433' @H-4 C' CF$ ' 3$NF' Q3NH J 3' 43C1HEC Q 3' &H4' 3' I$O J 3E ' H&' <E3' *F 4D' H&' F3' $EE-$' J H-E ' H&' F3' E 343C ' $ED' ? E+ E2' 6-ED' H&' F3C3' * H' EC $ J 3E C ' $C' 3 ' $C' H&' F3' 6 4C .

? F ' *F3' ?H 343 2E' H&' !! ' !' $ED') !' !! ' ? $ 3' CF$ ' Q3' QH-ED' H' $114H14 $ 3' H' F3' I$O J 3E ' H&' F3' E 343C ' $ED' ? E+ E2' 6-ED' H&' C-NF' EC $ J 3E C' H&' F3' >H$E' $C' J $O' F$ 3' Q33E' 4$ C3D' -ED ' F3' M-4E 33' H&' F3' *F433' @H-4 C' F3' 6 4C ' ' 3 3E-3C' H&' F3' ? $ 3' E' C-NF' P $EE34' F$ ' F3' $N -$' ' 3N3 1 C' H&' &F3' !! ' *43$C-4O' CF$ ' Q3' D3 H 3D' & 4C ' H&' $ ' H' F3' I$O J 3E ' H&' F3' C$ D' E 343C ' $ED' ? E+ E2' 6-ED' $ED' CF$ ' EH ' Q3' 3 J 1 HO3D' &H4' $EO' H F34' I-41HC3 ' -E ' FHC3' I$O J 3E C' HF' $NNH-E ' H&' F3' EC $ J 3E C' H&' F3' >H$E' 4$ C3D' -ED34' F3' M-4E 33' H&' F3' *F433' @H-4 C' CF$ ' F$ 3' Q33E' NH J 1 3 3 O' C3N-43D' &H4' F3' N-443E ' =3$4.

*F3' G 1 H J $ N' ' 3143C3E $ 3C' H&' F3' *F433' @H-4 C' E' !! ' !' CF$ ' Q3' C13N $ O' NF$423D' H' $ NF' H 34' F3' 6- & J 3E ' H&' F3' $C J 3E HE3D' ? 1- $ HE.

ED' F343$C' ' C' 3 13D 3E ' F$ ' 8 C' P $(3C O' CFH- D' Q3' 3E$Q 3D' H' N$44O' E H' 3 &3N ' F3' C$ D' @HE 3E HE' . B3' ' F343&H43' 3E$N 3D' QO' F3' % E2 C' J HC ' B N3 3E ' P $(3C O ' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$ ' $ED' *3 J 1H4$ ' $ED' @H J JHEC' E' F C' 143C3E ' I$4 $ J 3E ' $CC3 J Q 3D' $ED' QO' F3' - FH4 O' , ' F3' C$ J 3' *F$ ' ' CF$ ' Q3' $ &-' &H4' 8 C' P $(3C O ' 8 C' 8 3 4C' $ED' ?-NN3CCH4C ' $ED' F3O' $43' F343QO' $- FH4 T3D' H' 2-$4$E 33' F3' >H$E' H' Q3' NHE 4$N 3D' QO' I4 EN3' 6 , ' H&' " JN ' $C' % J 2' H&' !! ' ! ' -1HE' F3' *34 J C' $ED' @HED HEC' C13N & 3D' E' F3' C$ D' * 3 & F' 4 N 3' H&' F3' C$ D' @HE 3E HE' ! $ED' F$ ' &H4' F3' I -41HC3' H&' 2 E2' 3& 3N ' H' F3' C$ D' M-4E 33 ' F3' >H4D' 8 2F' *43$C-434 ' H4' F3' @H J J CC HE34C' H&' F3' *43$C-4O' H&' F3' #E 3D' % E2DH J ' H&' ! ' " ' & ' $! #& ' H4' $EO' *F433' H4' J H43' H&' F3 J ' &H4' F3' * J 3' Q3 E2 ' 43C13N 3 O' CF$ ' Q3 ' $ED' F3' $ED' F3O' C' $ED' $43' F343QO' 3 J 1H 343D' &4H J ' * J 3' H' * J 3 ' H- ' H&' F3' @HECH D$ 3D' 6-ED' H&' F3' #E 3D' % E2DH J ' H&' ! ' " #' $ED' $!% #& ' H' N$-C3' H' Q3' CC-3D' C-NF' ?- J C' H&' P HE3O' $C' CF$ ' Q3' 43R X- 43D' &H4' F3' I$O J 3E ' H&' $EO' E 343C ' H4' ? E+ E2' 6-ED' $2433D' H' Q3' 1$ D' QO' 8 C' P $(3C O ' -ED34' F3' C$ D' @HE 3E HE ' $C' $ED' F3E' F3' C$ J 3' J $O' &4H J ' * J 3' H' * J 3' 43C13N 3 O' Q3NH J 3' 1OQ 3 ' $ED' CH' HE2' $C' F3' C$ J 3' CFH- D' Q3' 1OQ 3' NHE&H4 J $Q O' H' F3' *3EH4' H&' 8 C' P $(3C O C' ; E2$23 J 3E C' $C' C13N & 3D' E' F3' C$ D' @HE 3E HE

8 C' P $(3C O' J $O' 2-$4$ER 33' Q3' >H$E' H' Q3' NHER 4$N 3D' QO' I4 EN3' < FH' H&' B$ $4 $' $ED' Q3' *43$R C-4O' J $O' CC-3' Q3' ?- J C' E3R N3CC$4O' H 1$O' F3' ER 343C ' H4' ? E+ E26-ED' NHE&H4 J $Q O' H' F3' @HER 3E HE

UĆ K' SL' M # > ; > P ' ' @$1' U US

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' F3' C$ D' >H4D' 8 2F' *43$' NNH-E C' H' C-434' H4' @HHEE CC HE34C' , ' F3' *43$C-4O' &H4' F3' * J 3' Q3 E2' CF$ ' Q3 $ D' Q3&H43' N$-C3' H' Q3' 1431$43D' $ED' CF$ ' $O' Q3&H43' QH F' 8 H-C3C' H&' I $4 $ J 3E ' I $4 $ J 3E F E' * 3E O' G$OC' $& 34' F3' @H J J 3EN3 J 3E' H&' 3 34O' ?3CC HE' H&' I $4 $ J 3E '$E' NNH-E ' -1' H' F3' *F 4 O & 4C' G$O' H&' 2 ! ' ! 4 ! ' F3E' E3 ' 143N3D E2' H&' F3' *H $' ?- J C' &' $EO' F NF' CF$ ' &4H J' * J 3' H' * J 3' F$ 3' Q33E' CC-3D' $ED' $11 3D' QO' 4 -3' H&' F C' N ' & "4 1$O E2' $ED' C$ C&O E2' $EO' E 343C' HE' F3' C$ D' I $4' H&' F3' C$ D' >H$E' CH' $2433D' H' Q3' 2-$4$E 33D' QO' 8 C' C$ D' P $(3C O' H4' H $4DC' 1$O E2' $ED' C$ C&O E2' $EO' I 4 EN 1$' F343H&

> < , G < , ') I 4 E 3D' QO' # + . (/ +' & (+' $ED') * (+ , ' O 1 . 2 2 3% , . . * + '
I 4 E 34C' H' F3' % E2 C' J HC' ; N3 3E' P $(3C O' ZSU

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Eʿ Nʿ &H4ʿ J$+ E2ʿ I4H CHEʿ &H4ʿ F3ʿ >H4Dʿ 8 2Fʿ
@F$EN3 H4ʿ H&ʿ) ʿ Eʿ 3-ʿ H&ʿ 633Cʿ F343 H&H43ʿ
43N3 3DʿQOʿF J ʿ I Y Fʿ # ʿ ZSU d

9 8 ; ' ; ?ʿ QOʿ $Eʿ N ʿ J$D3ʿ $EDʿ 1$CC3Dʿ Eʿ F3ʿ 6 & O 3 2F Fʿ =3$4ʿ H&ʿ F3ʿ ' 3 2Eʿ H&ʿ % E2ʿ !, (!ʿ F3ʿ *F 4D ʿ E - 3Dʿ /#ʿ / ' ʿ ,ʿ 5 ,0 &!ʿ && ,# %+ % !1ʿ ,ʿ)!ʿ 5 !1!# ʿ I%! 1ʿ !ZMSN+ ʿ #ʿ)!ʿ L!5, ʿ 6 '!ʿ , ʿ)!ʿ ()ʿ I,3 ʿ V ʿ I) #'! ʿ #&ʿ ,ʿ 5 ,0 &!ʿ && ,# % I%! 1ʿ , ʿ)!ʿ 1 &ʿ 6 '! ʿ #&ʿ , ʿ #(ʿ 3)! ʿ * ,0 1 ,#ʿ , ʿ)!ʿ I%! 1ʿ #ʿ)!ʿ 1 &ʿ 6 '! ʿ $EDʿ H&ʿ F3ʿ C3 34$ʿ N Cʿ F343 Eʿ J3ER HE3Dʿ H4ʿ 43&3443Dʿ H ʿ D 34Cʿ ?- JCʿ H&ʿ PHE3Oʿ F$ 3ʿ Q33E ʿ QOʿ 4 -3ʿ H&ʿ C3 34$ʿ <4D34Cʿ H&ʿ F3ʿ C$ Dʿ @H-4 ʿ H&ʿ @F$EN340 ʿ &4H J ʿ * J 3ʿ Hʿ * J 3ʿ $+3Eʿ H- ʿ H&ʿ F3ʿ NHJ JHEʿ $EDʿ 23E34$ʿ @$CFʿ Q3 HE2 E2ʿ Hʿ F3ʿ ?- H4Cʿ H&ʿ F3ʿ 8 2Fʿ @H-4 ʿ H&ʿ @F$EN340ʿ FNFʿ $Oʿ D3$Dʿ $EDʿ -E3 J 1 HO3Dʿ Eʿ F3ʿ B$E+ʿ H&ʿ *#(% #& ʿ $EDʿ F$ 3ʿ Q33Eʿ 1 $N3Dʿ H- ʿ Eʿ F3ʿ , $ J 3ʿ H&ʿ F3ʿ NNH-E $E ʿ M3E34$ʿ H&ʿ F3ʿ C$ Dʿ @H-4 ʿ HEʿ MH 34E J 3E ʿ H4ʿ I $4 $R J 3E $4Oʿ ?3N-4 3C ʿ $EDʿ C-NFʿ MH 34E J 3E ʿ H4ʿ I $4 $ J 3E $4Oʿ ?3N-4 3Cʿ F$ 3ʿ Q33Eʿ Eʿ 1-4C-$EN3ʿ H&ʿ F3ʿ C$ Dʿ N Cʿ N$44 3Dʿ Hʿ $Eʿ NNH-E ʿ E - 3Dʿ `ʿ NNH-E ʿ H&ʿ PHE 3Cʿ 1 $N3Dʿ H- ʿ &H4ʿ F3ʿ B3E3& ʿ $EDʿ Q3 34ʿ ?3N-4 Oʿ H&ʿ F3ʿ ?- H4Cʿ H&ʿ F3ʿ 8 2Fʿ @H-4 ʿ H&ʿ @F$EN340 cʿ $EDʿ H- ʿ H&ʿ F3ʿ G D3EDCʿ $EDʿ E 343C ʿ H&ʿ F3ʿ ?3N-4 3Cʿ 1-4NF$C3Dʿ Eʿ 1-4C-$EN3ʿ H&ʿ F3ʿ C$ Dʿ C3 34$ʿ N Cʿ C3 34$ʿ $EE-$ʿ ?- J Cʿ $EDʿ ?$ $4 3Cʿ Hʿ F3ʿ P$C 34ʿ H&ʿ F3ʿ ' 31H4 ʿ <&& N3 ʿ $ED ʿ Hʿ F3ʿ ' 32 C 4$4Cʿ $EDʿ ; E 34 E2ʿ @ 34+C ʿ $EDʿ Hʿ F3 4ʿ @ 34+C ʿ $EDʿ C3 34$ʿ H F34ʿ I $O4ʿ J 3E Cʿ F343QOʿ D 43N 3Dʿ Hʿ Q3ʿ J $D3ʿ $EDʿ 1$ D ʿ F$ 3ʿ Q33Eʿ &4H J ʿ * J 3ʿ Hʿ * J 3ʿ J $D3ʿ $EDʿ 1$ D ʿ $EDʿ F3ʿ C-41 -Cʿ E 343C ʿ $EDʿ $EE-$ʿ

?ʿ 6ʿ I4HD-N3

I4HD-N3' $4 C E2' &4HJ' F3' C '?3N-4 3C' Q3OHED' F$' $C' C-&&R N 3E' H' $EC 34' F3' C3 34$' I$0J3E C' F343QO' $ED' QO' F3' C3 34$' H F34' N C' F343 E' J3E HE3D' H4' (3&3443D' H' D 43N 3D' H' Q3' J$D3' $ED' 1$ D($ED' $ CH' F3' E 343C '14HD-N3D' &4HJ' F3' ?3N-4 3C' 1-4NF$C3D' F' C-NF' C-41 -C' E 343C' $ED' $EE-$' I4HD-N3' F$ 3' Q33E' &4HJ' * J3' H' * J3' E' 1-4C-$EN3' H&' F3' C$ D' $C J3E HE3D' N ' $ D' H-' E' F3' I-4NF$C3' H&' MH 34E J3E ' H4' I$4 $J3E $40' ?3N-4 3C' E' F3' ,$J3' H&' F3' NNH-E $E 'M3E34$' H&' F3' C$ D' @H-4 ' $ED' 1 $N3D' H' F3' @43D 'H&' $E' NNH-E ' E - 3D' 77 NNH-E ' H&' ?3N-4 3C' 1-4NF$C3D' `' F' C-41 -C' E 343C ' $4 C E2' &4HJ' ?3N-4 3C' N$44 3D' H' $E' NNH-E ' `' H& P QE 3C' 1 $N3D' H- '&H4' F3' B3E3& '$ED' Q3 34' ?3N-4 O' H&' F3' ?- H4C' `' H& F3' 8 2F' @H-4 ' @F$EN340 ED' F343$C' QO' $E' N '1$CC3D' E' F3' %& O F 4D=3$4' Q&' F3' ; 3 2E' H&' 8 C' $ 3' P$(3C O' % E2' !, (!'

!SMS@U ' F3' IF 4D' E - 3D' /#' / ' ' Z? &O Z !')!' /& #1 ,#' '?31 '!' ' C' 3E$N ' Q$ H- ' H&' F3' NH J JHE' $ED' 23E34$' @$CF' Q3 HE2 E2' H' F3' ?- H4C' H&' F3' @H-4 ' H&' @F$EN340' F NF' D D' F3E' H4' CFH- D' F343R $& 34' 3' D3$D' $ED' -E3 J 1 HO3D' E' F3' B$E+' , '?8#(% #&' F3' C$ D' @H-4 ' $C' 3 J 1H 343D' &4HJ' * J3' H' * J3' H' H4D34' $EO' ?- J' EH ' 3 N33D E2' ? O' FH-C$ED' I H-EDC' H' Q3' 1 $N3D' <- ' E' <E3' ?- J' H4' E' I$4N3 C' E' F3' ,$J3' H&' F3' NNH-E $E 'M3E34$' H&' F3' C$ D' @H-4 ' HE' MHR 34E J3E ' H4' I$4#$J31 $40' ?3N-4 3C' '$ED' F$ 'C-NF' ?3N-4 3C' CFH- D' Q3' N$44 3D' H' F3' ?$ D' NNH-E ' E - 3D' NNH-E ' H&' P HE 3C' 1 $N3D' H- ' &H4' F3' B3E3& ' $ED' Q3 34' ?3N-4 O' H&' F3' ?- H4C' H&' F3' 8 2F' @H-4 ' H&' @F$EN340' $ED' CFH- D' Q3' J$D3' I$4 ' H&' F3' C$J3' NNH-E ' ($ED' H- ' H&' F3' E 343C ' $ED' G D3EDC' H&' $ ' H4' $EO' H&' F3' ?3N-4 3C' 1-4NF$C3D' H- ' H&' F3' C$ D' NH J JHE' $ED' 23E34$' @$CF' E' 1-4C-$EN3' H&' F3' C3 34$' &H4 J 34' N C' F343 E' J3E HE3D' H4' 43&3443D' H' 1-4R NF$C3D' $ED' H' Q3' 1-4NF$C3D' E' 1-4C-$EN3' H&' F3' EH 43N E2' N ' F343' CFH- D' F3' 1 J D' QO' F3' MH 34EH4' $ED' @H J 1$EO' H&' F3' B$E+' H&' 8#(% #&' QO' 4 -3' H&' $EO' <4D34C' H' F3' J$D3' QO' F3' C$ D' @H-4 ' &H4' F$' I -41HC3 ' $ JHE2C ' H F34' O3$4 O' I$0J3E C' F343QO' D 43N 3D' F3' ' E3 ' O3$4 O' ?- J' H&' 6 3' FH-C$ED' I H-EDC' H' F3' N3' @F$EN3 H4' H&' 8#(% #&' &H4' F3' * J3' Q3 E2' ($ED' ' 9$C' F343QO' &-4 F34' 3E$N 3D' F$ ' F3' >H4D' @F$EN3 H4' >H4D' %33134' H4' >H4DC' @H J J CC HE34C' H&' F3' M43$ ' ?3$' &H4' F3' * J3' Q3 E2' CFH- D' &4HJ' F3' * J3' $' N3' @F$EN3 H4' CFH- D' Q3' $11H E 3D' 1-4C-$E ' H' F3' EH 43N E2' N ' H- ' H&' F3' I 33C' $ED' ; JH - J3E C' Q3 HE2 E2' H' $ED' 43N3 3D' E' 43C13N ' H&' F3 @-C HDO' H&' F3' M43$ ' ?3$' H4' J F34 C3 ' 1$0' H4' N$-C3' H' Q3' 1$ D' H' F3' MH 34EH4' $ED' @H J 1$EO' H&' F3' B$E+' H&' 8#(% #&' F3' E3 ' O3$4 O' ?- J' H&' * H' FH-C$ED' & 3' F-ED43D' I H-EDC ' QO' X-$4 34 O' I$0J3E C' $ED' F$ '$ 'C-NF' ?- J C' H&' P HE3O ' F3E' CH' 1$ D' CFH- D' Q3' N$44 3D' H' F3' NNH-E ' H&' F3' E 343C ' $ED' G D3EDC' H&' F3' C3 34$' ?3N-4 3C' C $ED E2' E' F3' ,$J3' H&' F3' NNH-E $E 'M3E34$' F343 ER Q3&H43' J3E HE3D' H4' 43&3443D' H' $ED' Q3' (X 3D' H' $ ' F3' I-4R 1HC3C' H' F NF' C-NF' E 343C ' $ED' G D3EDC' F3E' 343' H4' J 2F Q3' $11 N$Q 3.' ED' F343$C' F3' O3$4 O' ?- J' H&' 6 3' FH-C$ED I H-EDC' C' EH ' 1$ D' $ED' 1$0$Q 3' H' F3' >H4D' @F$EN3 H4' >H4D %33134' H4' >H4DC' @H J J CC HE34C' H&' F3' M43$ ' ?3$' &H4' F3' * J3' Q3 E2' $' 8 C' P$(3C O C' ; NF3X-34' $ED' ' C' 3 13D 3E ' F$ ' C-NF' O3$4 O' I$0J3E ' ?FH- D' &4HJ' $ED' $& 34' F3' 6 & F' G$0' H&' ? #3 ' $C ' N3$C3' $ED' Q3' EH' HE234' 1$0$Q 3.' ED' F343$C' F3' @ 34+' H&' F3' ' @4H E' ' F3' @ 34+' H&' F3' >3 34C' I$ 3E ' F3' ?3N43 $40' H&' 6 E3C' $ED' F3' I D4C3' B3$434' H' F3' >H4D' @F$EN3 H4' GH4D' % 134' $ED' >H4DC

@H4$J C

@H J J CC HE34C' H&' F3' M43$ ' ?3$ ' &H4' F3' * J 3' Q3 E2 ' H4' F3 4 'C3 34$ '
$ED' 43C13N 3' G31- 3C ' @ 34+C ' H4' 23E C ' F$ 3' &4H J' * J 3' H' * J 3'
$ED' DH' EH 1' 43N3 3' $4 H-C' 633C' $ED' ; J H - J 3E C' F NF' $43' D-3'
$ED' H&' 4 2F ' 1$O$Q 3' &H4' B-C E3CC' DHE3' $ED' 4$EC$N 3D' QO' F3 J' E' H4'
QO' 4 -3' H&' F3 4' 43C13N 3' <&& N3C ' H' $ED' &H4' F3' #C3' $ED' HE' F3'
NNH-E ' H&' F3' >H4D' 8 2F' @F$EN3 H4 ' >H4D' %33134' $ED' >H4DC' @H J R
J CC HE34C' H&' F3' M43$ ' ?3$ ' H&' ! ' " #' &H4' F3' * J 3' Q3 E2 '
F NF' P HD3' H&' ' 3 J -E34$ HE' C' 34O' -EN34 $ E ' $C' 3 ' $C' D34H2$ H4O'
H' F3' G 2E O' H&' C-NF' <&& N3 ' $ED' ' C' 3 13D 3E ' F$ ' $' J H43' N34 $ E'
$ED' $D3X-$ 3' I 4H C HE' CFH- D' Q3' J $D3' &H4' F3' >H4D' @F$EN3 H4
>H4D' %33134' H4' >H4DC' @H J J CC HE34C ' E' 3-' $ED' C 3$D' H&' C-NF' 633C '
$ED' F$ ' F3' $EE-$ ' I $O J 3E ' H&' * H' FH-C$ED' & 3' F-ED43D' I H-EDC '
CH' QO' F3' $C 43N 3D' N ' D 43N 3D' H' Q3' J $D3' $ED' 1$ D' QO' F3' >H4D'
@F$EN3 H4 ' @H4D' %33134' H4' >H4DC' @H J J CC HE34C' H&' F3' M43$ ' ?3$ '
& 4 F3' * J 3' Q3 E2 ' E' F3' P $EE34' $ED' &H4' F3' I -41HC3C' F343QO'
D 43N 3D' $ED' 14H D3D ' CFH- D ' &4H J' $ED' $& 34' 3' 6 & F' G$O' H&' ? #3 '
<E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H ' N3$C3' $ED' Q3' EH' HE234'
1OQ 3 ' $ED' F$ ' F3' $EE-$ ' ?- J' H&' 6 3' FH-C$ED' I H-EDC' F343QO'
D 43N 3D' H' Q3' 1$ D' H' F3' N3' @F$EN3 H4' H&' 8#(% #&' H- ' H&' F3'
E 343C ' $ED' G D3EDC' F3' C3 34$ ' ? HN+C ' 6-EDC ' $ED' ?3N-4 3C'
C $ED E2' E' F3' , $ J 3' H&' F3' NNH-E $E ' M3E34$ ' H&' F3' @H-4 ' Y&'
@F$EN34O' H' F3' * H' C3 34$ ' NNH-E C' & 4C ' F343 E Q3&H43' J 3E HE3D '
CFH- D ' &4H J' $ED' $& 34' F3' 6 & F' G$O' H&' / 5 %' <E3' FH-C$ED'
3 2F ' F-ED43D' $ED' F 4 O H ' Q3' EH' HE234' 1$ D' H4' 1OQ 3' Q- ' H&'
C-NF' E 343C ' $ED' G D3EDC.' ED' F343$C' ' C' 3 13D 3E ' F$ ' $'
&-4 F34' ?- J ' H- ' H&' F3' NH J JHE' $ED' 23E34$ ' @$CF' Q3 HE2 E2' H ' F3'
?- H4C' H&' F3' C$ D' @H-4 ' EH ' O E2' D3$D' $ED' -E3 J 1 HO3D' E' F3' B$E+
8#(% #&' CFH- D' Q3' $ D' H- ' $ED' J 3C 3D' E' F3' I -Q N' ? HN+C
6-EDC ' $ED' ?3N-4 3C ' $ED' N$44 3D' H' F3' NNH-E ' F343 E $& 34'
J 3E HE3D ' F3' Q3 34' H' $EC 34' $ED' C$ C&O ' QO' $ED' H- ' H&' F3'
G D3EDC' $ED' E 343C ' F343H&' F3' C3 34$ ' $EE-$ ' I $O J 3E C' F343QO'
$ED' QO' $EO' $ED' 3 34O' &H4 J 34' N ' $ED' N C' H&' I $4 $ J 3E ' EH ' H4'
F343$& 34' H' Q3' C-QC C E2' $ED' 1$O$Q 3' F343H- ' Q3' ' F343&H43'
3E$N 3D' QO' F3' % E2 C' J HC ' ; N3 3E ' P $(3C O ' QO' $ED' F' F3' D N3'
$ED' @HEC33 ' H&' F3' >H4DC' ?1 4 -$ ' $ED' * 3 J 1H4$ ' $ED' @H J JHEC '
E' F C' 143C3E ' I $4 $ J 3E ' $CC3 J Q 3D ' $ED' QO' F3' - FH4 O' H&' F3'
C$ J 3 ' * F$ ' H- ' H&' F3' NH J JHE' $ED' 23E34$ ' @$CF' Q3 HE2 E2' H' F3' ! << <e b'
?- H4C' H&' F3' @H-4 ' H&' @F$EN34O ' F NF' EH ' 3C' H4' CF$ ' F343$& 34' 3' Q3' N$44 3D' H'
D3$D' $-D' -E3 J 1 HO3D' E' F3' B$E+' H&' 8#(% #&' $' ?- J' EH ' 3 N33D E2' Ob'
F3' ?- J' H&' <E3' F-ED43D' $ED' & & O' FH-C$ED' I H-EDC' CF$ ' $ED' J $O ' C-+H4CH&' F3'
QO' 4 -3' H&' $<O' <4D34' H4' <4D34C' H&' F3' C$ D' @H-4 ' H' Q3' J $D3' &H4' @H-4 ' H&'
F$ ' I -41HC3 ' &4H J' * J 3' H' * J 3' Q3' 1 $N3D' H- ' E' <E3' 3E 43' ?- J' @F$EN34O '
H4' E' I $4N3 C ' E' F3' , $ J 3' H&' F3' NNH-E $E ' M3E34$ ' H&' F3' C$ D'
@H-4 ' $NNH4D E2' H' F3' M3E34$ ' ' - 3C' $ED' <4D34C' H&' F3' C$ D' @H-4
' C-NF' MH 34E J 3E ' H4' 1$4 $ J 3E $4O' ?3N-4 3C' $C' QO' C-NF' < D34' H4'
<4D34C' CF$ ' Q3' D 43N 3D ' $ED' C-NF' ?3N-4 3C' CF$ ' Q3' N$44 3D' H'
F3' C$ D' & 4C J 3E HE3D' NNH-E ' E - 3D' NNH-E ' H&' P HE 3C' 1 $N3D'
H- ' &H4' F3' B3E3& ' $ED' Q3 34' ?3N-4 O' H&' F3' ?- H4C' H&' F3' 8 2F'
@H-4 ' H&' @F$EN34O ' $ED' CF$ ' Q3' J $D3' $ED' &H4 J' I $4 ' H&' F3' C$ J 3'
NNH-E

' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' ' CF$ ' $ED' J $O' Q3' $ &- ' 1H 34' H
&H4' F3' >H4D' @F$EN3 H4 ' QO' $EO' <4D34' H4' <4D34C' H&' F3' C$ D' @H-4 ' NF$E23' F3
H&' ?3N-4 3C

H& @F$EN340 H N $H23 F3 ?3N-4 O H4 ?3N-4 3C H Q3 1-4NF$C3D 1-4C-$E H F C N H4 $EO I$4 H4 I$4 C F343H& &H4 H F34 MH 34ER J3E H4 I$4 $J3E $40 ?3N-4 3C $ED 2 E H NF$E23 C-NF ?3N-4 3C 43C13N 3 O &4H J * J3 H * J3 $ED H 2 3 $ E3N3CC$40 G 43N HEC &H4 C-NF I-41HC3C

PHE3O 1 $N3D H- H Q3 N$ 3D E & 43X- 43D &H4 $EC 34 E2 F3 G3 J$EDC H& ?- H4C

I4H D3D $F $1 $ED Q3 &-4 F34 3E$N 3D *F$ & $ $EO * J3 F343$& 34 F3 9 FH 3 H4 $EO I$4 H& F3 PHE3O CH H Q3 1 $N3D H- $ED E 3C 3D 1-4C-$E H F C N CF$ Q3 $E 3D H $EC 34 $EO H& F3 G3 J$EDC H&)"3 ?- H4C H& F3 C$ D @H-4 H& @F$EN340 F3E $ED E C-NF @$C3 F3 C$ D @H-4 J$O $ED CF$ D 43N F3 C$ J3 H4 $EO I$4 F343H& Y Q3 N$ 3D E H4 F3 ?3N-4 3C HE F NF F3 C$ J3 CF$ Q3 1 $N3D H Q3 D C1HC3D H& E H4D34 F$ F3 ?- H4C H& F3 C$ D @H-4 J$O $ $ J 3C Q3 1$ D F3 4 43C13N 3 G3 J$EDC H- H& F3 @HJ JHE $ED 23E34$ @$CF Q3 HE2 E2 H C-NF ?- H4C

313$ H& CH J -NF H& , 8 & $C 43 $ 3C H I$O J3E C H Q3 J$D3 QO F3 B$E+ $ED QO F3 >H4D MF$EN3 H4 H F3 N3 @F$EN3 H4

ED Q3 &-4 F34 3E$N 3D *F$ CH J -NF H& F3 C$ D N J$D3 $ED 1$CC3D E F3 6 & O F 4D =3$4 H& F3 3 2E H& 8 C $ 3 P$(3C O % E2 ! , (! F3 * F 4D E - 3D / # / , % # ( ) ! / & # 1 , # ` ?31 ! $C 3E$N C F$ H- H& F3 E 343C $ED G D3EDC H& $ H4 $EO 4 F3 ?3N-4 3C 1-4NF$C3D H- H& F3 @HJ J@E $ED 23E34$ @$ E 1-4C-$EN3 H& &H4 J34 N C $ED H Q3 1-4NF$C3D E 1-4C-$EN3 H& F$ N F343 CF$ Q3 1$ D QO F3 MH 34EH4 $ED @H4 $EO H& F3 B$E+ H& 8 # (% # & F3 E3 O3$4 O ?- J H& 6 3 FH-C$ED IH-EDC H F3 N3 @F$EN3 H4 H& 8 # (% # & &H4 F3 * E(3 Q3 E2 $ED CH J -NF H& F3 C$ D N $C D 43N C F$ F3 >H4D @F$$N3 H4 >H4D %3 34 H4 >H4DC @HJ J CC HE34C &H4 F3 * J3 Q3 E2 CFH- D &4H J F3 * J3 $ N3 @F$EN3 H4 CFH- D Q3 $11H E 3D $C F343 E J3E HE3D H H& F3 633C $ED ; JH - J3E C Q3 HE2 E2 H $ED 43N3 3D E 43C13N H& F3 @-C HDO H& F3 M43$?3$ H4 < F34 C3 1$O H4 N$-C3 H Q3 1$ D H F3 MH 34EH4 $ED @HJ 1$EO H& F3 B$E+ H& 8 # (% # & F3 E3 O3$4 O ?- J 3 & * H FH-C$ED & 3 F-ED43D IH-EDC E J$EE34 F343 E J3E HE3D CF$ F3 $ED F3 C$ J3 C F343QO 4313$ 3D $ED $ X-$4 34 O I$O J3E C H& F3 C$ D $EE-$?- J H& * H FH-C$ED & 3 F-ED43D IH-EDC F NF $43 H4 9H- D F$ 3 $NN4-3D D-3 F343HE CF$ & H J $ED $& 34 F3 6 & F G$O H& ? # 3 $C N3$C3 $ED Q3 EH HE234 1$ D H4 1OQ 3

[[[134 EE- J H Q3 /$D H- H& ?- H4C 6-ED H F3 >H4D @F$EN3 H4

ED Q3 &-4 F34 3E$N 3D *F$ H- H& F3 E 343C $ED G D3EDC F$ F$ 3 $4 C3E H4 J$O F343$& 34 $4 C3 &4H J F3 MH 34E

< 6$4 $J3E $40 ?3N-4 3C EH H4 F343$& 34 H Q3 1 $N3D H F3 C$ D * H C3 34$ $QH 3 J3E HE3D NNH-E C E - 3D ` NNH-E H& PHE 3C 1 $N3D H- &H4 F3 B3E3& $ED Q3 34 ?3N-4 O H& F3 ?- H4C H& F3 8 2F @H-4 H& @F$EN340 c $ED ` NNH-E H& ?3N- 4 3C 1-4NF$C3D F C-41 -C E 343C $4 C E2 &4H J ?3N-4 3C N$44 3D H $E NNH-E H& PHE 3C 1 $N3D H- &H4 F3 B3E3& $ED Q3 34 ?3N-4 O H& F3 ?- H4C <& F3 8 2F @H-4 H& @F$EN340 c F343 CF$ Q3 1$ D QO F3 MH 34EH4 $ED @HJ 1$EO H& F3 B$E+ H& 8 # (% # & FH- $EO G4$& &4H J F3 NNH-E $E M3E34$ H& F3 C$ D @H-4 ^Q- C-Q(3N $ED FH- I43(-D N3 H F3 I$O J3E H& $?$ $4 3C $ED ?- JC H& PHD3O QO $EO &H4 J34 N D 43N 3D H4 $- FH4 T3D H Q3 1$ D F343H- F3 E3 O3$4 O ?-4$ H& * 3E FH-R C$ED IH-EDC H F3 >H4D @Q$ N3 9 H4 >H4D %33134 H4 >H4DC @HJ J C

@H J J CC HE34C' H&' F3' M43$ ' ?3$ ' H&' ! ' " #' &H4' F3' * J 3' Q3 E2' $C' $HD' &H4' $' O3$4 O' ?$ $40' H' Q3' 1$ D' &4H J' * J 3' H' * J 3' X-$4 34 O' &433' $ED' N 3$4' H&' $ED' &4H J' $ ' *$ 3C' G3D-N HEC' E4' Q$ 3 J 3E C' F$ CH3 34' <-' H&' F3' C$ J 3' H4' $EO' I $4' F343H&' $ED' H' NH J J 3EN3' $ED' Q3' NH J 1- 3D' &4H J' F3' ; 3 3E F' G$O' H&' ? # ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' $ED' H' Q3' &4H J' F3EN3' &H4 F' 1OQ 3' X-$4 34 O' HE' F3' ; 3 3E F' G$O' H&' ? #3 ' F3' ; 3 3E F' G$O' H&' / 5 %' F3' ; 3 3E F' G$O' H&' ?3% ' $ED' F3' ; 3 3E F' G$O' H&' 6 ' ,4! ' E' 3 34O' =3$4' QO' 3X-$' I H4 HEC' F3' & 4C' X-$4 34 O' I $OR J 3E ' F343H&' H' Q3' 1$ D' $ED' 1$O$Q 3' $C' D-3' HE' F3' ; 3 3E F' G$O' H&' / 5 %' EH ' $C' 1$C' ($ED' F$ ' &' $EO' >H4D' @F$EN3 H4' H4' >H4D' %33134' H4' >H4DC' @H J J CC HE34C' H&' F3' M43$ ' ?3$ ' &H4' F3' * J 3' Q3 E2' CF$ ' D 3' H4' 43C 2E' F3' ; 3N- H4' H4' D J E C 4$ H4' H&' F3' >H4D' @F$EN3 H4' H4' >H4D' %33134' H4' >H4DC' @H J J CC HE34C' CH' DO E2' $ED' F3' >H4D' @F$EN3 H4']4' >H4D' %33E34' H4' >H4DC' @H J J CC HE34C' CH' 43C 2E E2' CF$ ' Q3' 3E 3D' H' 43N3 3' $ED' CF$ ' Q3' 1$ D' C-NF' 14H1H4 HE$Q 3' I $4' H&' F3' ?$ $4O' $&H43C$ D' $C' CF$ ' F$ 3' $NN4-3D' D-4 E2' F3' * J 3' F$ ' C-NF' I 34CHE' H4' I 34CHEC' CF$ ' F$ 3' 3 3N- 3D' F3' <&& N3' H&' >H4D' @F$EN3 H4' H4' >H4D' %33134' H4' >H4DC' @H J J CR C HE34C' C EN3' F3' $C' X-$4 34 O' I $O J 3E ' F343H&' $ED' F$' F3' C-NR N33D E2' >H4D' @F$EN3 H4' H4' >H4D' %33134' H4' >H4DC' @H J J CC HE34C' CF$ ' Q3' 3E 3D' H' 43N3 3' $' +3' I H4 HE' H&' F3' ?$ $4O' $C' CF$ ' 'Q3' $NN4E H2' H4' CF$ ' $NN4-3' &4H J' F3' G$O' H&' F3' G3$ F' H4' ' 3C 2R E$ HE' H&' F3' 143N3D E2' >H4D' @F$EN3 H4' H4' >H4D' %33134' H4' >H4DC' @H J J CC HE34C

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' ' CF$ ' $ED' J $O' Q3' $ &-' <&& N34C' H' H' $ED' &Q4' F3' @ 34+' F3' @4H E' F3' @ 34+' H&' F3' >3 34C' I $ 3E ' $NNH-E' &H4' F3' ?3N43 $ 4O' H&' 6 E3C' $ED' F3' I -4C3' B3$434' H' F3' >H4D' @F$EN3 H4' &H4' F3' * J 3' Q3 E2' $ED' F3 4' ?-NN3CCH4C' E' F3' C$ D' C3 34$' <&& N3C' $ED' 3$NF' $ED' 3 34O' H&' F 3 J' $ED' F3 4' C3 34$' $ED' 43C13N 3' G31- 3C' @ 34+C' H4' 23E C' H' F$ 3' 43N3 3' $ED' $+3' $ ' $ED' 3 34O' F3' 633C' $ED' ; J H - J 3E C' F NF' F$ 3' Q33E' $NN-C H J 3D' H' Q3' 1$ D' $ED' && NF' $43' H&' ' 2F ' ,' Q3' 1$ D' $"D' 1$O$Q 3' $ED' 43N3 3D' QO' F3 J' 43C13N 3 O' QO' 4 -3' H&' F3 4' C$ D' C3 34$' <& BN3C' H4' 11H E R J 3E C' H4' $EO' H&' F3 J' &H4' F3' #C3' $ED' HE' F3' NNH-E' H&' F3' >H4D' @F$EN3 H4' >H4D' %33134' H4' >H4DC' @H J J CC HE34C' H&' F3' M43$ ' ?3$ ' &H4' F3' * J 3' Q3 E2' F NF' CF$ ' F343$& 34' $NN4-3' D-3' $ED' Q3NH J 3' 1$O$Q 3' 14' F NF' CF$ ' F$ 3' $NN4-3D' D-3' $ED' Q3NH J 3' 1$O$Q 3' C EN3' F3' ; 3 3E F' G$O' H&' ? #3 ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' 4 O ' H & _4' F3' B-C E3CC' DHE3' QO' F3 J' 43C13N 3 O' E' F3 4' C$ D' <&& N3C' $ED' F$' C-NF' 633C' $ED' ; J H - J 3E C' $C' F$ 3' $NN4-3D' $ED' Q33E' 43N3 3D' Q3 33E' F3' C$ D' ; 3 3E F' G$O' H&' ? #3 ' $ED' F3' ; 3 3E F' G$O' H&' ?3% ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' CF$ ' Q3' &H4 F F' $NNH-E 3D' &H4' $ED' 1$ D' QO' F3 J' 43C13N 3 O' E H' F3' B$E+' H&' 8#(% #&' E' F3' , $ J 3' H&' F3' NNH-E $E ' M3E34$' H&' F3' C$ D' @H-4 ' H' $E' NNH-E' H' Q3' E - 3D' `' E' NNH-E' H&' 633C' &H4 J 34 O' 1OQ 3' H' F3' >H4D' @F$EN3 H4' $ED' F$' C-NF' 633C' $ED' ; J H -R J 3E C' F NF' F$ 3' H4' CF$ ' $NN4-3' D-3' $ED' 1$O$Q 3' &4H J' $ED' $& 34' F3' ; 3 3E F' G$O' H&' ?3% ' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' CF$ ' E' +3' P $EE34' Q3' $NNH-E 3D' &H4' $ED' 1$ D' $C' $&H43C$ D' HEN3' -' 3 34O' *F433' P HE FC' ' $ED' F$ ' C-NF' 633C' CF$ ' HE' 3$NF' I $O J 3E ' Q3' 34 & 3D' QO' F3' <$ F' H&' F3' $NNH-E E2' I $4 O' $ED' C-NF' I $O J 3E ' E H'

F3' B$E+' H' F3' C$ D' $C J3E HE3D' NNH-E ' CF$ ' Q3' N34 & 3D' QO' F3' NNH-E $E ' M3E34$' H&' F3' ?$ D' @H-4 ' H' F3' >H4D' @F$EN3 H4 ' D4' E' C-NF' H F34' P$EE34' $C' F3' CF$ ' QO' $EO' <4D34' H&' F3' C$ D' @H-4 ' D 43N

E 3C J3E' H&' PHE3O' NNH-E ' H&' 633C

' ED' Q3' '&-4 F34' 3E$N 3D ' *F$ ' ' CF$ ' $ED' J$O' Q3' $ &-' &H4' F3' >H4D' @F$EN3 H4 ' QO' $EO' <4D34' H4' <4D34C' H&' F3' C$ D' @H-4 ' I-41HC3 ' &4H J' * J3' H' * J3' H' H4D34' $ED' D 43N ' F$ ' F3 PHE3O' 1,' 1$ D' E' H' F3' C$ D' NNH-E ' H&' 633C' &H4 J34 O' 1OQ 3' H' F3' >H4D' @ $EN3 H4' Q3' &4H J' * J3' H' * J3' E 3C 3D' E' F3' I-4NF$C3' H&' I$4 $J3E $4O' H4' MH 34E J3E ' ?3N-4 3C ' H' Q3' 1 $N3D' H' F3' NNH-E ' E - 3D' `' NNH-E ' H&' ?3N-4 3C' 1-4NF$C3D' F' C-41 -C' E 343C ' $4 C E2' &4H J' ?3N-4 3C' N$44 3D' H' $E' NNH-E ' H&' PHE 3C' /' 1 $N3D' H- ' &H4' F3' B3E3& '$ED' Q3 34' ?3N-4 O' H&' F3' ?- H4C' H&' F3' 8 2F' @H-4 ' H&' @F$EN34O c

EE- 3C H' Q3' F3EN3&H4 Q' 1OQ 3' H' N34 $ E' <&& R N34C' H&' @F$ER N34O' E' 3-' H&' 633C

' ED' F343$C' N34 $ E' ?$ $4 3C ' I34X- C 3C ' $ED' H $EN3C' F$ 3' Q33E' F343 H&H43' 1OQ 3' QO' 8 C' P$(3C O C' >3 34C' I$ 3E ' H' F3' >H4D' 8 2F' @Q$EN3 H4 ' $ED' NF$423D' -1HE' F3' <&& N3' H&' F3' %33134' H4' @ 34+' H&' 8 C' P$(3C O C' 8$E$134' E' @F$EN34O ' $ED' F3 ' C$ D' %33134' H4' @ 34+' H&' F3' 8E134' F$C' Q33E' $NN-C H J3D' H' NH 3N ' $4 D' 43N3 3' @34 $ E' 633C' &H4' F3' #C3' H&' F3' >H4D' @F$EN3 H4' &H4' F3' * J3' Q3 E2 ' Q-&' F NF' ?$ $4 3C ' I34X- C 3C ' H $EN3C ' $ED' 633C' ' C' D3C 4$Q 3' CFH- D' N3$C3' H' Q3' 1$O$Q 3' H' F3' C$ D' >H4D' @F$EN3 H4' &4H J' F3' 6 & F' G$O' H&' ? #3 ' $C .' ED' F343$C' QO' F3' I4H C HEC' H&' $' N34 $ E' N ' H&' I$4 $J3E '1$CC3D' E' F3' ?3NHED' =3$4' H&' F3' ' 3 2E'

U 9 '3' !Y' H&' 8 C' 143C3E ' P$(3C O ' E - 3D' /#' / ' ' ,' !1 4% 1)' ' I,3 ' #' " # K' 35 ' ' ' C' 3E$N 3D ' F$ ' N34 $ E' @H J 13EC$ HEC' CF$ ' Q3' J$D3' H' F3' @ 34+' H&' F3' 8E134' $ED' H F34' <&& N34C' H&' F3' >H4D' @F$EN3 H4' $ED' H&' F3' 8 2F' @H-4 ' H&' @F$EN34O ' &H4' F3' >HCC' H&' 633C' -ED34' F3' <134$ HE' H&' F3' 3$ D' N (' $ED' & $ ' ' CF$ ' Q3' $ &-' &H4' F3' >H4DC' @H J J CC HE34C' H&' 8 C' P$(3C O C' *43$C-4O' H' $CN34 $ E' F3' JH-E ' H&' F3' $ &-' 633C' $ED' ; JH-J3E C' H&' F3' C$ D' <&& N34C ' $ED' H' $ $4D' $E' EE- O' H4' EE- 3C' H&' C-NF' $E' JH-E ' $ED' &H4' C-NF' *34 J' $C' F3' >H4DC' H&' F3' *43$C-4O' CF$ ' & ED' H' Q3' $' &$ 4' $ED' 43$CHE$Q 3' @H J 13EC$ HE' &H4' F3' >HCC' H' Q3' C-C $ 4 3D' QO' $ ' H4' $EO' H&' F3' <&& N34C' $&H43C$ D' QO' F3' QH HE' H&' F3' C$ D' 633C ' $ED' F$ ' C-NF' EE- O' H4' EE- 3C' CF$ ' Q3' 1$ D' H- ' H&' F3' 6-ED' J3E HE3D' E' F3' C$ D' N ' H' Q3' 3E 3D' ` *F3' ?3N43 $4O' H&' B$E+4-1 C' @H J 13EC$ HE' NNH-E ED' F343$C' F3' C$ D' %33134' H4' @ 34+' @&' 8 C' P$(3C O C' 8$E$134 ' F3' ? '@ 34+' @H J 1 4H 34' H&' F3' 8E134 ' F3' ?3$ 34 ' F3' <&& N34' N$ 3D' F3' @F$& ' 9 $ ' $ED' F3' ; $J E34' H&' F3' >3 34C' I$ 3E ' F$ 3' C-C $ E3D' $' >HCC' QO' F3' QH HE' H&' F3' C$ D' 633C ' $ED' C-NF' <&& N34C' F$ 3' F343 H&H43' 43N3 3D' $ED' 43 $ E3D' F3 4' 633C' <- ' H&' F3' I-Q N' PHE 3C' F343 H&H43' 1$CC E2' F4H-2F' F3 4' 8$EDC' H&' F3' C$ D' %33134' H4' @ 34+' H&' F3' 8E134 ' F3' ' 3E$N 3D ' *F$ ' &4H J' $ED' H- ' H&' F3' I-Q N' PHE 3C' 1$CC E2' F4H-2F' F3' 8$EDC' H&' F3' C$ D' %33134' H4' @ 34+' H&' 8 C' P$(3C O C' 8$E$134' E' @F$EN34O ' $ED' &4H J' $ D' H- ' H&' F3' C$J3' 6-ED' $C' F3' C$ D' H $EN3C' H' F3' C$ D' >H4D' @F$EN3 H4' F$ 3' F343 H&H43' Q33E' 1$ D' H' F3' C$ D' >H4D' @F$EN3 H4' &H4' F3' * J3' Q3 E2 ' F343' CF$ ' Q3' 1$ D' QO' F3' C$ D' %33134' H4' @ 34+' H&' 8 C' P$(3C O C' 8$E$134 ' E' 3 34O' =3$4 ' E H' F3' B$E+' H&' 5?E2 $ D' H' F3' @43D ' H&' F3' NNH-E $E

M3E34$

7M3E34$ H& F3 8 2F @H-4 H& @F$EN34O H F3 NNH-E H Q3 34(3D *F3 ?3N43 $4O H& B$E+4-1 C @HJ13EC$ HE NNH-E c C-NF $?-J H& PHE3O $C CF$ Q3 3X-$ H F3 EE- 3C H4 EE- O F NF F3 C$D >H4DC H& F3 *43$C-4O CF$ &ED H Q3 &4HJ * J3 H * J3 1OQ3 H F3 C$D %33134 H4 @34+ H& F3 8$E$134 F3 ? @34+ @HJ1 4H 34 H& F3 8E134 F3 ?3$34 F3 @F$&& 9$ $ED F3 ; $J R E34 H& F3 >3 34C I$ 3E D-4 E2 C-NF * J3 $C F3 C$D >H4DC H& F3 *43$C-4O CF$ &ED F$ C-NF EE- 3C H4 EE- O H-2F H Q3 1$D H F3 C$D C3 34$ <&& N34C 43C13N 3O 14H D3D F$ C-NF ?-J CH H Q3 1$D H F3 C$D NNH-E $E M3E34$ &H4 F3 I-41HC3C $&H43C$D CF$ Q3 N34 &3D $EE-$ O QO F3 C$D >H4DC H& F3 *43$C-4O $ED CF$ E EH <E3 =3$4 3 N33D F3 JH-E F NF E $EO C-NF =3$4 Q- &H4 F C N H- D F$ 3 Q33E 1OQ3 H F3 >H4D @F$EN3 H4 &H4 F3 * J3 Q3 E2 &H4 F3 ?$ $4 3C I34X- C 3C H $EN3C $ED 633C $&H43C$D

W ED Q3 &-4 F34 3E$N 3D *F$ F3 C$D I$OJ3E C H Q3 ?$NF E P J$D3 QO F3 C$D %33134 H4 @34+ H& F3 8$E$134 H F3 C$D F3 NNH-E $E M3E34$ &H4 F3 I-41HC3C $&H43C$D $ED $ $ED 3 34O O3$4O EE- 3C $ED EE- O 1$O$Q3 H- H& F3 C$D NNH-E H Q3 3E 3D * F3 ?3N43 $4O H& B$E+4-1 C @HJ13EC$ HE NNH-E c CF$ 43C13N 3 O NHJ J3EN3 $ED Q3NHJ3 D-3 &4HJ F3 ; 3 3E F G$O H& ? #3 $C $ED CF$ Q3 1$D $ED 1$O$Q3 QO 3X-$ F$ & O3$4 O I$OJ3E C($ D F$ & $EO H4 3 F34 H& F3 <&& N34C H4 I34CHEC H FHJ F3 C$D EE- 3C H4 3 F34 H& F3 J CF$ Q3 D-3 H4 1OQ3 &H4 F3 * J3 Q3 E2 CF$ 43C 2E H4 D3 C-NF <&& N34 H4 I34CHE CH 43C 2E E2 $ED F3 ; 3N- H4 H4 DJ E C 4$ H4 H& C-NF <&& N34 H4 I34CHE CH DO E2 CF$ Q3 3E 3D H 43N3 3 $ED CF$ Q3 1$D C-NF 14H1H4 HE$Q3 I$4 H& F3 4 43C13N 3 EE- 3C $C CF$ F$ 3 $NN4-3D D-4 E2 F3 * J3 F$ C-NF I34CHE H4 I34CHEC CF$ F$ 3 3 3N- 3D C-NF 43C13N 3 <&& N3 C EN3 F3 $C F$ & O3$4 O I$OJ3E $ED F$ F3 I34CHE H4 I34CHEC C-NN33D E2 H $EO C-NF <&& N3 H4 <&& N3C CF$ Q3 3E 3D H 43N3 3 C-NF 14H1H4 HE$ 3 I$4 H& F3 4 C$D 43C13N 3 EE- 3C $C CF$ $NN4-3 &4HJ F3 G3$ F H4 3C 2E$ HE H& F3 I34CHE H4 I34CHEC CH DO E2 H4 43C 2E E2

W ED Q3 &-4 F34 3E$N 3D *F$ F3 3N3 1 $ED 3N3 1 C H& 3N3 1 C H& F3 C$D NNH-E $E M3E34$ CF$ Q3 $ 2HHD $ED C-&& N 3E NX- NNH-E $E $EN3 $ED G CNF$423 H F3 %33134 H4 @34+ H& 8 C P$(3C O C 8$E$134 E @F$EN34O &H4 F3 * J3 Q3 E2 &H4 F3 I$OJ3E H& F3 ?-J C $&H43 G CNF$423 C$D $ED CF$ Q3 $+3E $N+EH 3D23D $ED 43N3 3D $C C-NF QO F3 @HJJ CC HE34C &H4 $-D E2 I-Q N NNH-E C

W ED Q3 &-4 F34 3E$N 3D *F$ F3 ?$ $4 3C I34X- C 3C I34X- C 3C H $EN3C $ED 633C F343 H&H43 1$O$Q3 $C $&H43C$D QO F3 C$D F343 H&H43 %33134 H4 @34+ H& F3 8E134 H F3 >H4D @F$EN3 H4 CF$ 43N3 3D QO >H4D @F$EN3 F C-NF G3D-N HEC $C F$ 3 Q33E F343 H&H43 J$D3 F343&4HJ N3 H4 &4HJ N3$C3 H Q3 1$O$Q3 H F3 >H4D @F$EN3 H4 $C &4HJ F3 6 & F G$O @34+ H& H& ? #3 <E3 FH-C$ED 3 2F F-ED43D $ED F 4 O H $ED F$ 8E134 H F3 C$J3 &4HJ $ED $& 34 F$ G$O CF$ F3 1$D < H4 43 $ E3D QO N3$C3 F3 C$D %33134 H4 @34+ H& F3 8E134 &H4 F3 * J3 Q3 E2 $ED CF$ Q3 $114H14 $ 3D E F3 C$J3 P$EE34 $C $ I-Q N PHE 3C 43N3 3D E F3 C$D <&& N3 E D CNF$423 H& F3 $4 H-C @$ JC F343R -1HE

SU UL K S M # > ; > P @$1 UU

-1HE F3 C$ D %33134 H4 @ 34+ D3Q E2 F J C3 & E F C I -Q N NR
NH-E C F F3 ' 3N3 1 H& F3 C$ D 633C

4 V !C YD W ED F343$C F343 F$C Q33E 1$ D H F3 >H4D @F$EN3 H4 $
1$D H 3 F3 ; NF3X-34 . ($N3HHE H& F3 ?$ $40 -C-$ O 1$0$Q 3 H- H& F3
N/3# $C $c '3 3E-3 FF ?- J H& <E3 FH-C$ED HE3 F-ED43D $ED
IH4 HEH&F C E E3 O H $3 I H-EDC 6 3?F E2C $ED ? 13EN3 Q3 E2 F3 I4H1H4 HE
?$ $40 H Q3 H& F3 C$ 3 D"3 &4HH F3 ; 3 3E F 5 $O H& ? #3 H F3 6 & F G$O
431$ D $ED H& 1E <E3 FH-C$ED 3 2F F-ED43D $ED F 4 0 H : ED F343$C
&H4 J I$4 H& F3 $40 F34 24$E 3D C D 43N 3D H NH J J 3EN3 $ED Q3 1$0$Q 3
F3 @HECHR &4H J F3 ; 3 3E F G$O H& ? # # <E3 FH-C$ED 3 2F F-ED43D $ED
D$ 3D 6-ED F 4 0 9H $ED C 3&H43 3 13D 3E F$ F3 C$ D ?- J CH 43N3 3D
$C $&H43C$ D C H- D Q3 431$ D Q3 F343&H43 3E$N 3D *F$ F3 C$ D
?- J H& <E3 FH-C$ED 4- 3 F-ED43D $ED E E3 O E E3 I H-EDC 6 3
?F E2C $ED ? 13EH3 CF$ Q3 431$ D QO F3 >H4D @F$EN3 H4 E H
F3 ; NF3X-34 $ J 4& $ Q3 N$44 3D H $ED J $D3 I $4 H& F3 @HE
CH D$ 3D 6-$D H& F3 #E 3D % E2DH J H& ! " # $ED $!% #&

@F$423C &H4R W ED F343$C F343 $43 NF$423D -1HE $ED J $D3 1$0$Q 3 QO
J34 O 1$0$Q 3 F3 >H4D @Q$EN3 +- &H4 F$ * J 3 Q3 E2 N3 $ E G- 3C H& >$ED * $
&H4 >$ED $ED H 34 C3 E 43C13N H& F C C$ D <&& N3 $ED C E 3ED3D F$
* $ %&33 HE F3 ?$ $40 F343QO 14H D3D &H4 F3 C$ D >H4D @F$EN3 H4 CF$ Q3 &433
F3 <&& N3 H& H& $ @F$423 Q3 3E$N 3D *F$ $ * $ 3C $ 3C $ED @F$423C
>H4D @Q$E N3 H4 H F343 H&H43 1$0$Q 3 QO F3 >H4D @F$EN3 H4 &H4 F3 * J 3 Q3 E2 E
N3$C3 &4H J 43C13N H& F C ?$ D <&& N3 &H4 >$ED * $ H4 H F34 C3 FH CH3 34 CF$
? F 5$E $C N3$C3 H Q3 1$0$Q 3 &4H J F3 6 & F G$O , ? ? EH $C

I $O J 3E <& W 1D Q3 &-& F& 4 3E$N 3D *F$ H- H& F3 E 343C $4 C E2
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> 8 ; ' ; ?ʻ D 34Cʻ >HN$ʻ N Cʻ EH ʻ Eʻ &H4N3ʻ &H4ʻ J $+ E2ʻ 431$ 4 E2ʻ $EDʻ J 14H E2ʻ * -4E1 +3ʻ ' H$DCʻ Eʻ F$ʻ I $4ʻ H&ʻ ! ʻ " #ʻ N$ 3Dʻ 8#(% #&ʻ $- FH4 T3ʻ *H Cʻ Hʻ Q3ʻ NH R 3N 3Dʻ $EDʻ $+3Eʻ $ʻ N34 $ Eʻ *H ʻ M$ 3Cʻ $EDʻ * -4E1 +3ʻ M$ 3Cʻ 343N 3Dʻ -1HEʻ H4ʻ HEʻ F3ʻ ? D3Cʻ H&ʻ C-NFʻ * -4E1 +3ʻ ' H$DCʻ &H4ʻ H4ʻ Eʻ 43C13Nʻ H&ʻ 9 $22HECʻ @$4 Cʻ $EDʻ @$44 $23Cʻ H4ʻ F3ʻ 8 H4C3ʻ H4ʻ 8 H4C3Cʻ H4ʻ H F34ʻ B3$Cʻ H4ʻ B3$C Cʻ D4$ E2ʻ F3ʻ C$ J 3ʻ 1$CC E2ʻ F4H-2Fʻ F3ʻ C$ Dʻ *H ʻ M$ 3Cʻ $EDʻ * -4E1 +3ʻ M$ 3C.ʻ EDʻ F343$Cʻ J $EOʻ H&ʻ F3ʻ C$ Dʻ N Cʻ $- FH4 T3ʻ GH-Q 3ʻ *H ʻ Hʻ Q3ʻ $+3Eʻ $ʻ C-NFʻ *H ʻ M$ 3Cʻ H4ʻ * -4E1 +3ʻ M$ 3Cʻ $ʻ 1$4 N- $4ʻ I 34 HDCʻ H&ʻ F3ʻ =3$4ʻ &H4ʻ H4ʻ Eʻ 43C13Nʻ H&ʻ 9 $22HECʻ @$4 Cʻ H4ʻ @$44 $23Cʻ $D3Eʻ Fʻ C3 34$ʻ F3$ Oʻ MHHDCʻ $EDʻ 4 N 3Cʻ F343 Eʻ 43C13N 3 Oʻ C13N & 3Dʻ H4ʻ &H4ʻ H4ʻ Eʻ 43C13Nʻ H&ʻ F3ʻ 8 H4C3ʻ H4ʻ 8 H4C3Cʻ H4ʻ H F34ʻ B3$Cʻ H4ʻ B3$C Cʻ D4$ E2ʻ F3ʻ C$ J 3ʻ 1$CC E2ʻ F4H-2Fʻ F3ʻ C$ Dʻ M$ 3Cʻ EDʻ F343$Cʻ GH-Q Cʻ F$ 3ʻ $4 C3Eʻ $Cʻ Hʻ F3ʻ @HER C 4-N HEʻ H&ʻ F3ʻ C$ Dʻ I 4H C HECʻ 43 $ 3ʻ Hʻ GH-Q 3ʻ *H ʻ $EDʻ Eʻ J $EOʻ @$C3Cʻ *43Q 3ʻ *H Cʻ F$ 3ʻ Q33Eʻ D3 J $ED3Dʻ $EDʻ $+3Eʻ &H4ʻ @$ 4 $23Cʻ $EDʻ 8 H4C3Cʻ $Q 3ʻ Eʻ F3ʻ & 4Cʻ EC $EN3ʻ Hʻ ? E2 3ʻ *H ʻ HE Oʻ 1$CC E2ʻ F4H-2Fʻ F3ʻ C$ Dʻ M$ 3Cʻ Q-ʻ F NFʻ F$ 3ʻ $& 34 $4DCʻ 431$CC3Dʻ HEʻ F3ʻ C$ J 3ʻ G$Oʻ $D3Eʻ Fʻ C-NFʻ 4 N 3Cʻ $Cʻ 43ED343Dʻ F3 Jʻ $Q 3ʻ Hʻ GH-Q 3ʻ *H ʻ Eʻ F NFʻ @$C3ʻ GH-Q 3ʻ *H ʻ F$Cʻ Q33Eʻ D3 J $ED3Dʻ $EDʻ 1$ Dʻ HEʻ C-NFʻ 431$CCR E2ʻ.ʻ B3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ $EDʻ D3N $43Dʻ QOʻ F3ʻ % E2 Cʻ J HCʻ ; N3 3Eʻ P $(3C Oʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3Eʻ H&ʻ F3ʻ Sʻ >H4DC

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9$22HECʻ @$4 Cʻ **ʻ F$ E21$CC3D F4H-2F $ *-4E1 +3 M$ 3 $ED 1$ D ? E2 3 *H ʻ F343$ ʻ -1HE 43 -4ER E2 CH $D3E $C H Q3 C-QR (3N ʻ HGH-Q 3 *H ʻ CF$ ʻ Q3 $Q 3 H 1$O HE O <E3 JH43 ? E2 3 *H

>H4DC ?1 4 -$ʻ $ED *3 J 1H4$ ʻ $ED @H J J HECʻ E F C 143C3E ʻ I$4 $R J 3E ʻ $CC3 J Q 3D ʻ $ED QO F3 - FH4 O H& F3 C$ J 3ʻ *F$ʻ E 3 34O @$C3 E F NF QO 4 -3 H4 -ED34 F3 - FH4 O H& $EO >HN$ʻ N ʻ EH ʻH4 F343$& 34 H Q3 J $D3ʻ&H4 J $+ E2ʻ 431$ 4 E2ʻ H4 J 14H E2 $EO *-4E1 +3 ʻH$D E F$ʻ I$4ʻH& ! ʻ " # N$ 3D 8#(% #&ʻ GH-Q 3 *H ʻ $C $&H43C$ D CF$ ʻ Q3 J 1HC3D HE $EO 9 $22HE ʻ @$4 ʻ H4 H F34 @$44 $23ʻ H4 $EO 8 H4C3 H4 8 H4C3C H4 H F34 B3$C ʻ H4 B3$C C D4$ E2 F3 C$ J 3ʻ F NF $ʻ F3 * J 3 H& & 4C ʻ 1$CC E2 F4H-2F $EO *-4E1 +3 M$ 3 H4 *H ʻ M$ 3 CF$ ʻ F$ 3 Q33E $Q 3 H $ED CF$ ʻ F$ 3 1$ D ? E2 3 *H ʻ HE O ʻCF$ ʻ HE 431$CC E2 F4H-2F F3 C$ J 3 *-4E1 +3 M$ 3 H4 *H ʻ M$ 3 HE F3 C$ J 3 G$O ʻ Q3&H43 * 3 3 H& F3 @ HN+ $ʻ , 2F ʻ CH $D3E $C H Q3 C-Q(3N ʻ H GH-Q 3 *H ʻ Q3 $Q 3 H 1$O <E3 H F34 ? E2 3 *H ʻ HE O $ED EH J H43ʻ J $+ E2ʻ N 3 F34 F F3 *H ʻ & 4C ʻ 1$ D ʻ * H ? E2 3 *H C E F3 FH 3ʻ $EO F E2 E $EO >HN$ʻ N ʻ H4 N C H F3 NHE 4$4O E $EO C3 EH FC $ED E2

I4H C HE 43C13N E2 I3E$ O &H4 < 34 3 2F

ʻ I4H D3D $ CH ʻ $ED Q3 ʻ &-4 F34 3E$N 3D ʻ *F$ ʻ F3EN3&H4 F ʻ EH R FC $ED E2 $EO I4H C HE H F3 NHE 4$4O ʻ $EO 9 $22HE HE F NF $ I3E$ O &H4 < 34 3 2F ʻ F$C Q33E 3 3D CF$ ʻ HE ʻ 3N3 1 ʻ H& $ * N+3 ʻ H F$ʻ ; &&3N ʻ Q3 3 3 J 1 3D &4H J ʻ $EO &-4 F34 I3E$ O &H4 < 34 3 2F ʻ HE F$ ʻ G$O $ED HE F3 C$ J 3 *4-C ʻ 14H D3D F343 Q3 EH 34$ HE H& F3 >H$D E2 H& C-NF 9 $22HE

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9 8 ; ' ; ?ʻ Eʻ NHEC D34$ HEʻ H&ʻ F3ʻ F3$ Oʻ > HCC3Cʻ F NFʻ F$ 3ʻ Q33Eʻ C - C $ E3Dʻ Eʻ F3ʻ C $EDCʻ H&ʻ ? ' ʻ " 4 &, !1ʻ + # ʻ C #' !# 1ʻ $EDʻ + # ʻ <3' ! ʻ Eʻ NHEC3X - 3EN3ʻ H&ʻ F3ʻ $ 3ʻ EC - 443N HECʻ Eʻ F3ʻ C $EDʻ H&ʻ ? ' ʻ $EDʻ H&ʻ 8 - 44 N$E3Cʻ Eʻ F3ʻ H F34ʻ C $EDC ʻ ʻ Cʻ 3 13D 3E ʻ F$ ʻ = H - 4ʻ P $(3C Oʻ Q3ʻ 3E$Q 3Dʻ Hʻ D 43N ʻ ; NF3X - 34ʻ B Cʻ Hʻ F3ʻ J H - E ʻ H&ʻ < E3ʻ P HEʻ Hʻ Q3ʻ CC - 3Dʻ Hʻ @H J J CC HE34C ʻ Hʻ Q3ʻ QOʻ F3 J ʻ $D $EN3D ʻ - ED34ʻ N34 $ Eʻ ' 32 - $ HECʻ $EDʻ ' 3C 4 N HEC ʻ &H4ʻ F3ʻ CC C $EN3ʻ $EDʻ NNH J J HD$ HEʻ H&ʻ F3ʻ C$ Dʻ C $EDC ʻ $EDʻ H&ʻ C - NFʻ I 34CHECʻ F$ E2ʻ I 4H134 3Cʻ F343 Eʻ $EDʻ NHEE3N 3Dʻ F343 F ʻ H4ʻ 4$D E2ʻ F343 H ʻ $Cʻ CF$ ʻ Q3ʻ D3C 4H - Cʻ H&ʻ 43N3 E2ʻ F3ʻ C$ J 3 ʻ HEʻ D - 3ʻ ?3N - 4 Oʻ Q3 E2ʻ 2 3Eʻ &H4ʻ F3ʻ ' 31$O J 3E ʻ H&ʻ F3ʻ ? - J Cʻ CHʻ $D $EN3Dʻ F Eʻ $ʻ * J 3ʻ Hʻ Q3ʻ J 3D.ʻ EDʻ F343$Cʻ ʻ Cʻ $ CHʻ 3 13D 3E ʻ Hʻ 24$E ʻ ' 3 3&ʻ Eʻ N34 $ Eʻ @$C3Cʻ Hʻ 8 Cʻ P $(3C O Cʻ @H HE 3Cʻ H&ʻ 7 # & &ʻ " 1)ʻ 3 # ʻ $EDʻ + # ʻ <3' ! ʻ P $Oʻ ʻ F343&H43ʻ 1 3$C3ʻ = H - 4ʻ P $(3C Oʻ F$ ʻ ʻ J $Oʻ Q3ʻ 3E$N 3D ʻ $EDʻ Q3ʻ ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ J HC ʻ ; N3 3E ʻ P $(3C O ʻ QOʻ $EDʻ Fʻ F3ʻ D N3ʻ $EDʻ @HEC3E ʻ H&ʻ F3ʻ > H4DCʻ ?1 4 - $ ʻ $EDʻ * 3 J 1H4$ ʻ $EDʻ @H J J HEC ʻ Eʻ F Cʻ 143C3E ʻ I $4 $ J 3E ʻ $CC3 J Q 3D ʻ $EDʻ QOʻ F3ʻ - FH4 Oʻ H&ʻ F3ʻ C$ J 3 ʻ * F$ ʻ ʻ
Sʻ %ʻ CF$

8 C P$(3C O J$034$1H 34 F3 *43$C-4O H D 43N ; R NF3X-34 B C H Q3 J$D3 H- 2433Q 3 H Z M N 3 N31 $C F343QO 3 R N31 3D

CF$ Q3 $ &- &H4 F3 % E2 C JHC ; N3 3E P $(3C O QO 9 44E H4 9 44E C -ED34 8 C ; HO$? 2E P $E-$ H $- FH4 T3 $ED 3 J R 1H 34 F3 @H J J CC HE34C H& 8 $ P $(3C C * 43$C-40 EH H4 &H4 F3 * J 3 Q3 E2 H4 $EO * F433 H4 J H43 < F3 J Q4 F3 >H4D 8 2F * 43$C-434 &H4 F3 * J 3 Q3 E2 H @$-C3 H4 D 43N $EO , - J Q34 H& ; NF3X-34 B C H Q3 J $D3 H- &H4 F3 I -41HC3C H& F C N $ 8 C P$(3C O C ; NF3X-34 NHE $ E E2 D &&343E ? -EC H& < E3 F-ED43D I H-EDC $ED 6 & O I H-EDC E F3 C$ J 3 H4 +3 P $EE34 6H4 J $ED <4D34 $ED $NNH4D E2 H F3 C$ J 3 H4 +3 %- 3C $ED G 43N HEC ^3 N31 F343 H F34 G 43N HEC &H4 J $+ E2 H- D 3 C$J3 $43 NHE $ E3D $ED 1$4 N- $4 O 3 143CC3D E F C N d $C E $ED QO $E N 1$CC3D E F3 6H4 0 3 2F F =3$4 H& F3 %3 2E H& 8 C $ 3 P $(3C O % E2 ! , (! F3 * F 4D E - 3D (&34 ! (# , #( ) ! 11 (#& 5 #(, V 8J ') !V3! " %%1 $43 3 -$N 3D $ED 143CN4 Q3D ($ED C-NF ; NF3X-34 B C CF$ Q3$4 $E E 343C EH 3 N33D E2 F3 ' $ 3 H& * H 13EN3 5! I !# 3 5! 2 !

*F3 C$ D B C J$O Q3 43N3 3D E I $0 J 3E H& *$ 3C $& 34 F3 G$O $1R 1H E 3D &H4 F3 4 I $OR J 3E Q- EH Q3&H43

I 4H D3D $ $OC $ED Q3 &-4 F34 3E$N 3D * F$ F3 C$ D ; NF3X-34 B C H Q3 J $D3 H- QO 4 -3 H& F C N H4 CH J $EO H& F3 J $C CF$ &4H J * J 3 H * J 3 43 J $ E -ED CNF$423D $ED -ER N$EN3 3D $& 34 F3 43C13N 3 G$OC HE F NF F3O CF$ Q3NH J 3 D-3 $ED 1$0$Q 3 CF$ $& 34 F$ * J 3 1$CC $ED Q3 N-443E H $ ' 3N3 34C $ED @H 3N H4C E ! " # H& F3 @F 2 H J C ; N C3 $#O ' 3 3E-3 ? -11 O D H4 * $ F$ CH3 34 D-3 H4 1$0$Q 3 H 8 C P $(3C O 8 C 8 3 4C H4 ? -NN3CCH4C $ED $ CH $ F3 ' 3N3 1 H& ; R NF3X-34 E ! " # &H4 F3 C$ D ' 3N3 34C <4 @H 3N H4C ! Q- EH C-NF ' 3N3 34 H4 @H 3N H4 CF$ 3 NF$E23 $EO * J 3 Q3&H43 F3 C$ D G$O H& I $0 J 3E F343H& &H4 $EO P HE3O H& C-NF ' 3 3E-3C D * $ 3C H4 ? -11 3C E F C 8 $EDC $EO ; NF3X-34 B C F NF CF$ F$ 3 Q33E CC-3D $C $&H43C$ D QO 4 -3 H& EC N EH4 CF$ $EO N HE Q3 J $ E $ E3D 2 EC $EO C-NF ' 3N3 34 H4 @H 3N H4 &H4 E32 3N E2 H4 43&-C E2 H 3 NF$E23 $EO C-NF ; NF3X-34 B B &H4 43$DO P HE3O Q3&H43 F3 C$ D G$O H& I $0 J 3E F3434& $EO F E2 E F C N H F3 NHE 4$4O EH FC $ED E2 $ED F$ C-NF H& F3 C$ J 3 B C $C CF$ Q3 43N3 3D $ F3 C$ D ' 3N3 1 , ; NF3X-34 CF$ Q3 HN+3D -1 $ED C3N-43D $C @$CF $NNH4D E2 H F3 @H-4C3 H& F3 C$ D ; NF3X-34 C3 3D $ED 3C $Q CF3D QO >$ &H4 HN+ E2 -1 $ED C3N-4 E2 P HE 3C 43N3 3D E ?13N 3 F343

B C H Q3 1$0$Q 3 < E3 =3$4 &4H J G$ 3 F E 343C

8 ED Q3 &-4 F34 3E$N 3D * F$ $; NF3X-34 B C J $D3 H- $ED CC-3D E 1-4C-$EN3 $ED &H4 F3 I -41HC3C H& F C N ?F$ Q3 J $D3 1$0$Q 3 F E < E3 =3$4 &4H J F3 G$ 3 F343H& 43C13N 3 O $ED F$ F3 I 4 EN 1$? - J J 3E HE3D E 3 34O C-DF B 8 N 3 F34 F F3 E 343C F343HE $ F3 ' $ 3 $&H43C$ D H Q3 NH J 1- 3D &4H J F3 G$O H& F3 G$ 3 H& C-NF B C 43C13N 3 O -E F3 * J 3 H& I $0 J 3E F343H& CF$ Q3 NF423Q 3 HE CH J 3 I $4 H& F3 DC H4 ? -11 3C &H4 F3 =3$4 E3 ? -NN33D E2 F3 G$O H& F3 G$ 3 H& F3 C$ D B C 43C13N 3 O

<&& N34C H& F3 ; NF3R X-34 EH H 43N3 3 633C

ED Q3 &-4 F34 3E$N 3D * F$ EH <&& N34 <4 H&H34 I 34CN J 3 J 1 HO3D E H4 $QH- F3 ; 3N- HE H& F C N E F3 ' 3N3 1 H& 8 C P $(3C O C ; NF3X-34 E ! " # CF$ D3 J $ED $+3 H4 $NN31 $EO 633 H4 M4$ - O F$ CH3 34 &H4 F3 4 @$43 $ED >$QH-4 F343 E

F343 E' H F34' F$E' C-NF' ?$ $4 3C' H $EN3C' '3 $4DC' H4' ; J H -R J3E C' $C' CF$ 'H4' J$O' Q3' 24$E 3D' H' H4' Q3' $ H 3D' H' Q3' $+3E' QO' F3J' 43C13N 3 O' -ED34' F3' - FH4 O' H&' F3' C$ D' @H J J CC HE34C' H&' 8 C' P$(3C O C' *43$C-4O' H4' $EO' *F433' H4' JH43' H&' F3J ' H4' F3' >H4D' 8 2F' *43$C-434' &H4' F3' * J3' Q3 E2' E' ! ' " #

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' !# ' "! !#1' ?,)#' < ,&!),31!' 7), 1' ?,#!1' $%,J,!%%' ?,)#' < 4,3')! !' $ED' ? !1' , 1' ;CX- 43C' CF$ 'Q3' $ED' $43' F343QO' NHEC - 3D' @H J J CC HE34C' &H4' $D $EN E2' $ED' 3ED E2' ; NF3X-34' B C' -ED34' F3' I4H C HEC' H&' F C' N ' -1HE' F3' ?3N-4 3C' $ED' -ED34' F3' *34 J C' $ED' @HED HEC' $ED' C-Q(3N' H' F3' '32- $ HEC' E' F C' N ' J3E HE3D' I4H D3D' $ $OC' F$' E' N$C3' H&' F3' G3$ F' H4' '3&-C$' H4' EN$1$N O' H' $N' H&' $EO' H&' F3' @H J J CC HE34C' &H4' F3' ; 3N- HE' H&' F C' N ' F343QO' F3' , - J Q34' H&' C-NF' @H J J CC HE34C' CF$ 'Q3' 43D-N3D' Q3 H '6 3' 'CF$ ' $ED' J$O' Q3' $ &-' &H4' F3' @H J J CC HE34C' H&' 8 C' P$(3C O C' *43$C-4O' H4' $EO' *F433' H4' JH43' H&' F3J ' H4' F3' >H4D' 8 2F' *43$C-434' &H4' F3' * J3' Q3 E2' E' ! ' " #' H' $11H E' CHJ3' H F34' I34CHE' H4' I34R CHEC' H' Q3' @H J J CC HE34' H4' @H J J CC HE34C' H' $N ' E' F3' ; 3N- HE' H&' F C' N ' CH' F$' F3' , - J Q34' H&' F3' C$ D' @H J J CC HE34C' &H4' F3' * J3' Q3 E2' J$O' $ $OC' $JH-E' H' 6 3

@H J J CC HER 34C' $11H E R 3D

6H4' 11H E R J3E 'H&'H F34' @H J J CC HER 34C' E' N$C3' H&' NENO

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' $EO' * H' H&' F3' C$ D' @H J J C' C HE34C' E$J3D' E' $ED' NHEC - 3D' QO' F C' N 'Q3&H43' F$' F3O' CF$ 3E 34' -1HE' F3' ; 3N- HE' H&' F C' N ' CF$ ' $+3' $E' <$ F' Q3&H43' F3' @F$EN3 H4' H&' F3' ; NF3X-34' H4' F3' P$C 34' H&' F3' 'H C' &H4' F3' * J3' Q3 E2' E' ! ' " #' F NF' <$ F' F3' C$ D' @F$EN3 H4' $ED' P$C 34' H&' F3' 'H C' $43' $ED' C' F343QO' 43C13N 3 O' $- FH4 T3D' $ED' 43X- 43D' H' $D J E C 34' F3' *3EH4' F343H&' CF$ 'Q3' $C' &H H 3 F' ' ^ F$' C' H' C$O _

@H J J CC HE' H E2'

7 ?' / ' " ' DH' C 3$4' *F$' $NNH4D E2' H' F3' Q3C ' H&' JO' 5-D2 J3E ' ' ' '&$ F&- O' $ED' J1$4 $ O'3 3N- 3' F3' C3 34$' IH 34C' $ED' 7 *4-C C' 3C 3D' E' J3' QO' $E' N ' E - 3D' /#' / ' ' b? ! !'1!' ,)')!' 7 7 %!' , ') 1' /' Ka' $NNH4D E2' H' F3' *3EH4' $ED' I-41H4' H&' F3' C$ D' 7 N

ED' 3 34O' H F34' H&' C-NF' @H J J CC HE34C' 43C13N 3 O' CF$ ' +3 C3' $+3' F3' C$J3' <$ F' Q3&H43' C-NF' * H' @H J J CC HE34C' FH' $43' F343QO' $- FH4 T3D' $ED' 43X- 43D' H' $D J E C 34' F3' C$ D' <$ F' $& 34' F3O' CF$ ' F3J C3 3C' F$ 3' $+3E' F3' C$J3' $C' $&H43C$ D

' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F3' C$ D' @H J J CC HE34C' J$O' J33 '$ED' C ' &4H J' * J3' H' * J3' E' C-NF' I $N3' H4' I $N3C' $C' F3O' CF$ ' & ED' JHC' NHE 3E 3E ' F' H4' FH-' D(H-4E J3E ' $ED' F' F3' @HEC3E' $ED' 114HQ$ HE' H&' F3' @H J J CC HE34C' H&' F3' *43$C-4O' &H4' F3' * J3' Q3 E2' H4' $EO' *F433' H4' JH43' H&' F3J ' E' 9 4 E2' 3 J 1 HO' $?3N43 $4O' $ED' @ 34+C' B4H+34C' P3CC3E234C' $ED' <&& N34C' $ED' $ H ' H' C-NF' ?3N43 $4O' @ 34+C' B4H+34C' P3CC3E234C' $ED' <&& N34C' F' F3' +3' @HEC3E' $ED' 114HQ$ HE' 43CHEQ 3' ?$ $4 3C' $ED' J$O' 3 J 1 HO' $' ?H N H4' $ED' $ H ' H' C-NF' ?H N H4' $' 43$CHE$Q 3' ?$ $4O' H4' '3 $4D' ' $ED' CF$ ' $ED' J$O' 2 3' $ED' $D J E C 34' H' C-NF' ?H N H4' ?3N43 $4O' @ 34+C' B4H+34C' $ED' <&& N34C' 43C13N 3 O' $E' <$ F' &H4' F3 4' &$ F&-' G3J3$EH4' E' $ ' *F E2C' 43 $ E2' H' F3' D-3' I34&H4 J$EN3' H&' F3' *4-C C' 431HC3D' E' F3J' QO' F3' C$ D' @H J J CC HE34C' $ED' E' $ 'H F34' *F E2C H-NF E2

@H J J CC HER 34C' J$O' J33 ' $ED' -ED34' ?$EN HE' H&' F3' *43$C-4O' $11H E' <&R &N34C' $ H ' ?$ $4 3C' $ED' $D J E C 34' <$ FC' H' F3J

U K S/ M # > ; > P @$1 U!

H-NF E2 F3 I43 J C3C $ED &4H J * J 3 H * J 3 $ F3 4 G CN43 HE D C J CC $ED D CNF$423 C-NF ?H N H4 ?3N43 $40 @ 34+C B4H+34C P 3CR C3E234C $ED H F34 <& ?N34C $ED $11H E H E34C E F3 4 I $N3 ($ED F3 C$ D ?H N H4 ?3N43 $40 @ 34+C B4H+34C $ED H F34 <&& N34C $43 F343QO 43X- 43D &$ F&- O H 3 3N- 3 $ED 134&H4E$ F3 ?$ D * 4-C C F3 J C3 34$ O $ED 43C13N 3 O 431HC3D FH- $+ E2 $EO F E2 &H4 C-NF ?34 N3 H F34 F$E C-NF P $4 3C H4 ' 3 $4DC $C F3 C$ D @H J J CR C HE34C F C-NF 114HQ$ HE $C $&H43C$ D CF$ D 43N H4 $11H E E J $EE34 $&H43C$ D

*F433 @H JR J CC HE34C J $O $N

ED Q3 &-4 F34 3E$N 3D *F$ $ N C P$ 34C $ED *F E2C F NF F3 C$ D @H J J CC HE J C & F3 ; 3N- HE H& F C N $43 QO F C N $- FH4 T3D H DH H4 3 3N- 3 J $O Q3 DHE3 $ED 3 3R N- 3D QO $EO *F433 H4 J H43 H& C-NF @H J J CC HE34C

11H E E2 @H J J CC HER 34C E F3 D &R &343E C $EDC E $ D H& @H J J CC HER 34C F343 E $11H E 3D

W ED F343$C J $O Q3 E3N3CC$4O F$ @H J J CC HE34C CFH- D Q3 $11H E 3D H $N E $ D H& $ED -ED34 F3 G 43N HEC H& F3 @H J R J CC HE34C $11H E 3D QO F C N E F3 C$ D C $EDC Q3 F343&H43 3E$N 3D *F$ F3 MH 34EH4C $ED > 3- 3E$E MH 34EH4C $ D H4E3O M3E34$ C H& F3 C$ D C $EDC 43C13N 3 O CF$ F $EO * H 43C D3E EF$Q $E C &H4 3$NF H& C-NF C $EDC H Q3 EH J E$ 3D QO F3 MH 34EH4 H4 E F C QC3EN3 F3 > 3- 3E$E MH 34EH4 H4 I 34CHE 3 34N C E2 F3 6-EN HEC H& MH 34EH4 43C13N 3 O Q3 @H J J CC HE34C &H4 F3 C $ED H F NF F3O 43C13N 3 O Q3 HE2 H $N E $ D H& F3 @H J J CC HE34C -ED34 F C N E $ C-NF @$C3C $ED E 43 $ HE H $ P$ 34C $ED *F E2C F NF CF$ Q3 43&3443D H F3 J QO F3 @H J J CC HE34C E$ J 3D E F C N $ED &H4 $ C-NF I -41HC3C CF$ F$ 3 $ED #C3 $ED 3 3 N C3 $ F3 I H 34C $ED - FH4 3C H& @H J J CC HE34C #ED34 F C N $ED C-NF @H J J CC HE34C CF$ $+3 $E <$ F H Q3 $D J E C 343D H F3 MH 34EH4 H4 > 3- 3E$E MH 34EH4 H4 I 34CHE 3 34N C E2 F3 6-EN HEC H& MH 34EH4 QO F3 @F 3& 5-C N3 H4 $EO 5-D23 H& F3 C$ D C $EDC 43C13N 3 O $ED H F3 H F34 @H J J CC HE34C QO F3 MH 34EH4 > 3-R 3E$E MH 34EH4 H4 I 34CHE $N E2 $C C-NF F$ F3O 3 $ED 4-O $ED J 1$4 $ O 3 3N- 3 F3 I H 34C $ED - FH4 3C 2 3E 1 F3 J $C C-NF @H J J CC HE34C E F3 C3 34$ P$ 34C $ED *F E2C F NF CF$ Q3 43&3443D H4 C-Q J 3D H F3 J -ED34 F3 I 4H C HEC H& F C N

é H& ! :8 0 > : H '! #4 '! 7 ' #H& C'5 '

W ED Q3 &-4 F34 3E$N 3D *F$ 6 3 F-ED43D FH-C$ED I H-EDC H& F3 ?$ D ; NF3X-34 B C CF$ Q3 $114H14 $ 3D H F3 C $ED H& ? $ED * H F-ED43D FH-C$ED I H-EDC F3 C$ D ; NF3X-34 ^I $4 H& F3 C$ D ?- J H& 6 3 F-ED43D FH-C$ED I H-EDC_ J $O &43X- 43D Q3 $D $EN3D H F3 @H J J CC HE34C $11H E 3D QO $EO N H& F3 MH 34EH4 @H-EN $ED CC3 J Q O H& F3 C$ D C $ED H& ? 1$CC3D H4 H Q3 1$CC3D H EC13N F3 BHH+C H& F3 ' 3N3 34 M3E34$ H& F3 C$ D C $ED $ED $D(-C F3 I -Q N NNH-E C F343H& FH J $O Q3 $- FH4 T3D $ED 3 J 1H 343D QO F$ H4 $EO H F34 N 1$CC3D H4 H Q3 1$CC3D QO F3 C$ D MH 34EH4 @H-EN $ED CC3 J Q O H QH44H P HE3O &H4 F3 I -Q N ?34 N3 H& F3 ?$ D C $<D H& F3 @43D H& F3 C$ D C $ED. I 4H D3D $ $OC F$ F3 C$ D @H J J CC H& 34C $N E2 E F3 ; 3N- HE H& F C N CF$ Q3 C$ C& 3D F$ F3 ' 31$O J 3E H& F3 I 4 EN 1$ $ED E 343C H& F3 C$ D ?- J H& * H F-ED43D FH-C$ED I H-EDC H4 CH J -NF F343H& $C F3 C$ D @H J J CC HE34C J $O $11 O &H4 $ED

U7 K S ` M#> ; > P ' ' @$1 U! !

$ED' Q3' $- FH4 T3D' H' QH44H ' C' D- O' C3N-43D' QO' CH J 3' N ' 1$CC3D' H4' H' Q3' 1$CC3D' QO' F3' MH 34EH4 ' @H-EN ' $ED' CC3 J Q O' H&' F3' C$ D' C $ED ' $ED' F3' * F433' F-ED43D' FH-C$ED' I H-EDC ' F3' ' 3C D-3' H&' F3' C$ D' ?- J' H&' I 3' F-ED43D' FH-C$ED' I H-EDC ' CF$ ' Q3' $D $EN3D' $ED' 3E ' &H4' F3' I -41HC3' H&' 3E$Q E2' F3' < E34C' H&' $ED' I 34CHEC' E 343C 3D' E' F3' ; C $ 3C' F NF' F$ 3' C-C $ E3D' E(J O' E' ? ' ' &4H J' EC-4R 43N HE' H' 43C- J 3' F3' @- $ HE' H&' C-NF' ; C $ 3C' $ED' F3' P $E-R &$N -43' H&' F3' I 4HD-N3' F343H&' QO' 43C H4 E2' 9 H4+C' $ED' P $NF E340' D3C 4HO3D' H4' E(-43D' $ED' 14H D E2' F3' 43X- C 3' @HE E23EN 3C' $ED' ?-11 3C' &H4' C-NF' ; C $ 3C' $ED' F3' , 324H3C' Q3 HE2 E2' F343 H ' $ED' 43C H4 E2 ' $C' &$4' $C' F3' C$ J 3' N$E' Q3' $NNH J 1 CF3D ' C-NF' ; C $ 3C' H' F3' @HED HE' E' F NF' F3' C$ J 3' 343' Q3&H43' F3' C$ D' E(-4 3C' 343' C-C $ E3D

W ' I 4H D3D' $ $OC ' $ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' F3' 43 J $ E E2' 6 3' F-ED43D' FH-C$ED' I H-EDC' H&' F3' C$ D' ; NF3X-34' B C' CF$ ' Q3' $114H14 $ 3D' H' F3' C $EDC' H&' " 4 &, !1' + # ' C #' !# 1' $ED' + # ' <3' !' E' C-NF' ?F$43C' $ED' I 4H1H4 HEC' $C' F3' C$ D' @H J J CC HE34C' $N E2' E' F3' ; 3N- HE' H&' F C' N ' CF$ ' D 43N ' $ED' F$ ' H&' F3' C$ D' ?F$43C' $ED' I 4H1H4 HEC' $ H 3D' H' F3' C$ D' C $EDC' H&' " 4 &, !1' $ED' + # ' C #' !# 1' ' CF$ ' $ED' J $O' Q3' $ &- ' &H4' F3' C$ D' @H J J CC HE34C' H' $D $EN3' C-NE' I $4 ' F343H&' $C' F3O' J $O' D33 J' 4 2F ' H' C-NF' I 34CHEC' $C' J $O' Q3' D- O' $- FH4 T3D' $ED' $11H E 3D ' QO' $EO' N C' 1$CC3D' H4' H' Q3' 1$CC3D' QO' F3' >32 C $ -43C' H&' F3' C$ D' C $EDC' H&' " 4 &, !1' $ED' + # ' C #' !# 1' 43C13N 3 O ' H' QH44H ' F3' C$ J 3' &H4' F3' I -Q N' ?34 N3 ' $ED' HE' F3' @43D ' H&' F3' C$ J 3' C $EDC' 43C13N 3 O ' HE' F3' C$ D' @H J J CR C HE34C' $N E2' E' F3' ; 3N- HE' H&' F C' N ' Q3 E2' C$ C& 3D' F$ ' F3' C$ J 3' ?- J C' $43' D- O' C3N-43D' QO' CH J 3' N C' 1$CC3D' H4' H' Q3' 1$CC3D' QO' F3' >32 C $ -43C' H&' F3' C$ J 3' C $EDC' 43C13N 3 O ' $ED' F$ ' F3' ' 3C D-3' H&' F3' C$ D' ?F$43C' $ED' I 4H1H4 HEC' CH' $ H 3D' H' F3' C$ D' C $EDC' H&' " 4 &, !1' $ED' + # ' C #' !# 1' $ED' $ CH' F3' ?F$43' H4' I 4H1H4 @E' $ H 3D' H' F3' C$ D' C $ED' H&' + # ' <3' !' CF$ ' Q3' $D $EN3D' $ED' 3E ' &H4' F3' I -41HC3' H&' 3E$Q E2' F3' < E34C' H&' $ED' I 34CHEC' E 343C 3D' E' F3' ; C $ 3C' F NF' F$ 3' C-C $ E3D' E(-40' E' F3' C$ D' C $EDC' &4H J' 8 -44 ' ' N$E3C' H' 43C- J 3' F3' @- $ HE' H&' C-NF' ; C $ 3C' $ED' F3' P $E-&$N -43' H&' F3' I 4HD-N3' F343H&' QO' 43C H4 E2' 9 H4+C' $ED' P $NF E340' D3C 4HO3D' H4' E(-43D ' $ED' 14H D E2' F3' 43X- C 3' @HE E23EN 3C' $ED' ?-11 3C' &H4' C-NF' ; C $ 3C' $ED' F3' , 324H3C' Q3 HE2 E2' F343 H ' $ED' 43C H4 E2 ' $C' &$4' $C' F3' C$ J 3' N$E' Q3' $NNH J 1 CF3D ' C-NF' ; C $ 3C' H' F3' @HED HE' E' F NF' F3' C$ J 3' 343' Q3&H43' F3' C$ D' E(-4 3C' 343' C-C $ E3D

& <'. 1 [' #+' #J (' A & <A' +?' &! I &<+(A1' #') H(#A1' 4 # EGH)(1) ' AGHJ' "!+ ' +!D #)+ A' &A' #J (' +@@)AA)+ D (!A' AJ& '& +#' #+' #J (' A(2(!&' A & <A

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S' >' * 43$C- 434' D3&4$O E2

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*43$C-434' &H4' F3' * J3' Q3 E2' $43' F343QO' 43C13N 3 O' $- FH4 T3D' $ED' 43X- 43D' H' CC-3' $ED' N$-C3' H' Q3' $-33D' $ ' C-NF' ?-JC' H&' ' PHE3O' H' C-NF' I34CHE' H4' I34CHEC' E' C-3F' P$EE34' $ED' E' C-NF' I4HR 1H4 HEC' $C' F3' C$D' @HJJ CC HE34C' $11H E 3D' QO' F C' N ' CF$ ' QO' 94 E2' -ED34' F3 4' 8$EDC' &4HJ' * J3' H' * J3' D3C 43' H- ' H&' F3' @HECH D$ 3D' 6-ED' H' Q3' 431 $N3D' E' F3' P$EE34' F343 E $& 34' J3ER HE3D' ' F NF' ?-JC' CH' H' Q3' CC-3D' $ED' $D $EN3D' CF$ ' Q3' 3J1 HO3D' &H4' F3' I$OJ3E' H&' H $EN3C' $ED' E' D3&4$O E2' $ ' H F34' E3N3CC$4O' @F$423C' $ED' ; 13EN3C' E' H4' $QH- ' F3' ; 3N- HE' H&' F C' N ' FH- ' H F34' NNH-E ' F$E' F$ ' Q3&H43' F3' >H4DC' @HJJ CC HE34C' H&' 8 C' P$(3C O C' *43$C-4O' $ED' F NF' PHE3O' H' Q3' CC-3D' CF$ ' EH ' Q3' C-Q(3N ' H' $EO' *$ 'G- O' '$ 3 ' H4' CC3CCJ3E ' F$ CH3 34' J1HC3D' QO' - FH4 O' H&' I$4 $J3E ' Q- ' F$ ' $E' NNH-E ' <&' F3' C$D' @F$423C' $ED' ; 13EN3C' CF$ ' Q3' $ D' Q3&H43' QH F' 8H-C3C' H&' I$4 $J3E ' F E' * H' PHE FC' $& 34' F3' ; 1 4$ HE' H&' F3' @HJJ CC HE' &' I$4 $J3E ' CF$ ' Q3' F3E' C E2' $ED' &' I$4 $J3E ' CF$ ' H ' Q3' C E2' F3E' F E' 6H-4 33E' G$OC' $& 34' F3' @HJJ3EN3J3E ' H&' F3' F3E' E3 ' ?3CC HE' H&' I$4 $J3E

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W ' ED

UL' K' S' M#> ;>P' ' @$1 U!

' W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' &' $EO' I34CHE' H4' I34CHEC' -1HE' ; $J E$ HE' -1HE' <$ F' H4' && 4J$ HE' Q3&H43' F3' C$ D' @HJJ C' C HE34C' 43C13N 3 O' H4' &' $EO' I34CHE' H4' I34CHEC' J$+ E2' $EO' C-NF' && D$ ' H4' G31HC HE' $C' Q3&H43' J3E HE3D' CF$ ' O &- O' $ED' NH4' F4I3E$ 3C 4-1 O' 2 3' &$ C3' ; D3EN3' H4' CF$ ' E' C-NF' && D$ ' H4' G31HC HE' &- O' $ED' NH44-1 O' C 3$4' $&& 4J' H4' $ 323' $EO' P$ 34' H4' *F E2' F NF' CF$ ' Q3' &$ C3' H4' -E 4-3' 3 34O' C-NF' I34CHE' H4' I34CHEC' CH' H&&3ED E2' $ED' Q3 E2' F343H&' D- O' NHE N 3D' CF$ ' Q3' $ED' C' $ED' $43' F343QO' D3N $43D' H' Q3' C-Q(3N' $ED' $Q 3' H' F3' I$ EC' $ED' I3E$ 3C H&' I34CHEC' NHE N 3D' H&' &-' $ED' NH44-1' I3 (-4O' QO' $EO' >$ ' E' &H4N3' $' F3' * J3' H&' C-NF' I34(-4O' Q3 E2' NHJJ 3D

"(%A+ A' &2) *' ?& A(' F4I3E$ 3C ?+!' "(! G!B1'

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HE F3 G$O HE F NF F3 C$J3 CF$ ʻQ3 CC-3D ʻ $ED CF$ ʻ$ED J$O Q3 C 2E3D QO F3 -D H4 H& F3 ʻ3N3 1 ʻH& 8 C 8$(3C O C ; NF3X-34 ʻH4 E F C ,$J3 QO $EO I34CHE D- O $- FH4 T3D QO F3 C$D -D H4 H C 2E F3 C$J3ʻ F F3 114HQ$ HE H& F3 >H4DC @HJJ CC HE34C H& F3 *43$C-40 E 9 4 E2 -ED34 F3 4 8$EDC ʻH4H& $EO *F433 H4 JH43 H& F3J ʻ($ED F3 C$D @HJJ CC HE34C $11H E 3D QO F C N ʻ CF$ ʻ F$ 3 IH 34 $ED - FH4 O &4HJʻ * J3 H * J3 H 43 C3 $ED $ 34 C-NF ʻ- 3C $ED ʻ32- $ HEC $C $&H43C$D $C F3O F$ ʻC33 <NN$C HEʻ Q-ʻ F$ ʻEH C-NF ʻ3 C HE H4 34$ HE CF$ ʻQ3 $ D -E 3CC $2433D H $ʻ$ BH$4D H& F3 C$D @HJJ CC HE34C ʻNHE 3E3D -1HE *F433 G$OC ,H N3 &H4 F$ ʻ I-41HC3

E)A# +? N% HJ(OG(!) A)AAG(< #+ I(<()2(!(< #+ +@))AA)+

W W ʻ ED Q3 ʻ&-4 F34 3E$N 3D ʻ*F$ ʻC-NF <&& N34C QO FHJ ʻC-NF ; NF3X-34 B C CF$ ʻQ3 D3 343D CF$ ʻ&HJʻ * J3 H * J3ʻ -1HE ʻ3X- C HE H& F3 C$D @HJJ CC HE34C &&_4 F3 ; 3N- HE H& F3 C$D 43N 3D N C $ED F C N ʻ D3 34 H F3J ʻ $ʻ F3 4 <&& N3 NHJ1 3 3 > C C H& $ʻ F3 ; NF3X-34 B C J$D3 H- ʻ $ED D3 343D QO F3J ʻ C13N &O E2 F343 E F3 43C13N 3 G$ 3C $ED ?- JC 3 143CC3D F343 Eʻ $ED F3 I34 HDC $11H E 3D &H4 F3 I$OJ3E ʻ H& F3 C$J3ʻ $ED D CR E2- CF E2 F343 E F3 I34CHEC H FHJ ʻ $ED F3 , - JQ34C H& F3 @34 & N$ 3C QO 4 -3 F343H& F3 C$J3 343 CC-3D 43C13N 3 O

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N33DC' $ED' F3' P H4 2$23C' CC 2E J 3E C' H4' H F34' ?3N-4 3C' F NF'
F3' I $4 3C' $11 O E2' $43' $Q 3' H' 3E 34' E H' $C' H' C-NF' I 4H134 3C' $ED'
F3' I 4HN33DC' F343H&' $' C-&& N 3E' ?3N-4 O' &H4' F3' D $EN3' $11 3D'
&H4' F3E' F' C-NF' BHED' H4' <Q 2$ HE' BHEDC' H4' <Q 2$ HEC' E' C-NF'
?-J' H4' ?-J C' H&' P HE3O' 43C13N 3 O' $ED' F' C-NF' ?-43 3C' H4' C-NF'
&-4 F34' ?3N-4 3C' $C' F3' @$C3' J $O' E' F3' 5-D2 J 3E' H&' F3' C$ D' @H J R
J CC HE34C' 43X- 43' F NF' P H4 2$23C' CC 2E J 3E C' ?3N-4 3C' $ED'
F NF' BHEDC' H4' <Q 2$ HEC' $ED' ?3N-4 3C' F3' C$ D' @H J J CC HE34C'
CF$' E' F3 4' G CN43 HE' F$ 3' &- ' I H 34' $ED' - FH4 O' H' N$-C3' H' Q3'
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HE' H' Q3' $+3E' E' 1-4C-$EN3' H&' F C' N' $C' 3' H&' F3' 14 EN 1$'
I $4 O' $C' H&' C-NF' ?-43 3C' 43C13N 3 O' CF$' Q3' H' H-4' ?H 343 2E' >H4D'
F3' % E2' E' C-NF' ?-J' H4' ?-J C' H&' P HE3O' $C' CF$' Q3' D 43N 3D' QO' C-NF'
@H J J CC HE34C' QO' 4 -3' H&' F C' N' H' Q3' 1$ D' H' H-4' C$ D' >H4D' F3'
% E2' $ED' F' C-NF' @HED HEC' H' Q3' F343 E' J 3E HE3D' H4' F343-ED34'
4 3E' $C' QO' C-NF' @H J J CC HE34C' CF$' Q3' D33 J 3D' 14H134' $ED' F$'
$' C-NF' P H4 2$23C' CC 2E J 3E C' ?3N-4 3C' BHEDC' $ED' <Q 2$ HEC' H'
Q3' CH' J $D3' CF$' Q3' 2HHD' $ED' 3&&3N -$' E' F3' >$ ' $ED' CF$8' Q3' H&' F3'
C$ J 3' \-$ O' 6H4N3' $ED' ;&&3N' H' $' E 3E C' $ED' I -41HC3C' $C' $EO'
<Q 2$ HE' J $D3' H' H-4' ?H 343 2E' >H4D' F3' EH ' % E2' H4' 8 C' I 43R
D3N3CCH4C' H4' $EO' H&' F3 J ' F$ F' $' $EO' * J 3' F343 H&H43' Q33E' H4' EH '
C' $D(-D23D' 43N3 3D' H4' $+3E' H' Q3' $ED' CF$' F3 F34' 432 C 343D'
H4' EH E' F3' C$ D' C $EDC' F$ 3' I 4 H4 O' H 34' $' H F34' P H4 2$23C'
CC 2E J 3E C' BHEDC' <Q 2$ HEC' H4' H F34' ?3N-4 3C' NF$423D' H4'
NF423Q 3' -1HE' H4' $&&3N E2' F3' I 4H134 3C' &H4' F3' '3C H4$ HE' H&'
F NF' D $EN3C' H&' ; NF3X-34' B C' -ED34' F C' N' CF$' Q3' J $D3' (
$EO' >$ ' #C$23' H4' @-C H J' E' F3' #E 3D' % E2DH J' H4' E' F3' C $EDC'
43C13N 3 O' E' F NF' C-NF' I 4H134 3C' CF$' Q3' H' F3' NHE 4$4O' EH R
FC $ED E2' : I 4H D3D' $ $OC' F$' EH' BHED' <Q 2$ HE' H4' H F34'
?3N-4 O' CF$' Q3' 43X- 43D' QO' F3' C$ D' @H J J CC HE34C' E' 43C13N' H&'
D $EN3C' &H4' F3' '3C H4$ HE' H&' $EO' I 4H134 3C' E' $EO' @$C3' E' F NF'
F3' C$ D' @H J J CC HE34C' CF$' Q3' C$ C& 3D' F$' F3' $ -3' H&' FHC3'
I 4H134 3C' F' F3' ,324H3C' $ED' F3' I 4HN33DC' F343H&' &H4 J' $E'
$D3X-$ 3' ?3N-4 O' H&' F3 J C3 3C' &H4' F3' '31$O J 3E' H&' F3' I 4 EN 1$'
$ED' E 343C' H&' F3' D $EN3' $11 3D' &H4

WW ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' E' N$C3' $EO' I 34CHEC' H'
FH J' H4' &H4' FHC3' #C3' $EO' D $EN3' CF$' Q3' $11 3D' &H4' -ED34' F C'
N' CF$' Q3' 3E 3D' H' $E' ;C $ 3' &H4' > &3' HE O' H4' H F34' 1$4 $'
E 343C' H&' $ED' E' F3' I 4H134 3C' E' 43C13N' H&' F NF' C-NF' D $EN3'
C' 43X- 43D' H' Q3' J $D3' F' $EO' C-QC3X-3E' '3 J $ ED34C' '3 34C HEC'
H4' > J $ HEC' E' &$ H-4' H&' H F34' I 34CHEC' 3 C E2' E' H4' $&&3N E2' F3'
C$ J 3' I 4H134 3C' F3' C$ D' @H J J CC HE34C' CF$' E' F3 4' G CN43 HE'
F$ 3' &- ' I H 34' $ED' - FH4 O' H' N$-C3' $EO' P H4 2$23C' CC 2E J 3E C'
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$ O' E 343C 3D' H' Q3' $+3E' EH FC $ED E2' C-NF' '3 J $ ED34C'
'3 34C HEC' H4' > J $ HEC' N$EEH' Q3' 32$ O' ($443D' NHE 3O3D' H4'
D C1HC3D' H&' $ED' C-NF' P H4 2$23C' CC 2E J 3E C' H4' H F34' ?3N-4 3C'
H&' H4' -1HE' C-NF' I 4H134 3C' CF$' Q3' 2HHD' $ED' 3&&3N -$' E' F3' >$ '
H' $' E 3E C' $ED' I -41HC3C' $ED' CF$' F$ 3' I 4 H4 O' H 34' $' C-NF'
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G!(#)(A' #+' I(' I+G <' ?+!' +' @+!(' #J)) ' #J(B' AG I D AH!) I(

WW ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' E' $ ' @$C3C' F343' $EO' C-NF' BHED' H4' <Q 2$ HE' CF$ ' Q3' 3E 343D' E H' F' C-NF' ?-43 O' H4' ?-43 3C' $C' F3' C$ D' @H J J CC HE34C' CF$ ' E' F3 4' G CN43 HE' $114H 3' F3E' 3$NF' H&' F3' ?-43 3C' E' C-NF' BHED' H4' <Q 2$ HE' CF$ ' Q3' QH-ED' E' C-NF' ?- J ' $ED' EH' J H43' $C' F3' CF$ ' C3 ' $ED' C-QCN4 Q3' 2 EC ' F C' , $ J 3' E' C-NF' BHED' H4' <Q 2$ HE

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U' K' SL' M#> ;>P ' ' @$1 U!.' !

$ED' I4H& C' F343H&' $ED' J$O' E' F3' $QCH - 3' G CN43 HE' H&' F3' C$ D' @H J J CC HE34C' NHE E-3' E' C-NF' IHCC3CC HE' ' 3N3 1 ' $ED' ; E(HO J 3E ' -E ' F3' ' 31$O J 3E ' H&' C-NF' >H$E' $ED' F3' E 343C ' F343H&' $ED' H&' $ ' @HC C' @F$423C' $ED' ; 13EN3C' EN D3E $' H' C-NF' $+ E2' $ED' 43R $ E E2' IHCC3CC HE' $ED' H F34 C3' E' 43NH 34 E2' C-NF' >H$E' $ED' E 343C ' $ED' F3' C$ D' @H J J CC HE34C' F3E3 34' F343-E H' 43X- 43D' CF$ ' 43ED34' H' F3' < E34C' H4' I34CHEC' E 3 3C 3D' E' F3' C$ D' I4HR 134 3C' $' &$ F&-' NNH-E ' H&' $ ' ' 3E C' CC-3C' $ED' I4H& C' 43N3 3D' &4H J' C-NF' I4H134 3C' D-4 E2' F3' I34 HD' F$' F3' C$ D' @H J J CC HE34C' H4' F3 4' , H J E33C' CF$ ' NHE E-3' E' 1HCC3CC HE' F343H&

WW ' I4H D3D' $ $OC' $ED' Q3' ' 3E$N 3D' *F$' E' $ ' @$C3C' E' ( ) OG)AJ%' F NF' C-NF' IHCC3CC HE' CF$ ' F$ 3' Q33E' $+3E' H4' CF$ ' Q3' $+3E' $C' $&H43C$ D' ' CF$ ' Q3' $ &-' &H4' F3' C$ D' @H J X CC HE34C' $' $EO' * J 3' '!+' (!#B' A+' F343$& 34' &' F3O' CF$ ' F E+' & ' H' 43 EX- CF' C-NF' IHCC3CC HE' E' C-NF' #&; (' '+A%' P$ E34' $ED' 6H4 J ' $ED' -1HE' C-NF' *34 J C' $ED' @HED HEC' $C' F3' C$ D' A(AA)+ ' +?' @H J J CC HE34C' J $O' D 43N ' $ED' $11H E

WW ' I4H D3D' $ $OC' $ED' Q3' ' &-4 F34' 3E$N 3D' *F$' E' 3 34O' +@@)AA)+ D @$C3' E' F NF' F3' @H J J CC HE34C' &H4' F3' ; 3N- HE' H&' F C' N ' CF$ ' (!A1' L J(' #J(B' $- FH4 T3' $EO' I34CHE' H' 3E 34' -1HE' $ED' $+3' 1HCC3CC HE' H&' F3' I $ER #&; (' '+AA(AD $ HE' ?$ 3C' @$ 3' $ED' ? HN+' -1HE' F NF' C-NF' >H$E' CF$ ' Q3' A)+ 1' AJ& ' !(D NF$423D' $ED' E' 43C13N ' H&' F NF' G3&$- ' CF$ ' Q3' J $D3' E' ' 31$OR OG)!(' (HG!)#B' J 3E ' H&' F3' 9 FH 3' H4' $EO' I$4 ' H&' C-NF' >H$E' H4' F3' E 343C ' F343H&' #!+@' #J()!' H4' $EO' I$4 ' F343H&' F$' F3' I34CHE' H4' I34CHEC' CH' $- FH4 T3D' H' 3E 34' *(#& <' E H' $ED' $+3' 1HCC3CC HE' H&' F3' C$ J 3' CF$ ' 2 3' 2HHD' $ED' C-&& N 3E ' + A)* ((?+!' ?3N-4 O' H' F3' ?$ C&$N HE' H&' F3' C$ D' @H J J CC HE34C' &H4' F3' D-3' '!+' (!' !( )) %' $ED' &$ F&-' ; 3N- HE' H&' F3' *4-C' 431HC3D' E' F J' H4' F3 J ' $ED' F3' #) *' & <' 'D D-3' $ED' &$ F&-' NHED-N E2' $ED' J E2 E2' F3' C$ D' J H4 2$23D' I43R ')H&#)+ ' +?' J C3C' $ED' F3' G C1HC$' H&' F3' @4H1C' E' C-NF' P $EE34' $C' F3' C$ D' "!+H((<A @H J J CC HE34C' CF$ ' &4H J' * J 3' H' * J 3' D 43N ' $ED' &H4' F3' &$ F&-' $NNH-E E2' &H4' $ ' P HE 3C' F NF' CF$ ' NH J 3' H' F C' H4' F3 4' 8 $EDC' $ED' $ CH' F$' F3' C$ D' @H J J CC HE34C' CF$ ' Q3' $- FH4 T3D' H' 43X- 43' &4H J' $EO' I34CHE' H4' I34CHEC' $N E2' $C' @HEC 2E33' -ED34' F3 J ' &H4' F3' ?$ 3' H&' $EO' I4HD-N3' 43 J 3D' H' ! ' " #' H4' $!% #&' &4H J' $EO' C-NF' J H4 2$23D' I43 J C3C' H' 2 3' 2HHD' $ED' C-&& N 3E ' ?3N-4 O' &H4' F3' D-3' $ED' &$ F&-' ?$ 3' H&' C-NF' I4HD-N3' $ED' F3' D-3' 1$O E2' H 34' F3' I4HN33DC' H&' F3' C$ J 3' H' F3' @$CF 34' H4' @$CF 34C' H&' F3' B$E+' H&' 8#(% #&' F3E' F3' C$ J 3' CF$ ' Q3' 43N3 3D' k

WW ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' F3' C$ D' @H J J CC HE34C' +@@)AA)+!1%' E' $ ' @$C3C' F343' F3O' CF$ ' C33' <NN$C HE' J $O' $NN31 ' $ED' $+3' $C' $ &-4 F34' $ED' $DD HE$' ?3N-4 O' &H4' $EO' >H$E' H&' $EO' ?- J' HE' C-NF' ?3N-4+ $C' ; NF3X-34' B C' $C' $&H43C$ D' H4' I$4 ' H&' C-NF' >H$E ' &4H J' $EO' I4 E ' J(!() 'A' (%' N 1$>H4' ?-43 O' E' C-NF' >H$E' $#& ' BHEDC' B C' H&' ; NF$E23 ' H)?)(<' H4' H F34' E32HN $Q 3' ?3N-4 3C' &H4' P HE3O' F$ CH3 34' H ' &4H J' $EO' C-NF' I4 EN 1$' H4' ?-43 O' H4' H F34' I34CHE' H4' I34CHEC' F$ E2' >$EDC *3E3 J 3E C' H4' 8343D $ J 3E C' 834 $23C' H4' H F34' ' 3$' ; C $ 3C' E' ! ' " #' H4' $!% #&' $EO' P H4 2$23' 8343D $Q 3' BHED ' H4' H F34' 8343D $Q 3' H4' ' 3$' ?3N-4 3C' F$ CH3 34' F NF' J $O' $&&3N ' EN- J Q34' H4' NF$423' F3' C$ D' ' 3$' ; C $ 3C' H&' C-NF' I4 EN 1$ C' H4' ?-43 3C' H4' H F34' I34CHE' H4' I34CHEC' $C' $&H43C$ D' $ED' J $O' $ CH' $NN31 ' $ED' $+3' $C' $ +3' &-4 F34' $ED' $DD HE$' ?3N-4 O' &4H J' $EO' C-NF' I4 EN 1$' H4' ?-43 O H4

H4ʻ H F34ʻ I34CHEʻ H4ʻ I34CHECʻ 1HCC3CC3Dʻ <&ʻ $EOʻ P H4 2$23C ʻ 8343D $Q 3ʻ BHEDC ʻ H4ʻ H F34ʻ 8343D $Q 3ʻ H4ʻ ' 3$ ʻ ?33-4 3Cʻ $&&3N E2 ʻ EN- J Q34 E2ʻ H4ʻ NF$42 E2ʻ $EOʻ C-NFʻ ' 3$ ʻ ; C $ 3Cʻ Eʻ ! ʻ " #ʻ H4ʻ $!% #& ʻ $EOʻ CC 2E J 3E ʻ H4ʻ CC 2E J 3E Cʻ H&ʻ CXNFʻ P H4 2$23C ʻ 8343D $Q 3ʻ BHEDC ʻ H4ʻ H F34ʻ 8343D $Q 3ʻ H4ʻ ' 3$ ʻ ?3N-4 3C ʻ $EDʻ F$ ʻ 3 340ʻ C-NFʻ $#& ʻ BHED ʻ B ʻ H&ʻ ; NF$E23 ʻ H4ʻ H F34ʻ E32HN $Q 3ʻ ?3N-4 Oʻ &H4ʻ P HE3O ʻ $EDʻ 3 34Oʻ C-NFʻ P H4 2$23 ʻ 834 $Q 3ʻ BHED ʻ H4ʻ H F34ʻ 834 $Q 3ʻ H4ʻ ' 3$ ʻ ?3N-4 Oʻ F NFʻ CF$ ʻ Q3ʻ CHʻ $NN31 3Dʻ QOʻ F3ʻ C$ Dʻ @H J J CC HE34C ʻ CF$ ʻ Q3ʻ D31HC 3Dʻ Fʻ F3ʻ C$ Dʻ @H J J CC HE34Cʻ H4ʻ C-NFʻ I34CHEʻ $Cʻ F3Oʻ CF$ ʻ $11H E

(*+H)&I (ʻ $(' +A)#Aʻ) ʻ <(?&G #ʻ +?ʻ "&B@(#ʻ +?ʻ E+& 1ʻ #+ʻ I (ʻ A+ <1ʻ & <ʻ #J (ʻ +)(Aʻ @&Bʻ I (ʻ AG(< ?+!ʻ) ʻ #J (ʻ &@(ʻ +?ʻ #J (ʻ (H! (D #&!B1ʻ #+ʻ LJ+@ʻ AA)* @(#Aʻ +?ʻ +!#*&*(A1ʻ 4Hʻ AJ& ʻ I (ʻ @&<(

WW W ʻ EDʻ Q3ʻ ʻ &-4 F34ʻ 3E$N 3D ʻ * F$ ʻ $ ʻ C-NFʻ $#& ʻ BHEDC ʻ B Cʻ H&ʻ ; NF$E23 ʻ H4ʻ H F34ʻ E32HN $Q 3ʻ ?3N-4 3Cʻ &H4ʻ P HE3Oʻ CHʻ D31HC 3Dʻ $Cʻ $&H43C$ D ʻ J $O ʻ Eʻ D3&$- ʻ H&ʻ I $O J 3E ʻ H&ʻ C-NFʻ >H$Eʻ Eʻ F3ʻ P $EE34ʻ D 43N 3Dʻ QOʻ F Cʻ N ʻ Q3NH J 3ʻ $EDʻ Q3ʻ 3C 3Dʻ Eʻ F3ʻ C$ Dʻ @H J J CC HE34C ʻ $EDʻ J $Oʻ Q3ʻ CH Dʻ $EDʻ D C1 b3Dʻ H& ʻ H4ʻ F3ʻ P HE 3Cʻ D-3ʻ $EDʻ 1$O$Q 3ʻ QOʻ 4 -3ʻ F343H&ʻ J $Oʻ Q3ʻ C-3Dʻ &H4ʻ Eʻ D-3ʻ @H-4C3ʻ H&ʻ >$ ʻ Eʻ F3ʻ , $ J 3ʻ H&ʻ F3 4ʻ ?3N43 $4Oʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2 ʻ &H4ʻ F3ʻ # C3ʻ H&ʻ F3ʻ C$ Dʻ @H J J CC HE34Cʻ -ED34ʻ F Cʻ N (ʻ $EDʻ 3 3 Oʻ CC 2E J 3E ʻ H&ʻ $EOʻ P H4 2$23 ʻ 834 $Q 3ʻ BHED ʻ $EDʻ H F34ʻ 834 $Q 3ʻ H4ʻ ' 3$ ʻ ?3N-4 Oʻ F NFʻ CF$ ʻ Q3ʻ 24$E 3D ʻ NHEC - 3D ʻ <4ʻ J $D3ʻ Hʻ F3ʻ C$ Dʻ @H J J CR C HE34C ʻ $EDʻ CF$ ʻ Q3ʻ CHʻ D31HC 3Dʻ QOʻ F3ʻ I 4 EN 1$ ʻ H4ʻ I 4 EN 1$ Cʻ Eʻ $EOʻ C-NFʻ BHEDʻ H4ʻ <Q 2$ HEʻ J $D3ʻ Hʻ 8 Cʻ P 3C Oʻ $Cʻ $&H43C$ Dʻ $Cʻ $ʻ ?3N-4 Oʻ &H4ʻ C-NFʻ >H$Eʻ $Cʻ $&H43C$ D ʻ $EDʻ 3 34Oʻ P H4 2$23 ʻ 834 $Q 3ʻ BHED ʻ H4ʻ H F34ʻ 834 $Q 3ʻ H4ʻ ' 3$ ʻ ?3N-4 Oʻ F NFʻ CF$ ʻ Q3ʻ 24$E 3D ʻ NHEC - 3D ʻ J $D3 ʻ H4ʻ D31HC 3Dʻ $Cʻ $&H43 C$ D ʻ QOʻ $EOʻ C-NFʻ I 4 EN 1$ ʻ H4ʻ ?-43 Oʻ H4ʻ H F34ʻ I34CHEʻ H4ʻ I34CHEC ʻ $Cʻ C-NFʻ &-4 F34ʻ $EDʻ $DD HE$ ʻ ?3N-4 Oʻ $Cʻ $&H43C$ D ʻ CF$ ʻ C3 34$ Oʻ $EDʻ 432(3N 3 Oʻ Q3ʻ 24$E 3D ʻ NHEC - 3D ʻ $EDʻ J $D3ʻ Hʻ $EDʻ Eʻ F3ʻ , $ J ʻ H&ʻ F3ʻ ?3N43 $4Oʻ Hʻ F3ʻ C$ Dʻ @H J J CC HE34Cʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2 ʻ Eʻ * 4- C ʻ &H4ʻ F3ʻ C$ Dʻ @H J R J CC HE34C ʻ Eʻ * 34 J Cʻ H&ʻ F3ʻ >H$Eʻ &H4ʻ F NFʻ F3ʻ C$ J 3ʻ CF$ ʻ Q3ʻ $ʻ ?3N-4 O ʻ $EDʻ F3ʻ C$ Dʻ ?3N43 $4Oʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2ʻ CF$ ʻ -ED34ʻ F3ʻ G 43N HECʻ H&ʻ F3ʻ C$ Dʻ @H J J CC HE34C ʻ F$ 3ʻ &- ʻ I H 34ʻ $EDʻ - FH4 Oʻ Hʻ 134&H4 J ʻ 3 3N- 3 ʻ $EDʻ N$44Oʻ E Hʻ 3& 3N ʻ $EOʻ N C ʻ P $ 34C ʻ $EDʻ * F E2Cʻ F$ 3 34ʻ F NFʻ CF$ ʻ Q3ʻ 43X- C 3ʻ &H4ʻ F3ʻ &-4 F34ʻ $EDʻ Q3 34ʻ $CC-4 E2ʻ $EDʻ $ D$ E2ʻ $EOʻ C-NFʻ P H4 2$23 ʻ 834 R $Q 3ʻ BHED ʻ H4ʻ H F34ʻ 834 $Q 3ʻ H4ʻ ' 3Pʻ ?3N-4 O ʻ H4ʻ CC 2E J 3E ʻ F343H&ʻ $Cʻ $&H43C$ D ʻ $EDʻ &H4ʻ 3E&H4N E2 ʻ 14HC3N- E2 ʻ $EDʻ 1-4C- E2ʻ F3ʻ C$ J 3ʻ &H4ʻ F3ʻ ' 3NH 34Oʻ H&ʻ F3ʻ ?- J Cʻ &H4ʻ 9 F NFʻ C-NFʻ ?3N-4 3Cʻ 343ʻ 43C13N 3 Oʻ 24$E 3D ʻ NHEC - 3D ʻ $EDʻ J $D3 ʻ Eʻ $ ʻ @H-4 Cʻ H&ʻ NH J 13 3E ʻ 5-4 CD N HEʻ Eʻ ! ʻ " #ʻ $Cʻ &- Oʻ $EDʻ 3&&3N -$ Oʻ Hʻ $ ʻ E 3E Cʻ $EDʻ I -41HC3Cʻ $Cʻ &ʻ F3ʻ C$ J 3ʻ ?3N-4 3Cʻ 43C13N 3 Oʻ 343ʻ 24$E 3D ʻ NHEC - 3D ʻ $EDʻ J $D3ʻ Hʻ F3ʻ ?3N43 $4Oʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2ʻ $Cʻ $ʻ ?3N-4 Oʻ &H4ʻ F Cʻ H Eʻ 14H134ʻ G 3Q ʻ $EDʻ F$ ʻ HEʻ I $O J 3E ʻ H4ʻ ?$ C&$N HEʻ H&ʻ F3ʻ I 4 EN 1$ ʻ ?- J Cʻ &H4ʻ F NFʻ C-NFʻ ?3N-4 Oʻ CF$ ʻ Q3ʻ 2 3E ʻ Fʻ E 343C ʻ &H4ʻ F3ʻ C$ J 3 ʻ $EDʻ $ ʻ @HC Cʻ EN-443Dʻ Eʻ 43NH 34 E2ʻ F3ʻ C$ J 3 ʻ F3ʻ C$ Dʻ ?3N43 $4Oʻ &H4ʻ F3ʻ * J 3ʻ Q3 E2ʻ CF$ ʻ $EDʻ F3ʻ Cʻ F343QOʻ $- FH4 T3D ʻ -ED34ʻ F3ʻ G 43N HEʻ H&ʻ F3ʻ C$ Dʻ @H J J CC HE34C ʻ Hʻ 3 3N- 3ʻ HEʻ Q3F$ &ʻ H&ʻ F3ʻ C$ Dʻ @H J J CC HE34Cʻ $ʻ ' 3 3$C3 ʻ G CNF$423 ʻ H4ʻ ' 3E-EN $ HEʻ H&ʻ F3ʻ C$ Dʻ P HE 3Cʻ CHʻ 1$ Dʻ H4ʻ C$ CF3D ʻ Hʻ Q3ʻ 143R 1$43Dʻ $ ʻ F3ʻ @HC Cʻ H&ʻ F3ʻ I $4 Oʻ H4ʻ I $4 3Cʻ J $+ E2ʻ C-NFʻ I $O J 3E ʻ H4ʻ ?$ C&$N HE ʻ $NNH4D E2ʻ Hʻ F3ʻ 6H4 J Cʻ 143CN4 Q3DʻQOʻ >$ ʻ &H4ʻ 43 3$C E2 ʻ D CNF$42 E2 ʻ $EDʻ 43EH-EN E2ʻ $ʻ P H4 2$23ʻ G 3Q ʻ H4ʻ EN- J Q4$EN3ʻ -1HE $ʻ ' 3$

(H! (#&!Bʻ @&Bʻ <+ʻ & ʻ H#Aʻ ?+!ʻ 2&)%ʻ ʻ <&#) *ʻ +!#D *&*(A1ʻ ! (H+D 2(!) *ʻ +)(A1ʻ 4H

U' KS/' M#> ;>P ' ' @$1 U!' !S

$' '3$' ;C $ 3' ' $ED' F$'C-NF' '3 3$C3' G CNF$423' $ED' '3E-EN $ HE'
CF$ 'Q3' 2HHD' $ED' $ D' E' >$ ' H' $ ' E 3E C' $ED' I-41HC3C' F$ 3 34'
$ED' F3' I4H134 3C' NHJ14 C3D' E' C-NF' PH4 2$23' ?3N-4 3C' CF$ ' E' '
3 340' C-NF' @$C3' Q3' F343QO' $QCH - 3 O' 43 E 3C 3D' E' F3' < E34' H4'
H F34' I34CHE' $ &- O' 3E 3D' F343 H

WWW' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' F3' I4 EN 1$' ?-JC' NHE' "!) H)'&'
$ E3D' E' F3' ; NF3X-34' B C' F NF' CF$ 'Q3' $D $EN3D' H4' 3E 'QO' F3'
C$ D' @HJ J CC HE34C' -ED34' F3' - FH4 O' H&' F C' N 'CF$ ' Q3' 431$ D') #(!(A#' #+'
FH-'G3D-N HE' H4' Q$ 3J3E ' H' F3' @$CF 34' H4' @$CF 34C' H&' F3' I('!('&)<' IB'
B$E+' H&' 8#(% #&' $' F3 4' <&& N3' $' H4' 143 H-C O' H' F3' ; 1 4$ HE' A#& @(#AP'
H&' *3E' =3$4C' &4HJ' F3' * J3' H&' 3 340' C-NF' >H$E' Q3 E2' $D $EN3D'
F' E 343C' &H4' F3' C$J3' E' F3' P3$E J3' H' Q3' NHJ1- 3D' $' $ED' 1EC(C'
$& 34' F3' '$ 3' H&' 6H-4' IH-EDC' 5! ' I!# 3 '5! '/##3 '&4HJ' F3' G$O' I('<)A'+A(<'
H&' F3' D $EN3' Q-' F3' I$OJ3E' H&' C-NF' E 343C' H' NHJ J3EN3' $' +?+!'AG(<'&H4'
F3' ; 1 4$ HE' H&' *F433' =3$4C' &4HJ' F3' * J3' H&' 3 340' C-NF' >H$E'
Q3 E2' $D $EN3D' $ED' H' Q3' F3EN3&H4 $4D' J$D3' $' F3' ; 1 4$ HE' H&'
3 340' C-QC3X-3E' =3$4' -E ' C-NF' I4 EN 1$' ?-JC' CF$ ' Q3' 431$ D'.
I4H D3D' $ $OC' F$' &' F3' E3' I4HN33DC' H&' F3' I4H134 3C' E' 43C13N'
H&' F NF' $EO' >H$E' CF$ ' Q3' $D $EN3D' CF$ ' EH 'Q3' C-&& N 3E' H' 1$O'
F3' FH 3' JH-E' H&' F3' ?-11 3C' $ED' @HE E23EN 3C' F343H&' 43C13NR
3 O' F3' $EE-$' E 343C' -1HE' C-NF' >H$EC' CF$ ' EH ' Q3' 43X- 43D'
-E ' F3' I4HN33DC' CF$ ' Q3' C-&& N 3E' &H4' C-NF' ?-11 3C' $ED' @HER
E23EN 3C'. I4H D3D' $ $OC' F$' EH F E2' F343 E' NHE $ E3D' CF$ '
Q3' NHEC 4-3D' H' 143 3E' F3' @HJ J CC HE34C' &4HJ' $+ E2' 1HCC3CC HE'
H&' $EO' C-NF' ;C $ 3' -1HE' $EO' G3&$- ' E' I$OJ3E' H&' E 343C ' $C' E'
F C' N ' Q3&H43' 14H D3D' $ED' &' $EO' G3&$- ' CF$ ' Q3' J$D3' QO'
$EO' I34CHE' H4' I34CHEC' E' F3' I$OJ3E' H&' $EO' ?-J' H4' ?-JC' H&'
PHE3O' F E' F3' 43C13N 3' * J3C' F343 E Q3&H43' J 3D' &H4' I$OR
J3E' F343H&' $NNH4D 12' H' F3' 4-3' E 3E' $ED' P3$E E2' H&' F C'
N ' 'CF$ '$ED' J$O' Q3' $ &-'&H4' F3' C$ D' @HJ J CC HE34C' F343QO' $1R
1H E 3D' H4' $EO' * H' H4' JH43' H&' F3J ' QO' $EO' 9$44$E ' H4' 9$44$E C'
-ED34' F3 4' 8$EDC' $ED' ?3$ C' H' N$-C3' F3' PHE3O' D-3' $ED' 1$O$Q 3' QO'
4 -3' F343H&' F3' ; NF3X-34' B C' $#& 'BHEDC' B C' H&' ; NF$E23'
$ED' H F34' I34CHE$' ?3N-4 3C' D31HC 3D' F' F3' C$ D' @HJ J CC HE34C'
H4' C-NF' ?3N-4 O' H4' &-4 F34' ?3N-4 O' $C' $&H43C$ D' $ED' $ CH' $ ' C-NF'
PH4 2$23C' $ED' CC 2E J3E C' H&' PH4 2$23C' 8 34 $Q 3' BHEDC' H4' H F34'
8 34 $Q 3' H4' '3$' ?3N-4 3C' J$D3' NHEC - 3D' H4' 24$E 3D' H' H4' H'
F3' #C3' H&' H4' D31HC 3D' F' F3' C$ D' @HJ J CC HE34C' H' Q3' CH D' $ED'
D C1HC3D' H&' H4' Q3' C-3D' &H4' E D-3' @H-4C3' H&' >$ ' E' F3' , $J3' H&' F3'
?3N43 $4O' H&' F3' C$ D' @HJ J CC HE34C' &H4' F3' * J3' Q3 E2' &H4' F3' #C3'
H&' F3' C$ D' @HJ J CC HE34C' -ED34' F C' N ' $ED' &-4 F34' F$' E' N$C3' &'?-43 O' H4'
$EO' C-NF' G3&$- 'CF$ 'Q3' J$D3' $ED' EH' H F34' C-&& N 3E' +!'3 '1) %%' G31HC' '
Q3' D31HC 3D' H4' 2 3E' H4' F$' F3' C$J3' CF$ 'Q3' &H-ED' H4' CF$ 'Q3NHJ3'
EC-&& N 3E' E' $ -3' H' C$ C&O' F3' FH 3' H&' F3' G3J$ED' &4HJ' C-NF' ' $H'
G3&$- 34' H4' G3&$- 34C' 'CF$ ' $ CH' Q3' $ &-' &H4' F3' C$ D' @HJ J C' , ' '
C HE34C' $ED' F3O' $43' F343QO' 43X- 43D' FH-'&-4 F34' G3 $O' H' CC-3' " " * , '
F3 4' 9$44$E ' H4' 9$44$E C' &4HJ' * J3' H' * J3' H' F3' 14H134' <&& N34' $ $EC F3
H4' <&& N34C' H&' F3' @4H E' F$ E2' F3' G 43N HE' H4' PE23J3E ' H&' G!(#)(A'
I4HN33D E2C' -1HE' <Q 2$ HEC' H' 8 C' P$(3C O' 43X- 4 E2' C-NF' <&& N34'
H4' <&& N34C' 143C3E O' H' 14HN33D' 2 EC' $ ' H4' $EO' H&' F3' I34CHEC' FH'
CF$ ' F$ 3' 3E 343D' E H' $EO' BHED' H4' <Q 2$ HE' &H4' F3' ?-J' $DR
$EN3D' F C' F34' $ED' F3 4' 83 4C' ; 3N- H4C' $ED' DJ E C 4$ H4C' &H4'
F3' '3NH 340' H&' C-NF' I$4 C' H&' F3' ?-JC' $D $EN3D' HE' C-NF' BHEDC' H4'

?' , ' <Q 2$

<Q 2$ HEC' $C' CF$ ' Q3' F3E' D-3' H23 F34' F' E 343C ' $C' $&H43C$ D' $ED' C-NF' @HC C' $ED' @F$423C' $ 3ED E2' C-NF' I 4HN33D E2' $C' CF$ ' Q3' QO' >$ ' 1OQ 3' &H4' F3' C$ J 3' F3' J H-E ' H&' F NF' I 4 EN 1$ ' ?- J C' CH' H' Q3' 3 3D' F3' C$ D' @H J J CC HE34C' CF$ ' N$-C3' & H J' * J 3' H' * J 3' H' Q3' 3C & 3D' QO' F3 4' , H 3' E' 9 4 E2' -ED34' F3' 8 $EDC' H&' $EO' * H' H4' J H43' H&' F3 J' H' C-NF' <&& N34' H4' <&& N34C' $ED' F NF' ?- J' CF$ ' Q3' EC34 3D' E' F3' 9 4 ' H4' I 4HN3CC' $ED' F3' +3' I 4HN3CC' CF$ ' $ED' J $O' &4H J' * J 3' H' * J 3' CC-3' $C' $&H43C$ D' $C' <NN$C HE' CF$ ' 43X- 43' $ED' F3' ?- J C' CH' 43NH 343D' ^ F3' @HC C' $ED' @F$423D' $&H43C$ D' 3 N31 3D_' CF$ ' Q3' 1$ D' H' F3' C$ D' @$CF 34' H4' @$CF 34C' H&' F3' B$E+' H&' 8 #(% #&' FH- ' Q$ 3 J 3E ' G3D-N HE' H4' G3 $O' E' C$ C&$N HE' H&' C-NF' G 3R J $EDC' $ED' ' CF$ ' Q3' E' F3' G CN43 HE' H&' F3' C$ D' @H J J CC HE34C' H' D 43N' 2 EC' F NF' H&' F3' <Q 2H4C' E' C-NF' ?3N-4 O' C-NF' I 4HR N33D E2C' CF$ ' Q3' &4H J' * J 3' H' * J 3' NH J J 3EN3D' H4' 14HC3N- 3D' $ED' F3' ?$ D' @H J J CC HE34C' CF$ ' F$ 3' F3' @HE 4H ' $ED' ?- 134 E 3ED3EN3' H&' C-NF' I 4HC3N- HEC' $ED' F3' C$ J 3' $ ' (H ' Q3' D CNHE E-3D' X-$CF3D' H4' Q 3D' -1HE' $EO' I 43 3EN3' F$ CH3 34' FH- ' F3' - FH4 O' H&' F3' C$ D' @H J J CC HE34C' 3C & 3D' #ED34' F3' 8 $EDC' $ED' ?3$ C' H&' $EO' * H' H4' J H43' H&' F3 J' $ED' 3 F Q 3D' H' F3' B$4HEC' H&' 8 C' P $(3C O C' @H-4' H&' ; NF3X-34' $' ! O 0 1 ' H4' H' $EO' @H-4' H&' NH J 13 3E ' 5-4 CD N HE' E' +' , % #&' $C' F3' @$C3' J $O' 43X- 43

G' "!+H((<D) *A' &*&) A# I)*+)/A' +' > !)# +? H)!(' ?&H)&A' ! (OG)D A)#(1' 4H

WWW ' I 4H D3D' $ $OC' $ED' Q3' ' & 4 F34' 3E$N 3D' * F$ ' F343' $EO' I 4HN33D E2' CF$ ' Q3' D 43N 3D' QO' F3' C$ D' @H J J CC HE34C' $C' $&H43R C$ D' 2 EC' $EO' H&' F3' <Q 2H4C' H4' @?(2H4' E$ J 3D' E' $EO' C-NF' <Q 2$ HE' EH' 9 4 ' H4' 9 4 C' H&' ?N 43' & N $C' CF$B' Q3' 43X- 43D' H' Q3' CC-3D' Q- ' F$ ' -1HE' F3' I 4HD-N HE' H&' F3' 9 44E ' H4' 9 44E C' H&' F3' C$ D' @H J J CC HE34C' $C' Q3&H43' J 3E HE3D' Q3&H43' $EO' H&' F3' B$4HEC' H&' F3' C$ D' 43C13N 3' @H-4 C' H&' ; NF3X-34' $ED' E' N$C3' C-NF' E 3ED3D' I 4HN33D E2' CF$ ' Q3' 2 EC' $EO' ?- 43 3C' H4' ?- 43 O' F3E' -1HE' I 4HH&' H&' , H N3' F$ E2' Q33E' C34 3D' -1HE' C-NF' I $4 O' H4' I $4 3C' H4' 3& ' $' F C' H4' F3 4' -C-$' I $N3' H4' I $N3C' H&' QHD3' 43C13N 3 O' * 3E' G$OC' $' 3$C ' Q3&H43' C-NF' 11 N$ HE' CF$ ' Q3' J $D3' H' C-NF' B$4HE' $E' ; 3E ' CF$ ' $ED' J $O' CC-3' E' F3' & 4C' I 4HN3CC' -1HE' F3' P $' [&' ?-NF' B$4HE' FH- ' $EO' && D$ ' H4' H F34' 34 & N$ HE' H4' I 4HH&' H&' A 3' @$-C3' H&' C-NF' I 4HN33D E2' F$E' C-NF' 9 44E ' H4' 9 44E C' $C' $&H43C$ D

?' "&B@(# AJ& ' I ('@&<(' +?' "&!# +?' E+& 1') ' H+ D A(OG(H(' +? & B' &<<)D #)+ & ' (HGD !)#B1')#' AJ& ' (#)# (' #J(' G!(#B' #+' #J(' A&)((@(<B' &A')?' #J(' "&BD @(# J&< I (('@&<(' G' + ' J)A' IY%)* &#)+ $ 1' Z '

WWW ' ED' Q3' ' &-4 F34' 3E$N 3D' * F$ ' &' $EO' I 34CHE' H4' ?- 43 O' CF$ ' 2 3' $EO' C-NF' $DD HE$ ' ?3N-4 O' $C' E' C' N ' C' J 3E HE3D' H 34' $ED' $QH 3' C-NF' BHED' H4' <Q 2$ HE' H4' H F34' ?3N-4 O ' &H4' $EO' >H$E' $C' C' F343QO' 43X- 43D' $ED' &' $EO' I $O J 3E ' CF$ ' Q3' J $D3' H&' $EO' I $4 ' H&' C-NF' >H$E' E' NHEC3X-3EN3' H&' C-NF' $DD HE$ ' ?3N-4 O' Q3 E2' CH' 2 3E ' $ED' E' D CNF$423' F343H& ' 3 34O' C-NF' I $O J 3E ' CF$ ' Q3' D33 J 3D' $ED' $+3E' H' Q3' J $D3' -ED34' F3' BHED' H4' <Q 2$ HE' 3E 343D' E H' QO' C-NF' ?- 43 O ' $ED' E' D CNF$423' H4' E' 1$4 ' D CNF$423' F343H& ' &H4' F3' I -41HC3' H&' 3E E2' C-NF' ?- 43 O ' F C' ; 3N- H4C' H4' D J E C 4$ H4C' $ED' C-NF' I $O J 3E ' CF$ ' 3E 3' C-NF' ?- 43 O ' F C' ; 3N- H4C' $ED' D J E C 4$ H4C' 43C13N 3 O' H' F3' +3' ' 3 J 3DO' &4H J' F3' 14 EN 1$ ' G3Q H4' <4 G3Q H4C' E' F3' C$ D' >H$E' F C' H4' F3 4' 8 3 4C' ; 3N- H4C' H4' D J E C 4$ H4C' &H4' F3' ' 3 J Q-4C3 J 3E ' H&' F3' ?- J C' CH' 1$ D' H4' C$ C& 3D' $ED' &3H J' F3' @H C-43 3C' E' F3' C$ D' >H$E' &H4' F3' +3' @HE 4 Q- HE' $C' &' C-NF' I $O J 3E ' H4' ?$ C&$N HE' F$D' $N -$ ' Q33E' J $D3' #1HE' F3' BHED' H4' <Q 2$ HE' 3E 343D' E H' QO' C-NF' ?- 43 O' $ED' &' $EO' I 34CHE' EH Q3 E2

U KS`M#> ;>P ' ' @$1 U!' !!

'Q3 E2' $' I$4 O' H' $EO' BHED' H4' <Q 2$ HE' 3E 343D' E H' QO' 4 -3 ' H&' F C' N ' CF$ ' 2 3' C-NF' &-4 F34' ?3N-4 O' &H4' $EO' >H$E' $C' E' F C' N ' C' 1$4 N- $4 O' J 3E HE3D ' $ED' $EO' I$O J 3E ' H4' ?$ C&$N HE' H&' C-NF' >H$E ' H4' $EO' I$4 ' F343H&' CF$ ' Q3' J $D3' E' NHEC3X-3EN3' H&' C-NF' &-4 F34' ?3N-4 O' Q3 E2' CH' 2 3E ' $ED' E' D CNF$423' F343H&' 3 340' C-NF' I$O J 3E ' H4' ?$ C&$N HE' CF$ ' 3E 3' F3' I$4 O' J $+ E2' F3' C$ J 3 ' F C' ; 3N- H4C' H4' D J E C 4$ H4C ' H' F3' +3' ' 3 J 3DO' &4H J' F3' 14 EN 1$ ' G3Q H4' H4' G3Q H4C' E' F3' C$ D' >H$E ' F C' H4' F3 4' 8 3 4C ' ; 3N- H4C ' H4' D J E C 4$ H4C ' &H4' F3' ' 3 J Q-4C3 J 3E ' H&' F3' ?- J C' CH' 1$ D' H4' C$ CR & 3D ' $C' &' C-NF' I 34CHE' F$D' 3E 343D' E H' $' BHED' H4' <Q 2$ HE' $C' ?-43 O ' $ED' C-NF' I $O J 3E ' F$D' Q33E' J $D3' F343-1HE ' $ED' F$ ' E' 3 340' @$C3' H&' C-NF' I $O J 3E ' -1HE' H4' E' NHEC3X-3EN3' H&' C-NF' $DD R HE$ ' ?3N-4 O ' $C' 3 ' F3' BHED' H4' <Q 2$ HE ' BHEDC' H4' <Q 2$ HEC' H&' C-NF' 14 EN 1$ ' G3Q H4' H4' G3Q H4C' 3E 343D' E H' QO' 4 -3' H&' F C' N ' $C' $ ' $ED' 3 340' F3' $DD HE$ ' ?3N-4 3C' F NF' J $O' F$ 3' Q33E' 2 3E' QO' C-NF' 14 EN 1$ ' G3Q H4' H4' G3Q H4C' QO' 4 -3' H&' F C' N ' CF$ ' C3 34$ O' $ED' 43C13N 3 O' C $ED' $ED' 43 J $ E' $C' ?3N-4 3C' &H4' F3' I -41HC3' H&' C-NF' ' 3 J Q-4C3 J 3E ' E' F3' P $EE34' F343QO' D 43N 3D' E' @$C3C' H&' I $O J 3E ' QO' ?-43 3C' -1HE' BHEDC' H4' <Q 2$ HEC ' $ED' -E ' F3' FH 3' H&' F3' ?- J C' CH' 1$ D' H4' C$ C& 3D' CF$ ' Q3' &- O' 43 J Q-4C3D' ' $ED' F$ ' C-NF' I 4HN33D E2C' CF$ ' $ED' J $O' Q3' F$D' -1HE' $EO' $DD HE$ ' ?3N-4 3C' 2 3E' QO' C-NF' 14 EN 1$ ' G3Q H4' H4' G3Q H4C' &H4' F3' ' 3NHR 340' H&' F3' ?- J C' CH' 1$ D' &H4' F3' B3E3& ' H&' F3' 43C13N 3' I $4 3C' J $+ E2' C-NF' I $O J 3E C ' F3 4' ; 3N- H4C' H4' D J E C 4$ H4C ' $C' J 2F ' $ &- O' F$ 3' Q33E' F$D' &H4' F3' ' 3NH 340' H&' F3' ?- J C' D-3' $ED' 1$OR $Q 3' H' F3' C$ D' @H J J CC HE34C ' EH FC $ED E2' F3' C$ D' >H$E' CF$ ' F$ 3' Q33E' &- O' 431$ D' H' F3' C$ D' @H J J CC HE34C

WWW ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' $& 34' F3' D-3' I $O J 3E ' ?#(!' "&B%' H&' F3' ?- J C' $D $EN3D' F' E 343C ' $C' $&H43C$ D ' $ ' F3' * J 3' $ED' E' @(@'H&' G@A' F3' P $EE34' F343 E' C13N & 3D ' 3 340' C-NF' BHED' H4' <Q 2$ HE ' $ED' $ ' H F34' F3' ?3N-4 3C' 3E 343D' E H' H4' 43N3 3D' E' 1-4C-$EN3' H&' F C' HQ $#H J' N ' Q3 E2' &- O' C$ C& 3D' $NNH4D E2' H' F3' 4-3' E 3E ' $ED' P 3$E E2' HQ3' <(%' H&' F C' N ' CF$ ' Q3' &H4 F F' D3 343D' -1' H' Q3' N$EN3 3D ' $ED' E' 2(!(<' G' ' N$C3' $EO C-NF' BHED' H4' <Q 2$ HE' CF$ ' F$ 3' Q33E' 14HC3N- 3D' $NNH4DR E2' H' F3' G 43N HEC' H&' F C' N ' F3' C$ D' @H J J CC HE34C ' H4' $EO' * H' H4' J H43' H&' F3 J ' CF$ ' QO' F3 4' 9 $ * $E ' H4' 9 44E C' D 43N ' F3' 14H134' <&& N34' H4' <&& N34C' H&' F3' C$ D' 43C13N 3' @H-4 C' H&' ; NF3X-34' H' ' 3E 34' -1' ?$ C&$N HE' HE' C-NF' BHED' H4' <Q 2$ HE ' BHEDC' H4' <Q 2$R HEC ' CH' Q3 E2' C$ C& 3D' $C' $&H43C$ D ' -1HE' F3' ' 3NH4D ' H4' H F34 C3' H' D3 34' -1' F3' C$ J 3' H' Q3' N$EN3 3D ' $C' F3' @$C3' J $O' 43X- 43

WWW ' I 4H D3D' $ $OC ' $ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' 3 340' ?#(!' "&B%1' BHED' H4' <Q 2$ HE ' F' $EO' ?-43 3C' H4' ?-43 O' H' Q3' $+3E' $NNH4DR @(#'+?' G@A' E2' H' F C' N ' $& 34' I $O J 3E ' H4' ' 3NH 340' F343-1HE' QO' F3' C$ D' &<2& H(<' IB' @H J J CC HE34C' H&' F3' ?- J C' $D $EN3D' H4' 3E ' F' $ ' E 343C ' $ED' #J(' +@@)AD @HC C ' E' F3' P $EE34' 43X- 43D' QO' F C' N ' CF$ ' C $ED' $ED' 43 J $ E' A)+ (!A1' I %' $C' $' &-4 F34' ?3N-4 O' &H4' F3' I -41HC3C' $ED' E' F3' P $EE34' F343 E $& 34')*&#)+ A' L)#J' J 3E HE3D ' ^ F$ ' C' H' C$O _' &' $EO' ?-43 O' H4' ?-43 3C' -1HE' C-NF' G!(#)(A' #+' BHED' H4' <Q 2$ HE ' F C ' F34' H4' F3 4' ; 3N- H4C' H4' D J E C 4$ H4C ' !(@&) ' &A' CF$ ' F$ 3' 1$ D' H4' C$ C& 3D' $EO' I $4 ' H&' C-NF' ?- J C ' E 343C ' H4' @HC C ' ?G!#J(!' (HGD F3E' C-NF' BHED' H4' <Q 2$ HE' $C' 2 EC ' F3' 14 EN 1$ ' <Q 2H4' H4' !)#)(A' ?+!' H(!D <Q 2H4C ' F C' H4' F3 4' 8 3 4C ' ; 3N- H4C ' H4' D J E C 4$ H4C ' CF$ ' C $ED #&) ' "G!D ' +A(A

$C

$C $?3N-4 O $C $& J 3C$ D &H4 F3 '3 J Q-4C3 J 3E H C-NF ?-43 3C 43C13N 3 O F3 4 ; 3N- H4C H4 D J E C 4$ H4C H& F3 FH 3 H& F3 ?- J C CH 1$ D H4 C$ C& 3D $ED CH &4HG$ * E3 H * J 3 -E C-NF '3 J Q-4C3 J 3E CF$ Q3 &- O J $D3 $NNH4D E2 H F3 4 3E H& F C N $ED & $EO C-NF ?-43 3C H4 ?-43 O F3 4 H4 F C ; 3N- H4C H4 D J E C 4$ H4C CF$ F$ 3 1$ D H4 C$ C& 3D $?- J F NF CF$ Q3$4 $ 243$ 34 I 4H1H4 HE H F3 FH 3 H& F3 ?- J C 43NH 343D -1HE C-NF BHED H4 <Q 2$ HE F$E F3 ?- J &H4 F N(F C-NF ?-43 O 43C13N 3 O CF$ F$ 3 Q33E QH-ED CF$ Q3$4 H F3 H $ J H-E H& $ F3 C3 34$?- J C H& P HE3O &H4 F NF $ F3 C3 34$?-43 3C CF$ F$ 3 Q33E QH-ED QO C-NF BHED H4 <Q 2$ HE F3E ?-NF BHED H4 <Q 2$ HE $C 2 EC 3$NF $ED 3 34O H& F3 ?-43 3C FH CF$ EH F$ 3 1$ D H4 C$ C& 3D $E 3X-$ I 4H1H4 HE H& F3 FH 3 ?- J 43NH 343D $NNH4DR E2 H F3 ?- J &H4 F NF F3 CF$ F$ 3 Q33E 43C13N 3 O QH-ED F3 4 $ED 3 34O H& F3 4 8 3 4C ; 3N- H4C $ED D J E C 4$ H4C 43C13N 3 O CF$ C $ED $C $?3N-4 O &H4 F3 B3E3& H& C-NF ?-43 3C H4 ?-43 O F3 4 ; 3N- H4C H4 D J E C 4$ H4C 43C13N 3 O 9 FH CF$ F$ 3 1$ D H4 C$ C& 3D $EO C-NF ?- J C $C $&H43C$ D &H4 F3 I -41HC3 H& 3E&H4N E2 $ @HE 4 Q- HE $ J HE2 C-NF ?-43 3C E $E 3X-$ I 4H1H4 HE H F3 C3 34$?- J C &H4 F NF F3O CF$ F$ 3 Q33E 43C13N 3 O QH-ED $ED CH &4H J * J 3 H * J 3 -E C-NF @HE 4 Q- HE CF$ Q3 &- O J $D3 $NNH4D E2 H F3 E 3E H& F C N $ED F$ E 3 34O C-NF @$C3 -1HE F3 11 N$ HE H& $EO ?-43 3C <4 ?-43 O H F3 C$ D @H J J C C HE34C &H4 $EO H& F3 I -41HC3C $&H43C$ D F3 C$ D @H J J CC HE34C CF$ N$-C3 F3 43C13N 3 @ $ J C H& C-NF ?-43 3C H4 ?-43 O 43C13N 3 O $ED F3 ?- -C H Q3 43NH 343D &4H J C-NF I 4 EN 1$ C H4 ?-43 3C 43C13NR 3 O F3 4 $ED 3 34O H& F3 4 8 3 4C ; 3N- H4C H4 D J E C 4$ H4C H Q3 $D(-C 3D $ED C3 3D $C F343 E C J 3E HE3D CH F$ F3 FH 3 ?- J 43NH 343D CF$ Q3 D C 4 Q- 3D E 3X-$ I 4H1H4 HE $NNH4D E2 H F3 ?- J C &H4 F NF 3$NF ?-43 O 43C13N 3 O CF$ F$ 3 Q33E QH-ED E F3 C$ J 3 BHED H4 <Q 2$ HE $ED CH &4H J * J 3 H * J 3 $C F3 @$C3 CF$ 43X- 43 $ED F343-1HE F3 C$ D @H J J CC HE34C FO 9 $4 4$E H4 9 44E C E 9 4 E2 -ED34 F3 4 8 $- C CF$ &4H J * J 3 H * J 3 D 43N I 4HN3CC H CC-3 &H4 F3 '3NH 34O H& C-NF ?- J C $C F3O CF$ F$ 3 CH $D(-C 3D $ED C3 3D H Q3 43C13N 3 O 43NH 343D &4H J $ED 1$ D H C-NF I 34CHEC 43C13N 3 O $C F3O CF$ C13N &O E C-NF 9 44E H4 9 44E C -ED34 $ED C-Q(3N H F3 C3 34$ '32- $ HEC $ED G 43N HEC E F C N NHE $ E3D

]]] C ED Q3 &-4 F34 3E$N 3D * F$ C-NF I 4HN3CC $C $&H43C$ D CF$ $ED $ &- O J $O CC-3 HE $EO C-NF BHED H4 <Q 2$ HE $C $&H43C$ D 2 EC $EO C-NF I 4 EN 1$ C H4 I 4 EN 1$ F3 4 H4 Q C 8 3 4C ; 3N- H4C H4 D J E C 4$ H4C &H4 F3 B3E3& H& $EO C-NF ?-43 3C H4 ?-43 O F3 4 H4 F C ; 3N- H4C H4 D J E C 4$ H4C $ED 2 EC $EO C-NF ?-43 3C H4 ?-43 O F3 4 H4 F C 8 3 4C ; 3N- H4C H4 D J E C 4$ H4C $C $&H43C$ D &H4 F3 B3E3& H& $EO @H C-43 3C H4 @H C-43 O F3 4 H4 F C ; 3N- H4C H4 D J E C 4$ H4C EH FC $ED E2 F3 FH 3 ?- J F NF CF$ F$ 3 Q33E $D $EN3D H C-NF I 4 EN 1$ C H4 I 4 EN 1$ CF$ F$ 3 Q33E 431$ D $ED E N$C3 $EO ?-43 3C H4 ?-43 O CF$ Q3NH J 3 QH-ED QO D C EN BHEDC H4 <Q 2$ HEC &H4 F3 C$ J 3 I 34CHEC H4 I 34R CHE $ED H4 H4 HE $NNH-E H& F3 C$ J 3 D $EN3 J 3E $ XED 3 34O F3 I 4H C HEC $&H43C$ D CF$ Q3 $11 3D E +3 P $EE34 $C 3 &H4 F3 B3E3& H& $C 2 EC C-NF I 4 EN 1$ C H& I 4 EN 1$ $C & $ C-NF

U/ K S M # > ; > P @$1 U! !

C-NF ?-43 3C $ED I4 EN 1$ C 43C13N 3 O 343 E$ J 3D E F3 C$ J 3
<Q 2$ HE

WWW ED Q3 &-4 F34 3E$N 3D *F$ 3 340 BHED H4 <Q 2$R HE H4 H F34 ?3N-4 O 3E 343D E H H4 2 3E QO $EO I34CHE H4 I34CHEC 3 F34 $C I4 EN 1$ H4 ?-43 O FH CF$ $& 34 $4DC Q3NH J 3 Q$E+4-1 F E F3 4-3 E 3E $ED P 3$E E2 H& F3 C3 34$? $ - 3C J $D3 $ED EH E &H4N3 NHEN34E E2 B$E+4-1 C $ED 2 EC FH J $ @H J J CC HE H& B$E+4-1 CF$ Q3 $ $4D3D $ED CC-3D H- E F$ I$4 H& # ! " # N$ 3D 8#(% #& CF$ QO 43$CHE $ED &H4N3 H& C-NF B$E+4-1 NO $ED &4H J F3 * J 3 H& C-NF B$E+4-1 NO Q3NH J 3 $ED Q3 &H4&3 3D $ED D-3 $ED 1$O$Q 3 $C 2 EC C-NF B$E+4-1 H4 B$E+4-1 C $ED $ F3 ; C $ 3 $ED ; &&3N C H& C-NF B$E+4-1 H4 B$E+4-1 C F NF H- D Q3 $Q 3 H C$ C&O F3 G3 J $EDC H& F3 @43D H4C C33+ E2 3 3& -ED34 C-NF @H J J CC HE H& B$E+4-1 CF$ Q3 $Q 3 $ED C-Q(3N H $ED $43 F343QO J $D3 NF$423$Q 3 F F3 I$O J 3E H& F3 I4 EN 1$ $ED E 343C D-3 -1HE C-NF BHED H4 <Q 2$ HE H4 H F34 ?3N-4 O $ED $ @HC C $ 3ED E2 F3 3NH 340 H& F3 C$ J 3 $ED F$ F3 @ $ J C H& F3 C$ D @H J J CC HE34C CF$ Q3 & 4C 1$ D $ED C$ C& 3D H- H& F3 ; C $ 3 $ED ; &&3N C H& F3 C$ D B$E+4-1 H4 B$E+4-1 C $ED E 143&343EN3 H F3 @ $ J H& $EO H F34 @43D H4 H4 @43D H4C $ED CF$ Q3 $ &- &H4 F3 C$ D @H J J CR C HE34C E F3 , $ J 3 H& F3 4 ?3N43 $4O &H4 F3 * J 3 Q3 E2 H $11 O QO I3 HE E $ C- J J $4O 9 $O H F3 14H134 @H-4 C E 8#(% #& F$ E2 F3 5-4 CD N HE H& F3 P $ 34C H& C-NF @H J J CC HE H& B$E+4-1 NO H J $+3 D-3 <4D34 $NNH4D E2 O F NF C-N @H-4 C 43C13N 3 O $43 F343QO $- FH4 T3D $ED 43X- 43D H J $+3

; C $ 3C $ED ; &&3N C H& B$E+4-1 C E ; E2 $ED $Q 3 H F3 D CNF$42 E2 H& BHEDC H4 H F34 ?3N-R 4 3C

WWW ED Q3 &-4 F34 3E$N 3D *F$ 3 340 BHED H4 <Q 2$R HE H4 H F34 ?3N-4 O 3E 343D E H H4 2 3E QO $EO I34CHE H4 I34CHEC 3 F34 $C I4 EN 1$ H4 ?-43 O FH CF$ $& 34 $4DC Q3NH J 3 Q$E+4-1 $ED 2 EC FHC3 ; C $ 3 ?3X-3C 4$ HE CF$ Q3 $ $4D3D E +' , % #& CF$ QO 43$CHE $ED &H4N3 H& C-NF B$E+4-1 NO $ED &4H J F3 * J 3 H& F3 G$ 3 H& F3 & 4C G3 34$EN3 HE F3 I3 HE H F3 @H-4 H& ?3CC HE &H4 $ $4D E2 F3 ?3X-3C 4$ HE Q3NH J 3 $ED Q3 D-3 $ED 1$O$Q 3 $C 2 EC C-NF B$E+4-1 H4 B$E+4-1 C $ED F$ $ F3 ; C $ 3 $ED ; &&3N C 3$ $ED I34CHE$ H& C-NF B$E+4-1 H4 B$E+4-1 C F NF H- D Q3 $Q 3 H C$ C&O F3 G3 J $EDC H& F3 @43D H4C C33+ E2 3 3& -ED34 C-NF ?3X-3C 4$ HE CF$ Q3 $Q 3 $ED C-Q(3N H $ED $43 F343QO J $D3 NF$423$Q 3 F F3 I$O J 3E H& F3 I4 EN 1$ $ED E 343C D-3 -1HE C-NF BHED H4 <Q 2$ HE H4 H F34 ?3N-4 O $ED $ @HC C $ 3ED E2 F3 3NH 340 H& F3 C$ J 3 $ED F$ F3 @ $ J C H& F3 C$ D @H J J CC HE34C CF$ Q3 & 4C 1$ D $ED C$ C& 3D H- H& F3 ; C $ 3 $ED ; &&3N C H& C-NF B$E+4-1 H4 B$E+4-1 C $ED E 143&343EN3 H F3 @ $ J H& $EO H F34 @43D H4 H4 @43D H4C E3 34 F3 3CC FH- I43(-D N3 H I43&343EN3 D- O HQ $ E3D $NNH4D E2 H F3 >$ H& +' , % #& -1HE F3 3$; C $ 3C H& I34CHEC FH CF$ Q3NH J 3 B$E+4-1 C ($ED CF$ Q3 $ &- &H4 F3 C$ D @H J J CC HE34C E F3 , $ J 3 H& F3 4 ?3N43 $4O &H4 F3 * J 3 Q3 E2 H $11 O QO I3 HE E $ C- J J $4O 9 $O H F3 14H134 @H-4 C E +' , #& F$ E2 5-4 CD N HE H& F3 P $ 34C H& C-NF B$E+4-1 NO &H4 J $+ E2 3&&3N -$ F3 I$O J 3E H& F3 @ $ J C H& F3 C$ D @H J J CC HE34C
S < $NNH4D E2 O

; C $ 3C $ED ; &&3N C H& B$E+4-1 C E ?NH $ED $Q 3 H @43R D H4C C33+ E2 3 3& -ED34 ?3X-3C 4$R HE C-Q(3N H F3 @ $ J C H& F3 @H J R J CC HE34C KN

!Z' UĉK'SĉM#> ;>P ' ' @$1 U!

$NNH4D E2 O' $ED' F NF' C-NF' @H-4 C' $43' F343QO' $- FH4 T3D' $ED' 43X- 43D' H' J$+3

@HJJC' C HE34C' J$O' CC&2>3* /' KN'?3N-4 O' &H4'?-JC' D-3' &4HJ' B$- ' 4-1 C

WWW ' I H D3D' $ $OC' $ED' Q3' ' &-4 F34' 3E$N 3D' *F$' F3' @H J J CC HE34C' J$O' $NN31 ' &4H J' F3' CC 2E33C' -ED34' $EO' @H J ' P CC HE' H&' B$E+4-1 ' CC-3D' H4' &4H J' &4 3' 6$N H4' H4' 6$N H4C' *4-C 33' H4' *4-C 33C' -ED34' $EO' ?3X-3C 4$ HE' $ $ D3D' 2 EC' $EO' 14 EN 1$' G3Q H4' H4' G3Q H4C' E' EO' C-NF' >H$E' -ED34' F C' N ' C-NF' ?3N-4 O' I $O J 3E' H&' F3' ?- J' D-3' &4H J' C-NF' B$E+4-1 ' H4' B$E+4-1 C' H-' H&' F C' H4' F3 4' ;C $ 3' H4' ;&&3N C' $C' F3' C$ D' @H J J CC HE34C' CF$ ' $114H 3' $ED' F$' F3' NN31 $EN3' H&' C-NF' ?3N-4 O' QO' F3' C$ D' @H J J CC HE34C' CF$ ' H134$ 3' $C' $' B3 3$C3 D *' F3' ;C $ 3' H&' C-NF' B$E+4-1 ' H4' B$E+4-1 C' &H4' F3' B3E3& ' H&' F3' @43D H4C' -ED34' F3' C$ D' @H J J CC HE' H&' B$E+4-1 ' E' 8#(% #&' H4' ?3X-3C 4$ HE' E' +', [% #&' &4H J' $ ' @ $ JC' F$ 3 34' QO' F3' ?$ D' @H J J CC HE34C' H F34' F$E' $ED' 3 N31 ' C-NF' I $4' H&' F3' C$ D' ;C $ 3' $C' CF$ ' Q3' C13N & 3D' E' 9 4 E2' Q3 33E' F3' C$ D' @H J 8 CC+ J34C' $ED' F3' C$ D' CC 2E33C' -ED34' F3' C$ D' @H J J CC HE' H&' B$E+4 @O' E' 8#(% #&' H4' Q3 33E' F3' C$ D' @H J J CC HE34C' $ED' F3' ?$ D' 6$N H4' 34' 6$N H4C' *4-C 33' H4' *4-C 33C' -ED34' F3' C$ D' ?3X#3C 4$ H ' E' +', % #&' H' Q3' 43C34 3D' QO' F3' C$ D' @H J J CC HE34C' &H4' C-NF' ?3N-4 O' $C' $&H43C$ D' E' N$C3' F3' C$ D' @H J J CC HE34C' CF$ ' 43X- 43' C-NF' ?3N-4 O

@H J J CR C HE34C' J$O' $NN31 ' &4H J' CC 2E33C KN' H&' ?-43R 3C' Q3NH J E2' B$E+4-1 C' 14H C HE$' ?3N-4 O' &H4' I $O J 3E' H&' ?- J C' D-3' KN

WWW W' I 4H D3D' $ CH' $ED' Q3' ' &-4 F34' 3E$N 3D' *F$' E' N$C3' C-NF' G3Q ' CF$ ' 24H ' D-3' H' F3' C$ D' @H J J CC HE34C' &4H J' $EO' C-NF' B$E+4-1 ' H4' B$E+4-1 C' $C' $' ?-43 O' H4' ?-43 3C' -1HE' $EO' C-NF' >H$E' $C' $&H43C$ D' F3' C$ D' @H J J CC HE34C' J $O' $NN31 ' &4H J' F3' CC 2E33C' -ED34' C-NF' @H J J CC HE' H&' B$E+4-1 NO' E' 8#(% #&' H4' &4H J' F3' 6$N H4' H4' 6$N H4C' *4-C 33' H4' *4-C 33C' -#D34' C NF' ?3X-3C 4$ HE' E' +', % #&' C-NF' 14H C HE$' ?3N-4 O' &H4' F3' I $O J 3E' H&' F3' ?-4$' D-3' &4H J' C-NF' B$E+4-1 ' H4' B$E+4-1 C' H-' H&' Q C' H4' F3 4' ;C $ 3' H4' ;&&3N C' $C' F3' C$ D' @H J J CC HE34C' CF$ ' $114H 3' C-3&&' 14H C HE$' ?3N-4 O' H' Q3' H D' HE' F3' I $O J 3E' H4' ?$ C&$N HE' H&' F3' ?- J' CH' D-3' QO' F3' 14 EN 1$' G3Q H4' H4' G3Q H4C:' H4' QO' F3' NN31 $EN3' H&' H F34' ?-43 O' H4' ?-43 3C' E' 3-' F343H&' E' F3' P $EE34' F343 E $& 34' J 3E HE3D' 14H D3D' F$' C-NF' NN31 $EN3' H&' C-NF' 14H C HE$' ?3N-4 O' QO' F3' C$ D' @H J J CC HE34C' CF$ ' H134$ 3' $?' $' ' 3 3$C3' H&' F3' ;C $ 3' H&' C-NF' B$E+4-1 ' H4' B$E+4-1 C' &H4' F3' B3E3& ' H&' F3' @43D H4C' -ED34' F3' C$ D' @H J J CC HE' H&' B$E+4-1 NO' E' 8#(% #&' H4' ?3X-3C 4$R HE' #' +', % #&' &4H J' $ ' @ $ JC' F$ CH3 34' QO' F3' C$ D' @H J J CR C HE34C' H F34' F$E' $ED' 3 N31 ' C-NF' I $4' H&' F3' C$ D' ;C $ 3' $C' CF$ ' Q3' C13N & 3D' E' 9 4 E2' Q3 33E' F3' C$ D' @H J J CC HE34C' $ED' F3' C$ D' CC 2E33C' -ED34' F3' C$ D' @H J J CC HE' H&' B$E+4-1 NO' E' 8#(% #&' H4' Q3 33E' F3' C$ D' @H J J CC HE34C' $ED' F3' C$ D' 6$N H 4' H4' 6$N H4C' *4-C 33' H4' *4-C 33C' -ED34' F3' C$ D' ?3X-3C 4$ HE' E' +', % #&' H' Q3' 43C34 3D' QO' F3 J' &H4' C-NF' 14H C HE$' ?3N-4 O' $C' $&H43C$ D' E' N$C3' F3' C$ D' @H J J CC HE34C' CF$ ' 43X- 43' C-NF' ?3N-4 O.' I 4H D3D' $ $OC' F$' $EO' C-NF' ' 3 3$C3' H&' F3' ;C $ 3' H4' ;C $ 3C' <&' $EO' C-NF' B$E+4-1 ' H4' B$E+4-1 C' $C' $&H43C$ D' F3 F34' I 4 EN 1$ C' H4' ?-43 3C' -1HE' $EO' C-NF' >H$E' $C' $&H43C$ D' CF$ ' EH ' Q3' D33 J 3D' H4' $+3E' 3 F34' E' >$ 4' H4' ;X- O' H' D CNF$423' $EO' H F34' I 34CHE' H4' I 34CHEC' H4' F3' ;C $ 3' H4' ;C $ 3C' H&' $EO' H F34' I 34CHE' H4' I 34CHEC' H4' H' $&&3N' $EO' H F34 ?3N-4 O

?3N-4 O' &H4' F3' C$J3' G3Q ' H4' E' $EO' P$EE34' H' 143 3E ' $EO' D1E ' 4Q- HE' $JHE2C ' ?-43 3C ' H4' $EO' G3J $ED' H&' ?-43 3C' 2 EC ' F3 4' I4 EN 1$ C ' 14H D3D' &H4' QO' F C' N

W> ' ED' Q3' '&-4 F34' 3E$N 3D ' *F$ ' E' N$C3' I34CHEC' N$440 E2' HE' *4$D3' E' $' I$4 E34CF 1' CF$ ' $11 O' &H4' $EO' ; NF3X-34' B C' H' Q3' $D $EN3D' QO' 4 -3' H&' F C' N ' HE' $EO' H4' F3' ?3N-4 3C' F343 E' J3E HE3D ' $ED' CF$ ' CFH ' H' F3' ?$ C&$N HE' H&' F3' C$D' @HJ J CR C HE34C' F$ ' C-NF' ; NF3X-34' B C' $43' H' Q3' $D $EN3D' H' C-NF' I34CHE' H4' I34CHEC' &H4' F3' #C3' H&' 3' C$D' I$4 E34CF 1' F3' I34CHEC' CH' $11 O E2' J$O' 2 3' H' F3' C$D' @HJ J CC HE34C ' H 34' $ED' $QH 3' F3' ?3N-4 O' 43X-43D' QO' F C' N ' $' I4H J CCH4O' , H 3C' E' F3' I$4 E34CF 1' 6 4J ' E' C-NF' ?-J' H4' ?-JC' H&' P HE3O' 43C13N 3 O ' EH ' 3 N33D E2' E' F3' FH 3' F3' JH-E ' H&' F3' ?-J' H' Q3' $D $EN3D' H' C-NF' I34CHE' H4' I34CHEC ' F' E 343C ' &H4' F3' C$J3 ' $C' F3' C$D' @HJ J CC HE34C' CF$ ' D 43N ' F NF' I4H J CCH4O' , H 3C' $C' $&H43C$ D' CF$ ' 43C13N 3 O' Q3' J$D3' 1$O$Q 3' H' F3' ?3N43 $4O' H&' F3' C$D' @HJ J CC HE34C' &H4' F3' * J3' Q3 E2 ' $ ' C-NF' * J3C' $ED' E' C-NF' I4H1H4 HEC' $C' F3' D $EN3' H' Q3' J$D3' H' F3' I34CHE' H4' I34CHEC' CH' $11 O E2' CF$ ' Q3' C 1- $ 3D' H' Q3' 1$ D' QO' $EO' ?3N-4 O' 3E 343D' E H' QO' C-NF' I34CHE' H4' I34CHEC' 1-4C-$E ' H' F C' N ' F NF' , H 3C' CF$ ' Q3' 43C13N 3 O' J$D3' E' F3' 6H4J ' &H H E2 ' ^ F$ ' C' H' C$O _

I34CHEC' $11 O E2' &H4' ; NF3X-34' B C' &$4' F3' #C3' H&' I$4 ' E34CF 1C J$O' 2 3' P H 3C' ' E' F3' I$4 R E34CF 1' 6 4J

. b '14H J C3' H' 1$O' H' F3' ?3N43 $4O' H&' F3' @HJ J CC HE34C' &H4' 6H4J ' H&' I$4 E34CF 1' , H 3C

7 F3' CC-3' H&' ; NF3X-34' B C' $D $EN3D' -ED34' $E' N E '

7 - 3D' ' / '

7 F3' ?-J' H&' F

7 E 343C '&H4' F3' C$J3' $ ' F3' ' $ 3' H&' IH-EDC

7 5! ' I !# 3 ' QO' F3' =3$4' &4H J ' F3' G$ 3' F343H& ' HE' F3'

7 G$O' H&' EH ' E3

7 3EC- E2

I4H D3D' F$ ' C31$4$ 3' $ED' D C EN ' , H 3C' CF$ ' Q3' J$D3' $ED' 2 3E' QO' C-NF' I34CHE' H4' I34CHEC' $C' $&H43C$ D' E' 43C13N ' H&' 3$NF' EC $ J3E ' H' Q3' 1$ D' H&' F3' ?-J' $D $EN3D' 1-4C-$E ' H' F C' N ' $ED' &H4' F NF' F3' ?3N43 $4O' H' F3' C$D' @HJ J CC HE34C' &H4' F3' * J3' Q3 E2' J$O' C-3' -1HE' 3 34O' C-NF' , H 3 , H 3C' H' Q3' 2 3E' &H4' 3$NF'

W> ' ED' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' E' N$C3' $EO' D $EN3' E' ; NF3X-34' B C' CF$ ' Q3' J$D3' H' $EO' I34CHE' H4' I34CHEC' NHEN34E3D' E' $EO' I$4 E34CF 1' -1HE' F3' 11 N$ HE' H&' $EO' I34CHE' H4' I34CHEC' H' F3' C$D' @HJ J CC HE34C' H' J$+3' C-NF' D $EN3' H' F3' #C3' H&' F3' C$D' I$4 E34CF 1' $ED' C-NF' D $EN3' H4' $EO' I$4 ' F343H&' CF$ ' F$ 3' Q33E' $N -$ O' $11 3D' H' F3' #C3' H&' F3' C$D' I$4 E34CF 1' F3E' F3' ; C $ 3' $ED' ; &&3N C' H&' C-NF' I$4 E34CF 1' CF$ ' Q3' $Q 3' $ED' C-Q(3N ' H' $ED' $43' F343QO' J$D3' NF423Q 3' F' F3' I$O J3E ' H&' F3' ?-JC' $D $EN3D' $ED' $N -$ O' $11 3D' $C' $&H43C$ D' F' E 343C ' &H4' F3' C$J3 ' $ED' $ ' @HC C' $ 3ED E2' F3' ' 3NH 34O' F343H& ' $C' E' N$C3' H&' G3Q ' &H-ED' HE' ' 3NH4D' H' F3' % E2 C' P$(3C O ' EH FC $ED E2' F3' C$D' @HJ J CC HE34C' CF$ ' H4' J$O' F$ 3' $+3E' ?3N-4 3C' &H4' F3' C$J3' G3Q ' E' F3' , $J3' H4' , $J3C' H&' $EO' H F34' I34CHE' H4' I34CHEC' F$E' F3' I34CHEC' NHEN34E3D' E' C-NF' I$4 E34CF 1 ' H4' E' F3' , $J3C' H4' , $J3' H&' $EO' < E3 H4

9 F343' B C' CF$ 'F$ 3' Q33E' $11 3D' H' F3' #C3' H&' I$4 E34CF 1C ' F3 4' ; C $ 3' $ED' ; &&3N C ' H' Q3' $Q 3' FH-2F' H F34' ?3N-4 O' CF$ ' F$ 3' Q33E' $+3E

H4' JH43'H&' C-NF' I$4 E34C'($ ' E' 3$C3' ' CF$ ' Q3' J$D3' $113$4' QO' && D$ ' H' $EO' B$4HE' H&' F3' 43C13N 3' @H-4 C' H&' ; NF3X-34' E' 8#(% #&' $ED' , % #&' F$ ' C-NF' D $EN3 ' H4' C-NF' I$4 ' F343H&' $C' $&H43C$ D ' $C' $N -$ O' $11 3D' H' F3' # C3' H&' F3' C$ D' I$4 E34CF 1 ' $ED' F3' C$ J 3' Q3 E2' &H-ED' J ' %3@H4D ' ' CF$ ' Q3' $ &- ' &H4' C-NF' B$4HE' H' N$-C3' $E' ; 3E ' H' Q3' CC-3D' 2 EC ' F3' ; C $ 3' $ED' ; &&3N C' H&' C-NF' I$4 E34CF 1' H' F3' 1H-E ' H4' F3' ?-J ' CH' $N -$ O' $11 3D ' F' E 343C ' F343-1HE' $ED' @HC C' $C' $&H43C$ D ' E' F3' C$ J 3' P$EE34' $C' &' F3' D $EN3' CH' $N -$ O' $11 3D' $C' $E' J J 3D $ 3' G3Q ' &4H J ' $ ' F3' I34CHEC' NHEN34E3D' E' C-NF' I$4 E34CF 1' H' F3' % E2 C' P$(3C O

(!A+ A' @&B' &' ' B' #+' #)(@H J J CR C HE34C' H' F$ 3' F3' * J 3' H&' ' 3R 1$O J 3E ' H&' ; NF3 -3 ' ' B C' 3 ' ' 3ED3D '

W; ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' $EO ' I34CHE' H4' I34CHEC' H' FH J ' C-NF' ; NF3X-34' B C' F$ 3' Q33E' CC-3D ' F C ' F34 ' H4' F3 4' 8 3 4C ' ; 3N- H4C ' $ED' D J E C 4$ H4C ' $ED' FH' 43C13N 3 O' CF$ ' Q3' D3CFH-C' H&' 3E $42 E2' H4' 3 3ED E2' F3' * J 3' J 3D' QO' F3' C$ D' N ' &H4' C-NF' ' 31$OE 3E H' J $+3' 11 3$ <E' H' F3' C$ D' @H J J CC HE34C' &H4' $EO' ; E $423 J 3E ' H4' ; 3EC HE' H&' F3' * J 3' J 3D' &H4' ?-NF' ' 31$O J 3E ' $ ' $EO' * J 3' 143 H-C O' H' F3' ; 1 4$ HE' H&' 6 3' =3$4C' &4H J ' F3' * J 3' H&' F3' >H$E' Q3 E2' $D $EN3D ' $ED' H' H&&34' H' F3' C$ D' @H J J CC HE34C' ?3N-4 O' &H4' F3' D-3' I$O J 3E ' H&' C-NF' >H$E' $ED' E 343C ' $ ' H4' F E' C-NF' 3E $423D' H4' 3 3ED3D' * J 3C ' 3 F34' FO' NHE E- E2' E' F3' P$EE34' F343 E $& 34' J 3E HE3D' F3' ?-43 3C' H4' ?3N-4 3C' $ 43$DO' $Q 3' H4' 1 3D23D' &H4' ' 31$O J 3E ' H&' 43' J H-E ' H&' F3' C$ D' B C' $ED' F3' E 343C ' F343HE ' H4' QO' 14HN-4 E2' H4' J $+ E2' &-4 F34' H4' H F34' ?-43 3C' H4' ?3N-4 3C' H&' F3' , $ -43' $ED' \-$ O' C13N & 3D' E' F C' N ' $C' F3' H4' F3O' J $O' F3' $Q 3' H' 2 3' H4' 3&&3N ' $ED' F3' C$ D' @H J J CC HE34C' $43' F343QO' $- F J T3D' &4H J ' * J 3' H' * J b' H' (-D23' H&' $-D' D3 34 J E3' -1HE' F3' ?-&& N 3ENO' H&' C-NF' ?-43 O' H4' ?-43 3C ' ?3N-4 O' H4' ?3N-4 3C ' H' Q3' 2 3E' &H4' C3N-4 E2' F3' ' 31$O J 3E ' H&' $EO' C NF' >H$E' $ ' F3' ; 1 4$ HE' H&' C-NF' 3E $423D' H4' 3 3ED3D' * J 3C ' E' +3' P$EE34' $C' F3O' $43' 3E$Q 3D' H' DH' F' 43C13N ' H' F3' H(2 E$ ' ?-43 3C' H4' ?-43 O' H4' ?3N-4 3C' H4' ?@N-4 ' O' D 43N 3D' H' Q3' 14H1HC3D ' 2 3E ' $ED' J $D3' 143 H-C' H' F3' ' D $EN3' H4' CC-3' H&' $EO' ; NF3X-34' B C' -ED34' F C' N

@H J J CR C HE34C' H' D3 34 J E3' HE' F3' ?-&& R N 3ENO' H&' ?-43 3C' $ED' ?3N-4 3C

W> ' ED' Q3' ' &-4 F34' 3E$N 3D ' * F$ ' 3 34O' I34CHE' FH' EH ' H4' $ ' F3' * J 3' H&' $EO' C-NF' 11 N$ HE' CF$ ' Q3' $Q 3' $C' ?-43 O' &H4' F3' ' 31$O J 3E ' H&' $EO' C-NF' >H$E' H4' D $EN3 ' $ED' FH' CF$ ' Q3' E2' H' 43J$ E' ?-43 ' &H4' F3' ' 31$O J 3E ' H&' C-NF' >H$E' H4' D $EN3' $ ' F3' ; 1 4$ HE' H&' C-NF' 3E $423D' H4' 3 3ED3D' * J 3 ' $ED' FH' CF$ ' Q3' $114H 3D' QO' F3' C$ D' @H J J CC HE34C' &H4' F$ ' I -41HC3 ' CF$ ' C 2E &O' F3 4' @HEC3E ' H' 43J$ E' ?-NF' ?-43 O' QO' C-FC34 9 E2' F C' , $ J 3' H' $ 9 4 E2' ' H' Q3' 3& ' F' F3' ?3N43 $4O' H&' F3' C$ D' @H J J CC HE34C' &H4' F3' * J 3' Q3 E2' ' E' F3' &H H E2' 6 H4 J ' ^ F$ ' C' H' C$O_

?-43 3C' E2' H' 43J$ E' &H4' ' 31$O J 3E ' H&' >H$E' $ ' ; 1 4$ HE' H&' 3 3ED3D' * J 3C' H' C 2E &O' F3 4' @HEC3E ' H' F3' ?3N43 $4O

6H4 J ' H&' @HEC3E

7 8 ; ' ; ' ?' F3' @H J J CC HE34C' E$ J 3D' E' $ED' 1H E 3D' -ED34' 7 $ED' QO' 4 -3' H&' $E' N ' H&' I$4 $ J 3E ' 1$CC3D' E' F3' 7 =3$4' H&' F3' ' 3 2E' H&' 8 C' 143C3E ' P$(3C O ' E - 3D

D D' HE' F3' G$O' H& $Dg $EN3' H
F3' ?-J ' H&' E' ; NF3 34' B C' FH' F343-1HE 3E 343D' E H' $ED' 3 3N- 3D' ?3N-4 3C' H' 8 C' P$(3C O' &H4' I$O J 3E ' H&' F3' C$ D' ?-J ' H&' HE' F3' G$O 7 H&

V _ A 9 ? 6 ' : 6 '' '& ' #) ! ' ''9'

H&' F' E 343C '$' F3' '$ 3' H&' 6H-4' I H-EDC' 134' ; ,G 4 ,
5! '/##3 ' $NNH4D E2' H' F3' C$ D' N ' $ED' F3' C3 34$' I 34CHEC'
F343-ED34' E$3E HE3D' 1' ?-43 3C' &H4' F3' C$ D'
3E 343D' E H' $ED' 3 3N- 3D' b1 !' +!'3 !1 a' ,' 8 C' P$(3C O' &H4'
F3' C3 34$' ?-J C' H&' P HE3O' C3' H11HC 3' F3 4' 43C13N 3' ,$ J 3C'
F343-ED34' 4 3E' NHED HE3D' &H4' '31$0 J 3E' H&' F3' C$ D' ?-J' H&'
$ED' F3' E 343C' F343H&' E' J $EE34' $&H43C$ D'.
ED' F343$C' F3' C$ D' $11 3D' H' F3' C$ D' @H J R
J CC HE34C' H' 3 3ED' F3' * J 3' &H4' F3' I $0 J 3E' H&' F3' FH 3' H&'
F3' C$ D' >H$E' E' ; NF3X-34' B C' &H4' F3' ?1$N3' H&'
&4H J' F3' * J 3' 9 F3E' F3' C$ J 3' Q3N$ J 3' 1$0$Q 3' $ED'
14H1HC3D' F$' F3' I 34CHEC' FHC3' ,$ J 3C' $43' F343 H' C-QCN4 Q3D'
CF$' NHEC3E' H' 43 J $ E' $C' ?-43 3C' &H4' I $0 J 3E' H&' F3' C$ D' ?-J'
H&' F' E 343C' $' F3' '$ 3' H&' 5!
I !# 3 '5! '/##3 '$' F3' C$ D' 3 3ED3D' I 34 HD' H4' I 34 HDC' E' +3'
P $EE34' $C' F3O' EH 'C $ED' $Q 3' &H4' I $0 J 3E' F343H&' F' E 343C '
$NNH D E2' H' F3' C$ D' N :' ,H ' F3C3' I 43C3E C' E3CC' * F$' 3'
FHC3' ,$ J 3C' $43' F343-ED34' C-QCN4 Q3D' DH' F343QO' C3 34$ O' $ED'
43C13N 3 O' D3N $43' F$' F3' C$ D' 11 N$ HE' $ED' I 4H1HC$' CH'
J $D3' H' C$ D' @$ J J CC HE34C' QO' F3' C$ D'
$C' $&H43C$ D' 343' J $D3' F' H-4' I 4 O' @HEC3E '$ED' 114HQ$ HE' !
$QD' 3' DH' F343QO' NHEC3E' $ED' $2433' F$' F3'
$ 43$D(' 3 3N- 3D' QO' -C' &H4' F3' 43C13N 3' ?-J C' C3' H11HC 3' H-4'
43C13N 3' ,$ J 3C' $' F3' 6HH' F343H&' $C' $&H43C$ D' CF$' 43 J $ E' $ED'
@HE E-3' $C' $' ?3N-4 O' &H4' F3' '31$0 J 3E' H&' F3' C$ D' ?-J' H&'
F' E 343C' F343HE' $' F3' '$ 3' H&'
1H-EDC' 5 ' I !# 3 '5! '/## #' ' F3' C$ D' 3 3ED3D' I 34 HD' E'
+3' P $E134' $C' F3' C$ J 3' EH 'C $ED' $C' $' ?3N-4 O' &H4' '31$0 J 3E'
F343H&' $NNH4D E2' H' F3' C$ D' N ' $ED' 3' &-4 F34' NHEC3E' $ED'
$2433' F$' F3' C$ D' @H J J CC HE34C' CF$' Q3' $' Q34 O' H' 24$E' H'
F3' C$ D' F3' C$ D' ; 3EC HE' H&' * J 3' &H4' I $0 J 3E
3 F34' -1HE' F3' ?3N-4 O' $ 43$DO' 43N3 3D' &H4' F3' C$ J 3' H4' -1HE'
$1O' H F34' H4' D &&343E' ?3N-4 3C' $C' F3O' E' F3 4' G CN43 HE' CF$'
F E+' & ' H' $NN31 ' 9 E3CC' H-4' 8 $EDC' F C' G$0
H&

ED' 3 34O' C-NF' @HEC3E 'CH' C-QCN4 Q3D' $ED' D3 343D' CF$' Q3' Q ED E2'
-1HE' F3' 43C13N 3' ?-43 3C' H4' ?-43 O' CH' C 2E E2' F3' C$ J 3' F3 4'
F C' H4' F34' 8 3 4C' ; 3N- H4C' H4' D4$ E C $ H4C' E' +3' P $EE34' $C'
C-NF' 43C13N 3' ?-43 3C' H4' ?-43 O' 343' H4' $C' QO' F3' H4 2 E$' ?3R
N-4 O' 3E 343D' E H' QO' F3 J' H4' F J' QH-ED' &H4' F3' '31$0 J 3E' H&' C-NF'
>H$E' H4' D $EN3' $' F3' * J 3C' F343QO' J 3D' &H4' F3' '31$0 J 3E'
F343H&

W> ' ED' Q3' '&-4 F34' 3E$N 3D' * F$' E' N$C3' $EO' I 34CHEC' J $+ E2' @H J J C'
C-NF' 11% C $E' H' F3' C$ D' @H J J CC HE34C' CF$' EH ' 143 H-C' H' C HE34C J $O'
F3' I 34 HD' J 3D' &H4' F3' '31$0 J 3E' H&' $EO' >H$E' H4' D $EN3' Q3' ' I34'
1431$43D' H' 3ED34' C-NF' C-&?N 3E' ?-43 3C' H4' ?-43 O' H4' ?3N-4 3C' H4' A+ A' +#'
?3N-4 O' $C' CF$' QO' F3' C$ D' @H J J CC HE34C' Q3' D33 J 3D' C$ C&$N H4O' '!('&!(<'#+'
F3' C$ D' @H J J CC HE34C' J $ 'QO' 9 4 E2' -ED34' F3' 8 $EDC' $ED' ?3$ C'
H&' $EO' * F433' H4' J H43' H&' E3 J' 24$E' H' C-NF' I 34CHEC' C-NF' &-4 F34' Oo- 4 ?'
* J 3' &H4' F3' 14HN-4 E2' $#D' 3ED34 E2' C-NF' ?-43 3C' H4' ?3N-4 3C' '!(2)+GA' H
^EH' 3 N33D E2' F3' > J C' F343 E $& 34' J 3E HE3D_' $C' F3O' E' F3 4') A#& @(#'
G CN43 HE' CF$' F E+' & ' H' $ H '' $ED' E' F3' J 3$E J 3' $ED' -E ' Q3NH J E2
S' I F3 <G(

F3 ; 1 4$ HE H& F3 E$3 CH & H 3D QO F3 C$ D @H$ J CC HE34C &H4 F3 I -41HC3 $&H43C$ D C-NF I$4 3C 43C13N 3 O CF$ EH Q3 D33 J 3D H4 $+3E H F$ 3 J $D3 G3 $- E 1$0 J 3E H& C-NF EC $ R J 3E H& F3 C$ D >H$E EH4 CF$ $EO I 4HN3CC ?- H4 H F34 I 4HR N33D E2 Q3 CC-3D NH J J 3EN3D H4 F$D EH4 $EO 9 44E &H4 F3 C$ J 3 24$E 3D 2 EC F3 C$ D I $4 3C 43C13N 3 O H4 F3 4 ?-43 3C H4 ?-43 O F3 4 8 3 4C ; 3N- H4C H4 D J E C 4$ H4C H4 -1HE H4 E 43C13N H& $EO ?3N-4 3C H4 ?3N-4 O J $D3 $CC 2E3D H4 D31HC 3D &H4 F3 I -41HC3 H& 43NH 34 E2 H4 NH J 13 E2 I $0 J 3E H& F3 C$ D >H$E H4 $EO I $4 F343H&

; 3EC HE H& * J 3 EH H 3 N33D *F433 PHE FC FH- @HEC3E H& F3 *43$C-40

W> I 4H D3D $ $OC $ED Q3 &-4 F34 3E$N 3D *F$ E N$C3 C-NF 11 N$ HE CF$ Q3 J $D3 H F3 C$ D @H J J CC HE34C &H4 F3 ; E $423 J 3E H4 ; 3EC HE H& F3 * J 3 J 3D &H4 F3 I $0 J 3E H& $EO C-NF >H$E H4 D $EN3 F3 C$ D @H J J CC HE34C CF$ EH FH- F3 @HEC3E E 9 4 E2 H& *F433 H4 J H43 H& F3 @H J J CC HE34C H& F3 *43$C-40 &H4 F3 * J 3 Q3 E2 $ H $EO HE234 * J 3 &H4 F3 I -41HC3C $&H43C$ D F$E *F433 PH- FC H Q3 @H J 1- 3D &4H J F3 * J 3 H& I $0 J 3E H& F3 ?$ D > E $C J 3D QO F3 C$ D N O $ED $EO M4$E H4 H $EN3 QO F3 C$ D @H J J CC HE34C H $EO I 34CHE H4 I 34CHEC J $+ E2 C-NF 11 N$ HE <& $EO HE234 H4 &-4 F34 * J 3 &H4 F3 I -41HC3C $&H43C$ D F$E $C F34H E F3&H43 J 3E HE3D FH- C-NF @HEC3E $C $&H43C$ D CF$ Q3 FH O H D $ED H& EHE3 ; &&3N

I 34CHEC H FH J * J 3 &H4 31$OR J 3E H& >H$EC CF$& Q3 3 3ED3D H 3E 34 E H $DD HE$ BHEDC KH

W> W ED Q3 &-4 F34 3E$N 3D *F$ $ I 34CHEC FH CF$ J $+3 C-NF 11 N$ HE H F3 C$ D @H J J CC HE34C &H4 F3 ; E $423 J 3E H4 ; 3EC HE H& F3 * J 3 H& ; 31$0 J 3E $ED FHC3 I 4H1HC$ C CF$ Q3 $114H 3D QO F3 ?$ D @N J E CC HE34C C 9 & 43X- 43D &H4 F F 3E 34 E H C-NF $DD HE$ BHEDC H4 <Q 2$ HEC $C CF$ Q3 43X- 43D $ED $114H 3D QO F3 C$ D @H J J CC HE34C &H4 F3 D-3 31$0 J 3E H& F3 J H-E H& C-NF ; NF -34 B C $ H4 Q3&H43 F3 ; 1 4$ HE H& C-NF 3E $423D H4 3 3ED3D * J 3 $ED CF$ D31HC H4 N$-C3 H Q3 D31HC 3D E F3 8 $EDC H& F3 C$ D @H J J CC HE34C H4 H& C-NF I 34CHE $C F3O CF$ $11H E H 43N3 3 F3 C$ J 3 $ C-NF &-4 F34 H4 H F34 ?3N- 3C $C CF$ F$ 3 Q33E 3ED343D QO F3 C$ D I $4 3C 43C13N 3 O $ED $114H 3D QO &H3 C$ D @H J J CC HE34C $ED CF$ 1$O C-NF E 343C HE F3 C$ D >H$E $ED E C-NF P $EE34 $ED F E C-NF * J 3 $C F343 E $& 34 D 43N 3D $ED &4H J $ED $& 34 F3 ; 3N- HE $ED G3 34O H& C-NF BHEDC $ED F3 C 2E E2 H& C-NF @HEC3E QO F3 H4 2 E$?-43 3C $C $&H43C$ D $ED F3 G31HC H& C-NF &H4&H 34 ?3N-4 3C ^$C &H3 @$C3 J $O Q3_ $ D &H3 1$0 J 3E H& C-NF E 343C $C $&H43C$ D F3 C$ D @H J J CC HE34C J $O 24$E $ED $ H E J $EE34 F343 E $& 34 J 3ER HE3D H C-NF I $4 3C 43C13N 3 O C-NF ; E $423 J 3E ; 3EC HE H& &H3 * J 3C H& 31$0 J 3E H& C-NF >H$E $C F3O F3 C$ D @H J J CR C HE34C CF$ E F3 4 G CN43 HE F E+ 14H134 CH F$ F3 C$ J 3 Q3 24$E 3D $ED $ H 3D F F3 @HEC3E $ED 114HQ$ HE H& &H3 >H4DC @H J J CC HE34C H& 8 C P $(3C O C *43$C-40 H4 $EO *F433 H4 J H43 H& F3 J &H4 &H3 * J 3 Q3 E2 $ED C-NF I $4 3C 43C13N 3 O H FH J F3 C$ D @H J J CC HE34C CF$ $ H C-NF ; E $423 J 3E H4 ; 3EC HE H& &H3 * J 3C H& I $0 J 3E H& &H3 C$ D >H$E CF$ EH F3 D33 J 3D H4 $+3E H F$ 3 J $D3 G3&$- E I $0 J 3E H& F3 C$ D >H$E E J $EE34 D 43N 3D QO F3 C$ D 43N 3D N EH4 CF$ $EO I 4DN3CC ?- H4 H F34 I 4HN33D E2 Q3 CC-3D NH J J 3EN3D H4 F$D EH4 $EO 9 44E &H4 F3 C$ J 3

@H J J CR C HE34C J $O 4E H C-NF 34CHEC ; R 3EC HE H& * J 3C H& 3R 1$0 J 3E QO N34 $ E)E C $ E 3E C

U ` K S "M # > ; > P ' ' @$1 U! ' YS

'C$ J 3' 24$E 3D' 2 EC ' F3' C$ D' I $4 3C' 43C13N 3 O ' H4' F3 4' ? - 43 3C' H4' ? - 43 O ' F3 4' H4' $EO' H&' F3 4' 8 3 4C ' ; 3N - H4C ' H4' D J E C 4$ H4C ' H4' - 1HE' H4' E' 43C13N ' H&' $EO' ?3N - 4 3C' H4' ?3N - 4 O' J $D3 ' $CC 2E3D ' H4' D31HC 3D' &H4' F3' I - 41HC3C' E' F3' C$ D' N ' J 3E HE3D ' <4 H F34 C3 ' E' H4D34' H' 43NH 34' H4' NH J 13 ' I $0 J 3E ' H&' F3' C$ D' >H$E' H4' $EO' I $4 ' F343H&' - E ' F3' ; 1 4$ HE'H &' C - NF' 3E $423D' H4' 3 3ED3D' * J 3C' $C' $&H43C$ D

W> >' ED' Q3' '&- 4 F34' 3E$N 3D ' * F$ ' E' $ ' @$C3C' E' F NF' F3' C$ D' @H J J CC HE34C' CF$ ' F E+' & ' H' 24$E ' H4' $ H ' $EO' C - NF' ; E $423 ' J 3E ' H4' ; 3EC HE' H&' * J 3' &H4' F3' ' 31$0 J 3E ' H&' C - NF' >H$E ' H4' $EO' EC $ J 3E ' F343H&' F30' F3' C$ D' @H J J CC HE34C' CF$ ' N34 &O' C - NF' F3 4' H $EN3' QO' $' 9 4 E2' - ED34' F3' 8 $EDC' H&' $EO' * F433' H4' J H43' H&' F3 J ' E' F3' 6H4 J ' &H H E2 ' ^ F$ ' C' H' C$0 _'

@H J J C ' C HE34C' H 2 - NF' ; 3E ' C HE' E' F3' &H H E2

7 = 8 ; ' ; ?' F3' @H J J CC HE34C' E$ J 3D' E' $ED' $11H E 3D' - ED34'
7 $ED' QO' 4 - 3' H&' $E' N ' H&' I $4 $ J 3E ' 1$CC3D' E' F3'
7 =3$4' H&' F3' ' 3 2E' H&' 8 C' 143C3E ' P $(3C O ' E - 3D

7 D D' HE' F3' G$O' H&' $D $EN3' H
F3' ? - J ' H&' E' ; NF3X - 34' B C ' FH' F343R
- 1HE' 3E 343D' E H' $ED' 3 3N - 3D' $' BHED' H' 8 C' P $(3C O' E' F3' 13E$ '
? - J ' H&' NHED HE3D' &H4' F3' I $0 J 3E ' H&' F3' C$ D' ? - J
, ' ' F' E 343C ' QO' EC $ J 3E C ' $NNH4D E2' H
F3' C$ D' N : ED' F343$C' F3' C$ D' ' $11 3D
H' F3' C$ D' @H J J CC HE34C' H' 3 3ED' F3' * J 3' &H4' F3' I $0 J 3E ' H&'
F3' FH 3' H&' F3' C$ D' >H$E' E' ; NF3X - 34' B C ' b , ' F3' 6 4C
?3NHED ' <4 * F 4D' EC $ J 3E C ' 1') !' 1 !' ' 4! ' &H4' F3' ?1$N3' H&'
&H4' F3' * J 3' b , ' 43C13N 3' * J 3Cm' F3E' F3' C$ J 3'
Q3N$ J 3' 1OQ 3' $NNH4D E2' H' F3' C$ D' & 4C J 3E HE3D' N ' $ED'
F$ F' 3E' ?3N - 4 O' &H4' I $0 J 3E ' F343H&' $ ' C - NF' 3 3ED3D' I 34 HD '
F NF' F$ F' Q33E' $114H 3D' : , H ' 3' FHC3' , $ J 3C' $43' F343 - E H' C - QR
CN4 Q3D' $ED' ?3$ C' $&& 3D ' Q3 E2' * F433' H&' F3' C$ D' @H J J CC HE34C '
DH ' E' 1 - 4C - $EN3' H&' F3' G 43N HEC' NHE $ E3D' E' F3' C$ D' $C J 3ER
HE3D' N ' N34 &O ' * F$ ' 3' F$ 3' 24$E 3D' $ED' $ H 3D' H' F3' C$ D
F3' &- 4 F34' * J 3' H&' &H4'
' 3(O J 3E ' H&' F3' C$ D' ?D J ' H&' &4H J ' F3' * J 3' b ,
43C13N 3' * J 3Cm' F3E' F3' C$ J 3' Q3N$ J 3' 1OQ 3 ' M 3E' - ED34'
H - 4' 8 $EDC' $ED' ?3$ C ' F C' G$O' H&'

ED' C - NF' @34 & N$ 3C' CF$ ' Q3' D3 343D' H' F3' 43C13N 3' I $4 3C' , '
FH J ' C - NF' H $EN3' CF$ ' Q3' J $D3 ' $ED' $' I , 5 ' , ' P E - 3' H&' $ '
C - NF' @34 FN$ 3C' H4' H $EN3C' CF$ ' F3' 3E 343D' E' $' BHH+' H4' BHH+C'
H' Q3' +31 ' QO' F3' C$ D' @H J J CC HE34C' &H4' F$ ' I - 41HC3 '

@H1 3C' H&' C - NF@34 & ' 3E 343'

W> >' I 4H D3D' $ $OC ' $ED' Q3' '&- 4 F34' 3E$N 3D ' * F$ ' $ ' $ED'
3 34O' I 34CHEC' $ED' I 34CHE' H' FH J ' C - NF' ; E $423 J 3E ' H4' ; 3EC HE'
H&' * J 3' &H4' F3' I $0 J 3E ' H&' F3' C$ D' EC $ J 3E C ' H4' $EO' H4' 3 F34' H&'
F3 J ' CF$ ' Q3' 24$E 3D' H4' $ H 3D' - ED34' F3' I H 34C' $ED' - FH4 3C'
F343 E Q3&H43' 2 3E' &H4' F$ ' I - 41HC3 ' CF$ ' 143 H - C' H' 43N3 E2' F3'
@34 & N$ 3' H&' F3' C$ D' @H J J CC HE34C' &H4' F3' C$ J 3 ' 1$O' H4' N$ - C3' H'
Q3' 1$ D' H' F3' C$ D' @H J J CC HE34C ' H4' C - NF' I 34CHEC' H4' I 34CHE' $C' F30'
CF$ ' $11H E' H' 43N3 3' F3' C$ J 3 ' $ED' $ ' 443$4C' H&' E 343C ' &H4' F3'
$$ D' >H$E

B3&H43' 43R N3 E2' @34R & N$ 3C ' 3' E 343C ' H&' >H$EC' H Q3

W> W ' ED

Y U K S M # > ; > P ' ' @$1 U!

&'G3&$- 'Q3' J$D3' E' '3' 1$0 J3E 'H&' >H$EC' F3' JH4 2$23D' (143 J C3C' J$O' Q3' CH D

W> W' ED' Q3' '&-4 F34' 3E$N 3D' *F$' &' $EO' G3&$- ' CF$ ' Q3' J$D3' E' F3' '31$0 J3E 'H&' $F' 34' $EO' 5&34 '34&' a-NF' >H$E' H4' D $EN3' &H4' F NF' $EO' C-NF' P H4 2$23' CF$ ' Q3' $NN31 3D' H4' $+3E' QO' F3' C$ D' @H J J CC HE34C' $C' $' ? $4 O ' ^Q- 'EH 'H F34 C3 _' F3' C$ D' @H J J CR C HE34C ' H4' F3 4' H4E 3C' <4 H4E3O' H' Q3' $11H E 3D' &H4' F$ ' I -41HC3 ' QO' F3' 14H134' I 4HN33D E2C' E' F3' C$ D' C $EDC ' -1HE' 5-D2R J 3E ' H' Q3' 3E 343D' -1 ' CF$ ' $+3' 1HCC3CC HE' H&' $ ' H4' $EO' I $4 C' H4' I $4 ' H&' F3' C$ D' J H4 2$23D' I &3 J C3C ' $ED' QO' ?$ 3' H4' P H4 2$23' H&' F3' C$ J 3 ' H4' $' N DE13 3E ' I 34 ' F343H&' 4$ C3' $ED' 3 O' C-NF' ?- J' H4' ?- J C' H&' P HE3O' $C' CF$ ' Q3' C-&& N 3E ' H' 431$O' $ ' P HE 3C' D-3' -1HE' H4' E' 43C13N ' H&' C-NF' H$E' H4' D $EN3 ' $ED' F3' E 3 3C ' F343H&' $ED' $ ' @HC C' $ED' @F$423C' $ 3ED E2' C-NF' I 4HN33D E2C' ' $ED' F3' P HE 3C' CH' 43NH 3 3D' ^ F3' @HC C' $ED' @F 823C' $&H43C$ D' 3 N31 3D_' CF$ ' Q3' 1$ D' $ED' $11 3D' E' 43 J Q-4C3 J 3E ' $ED' C$ C&$N HE' H&' F3' ?- J' D-3' -1HE' H4' E' 43C13N ' H&' C-NF' >H$E' H4' D $EN3 ' E' +3' P $EE34' $C' F3' ?- J C' H&' P HE3O' H' Q3' 43NH 343D' -ED34' F3' I 4HN33D E2C' $- FH4 T3D' QO' F3' C$ D' 43N 3D' N ' E' 'D3&$- ' H&' I $0 J 3E ' $43' F343QO' D 43N 3D' H' Q3' 1$ D' $ED' $11 3D$ED' F3' '3N3 1 ' ?C-NF' I 34CHEC' H4' I 34CHE' $C' F3' C$ D' @H J J CC HE34C' H4' $EO' *F433' H4' J H43' H&' F3 J ' CF$ 'EH J E$ 3' $ED' 1H E '$b' F3 4' HE 'H4' H4E3O' E' F3' C$ D' C $EDC' H4' E' ! ' ?5 # ' CF$ ' $ HE3' Q3' $' &- ' $ED' C-&& N 3E ' G CNF$423' H' C-NF' P H4 R 2$233C' H4' I -4NF$C34C' H4' P H o $233' H4' I -4NF$C34' && 4' F3' P HE 3C' H4' P HE3O' $D $EN3D' HE' P H4 2$23 ' H4' &H4' F3' I -4NF$C3' P HE 3C' H4' I -4NF$C3' P HE3O' H&' F3' 43C13N 3' I 43 J C3C' CH' J H4 2$23D' H4' CH D(' $ED' C-NF' P H4 2$233C' H4' I -4NF$C34C' H4' P H4 2$233' H4' I -4NF$C34' CF$ ' EH ' Q3' QH-ED' H' C33' H' F3' 11 N$ HE' F343H&' EH4' CF$ ' Q3' $Q 3' H4' E' $EO' P $EE34' $NNH-E $Q 3' &H4' F3' P C$11 N$ HE' H4%HE(1 3$ HE' H&' C-NF' P HE 3C' H4' P HE3O' QO' F3' H4E 3C' H4' 23E C' H&' F3' C$ D' @H J J CR C HE34C' H4' $EO' H&' F3 J ' !' $ED' F3' H4E 3C' H4' 23E C' CH' H' Q3' $1R 1H E 3D' $C' $&H43C$ D' CF$ ' 2 3' ?3N-4 O' QO' <Q 2$ HEC' H' 8 C' P $(3C O' F' C-NF' ?-43 3C' $C' F3' C$ D' @H J J CC HE34C' !' $EO' *F433' H4' J H43' H&' F3 J ' CF$ ' $114H 3 ' D- O' H' $NNH-E ' H' F3' C$ D' @H J J CC HE34C' &H4' $ED' H' 1$O' H' F3' @$CF 34C' H&' F3' B$E+' H&' 8#(% #&' F3E' $ED' $C' F3' C$ D' @H J J CC HE34C' H4' $EO' *F433' H4' J H43' F3 J ' CF$ ' D 43N ' H4' $11H E ' $ ' C-NF' ?- J' $ED' ?- J C' H&' P HE3O' $C' F3O' CF$ ' 43NH 34' H4' 43N3 3' -ED34' J.' QO' 4 -3' 4&' C-NF' 11< J J 3E C' $& 34' D3D-N E2' $ ' @HC C ' @F$423C ' $ED' ; 13EN3C' F NF' CF$ ' H4' J $O' Q3' EN-443D' E' F3' '3NH 34O' F343H&' $ED' F3' @H J J CC HE' H4' @H J 13EC$ HE' H' Q3' 1$ D' H4' $ H 3D' H' C-NF' <4E 3?' H4' 23E C' &H4' Q3 4' *4H-Q 3 ' F NF' @HC C ' @F$423C ' ; 13EN3C ' @H J J CC HE ' H4' @H J 13EC$ HE' CF$ ' Q3' 3 $ J E3D' $ED' '$ H 3D' QO' F3' C$ D' @H J J CC HE34C ' H4' $EO' *Q433' H4' J H43' H&' F3 J ' E' C-NF' P $EE34' $ED' H' C-NF' ; 3E ' $C' F3O' E' F3 4' G CN43 HE' CF$ ' F E+' & ' $ED' F3' C$ D' H4E 3C' H4' 23E C' H' Q3' $11H E 3D' $C' $&H43C$ D' CF$ ' $ HE3' Q3' NNH-E $E C' H' 8 C' P $(3C O' &H4' C-NF' ?- J' $ED' ?- J C' H&' P HE3O' $C' F3O' CF$ ' 43NH 34' -ED34' H4' QO' 4 -3' H&' F C' N

'3N3 1 'H&' H4E 3C' $11H E 3D' &3O F3' @H J J CR C HE34C' H' Q3' $' C-&& D3E ' $)AHJ&!*(

H4E 33 H' 2 3' ?3N-4 O' KN

@H J J CR C HE34C' J $O' $11 O' &H4' @H J J CC HEC' 'H&' B$E+R 4-1 NO' ' KN

> ' ED' Q3' '&$4 F34' 3E$N 3D' *F$ ' F3' C J D' @H J E& C HE34C' J $O' E' F3' %$ J 3' H&' F3 4' ?3N43 $4O' &H4' F3' * J 3' Q3 E2' $11 O' QO' 13 HE' H4' H F34 C3' H' F3' 14H134' @H-4 3' E' $ED' +!Z 3&' 43C13NR 3 O' &H4' $EO' @H J J CC HE' H&' B$E+4-1 NO' H4' ?3X-3C 4$ HE' 2 EC ' F3' ; C $ 3' H4' ; &&3N C' H&' $EO' B$E+4-1 ' H4' B$E+4-A4&C ' $ED' H' Z' H- ' $ED' H F34 C3' 1-4C-3' F3' C$ J 3' 43C13N 3 O' E' +3' P $EE34' $C' $EO' H F34 @43D H4

@43D H4 H4 @43D H4C C H4 $43 QO >$ 3E 3D H DH E 8#(% #& $ED
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-1HE $EO C-NF >H$E QO F3 C$ D @H J J CC HE34C -ED34 F C N CF$
Q3 D3N $43D Q$E+4-1 $C $&H43C$ D $ED F3 14 EN 1$ G3Q H4 H4
G3Q H4C F343HE CF$ EH F E 6H-4 33E G$OC $& 34 , H N3 F343H&
$ED '3X-C HE J $D3 &H4 F$ I-41HC3 QO F3 C$ D @H J J CC HE34C
14HD-N3 $EH F34 ?-43 O H4 ?-43 3C H Q3 $114H 3D H& QO F3 C$ D
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C$ D @H J J CC HE34C <E3 8 $ & H& F3 ?-J &H4 F NF C-NF ?-43 O H4
?-43 3C 343 QH-ED QO C-NF ?3N-4 O H4 ?3N-4 3C F3E F3 ?3N-4 O
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CC 2E33 H4 CC 2E33C 6$N H4 H4 6$N H4C *4-C 33 H4 *4-C 33C $C
F3 @$C3 J $O 43X- 43 H& C-NF B$E+4-1 C ; C $ 3 $ED ; &&3N C $ED
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$ED' $ CH' $)' ; NF3X-34' B C' $#& ' BHEDC' B C' H&' ; NF$E23 ' $ED'
D F34' E32HN $Q 3' ?3N-4 3C' &H4' PHE3O' F$ CH3 34' 2 3E' H' H4'
D31HC 3D' F' F3' ?$ D' @H J J CC HE34C' -ED34' F3' - FH4 O' $ED'
&H4' F3' I -41HC3C' H&' F C' N ' CF$ ' Q3' &H4' C-NF' I -41HC3C' 3C 3D' E'
F3' C$ D' @H J J CC HE34C' QO' F3' , $ J 3' H&' `' * F3' @H J J CC HE34C' &H4'
F3' CC-3' H&' ; NF3X-34' B C' $D $EN3D' H' I 34CHEC' NHEE3N 3D' F'
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Q- ' F3' ?3N43 $4O' H' F3' C$ D' @H J J CC HE34C' &H4' F3' * J 3' Q3 E2'
CF$ ' $ $OC' Q3' D33 J 3D' 3' I $ E &&' D4' G3&3ED$E ' E' C-NF' N HE' H4'
?- ' ^$C' F3' @$C3' J $O' Q 3_ ' $FD' EH' N HE' H4' ? - ' CF$ ' Q3' Q4H-2F '
2 EC ' F3' C$ D' @H J J CC HE34C' NH 3N 3 O' H4' ED D-$ O ' H4' 2 EC '
F3 4' ?3N43&$ O ' 3 N31 ' E' HE3' H&' F3' C$ D' @H-4 C' H&' ; NF3X-34 ' $ED'
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H4' ' 37 $CC 2E J 3E ' F343H&' EH4' $EO' I 4H J CCH4O' , H 3' H' Q3' 2 3E' H'
F3' ?3N43 $4O' H' F3' C$ D' @H J J CC HE34C' -ED34' F C' N ' $C' $' ?3N-4 O'
&H4' F3' >H$E' H&' PHE3O' E' C-NF' ; NF3X-34' B C' $C' $&H43C$ D ' EH4'
$EO' && D$ ' G31HC HE ' H&' ' 3N3 1 ' $+3E' H4' H' Q3' $+3E ' H4' $EO'
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NNH-E ' E' F3 4' BHH+C' F' F3' @H J EECC HE34C' &H4' F3' ; 3N- HE' H&'
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; NF3X-34' B C' H' I 34CHEC' NHEE3N 3D' F' !1 ' $#& ' C $EDC c' $FD'
CF$ ' N$44O' H' F3' @43D ' H&' C-NF' NNH-E ' F3' C3 34$ ' PHE 3C' QO' F C'
N ' D 43N 3D' H' Q3' 1$ D' H' F3' @$CF 34C' H&' F3' C$ D' B$E+' H&' 8 #(% #&='
$ED' F3E3 34' F3' C$ D' @H J J CC HE34C' &H4' F3' ; 3N- HE' H&' F C' N '
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@H J J CC HE34C' CF$ ' $ ' CH J 3' * J 3' Q3&Q43' F3' ? - J C' NHE $ E3D' F343 E'
CF$ ' Q3' H' Q3' 431$ D ' D3 34' H' C-NF' I 34CHE' H4' I 34CHEC ' $ ' F C' H4'
F3 4' ' 3X-3C ' < E3' H4' J H43' @34 & N$ 3' H4' @34 & N$ 3C' -ED34' F3' 8 $EDC'
H&' $EO' * F433' H4' J H43' H&' F3 J ' C13N &O E2' F3' J N J - ' H&' F3' ; NF3R
X-34' B C' 3E ' $ED' $D $EN3D' H' C-NF' I 34CHE' H4' I 34CHEC ' $ED' F3'
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@$CF 34C' H&' F3' B$E+' H4' < E3' H&' F3 J ' CF$ ' -1HE' F3' I 4HD-N HE' H&'
C-NF' @34 & N$ 3' H4' @34 & N$ 3C ' $NN31 ' $ED' 43N3 3' &4H J ' F3' I 34CHE' H4'
I 34CHEC' 14HD-N E2' F3' C$ J 3' F3' J H-E ' H&' F3' PHE3O' F343 E' J 3ER
HE3D' H' Q3' 43N3 $Q 3 ' $ED' $ ' F3' 6HH ' H&' C-NF' @34 & N$ 3' H4

 @34 & N$ 3C

@34 & N$ 3C' CF$ ' N+$H 3D23' F3' '3N3 1 ' H&' F3' C$ D' PHE3O'
FH- ' 633' H4' '3 $4D ' $ED' 3 340' '3N3 1 ' CH' 2 3E' $C' $&H43C$ D'
CF$ ' Q3' $& 34 $4DC' Q4H-2F ' H' F3' <& BN3' H&' F3' C$ D' @H J J CC HE34C '
$ED' QO' F3 J' 3E 343D' E' 14H134' BHH+C' H' Q3' 14H D3D' $ED' +31 ' &H4'
F$ ' I -41HC3 ' $ED' F3' C$ D' @H J J CC HE34C ' H4' $EO' * F433' H4' J H43' H&'
F3 J ' CF$ '$ 3C ' F3' C$ J 3' -ED34' ' 3 4' 8 $EDC ' $ED' 43 -4E' F3' C$ J3' H'
F3' I 34CHE' H4' I 34CHEC' 14HD-N E2' F3' C$ J 3' $ ' F3' C$ D' <&& N3 ' $ED'
3 340' C-NF' '3N3 1 ' CH' $ 3C 3D ' $ED' 3 340' C-NF' ; E 40' E' $EO' H&' F3'
?$ D' BHH+C ' CF$ '43C13N 3 O' &4H E' F3EN3&H4 F' Q3' $' $ D' $ED' 3&&3N -$ '
NX- $EN3' $ED' G CNF$423' &H4' F3' ?1 J' H4' ?- J C' 3 143CC3D' F343 E'
H' F$ 3' Q33E' 43N3 3D ' $C' 3 ' 2 EC ' F3' C$ D' @H J J CC HE34C' $ED'
3 340' H&' F3 J ' F3 4' $ED' 3 340' H&' F3 4' ; 3N- H4C' $ED' D J E C 4$ H4C '
$ED' $ CH' H' F3' I 34CHE' H4' I 34CHEC' H' FH J' C-NF' '3N3 1 ' H4' '3N3 1 C'
CF$ ' Q3' 2 3E '$ED' H' $ '$ED' 3 340' F3' I 34CHE' $ED' I 34CHEC' FH' CF$ '
F$ 3' 3E 343D' E H' $EO' ?3N-4 O' E' 43C13N ' H&' F3' ; NF3X-34' B C'
J 3E HE3D' E' C-NF' @34 & N$ 3' H' F NF' C-NF' '3N3 1 ' CF$ ' Q3' C-QR
CN4 Q3D ' F3 4' $ED' 3 340' H&' F3 4' 8 3 J ' ; 3N- H4C '$ED' D J E C 4$ H4C'
43C13N 3 O ' H' $ ' E 3E C' $ED' I -41HC3C' F$ CH3 34' ' $ED' $ ' PHE3O'
F NF' J $O' Q3' 43NH 343D' QO' $EO' 32$ ' H4' H F34' I 4HN33D E2C' D 43N 3D'
QO' F3' C$ D' @H J J HE3&C' -ED34' F3' - FH4 O' H&' F C' N ' CF$ ' Q3'
1$ D' QO' F3' ?3N43 $4O' H&' F3' C$ D' @H J J CC HE34C ' H4' C-NF' H F34' I 34CHEC'
$C' J $O' Q3' $11H E 3D' QO' F3 J' &H4' F$ ' I -41HC3 ' E H' F3' C$ J 3' NR
NH-E ' -1HE' $' @34 & N$ 3' H' Q3' C 2E3D' QO' * F433' H4' J H43' H&' F3' C$ D'
@H J J CC HE34C ' C13N &O E2' HE' F$ ' H4' HE' FHC3' NNH-E ' F3' C$ D'
PHE3O' J $O' F$ 3' Q33E' 43NH 343D ' $ED' F3' C$ D' @$CF 34C' H&' F3' B$E+'
H4' $EO' <E3' H&' F3 J' CF$ ' -1HE' F3' I 4HD-N HE' H&' C-NF' $C J 3E HE3D'
@34 & N$ 3' $NN31 ' $ED' 43N3 3' &4H J' C-NF' ?3N43 $4O' H4' H F34' I 34CHE'
F3' PHE 3C' J 3E HE3D' E' C-NF' $C J 3E HE3D' @34 & N$ 3' $ED' $ ' F3'
6HH ' H&' C-NF' @34 & N$ 3' CF$ '$N+EH 3D23' F3' '3N3 1 ' H&' F3' C$ D'
PHE 3C' FH- ' 633' H4' '3 4$4D

> ' ED' Q3' '&-4 F34' 3E$N 3D ' * F$ ' $ ' ?- J C' H&' PHEYO' F NF'
CF$ ' Q3' 1$ D' E H' F3' B$E+' H&' 8 #(% #&' -ED34' H4' QO' 4 -3' H&' F C' N '
CF$ '&4H J' * J 3' H' * J 3' Q3' 1$ D' E H' F3' '3N3 1 ' H&' 8 C' P$(3C O C'
; NF -34' $' !1 #1 ! =' $ED' F343' CF$ ' Q3' 14H D3D' $ED' +31 ' E'
F3' <&& N3' H&' F3' -D H4' H&' F3' '3N3 1 ' H&' F3' C$ D' ; NF3X-34' $'
BHH+' H4' BHH+C' E' F NF' $ ' F3' PHE 3C' 1$ D' E H' F3' C$ D' '3N3 1 ' QO'
4 -3' H&' F C' N ' CF$ ' Q3' 3E 343D ' C31$4$ 3' $ED' $1$4 ' &4H J' $ ' H F34'
PHE 3C' 1$ D' E H' F3' C$ D' '3N3 1 ' -1HE' $EO' H F34' NNH-E ' F$ 3 34 '
$ED' F$ ' $ ' PHE 3C' CH' 1$ D' E H' F3' C$ D' '3N3 1 ' QO' 4 -3' H&' F C' N '
CF$ ' Q3' C-Q(3N ' $ED' $Q 3' H' F3' #C3C' $ED' I -41HC3C' F343 E $& 34' J 3ER
HE3D' ' ^ F$ ' C' H' C$O _' E' F3' & 4C ' 1 $N3 ' &H4' 1$O E2' H&&' $ED' D CNF$42R
E2' $ ' F3' ; NF3X-34' B C' H' Q3' J $D3' H- ' QO' 4 -3' H&' F C' N ' F'
C-NF' E 343C '$C' CF$ ' Q3' 1OQ 3' F343HE ' $ ' F3' 43C13N 3' G$OC' $ED'
* J 3C' $ED' E' F3' <4D34' $ED' @H-4C3' E' F NF' F3' C$ J 3' $43' F343QO'
D 43N 3D' H' Q3' D CNF$423D' ' $ED' $ ' C-NF' ; NF3X-34' B C' ' $ED' E 343C '
F343HE' $C' $&H43C$ D ' CF$ ' Q3' $ED' $43' F343QO' NF$423D' $ED' NF$423$Q 3'
-1HE' $ED' CF$F' Q3' 431$ D' $ED' QH4E3' QO' $ED' H- ' H&' F3' & 4C ' PHE 3C'
' $ ' CF$ ' $4 C3' E' F3' '3N3 1 ' H&' 8 C' P$(3C O C' ; NF3X-34' $NNH4DR
E2 O' ' $ED' $& 34' 1$O E2' H&&' $ED' D CNF$42 E2' F3' C$ J 3 ' E' F3' E3 '
1 $N3' H' 1$O' H&&' $ ' F3' @F$423C' $ED' ; 13EN3C' F NF' CF$ ' Q3' EN-443D'
QO' Q3' C$ D' @H J J CC HE34C ' $ED' H' J $+3' 2HHD' $ ' C-NF' ?- J C' $C' F$ 3'
Q33E' CC-3D' H' F3' C$ D' @H J J CC HE34C' H- ' H&' F3' I -Q N' PHE 3C
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H $4DC' 3' C$ D' \ $423C' $ED' ; 13EN3C ' E' 1-4C-$EN3' H&' F3' <4D34C' H&' F3' C$ D' @H J J CC HE34C' H&' 8 C' P $(3C O C' *43$C-40' H4' $EO' *F433' H&' F3 J ' H4' F3' @H4D' 8 2F' *43$C-434' &H4' F3' * J 3' Q3 E2 ' $NNH4D E2' H' F3' G 43N HEC' H&' F C' N ' $ED' $ CH' H' 1$O' $ED' C$ C&O' $ ' @F$423C' $ED' ; 13EN3C' EN D3E $ ' H' H4' $ 3ED E2' F3' J $+ E2' H- ' C-NF' ; NF3X-34' B C ' $ED' &'$& O' ?-41 -C' CF$ ' 43 J $ E' H&' F3' P HE 3C' 1$ D' E H' F3' C$ D' ' 3N3 1 ' QO' 4 -3' H&' F C' N ' -1HE' C$ C&O E2' F3' C3 34$ ' ?-4$C' F343QO' NF$423D' F343HE' $C' $&H43C$ D ' C-NF' ?-41 -C' CF$ ' Q3' 43C34 3D' &H4' F3' G C1HC HE' H&' I $4 $ J 3E

& ;' @B &<2& H(+ (B'+ ' #J(' !(<)#'+?' #J)A' H#1

> W ' ED' Q3' '&-4 F34' 3E$N 3D ' *F$ ' 'CF$ ' Q3' $ &- ' &H4' F3' MH 34EH4' $ED' @H J 1$EO' H&' F3' B$E+' H&' 8#(% #&' H' $D $EN3' H4' 3ED' H' 8 C' P $(3C O ' $ ' F3' ' 3N3 1 ' H&' F3' ; NF3X-34' H&' ! ' " #' -1HE' F3' @43D ' H&' F3' ; NF3X-34' B C' CC-3D' -ED34' F C' N ' $EO' ?- J' H4' ?- J C' H&' P HE3O' EH ' 3 N33D E2' E' F3' FH 3' F3' ?- J ' H&' <E3' P HE' ' $EO' F E2' E' $E' N ' 1$CC3D' E' F3' 6 & F' $ED' ? F' =3$4C' H&'

.4 > 4 ' F3' ' 3 2E' H&' % E2' %% ' $ED' \ -33E' ' E - 3D' / #' / ' ' , ' (# #(' ,')! ' U!1 !1' 1!0! %L !1' &' 2 3 !1' 35,#' 7,## (!' , '+ 51' #&' C!11!%1 ' &' 35,#' " ! ! ' / %! ' #&' ,) ! ' < V3 , 1 ' #&' , ' 1!'3 #(' ' ! #' L!', 5!#1!1' #&' / &0 # (!1' #')!' 1 &' / ' ' !# ,#!&' ,' 1 ' ' *! 1,#1' 1' 1) %%' 0,%3# %' ' &0 #'!')!' +3 ' , '6#!' %% ,#' 0!')3#& !&'),31 #&' *,3#&1' ,F &1' ' #(' ,#')!' ' (#1' R #' ! ' H' F3' @HE 4$4O' F343H&' E' $EO C3' EH FC $ED E2

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> W ' ED' F343$C' F3' I $4 3C' H' FH J ' ; NF3X-34' B C' J $O' Q3' CCF3D' QO' 4 -3' H&' F C' N ' J $O' EH ' F$ 3' <NN$C HE' H' J $+3' -C3' H&' $ ' F3' C$ D' B C ' Q3' ' &-4 F34' 3E$N 3D ' *F$ ' C-D ' ; NF3X-34' B C' $C' J $O' Q3' 3ED343D' E' 1$O J 3E ' H4' 1$4 ' 1$O J 3E ' H&' $EO' H&' F3' ?- J C' $D $EN3D' QO' 4 -3' H&' F C' N 'CF$ 'F3' 43 -4E3D' H' F3' <& ?N3' $ ' F3' ; NF3X-34' E' ! ' L #' &4H J ' F NF' F3O' 343' CC-3D ' $ED' &H4 F F' N$EN3 3D' QO' F3' 14H134' <&& N34' H4' <&& N34C' QO' FH J ' F3' C$ D' B C' 343' CC-3D ' F3' H4' F3O' 2 E2' $' @34 & N$ 3' H' F3' I 34CHE' 43 -4E E2' C-NF' ; NF3X-34' B C' &H4' F3' E&H4 J $ HE' H&' F3' C$ D' @H J J CC H-34C ' $ED' E' H4D34' F$ ' F3' J H-E ' F343H&' $ED' H&' $ ' E 343C ' D-3' F343HE' J $O' Q3' N43D 3D' H' F3' I $4 3C' CH' 43 -4E E2' F3' C$ J 3' H' Q3' N$EN3 3D

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F343-1HE

F343-1HE F343QO $- FH4 T3D $ED 43X- 43D H 1-Q CF $ED D3N $43' QO D 34 C3J3E C H Q3 EC34 3D E F3 <,#&,#' ! !' $ED C-NF H& F3 D$ O ,3 C1$134C $C F3 C$D @HJJ CC HE34C H& 8 C P$(3C O C *43$C-40 J$O $11HE ' F$'$' F3 ; 14$ HE H&? '@$3ED$4 PHE FC &4HJ' F3 G$ 3 H& F3 C$D D 34 C3J3E C 43C13N 3 O F3 C$D @HJR J CC HE34C &H4 F3 ; 3N- HE H& FC N' 'N3$C3 H 3 3N- 3 $ED 134&H4J' F3 IH 34C $ED - FH4 3C 3C 3D E F3J' QO FC N' $ED $' F3 IH 34C $ED - FH4 3C H& F3 C$D @HJJ CC HE34C &H4 F3 ; 3N- HE H& FC N' CF$' F343-1HE N3$C3 $ED D3 34J E3 $NNH4DR E2 O ($ED F3 C$D @HJJ CC HE34C CF$' F$'NHE 3E 3E '?133D' $O $E NNH-E' E 94 E2 H& $' F3 4 I4HN33D E2C -ED34 F3 C$D 43N 3D N C $ED FC N' Q3&H43 QH F 8H-C3C H& I$4 $J3E ' $ED $CH CF$' D3 34 H4 N$-C3 H Q3 D3 343D -1' H F3 C$D @HJJ CC HE34C H& 8 C P$(3C O C *43$C-40 &H4 F3 * J3 Q3 E2'H4 H C-NF I34CHE H4 I34CHEC $C F3 C$D @HJJ CC HE34C H& 8 C P$(3C O C *43$C-40 &H4 F3 * J3 Q3 E2' H4 $EO *F433 H4 JH43 H& F3J' QO 94 E2 -ED34 F3 4 8$EDC' CF$'EHJ E$ 3 $ED $11HE '$' F3(BHEDC' PH4 2$23C' G33DC' BHH+C H& NNH-E ' I$134C' $ED 94 E2C' H& F$',$ -43 H4 % ED CH3 34' E F3 IHCC3CC HE H4 -ED34 F3 @HE 4H-' H& F3 C$D @HJJ CC HE34C' H4 $EO H& F3 4 <&& N34C' H-NF E2 H4 43$ E2 H $EO ?3N-4 O H4 ?3N-4 3C F$ CH3 34 $+3E QO F3J' F3 C$D @HJJ CC HE34C &H4 $EO >H$E H4 >H$EC $D $EN3D QO F3J' -ED34 F3 IH 34C $ED - FH4 3C H& F3 C$D 43N 3D N C' H4 $EO H& F3J' $ED FC N' H23 F34 F F3 P E- 3C H& F3 I4HN33D E2C H& F3J' F3 C$D @HJJ CC HE34C' $ED $' BHH+C I$134C' $ED 94 E2C E $EO P$EE34 43$ E2 F343 H

'>W ' ED Q3 '&-4 F34 3E$N 3D' *F$' F3 C$D @HJJ CC HE34C F343 E $11HE 3D CF$' &4HJ' * J3 H * J3 $' F3 4 G CN43 HE' H4 $C H& 3E $C F3O CF$' Q3 F343-E H 43X- 43D' D-4 E2 F3 4 N$440 E2 HE $EO I4HN33D E2C QO 4 -3 H& FC N' $ED $C CHHE $C 1HCC Q 3 $& 34 F3 G3 34J E$ HE H&C-@F I4HN33D E2C' FH-' $EO &-4 F34 '3X- C' HE'2 3 $E NNH-E' H& F3 4 I4HN33D E2C E 94 E2 H F3 >H4DC @HJJ CC HE34C H& 8 C P$(3C O C *43$C-40 H4 F3 >H4D 8 2F *43$R C-434 &H4 F3 * J3 Q3 E2

% ' ' 2 3 $E N' 14HN33D E2*/' ' F3 *43$' C-40

>W ' ED Q3 '&-4 F34 3E$N 3D' *F$' F3 C$D @HJJ CC HE34C CF$'$ED J$O 43N3 3 $ED C3ED QO F3 M3E34$' IHC '&4HJ' $ED H I $N3C FE F3 #E 3D % E2DHJ' $'>3 34C $ED I$N+3 C 43$ E2 CH3 O $ED 3 N-C 3 O H F3 ; 3N- HE H& FC N' &433 &4HJ' F3 G- O H& IHC $23' 14H D3D F$' ?-NF >3 34C $ED I$N+3 C $C CF$' Q3 C3E' H F3 C$D @HJJ CC HE34C Q3 D 43N 3D ` *H F3 @HJJ CC HE34C &H4 F3 CC-3 H& ; NF3X-34 B CC $' F3 4 <&& N3 E <,#&,#' $ED F$'$' C-NF >3 34C $ED I$N+3 C $C CF$' Q3 C3E' QO F3 C$D @HJJ CC HE34C CF$' Q3 E @H 34C' F F3 9H4DC `' ; NF3X-34 B '<&& N3' 1-4C-$E' H N' H&' I$4 $J3E' H& %% # ' 14E 3D HE F3 C$J3' $ED Q3 C2E3D HE F3 <-CD3 F343H& -ED34 C-NF 9H4DC F F3 ,$J3 H& C-NF I34CHE $C F3 C$D @HJJ CC HE34C' F F3 @HEC3E' H& F3 >H4DC @HJJ CC HE34C H& F3 *43$C-40' H4 $EO *F433 H4 JH43 H& F3J' CF$' $- FH4 T3 $ED $11HE ' E FC H E 8$ED 4 E2' $ED Q3 C3$ 3D F F3 ?3$' H& F3 C$D @HJJ CC HE34C' $ED -ED34 C-NF H F34 '32-$ HEC $ED '3C 4N HEC $C F3 C$D >H4DC @HJJ CC HE34C' H4 $EO *F433 H4 JH43 H& F3J' CF$' F E+' 14H134 $ED D 43N'($ED F3 I34CHE CH H Q3 $- FH4 T3D C F343QO C 4N O &H4Q DD3E CH H

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C-134 H4' <&& N34' H4' F NF' F3' CF$ ' F J C3 &' +EH ' H' 43 $ 3' CH 3 O' $ED'
3 N -C 3 O' H' F3' ; 3N- HE' H&' F C' N ' $ED' &' F3' I34CHE' CH' H'
Q3' $- FH4 T3D' H4' $ O' < F34' I34CHE' CF$ ' C3ED' H4' N$-C3' H4' 134 J ' H'
Q3' C3E ' -ED34' $EO' C-NF' @H 34' $EO' >3 3 ' I$134' H4' 9 4 E2' H4' $EO'
; EN HC-43' H F34' F$E' F$' CF$ ' 43 $ 3' H' F3' ; 3N- HE' H&' F C' N '
3 34O' I34CHE' CH' H&&3ED E2' CF$ ' &H4&3 ' $ED' 1$O' F3' ?- J' H&' <E3'
F-ED43D' I H-EDC' $ED' Q3' D C J CC3D' &4H J' F C' <&& N3' . ED' F343$C' ' C'
3 13D 3E ' H' J $+3' I 4H C HE' &H4' F3' ; 3 3&' H&' 8 C' P$(3C O C' @H HE 3C'
, '7 # & &'8# 1 63 3# #&<'+ # '< ' Q3' ' F343&H43' 3E$N 3D'
* $' F3' >H4D' 8 2F' *43 3 # 34' H4' @H J J CC HE34C' H&' F3' *43$C-4O'
H4' $EO' *F433' F4 4(@8 3' H&' F3 J ' &H4' Q3 * J 3' Q3 E2' J $O' -1HE' F3'
'3X- C HE' E' 9 4 E2' H&' 8 C' P$(3C O C' ?3N43 $4O' H&' ? $ 3' F$ E2'
@F$423' &H4' F3' * J 3' Q3 . ' H&' F3' &&& 4C' H&' FHC3' @H HE 3C' $- FH4 T3'
$ED' H4D34' $ED' D 43N' F3' I $O J 3E ' H- ' H&' F3' 24H E2' I 4HD-N3'
H&' F3' @HECH D$ 3D' 6-ED' H&' F3' #E 3D' % E2DH J' H&' ! ' " #'
$ED' $!% #& ' $EO' ?- J' H4' ?- J C' H&' P HE3O' H' $EO' I34CHE' H4' I34R
CHEC' FH' J $O' Q3' $- FH4 T3D' QO' C-NF' ?3N43 $4O' H&' ? $ 3' H 43N3 3'
F3' C$ J3' &H4' F3' '3 3&' H&' $' H4' $EO' H4' 3 F34' H&' C-NF' @H HE 3C'
CH' F$' F3' FH 3' ?- J' CH' CC-3D' CF$ ' EH ' 3 N33D' F3' ?- J' H&'
6 & O 3 2F' FH-C$ED' I H-EDC' $ED' CH' F$' F3' ?- J' CC-3D' &H4' F3'
'3 3&' H&' $EO' <E3' H&' C-NF' @H HE 3C' CF$ ' EH ' 3 N33D' <E3' 8 $ &'
F3' J H-E ' H&' F3' $EE-$' '3 3E-3' H&' F3' @H HEO' &H4' F NF' C-NF'
'3 3&' CF$ ' Q3' 43X- 43D. I 4H D3D' $ $OC' F$' $' @H1O' H&' F3'
'3X- C HE' H&' F3' ?3N43 $4O' H&' ? $ 3' $ED' H&' F3' <4D34C' J $D3' QO' F3'
>H4D' 8 2F' *43$C-434' H4' @H J J CC HE34C' H&' F3' *43$C-4O' F343-1HE'
$ED' $E' NNH-E ' H&' F3' ?- J' H4' ?- J C' CC-3D' H- ' H&' F3' 24H E2'
I 4HD-N3' H&' F3' @HECH D$ 3D' 6-ED' E' 1-4C-$EN3' H&' C-NF' <4D34' CF$ '
Q3' $ D' Q3&H43' I $4 $ J 3E ' F E' *3E' G$OC' $& 34' F3' CC-3' H&' $EO'
C-NF' P HE3O' &' I $4 $ J 3 ' CF$ ' Q3' F3E' C E2 ' H4' &' I $4 $ J 3E '
CF$ ' EH ' F3E' Q3' C E2 ' F3E' F E' *3E' G$OC' $& 34' F3' E3 ' P 33 E2'
H&' I $4 $ J 3E

U ' >W ' ED' Q3' ' &-4 F34' 3E$N 3D' *F$ ' EH' N HE' H4' ?- ' CF$ '
' ! , Q3' NH J J 3EN3D' 2 EC ' $EO' I34CHE' H4' I34CHEC' &H4' $EO' F E2' DHE3' QO'
4 -3' H4' E' 1-4C-$EN3' H&' F C' N ' -E ' 6H-4 33E' G$OC' , H N3'
F343H&' E' 9 F E2' CF$ ' F$ 3' Q33E' 2 3E' H' F3' ?3N43 $4O' &H4' F3'
* J 3' Q3 E2' H&' F3' C$ D' @H J J CC HE34C' EH4' $& 34' $ C-&& N 3E ' ?$ C&$NR
HE' H4' *3ED34' F343H&' F$ F' Q33E' J $D3' H' F3' I $4 O' H4' I $4 3C'
$224 3 3D' EH4' $& 34' ? ' @$ 3ED$4' P HE FC' E3 ' $& 34' F3' 6$N ' NH J R
J 3D' $ED' 3 34O' C-NF' N HE' CF$ ' Q3' Q4H-2F ' E' F3' C$ D'
43C13N 3' @H-4 C' H&' ; NF3X-34' $ED' CF$ ' Q3' $ D' E' F3' @H-E O' H&'
&&%!1!J' H4' @ O' <& 8& #43 ()' 43C13N 3 O' $ED' EH ' 3 C3 F343' '
$ED' F3' G3&3ED$E ' H4' G3&3ED$E C' E' C-NF' N HE' H4' ?- ' CF$ ' $ED'
3 + J $O' 1 3$D' F3' M3E34$' CC-3' $ED' 2 3' F C' N ' $ED' F3' C13N $'
P$ 34' E' ; D3EN3' $ ' $EO' *4 $' H' Q3' F$D' F343-1HE' $ED' F$' F3'
C$ J3' $C' DH-3' E' 1-4C J -N3' $E ' QO' F3' - FH4 O' H&' F C' N ' ($ED'
&' F3' C$ J3' $113$4' CH' H' Q3' DHE3' H4' &' C-NF' N HE' H4' ?$ '' CH' H' Q3'
Q4H-2F' $& 34' F3' * J 3' Q343 E Q3&Q43' J 3D' & -4 Q4 E2 E2' F3' C$ J 3'
H4' CF$ ' Q3' Q4H-2F' FH- ' 6H-4 33E' G$OC' , H N3' F343H&' H4' CF$ '
Q3' Q4H-2F' E' $EO' H F34' @H-E O' H4' I $N3' H4' $& 34' $ C-&& N 3E '
?$ C&$N HE' J $D3' H4' 3ED343D' $C' $&H43C$ D' F$' F3E' F3' 5-4O' CF$
' & ED

7 ' _ ' = ' 9 ? 6 ' : 6 ' ' '& ' #) !

& ED' &H4 F3' G3&3ED$E ' H4 G3&3ED$E C' H4 &' F3' I $ E && H4 I $ E &&C CF$ ' Q3NH J 3' EHEC- 3D' H4 C-&&34 $G CNHE E-$EN3' H&' F C' F34' H4 F3 4 N HE' H4 ?- ' H4 &' $ 34D N' CF$ ' 1$CC' 2 EC' F3' I $ E && H4 I $ E &&C' F3' G3&3ED$E ' H4 G3&3ED$E C' CF$ ' F$ 3' *43Q 3' @HC C' $ED' !(I (' +A#A1' CF$ ' F$ 3' C-NF' ' 3 J 3DO' &H4 43NH 34 E2' F3' C$ J 3' $C' $EO' G3&3ED$E ' H4 G3&3ED$E C' F$ F' H4 F$ 3' &H4 @HC C' H&' ?- ' E' $EO' H F34' @$C3C' H&' >$

>W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' &' $EO' I 34CHE' H4 I 34CHEC' + - ' CF$ ' &H423' NH-E 34&3 ' H4 $ 34' H4 N$-C3' H4 14HN-43' H' Q3' &H423D' ' NH-E 34&3 3D' H4 $ 343D' H4 +EH E2 O' H4 &- O' $N ' H4 $CC C' E' F3' &H42 E2' NH-E 34&3 E2' H4 $ 34 E2' $EO' @34 & N$ 3' H4 @34 & N$ 3C' N$3C4KN ' H&' F3' C$ D' @H J J CC HE34C' QO' F C' N ' $11H E 3D' $C' $&H43C$ D' H4 $EO' H&' F3 J ' H&' $EO' ' 3N3 1 ' H4 ' 3N3 1 C' H' Q3' 2 3E' QO' F3' @$CF 34' H4 @$CF 34C' H&' F3' MH 34EH4' $ED' @H J 1$EO' H&' F3' B$E+' H&' 8 # (% # &' E' 1-4C-$EN3' H&' F C' N ' H4 CF$ ' &- O' D3 34' H' F3' -D H4 H&' F3' ' 3N3 1 ' H&' 8 C' P$(3C O C' ; NF3X-34' &H4' F3' * J 3' Q3 E2' H4 H' $EO' <&& N34' $11H E 3D' QO' F J ' H4 H' F3' C$ D' @H J J CC HE34C' QO' F C' N ' $11H E 3D' <4 $EO' H&' F3 J ' H4 H' $EO' <&& N34' H4 <&& N34C' $11H E 3D' QO' F3 J' H4' $EO' H&' F3 J' E' F3' ; 3N- HE' H&' F3' I H 34C' H&' F C' N ' H4 CF$ ' - 34' $EO' C-NF' &H423D' NH-E 34&3 3D' H4 $ 343D' @34 & N$ 3' H4 @34 & N$ 3C' ' 3N3 1 ' H4 ' 3N3 1 C' +EH E2' F3' C$ J 3' H' Q3' &H423D' NH-E 34&3 3D' H4 $ 343D' F' E 3E ' H' D3&4$-D' F C' P$(3C O' 8 C' 83 4C' H4 ?-NN3CCH4C' H4 $EO' BHDO' H4 BHD 3C' I H N' H4 @H41H4$ 3' H4 $EO' I 34CHE' FH J CH3 34' F3E' $ED' E' 3 34O' C-NF' @$C3' $ ' $ED' 3 34O' I 34CHE' H4 I 34CHEC' CH' H&&3ED E2' $ED' Q3 E2' F343H&' $ &- O' NHER N 3D' CF$ ' Q3' $D(-D23D' 2- O' H&' 63 HEO' $ED' CF$ ' C-&&34' G3$ F' $C E' @$C3C' H&' 63 HEO

>W ' ED' Q3' '&-4 F34' 3E$N 3D' *F$' F C' N ' H4 $EO' H&' F3' $ J$O'Q3 I 4H C HEC' F343H&' J $O' Q3' $ J 3ED3D' $ 343D' H4 4313$ 3D' QO' $EO' N ' 7F343D ' H4 N C' H' Q3' 1$CC3D' E' F C' ?3CC HE' H&' I $4 $ J 3E

><PG< ,'4 I 4 E 3D' QO' # + . + / +' & 3+' $ED') * (+ , ' O1 . 2 2 3% , . . * + '
I 4 E 34C' H' F3' % E2 C' J HC' ; N3 3E ' P$(3C O' ZSU

, , <‘ ?;@# , B<‘ K‘ * ; ' * <

M#> ;>P ‘ ‘ ' ;M ?

q‘ ‘ I ‘ @WW

E‘ N ‘ H‘ $11 O‘ $‘ ?-J‘ H-‘ H&‘ F3‘ @HECH D$ 3D‘
6-ED‘ 5 ED‘ F3‘ ?-41 -C‘ H&‘ 9 $OC‘ $ED‘ P3$EC‘ H‘
F3‘ ?34 N3‘ H&‘ F3‘ =3$4‘ <E3‘ FH-C$ED‘ 3 2F‘
F-ED43D‘ $ED‘ F 4 O H‘ $ED‘ H‘ $114H14 $ 3‘ F3‘
?-11 3C‘ 24$E 3D‘ E‘ F C‘ ?3CC HE‘ H&‘ I$4 $J3E
I Y F‘ # ‘ ZSU m

PHC‘M4$N H-C‘ ?H 343 2E

> ;‘ =H-4‘ P$(3C O C‘ JHC‘ D- &-‘ $ED‘ HO$‘ ?-Q(3N C‘ F3‘ MHJ JHEC‘ 3&‘ F3‘ #E 3D‘ % E2DHJ‘ H&‘ ! ‘ " #‘ $ED‘ $!% #&‘ #‘ I$4 $J3E‘ $CC3JQ 3D‘ H $4DC‘ J$+E2‘ 2HHD‘ F3‘ E3N3CC$ O‘ ?-11 3C‘ F NF‘ 3‘ F$ 3‘ NF334&- O‘ 24$E 3D‘ H‘ =HJ P$(3C O‘ E‘ E C‘ ?3CC HE‘ H&‘ I$4 $J3E ‘ F$ 3‘ 43CH 3D‘ H‘ 24$E‘ -E H‘ =H-4‘ P$(3C O‘ F3‘ ?-JC‘ F343 E $&34‘ J3E HE3D‘ $ED‘ DH‘ F343&H43‘ JHC‘ F-JQ O‘ Q3C33NF‘ =H-4‘ P$(3C O‘ F$‘ ‘ J$O‘ Q3‘ 3E$N 3D‘ $ED‘ Q3‘ ‘ 3E$N 3D‘ QO‘ F3‘ % E2C‘ JHC‘ ; N3 3E‘ P$(3C O‘ QO‘ $ED‘ F‘ F3‘ D N3‘ $ED‘ @HEC3E‘ H&‘ F3‘ >H4DC‘ ?14 -$‘ $ED‘ *3J1H4$‘ $ED‘ @HJR JHEC‘ E‘ F C‘ 143C3E‘ I$4 $J3E‘ $CC3JQ 3D‘ $ED‘ QO‘ F3‘ - FH4 O‘ H&‘ &Q3‘ C$J3‘ *F$‘ F343‘ CF$‘ $ED‘ J$O‘ Q3‘ CC-3D‘ $ED‘ $11 3D‘ &H4‘ H4 *F343% ‘Q3 H $DC‘ J$+E2‘ 2HHD‘ F3‘ ?-11 O‘ 24$E 3D‘ H‘ 8 C‘ P$(3C O‘ &H4‘ F3‘ ?34 N3‘ H&‘ F3‘ =3$4‘ <E3‘ FH-C$ED‘ 3 2F‘ F-ED43D‘ $ED‘ F 4 O H‘ & %%%‘ F3‘ ?-J‘ H&‘ ; 2F‘ J HEC‘ &H-4‘ F-ED43D‘ $ED‘ & & O‘ FH-C$ED‘ IH-EDC NHE H-‘ H&‘ F3‘ @HECH D$ 3D‘ 6-ED‘ H&‘ F3‘ #E 3D‘ % E2DHJ‘ H&‘ ! ‘ OHED$3D‘ 6-ED‘ " #‘ $ED‘ 543 HD‘ $ED‘ F3‘ @HJ J CC HE34C‘ H&‘ 8 C‘ P$(3C O C‘ *43$C-4O

U`KSM #> ;>P @$1 UY

H& F3 #E 3D %E2DHJ H&Y ! " #$ED $!% #& EH H4 &H4 F3 * J3 Q3E2 H4 $EO *F433 H4 JH43 H& F3J H4 F3 >H4D 8 2F *43$C-434 H& F3 #E 3D %E2DHJ H& ! " # $ED $!% #& &H4 F3 * J3 Q3E2 $4 H4 C F343QO $- FH4 T3D $ED 3J1H 343D H CC-3 $ED $11 O F3 C$J3 $NNH4D E2 O

3 *43$C-4O 8 ED Q3 &-4 F34 3E$N 3D *F$ CF$ $ED J$O Q3 $ &- @HJJ CC HE34C H& 8 C P$(3C O C *43$C-4O H4 $EO *F433 H4

H& ; NF3X-34 JH43 H& F3J &H4 F3 * J3 Q3E2 &4HJ * J3 H * J3 QO 9$44$E -ED34 F3 4 8$EDC < N$-C3 H4 D 43N $EO , - JQ34 H& ; NF3X-34

'!(AH!)!(< IB <'S' N" B C H Q3 J$D3 H- $ F3 '3N3 1 H& 8 C P$(3C O C ; NF3X-34 $!1 ! &H4 $EO ?- J H4 ?- JC H& PHE3O EH 3 N33D E2 E F3 FH3 F3 ?$J H& ; 2F J HEC &H-4 F-ED43D $ED & & O FH-C$ED IH-EDC $ED C-NF ; NF3X-34 B C CF$ Q3 J$D3 H- E F3 C$J3 H4 +3 P$EE34 6H4J $ED <4D34 $ED $NNH4D E2 H F3 C$J3 H4 +3 ' - 3C $ED G 43N HEC $C $43 D 43N 3D $ED 143CN4 Q3D E $ED QO $E N 1$CC3D E F3 6H4 O 3 2F F =3$4 H& F3 '3 2E H& 8 C $ 3 P$(3C O %E2 !, (! F3 *F 4D E - 3D / #' / ' ' , ' !(3% #(')!' 113 #(' #&'5 #(' , ', '8J')!V3! '" %%1

J(&GA(A 4) !(H)#(< H# (N#(<(< #+'#J)A' H# ED Q3 &-4 F34 3E$N 3D *F$ $ $ED 3 34O F3 @$-C3C I4H CH3C IH 34C I4 323C D $E $23C I3E$ 3C 6H4&3 -43C $ED G C$Q 3C NHE $E3D E F3 C$D 43N 3D N 1$CC3D E F3 6H4 O 3 2F F =3$4 H& F3 '3 2E H& 8 C C$D $ 3 P$(3C O CF$ Q3 $11 3D $ED 3 3ED3D H F3 ; NF3X-34 B C H Q3 J$D3 H- E 1-4C-$EN3 H& F C N $C &# O $ED 3&&3N -$ O H $ E 3E C $ED I-41HC3C $C & F3 C$D C3 34$ @$-C3C I4H CH3C IH 34C I4 323C D $E $23C I3E$ 3C 6H4&J -43? $ED G C$Q 3C F$D Q33E 1$4 N- $4 O 4313$ 3D $ED 43 3E$N 3D E F3 BH o H& F C N

?HA(A#(& N)<)O BJC ED Q3 &-4 F34 3E$N 3D *F$ F3 ; HF3N1 34 B C H Q3 J$D3 H- E 1-4 EN3 F C N CF$ $ED J$O Q3$4 $E E 343C J 3 N33D E2 '$ 3 && *F433 13EN3 8$ &13EEO 5! 'I!# 3 '5! ' 2 ! -1HE H4 E 43C13N 3& &&3 / DH3 H& F3 PHE 3C 43C13N 3 O NHE $ E3D F343 E

A#+I(' &H(< G'A+'@GHJ &AJ)'#J(NHJ(% ED Q3 &-4 F34 3E$N 3D *F$ F3 @HJJ CC HE34C H& 8 C P$(3C O C *43$C-4O &H4 F3 * J3 Q3E2 H4 $EO *F433 H4 JH43 H& F3J CF$ $ED F3O $ 3 F343QO $- FH4 T3D $ED 3J1H 343D H N$-C3 C-NF ; NF3X-34 B C $C CF$ Q3 J$D3 H- E 1-4C-$EN3 H& F C N H Q3 1 $N3D $C CH J -NF @$CF E F3 43C13N 3 <&& N3C H& F3 *3 34C H& F3 '3N3 1 H& 8 C P$(3C O C ; NF3X-34 $!1 #1 ! $ED 3$NF $ED 3 34O H& F NF *3 34C CF$ Q3 C3 34$ O NF$423D F F3 I4HR 1H4 HE H& F3 C$D B C F NF CF$ Q3 CH 1 $N3D E F C <&& N3 43 3N 3 O $C CH J -NF @-CF($EO >$ H4 #C$23 H F3 NHE 4$4O EH FC $ED E2

& < @&B I(&' ')(< IB #J(!(&AG!BP ED Q3 &# F34 3E$N 3D *F$ F3 C$D ; NF3X-34 B C E F3 8$EDC H& F3 C$D *H 34C CF$ Q3 HN+3D -(H $4 D C3N-43D $C @$CF $3YH4NFE2 H F3 <HJC3 ^&& F3 '3N3 1 H& F3 ; NF3X-34 $!1 #1 ! $ED CF$ Q3 CDC3E $ED 3C 33 8C3D JCH J -NF E 1$4 H& F3 '3J$EC E 43$ PHE3O F343 F 3$NF H& F3 C$D *3 34C CF$ &4HJ * J3 H * J3 C $ED NF$423D E NHJ JHE F H F34 F3 PHE 3C E

U K'S'M#> ;>P ' ' @$1 UY' !

E' F3' C$D' ; NF3X-34' $ED' >$ ' H4' #C$23' H' F3' NHE 4$40' EH FR
C $ED E2' ' $ED' ' CF$ ' Q3' $ &-' &H4' F3' C$D' @HJ J CC HE34C' H&') !'
*43$C-40' H' CC-3' $ED' $11 0' F3' C$J3' &4HJ' * J3' ,' * J3' H' C-NF'
?34 N3C' $C' CF$ ' F3E' F$ 3' Q33E' H 3D' Q0') !' @HJ JHEC' H&') !'
#E 3D' % E2DHJ' H&' ! ' " #' $ED' $!% #&' E' F C' 143C3E' ?3CC HE'
H&' I$4 $J3E

' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' F3' I4 EN 1$' ?-J' H4' ?-JC' ; NF3X-34B -'
H&' PHE30' H' Q3' NHE $E3D' E' $' C-NF' ; NF3X-34 B C' H' Q3' J$D3
&H4 F' Q0' 4 -3' H&' F C' N' H23 F34' F' F3' E 343C' F$' J$0') *' "!+<GH(' +?
Q3NHJ3' D-3' F343HE' CF$ ' Q3' $ED' F3' C$J3' $43' F343Q0' J$D3' NF$423' 3@HEH#D$3D'
$Q3' $ED' NF$423D' -1HE' F3' 24H E2' I4HD-N3' H&' F3' @HECH D$ 3D'
6-ED' H&' F3' #E 3D' % E2DHJ' H&' ! ' " #' $ED' $!% #&' E' F3'
E3 ' C-NN33D E2' \-$4 34' H' F$' E' F NF' F3' C$D' ; NF3X-34 B C'
F$ 3' Q33E' CC- ' ' $ED' &' CF$ ' Q3' $ &-' &H4' F3' @HJ J CC HE34C' H&'
8 C' P$(3C O C' *43$C-40' &H4' F3' * J3' Q3 E2' H4' $E0' *F433' H4' JH43'
H&' F3J ' $ED' F30' $43' F343Q0' $- FH4 T3D' &4HJ' * J3' H' * J3' Q0'
9$ 4$E' -ED34' F3 4' 8$EDC' H' D 43N' F3' -D H4' H&' F3' '3N3 1' H&'
F3' ; NF3X-34' $' !1 #1 ! ' E' C-NF' P$EE34' $C' F30' CF$ ' F E+'
E3N3CC$40' H' CC-3' -E H' C-NF' I34CHE' H4' I34CHEC' $C' CF$ ' Q3' E$J3D'
E' F3' C$D' 9$44$E' H-' H&' F3' 24H E2' I4HD-N3' H&' F3' C$D' @HER
CH D$ 3D' 6-ED' H&' F3' E3 ' C-NN33D E2' \-$4 34' H' F$' E' F NF' F3'
C$D' ; NF3X-34 B C' F$ 3' Q33E' CC-3D' $E0' ?-J' H4' ?-JC' H&' PHE30'
EH' 3 N33D E2' E' F3' FH 3' $' ?-J' C-&& N 3E' H' D CNF$423' $ED' 1$0' H&&'
F3' I4 EN 1$' ?-J' H4' ?-JC' H&' PHE30' NHE $E3D' E' C-NF' ; NF3X-34'
% C' F3E' H- C $ED E2' $ED' F NF' J$0' F$ 3' Q33E' J$D3' H- ' $ED' CC-3D'
Q0' 4 -3' H&' F C' N' H23 F34' F' $' C-NF' E 343C' $C' J$0' Q3' D-3'
F343-1HE

' ED' Q3' ' D3N $43D' $ED' &-4 F34' 3E$N 3D' *F$' ' CF$ ' $ED' B$E+H&' ;E2'
J$0' Q3' $ &+' &H4' F3' MH 34EH4' $ED' @HJ 1$E0' H&' F3' B$E+' H&' 8 #(% #&
' $ED' F30' $43' F343Q0' 3 J 1H 343D' H' $+3' $NN31 ' $ED' 43N3 3' F3' Z CH HHH0'
; NF3X-34 B C' $- FH4 T3D' H' Q3' J$D3' H- ' E' 1-4C-$EN3' H&' F C' N'
$ED' H' $D $EN3' H4' 3ED' H' 8 C' P$(3C 0' $' F3' '3N3 1' H&' F3' ; NF3X-34' EH FC$ED E2
$' !1 #1 ! ' -1HE' F3' @43D ' H&' F3' ?-J' 24$E 3D' Q0' F C' N' H- ' ' ' K4'
H&' F3' @HECH D$ 3D' 6-ED' H&' F3' #E 3D' % E2DHJ' H&' ! ' " #'
$ED' $!% #&' $E0' ?-J' H4' ?-JC' H&' PHE30' EH' 3 N33D E2' E' F3' FH 3'
F3' ?-J' H&' ; 2F' J HEC' &H-4 F-ED43D' $ED' & & 0' FH-C$ED' I H-EDC'
$E0' F E2' E' $E' N' 1$CC3D' E' F3' 6 & F' $ED' ? F' =3$4C' H&' F3' '3 2E'
H&' % E2' %% ' $ED' \-33E' ' E - 3D' / #' / ' ' , ' (# #(' ,'
7) ! ' ! !1 !1' 1!0! %' " !1' #&' 2 3 !1' 35 , #' 7 , ## (!' , ' +) 51' #&'
C!11!%1' #&' 35 , #' " ! ! ' / %! ' #&' ,) ! ' < V3 , 1=' #&' , ' 1!'3 #('
'! #' L!', 5!#'!1' #&' /&0 # (!1' #')!' 1 &' / ' ' !# ,#!&' ,'
13')' * ! 1,#1' 1' 1) %%' 0 , %3# % ' &0 #'!')!' +3 ' , ' 6#!' %% ,#' 0 ! '
)3#& !&') , 31 #&' * , 3#&1' , 0, &1' ' #(' ,#')!' ' (#1'
64$EN3' H4' E' $E0' H F34' N' H4' N C' H' F3' NHE 4$40' F343H&' EH FR
C $ED E2

W' ED' Q3' ' &-4 F34' 3E$N 3D' *F$' F343' CF$ ' $ED' J$0' Q3' CC-3D' *Fbp
$ED' $11 3D' &&H4' H4' H $4DC' J$+ E2' 2HHD' F3' C$D' ?-11 0' F3' ?-J' H&' X4&CCC' U'
<E3' J HE' &H-4' F-ED43D' C3 3E 0 HE3' FH-C$ED' F433' F-ED43D'
$ED' F 4 0 F433' I H-EDC' * H' ?F E2C' $ED' , E3 13EN3' *F433'
6$4 F E2C' Q3 E2' F3' ?-41 -C' H&' 9$0C' $ED' P3$EC' 24$E 3D' &H4' F3'
=3$' / ' & < ' 0

=3$4C <E3 FH-C$ED 3 2F' F-ED43D $ED 3E 0 F433' <E3 FH-C$ED
2F 'F-ED43D $ED 3E 0 & 3' <E3 FH-C$ED 3 2F' F-ED43D $ED
' 3E 0 C ' <E3 FH-C$ED 3 2F' F-ED43D $ED 3E 0 C3 3E' <E3
FH-C$ED 3 2F' F-ED43D $ED 3E 0 3 2F ' <E3 FH-C$ED 3 2F'
F-ED43D $ED 3E 0 E E3' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0' $ED
<E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 HE3' $ED F3 @H J J CC HE34C
H& 8 C P$(3C 0 C *43$C-40 H& F3 #E 3D % E2DH J' H& ! '" #'
$ED EH ' H4 & 4 F3 * J3 Q3 E2' H4 $E0 *F433 H4 JH43 H&
F3 J' H4 F3 >H4D 8 2F *43$C-434 H& F3 #E 3D % E2DH J' H& ! '
" #' $ED $!) #&'&H4 F3 * J3 Q3 E2' $43 H4 C F343Q0 $- FH4 T3D
$ED 3 J1H 343D H CC-3 $ED $11 0 F3 C$J3 $NNH4D E2 0

+)(A'H+ 0) *' W' ED Q3 '&-4 F34 3E$N 3D' *F$' $' F3 PHE 3C NH J E2 E H
) #+' 3 ; 3F3 ; NF3(A-34 ! '" #' Q0 $E N' 1$CC3D E F3 143C3E
4 NY' ?3CC HE H& I$4 $J3E ' E - 3D ' N4 :[55% ''! #'+3 1' ,')!'
$E5U 9' ' "! 0 !')!H!! 6#!)Z 1 #&'! ()')3#& !&' #&') F,'=' $ED $ CH
H' P $' F3 PHE 3C NH J E2 E H F3 C$ D ; NF3X-34 Q0 HE3 H F34 N' 1$CC3D
E F314 J4' ?3CC HE I-4 $J3E ' E - 3D /#'/'' , '',# #3 #('
,' 1' !1 ' , ' 6#!' H! ''! #' 2 3 !1' ,#' *! 1,# %' ?81 !1'
6 '!1' '*! 1' ' ;4 $ED')!'+! 0 '!' ` ')!' H! '6#!'
U(H-QH-H'Q0),31 #&'! ()')3#& !&' #&') F,'=' $ED $ CH F3 ?-J' H&' * 3 3
; NF3X-34 24$E 3D Q0 HE3 H F34 N' 1$CC3D E F3 143C3E' ?3CC HE H&
U >'9'H' U' I$4 $J3E ' E - 3D T #'/'' ' 1 #(')!'+3 ' , '7F!%0!' %% ,#1'
) '81')!V3!')!'+! '!'')!'H! '6#!'),31 #&'! ()
PHE3C NH J E2)3#& !&' #&') F,=' $ED $ CH $' F3 PHE 3C H Q3 4$C3D Q0
)'IB' '>'9'H ; NF3X-34 B C' EH' 3 N33D E2 F3 K J' H&' <E3 J HE & 3 F-ED43D
FH-C$ED IH-EDC' Q0 4 -3 H& HE3 H F34 N' 1$CC3D E F3 143C3E'
?3CC HE H& I$4 $J3E ' E - 3D /#'/'') '(# #(' ,' 1' U!1 '
3# %')!' 7!#)' 2 ' , ' <N HQ34 6#!'),31 #&'! ()')3#& !&' #&'
) F, d! '2 3 !1 '+3(' !&'# ')!' O# !&' #(&, '
, ')!'+! 0 '!', ')!' H! '6#!'),31 #&'! ()')3#& !&' #&') F,'='
'>'9'H' P' $ED $ CH $B F3 PH D3C 3 J J$2 E H F3 C$ D ; NF3X-34 Q0 HE3
& < '>'9'H'..') H F34 N' 1$CC3D E F3 143C3E' ?3CC HE H& I$4 $J3E ' E - 3D /#'
/'' ,' 55%')!'+3 ' , '7) !!' O 1' ' X&')!' I,#1,%& !&'
3#&' ,')!'+! 0 '!' V ')!' H! '6#!'),31 #&'! ()')3#& !&' #&'
) F,=' $ED $ CH $' D 3 PHE 3C NH J E2 E H 3 C$ D ; NF3X-34
Q0 ,#!' H F34 N' 1$CC3D E F3 143C3E' ?3CC HE H& I$4 $J3E '
E - 3D /#'/'' ,' 55%')!'+3 '@ 'R ' 1' ,3' , ')!' I,#[
1,%& !&'R3#&' ,')!'+! 0 '!', ')!' H! '6#!'),31 #&'! ()')3#& !&'
#&') F,'' $ED $ CH $' D 3 P3 J 3C H Q3 4$ C3D Q0 ; NF3X-34
N 2&& ' B C' EH' 3 N33D E2 F3 ?-J' H&' <E3 J HE & 3 F-ED43D FH-C$ED
IH-EDC' Q0 4 -3 H& HE3 H F34 N' 1$CC3D E F3 143C3E' ?3CC HE
H& I$4 $J3E ' E - 3D /#'/'' , '(# #(' ,' 1' 'U!1 '3# %'
)!'R)'2 ', ' 14 '6#!'),31 #&'! (?&')3#& !&' #&')) !!'
'! #' 2 3 !1' ,#' +3(' 5, !&' # ,')!' O# !&' #(&, ' , ')!'
SZWY[['Q0 +! 0 '!' , ')!' H! '6#!'),31 #&' ! ()')3#& !&' #&') F,'='
; NF3X-3 *F 4 33E J %HEC 3 2F' F-ED43D E E3 0 C
U K ' FH-C$ED C 'F-ED43D IH-EDC' 24$E 3D Q0 HE3 H F34 N' 1$CC3D E
F3 143C3E' ?3CC HE H& I$4 $J3E ' E - 3D /#'/'' , ' 1 #(')!'
+3 ', '7) !!#' %% ,#1' ! ()')3#& !&' &' # #! 1 J'),31 #&' 1 J'
)3#& !&' *,3#&1') '" ')!V3! '" % ' , ')!'+! 0 '!', ')!' H! '6#!'
$D Z ![[[[0),31 #&'! ()')3#& !&' #&') F,'' $ED $ CH F3 ?-J' H& ; 2F'
?' D Q' FC J HEC &H-4 F-ED43D $ED & & 0 FH-C$ED IH-EDC' $ED <E3 & J HE
U &H-4

U7KS M#> ;>P ' ' @$1 UY'

H-4' F-ED43D' C3 &3E 0 HE3' FH-C$ED' F433' F-ED43D' $ED' F40' N'CF$-Q3 F433' IH-EDC' * H' ?F E2C' $ED' , E3 13EN3' *F433' 6$4 F E2C' QC' W43 143 3*' FC' N' 24$E 3D' CF$D' Q3' &#4 F34' $114H14 $ 3D' $ED' $43' F343QC' $114H14 $ 3D' $ED' CF$ ' Q3' CC-3D' $ED' $11 3D' &H4' $ED' H $4DC' F3' C3 34' #C3C' $ED' I-41HC3C' F343$& 34' 3 143CC3D

W ' ED'Q3' '&-4 F34' 3E$N 3D' *F$'H-'H&' $ 'H4' $EO' F3' DC' H4' ?-11 3C' $F- C$D' F343' $ '$ED' J$O'Q3' CC-3D' $ED' $11 3D' $EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' ? ' J HEC' F433' F-ED43D' HE3' FH-C$ED' C3 3E' F-ED43D' $ED' 3E 0 C3 3E' IH-EDC' , E3' ?F E2C' $ED' * H 13EN3' &H4' $ED' H $4DC' F3' , $ $' ?34 N3C' F343 E $& 34' JH43 1$4R N- $4 O' J 3E HE3D' ^F$' C' H' C$O ' $EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' * H' F-ED43D' C3 3E O' FH-C$ED' &H-4' F-ED43D' IH-EDC' &H4' F3' 9 $23C' H&' *F 4 0t H' FH-C$ED' P3E' EN -D E2' *3E' FH-C$ED' ; <O$' P $4 E ' H' F3' *F 4 0 & 4C' NZ ', ' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' &F 4 0 H' $' F3' '$ 3' H&' * H' IH-EDC' * 3 3' ?F E2C' 5! 'P $ E P H E F ' $ED' $EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' ; 2F 33E' FH-C$ED' IH-EDC' H' 1$O' F3' 9 $23C' H&' <&& N34C' ?F 1+33134C' $ED' P3E' H&' 3CC3 C' E' <4D E$4O' H' F3' *F 4 0 & 4C' G$O' H&' ')' <E3' FHEC$$D' 3 2F' F-ED43D' $ED' F 4 0 H' $ED' $EO' ?-J' H4' ?-JC' H&' PHE O' EH' 3 N33D E2' , E3' FH-C$ED' 3 2F' F-ED43D' $ED' C3 3E 33E' IH-EDC' ?3 3E' ?F E2C' $ED' , E3 13EN3' H' D3&4$O' F3' ?$ $4 3C' H&' F3' <&& N34C' $ED' F3' NHE E23E' ; 13EN3C' H&' F3' DJ 4$ O' <&& N3' H' F3' *F 4 0 & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0'
H' $ED' $EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' ?3 3E' FH-C$ED' E E3' F-ED43D' $ED' F 4 0 E E3' IH-EDC' *F433' ?F E2C' $ED' <E3' I3EEO' H' D3&4$O' F3' ?$ $4 3C' H&' F3' <&& N34C' $ED' NHE E23E' ; 13EN3C' H&' F3' , $ O' I$O' <&& N3' H' F3' *F 4 0 & C' G$O' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 H' $ED' $EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' * 3 3' FH-C$ED' $ED' F 4 0 H' IH-EDC' *F 4 33E' ?F E2C' $ED' * H 13EN3' H' D3&4$O' F3' ?$ $4 3C' H&' F3' <&& N34C' $ED' F3' NHER E23E' ; 13EN3C' H&' F3' , $ O' <&& N3' H' F3' *F 4 0 & 4C' G$O' , ' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 H' $ED' $EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' 6 3' FH-C$ED' H' F-ED43D' $ED' C 0 3 2F' IH-EDC' , E3 33E' ?F E2C' $ED' *F433 13EN3' H' D3&4$O' F3' ?$ $4 3C' H&' F3' <&& N34C' $ED' F3' NHE E23E' ; 13EN3C' H&' F3' C3 34$' ?N 3E &N G31$4 J3E C' H&' F3' , $ O' H' F3' *F 4 0 & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 H' $ED' $EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' * 3E O' FH-C$ED' & 3' F-ED43D' $ED' 3 2F 0 HE3' IH-EDC' *F 4 33E' ?F E2C' $ED' , E3 13EN3' H' D3&4$O' F3' ?$ $4 3C' H&' F3' <&& N34C' $ED' F3' NHE E23E' ; 13EN3C' H&' 8 C' P$(3C 0 C' =$4DC' $' 8HJ3' H' F3' *F 4 0 & 4C' G$O' H&' <E3' FH-C$ED' 3 2F' F-ER D43D' $ED' F 4 0 <' $ED' $EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' 6H-4' FH-C$ED' C ' F-ED43D' $ED' 3 2F 0 H' IH-EDC' 6 & 33E' ?F E2C' H' D3&4$(' F3' ?$ $4 3C' H&' F3' <&& N34C' $ED' F3' NHE E23E' ; 13EN3C' H&' 8 C' P$(3C 0 C' =$4DC' Q4H$D' H' F3' *F 4 0 & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 H' $ED' $EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' <E3' F-ED43D' 3E 0 &H-4' FH-C$ED' HE3' F-ER D43D' IH-EDC' *F 4 33E' ?F E2C' $ED' 6H-4 13EN3' H' 1$O' F3' 9 $23C' H&' 4 & N34C' >$QH-434C' $ED' H F34C' 3 J 1 HO3D' E' 8 C' P$(3C 0 C' =$4DC' $' 8HJ3' $ED' Q4H$D' H' F3' *F 4 0 & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 H' $ED' $EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' <E3' F-ED43D' & & 0 &H-4' FH-C$ED' H' F-ED43D' IH-EDC' &H4

?*'

J(!(' AJ& '0 I(' &' ')(<' 1 1 E' -A' B& '?+!' &2&' (!2)H(A?' 2)c

19 5' ?+!' >&*(A' +?' 1 ' (1' #+' A#' ')' P

1 5' ?+!' >&*(A1' 4H' ?+!' (AA(A') ' !<)D &!B1' <)##+P

-1 [' A' -<' ?+!' & &!)(A1' 4H' +?#J(' <@)!& #B' ??)H(1' <)##+P

1- -[' +1' <' ?+!' #J(' &2B' "&B' ??)H(1' <)##+' P

1 [' A' <' ?+!' #J(' &2B' ??)H(1' <)##+P

.1 [' -A' <' ?+!' #J(' H)(#)?)H' $('&!#@(#A' +?' #J(' &2B1<)##+P

1. [' A -<' ?+!' & &!)(A1' 4H1' +?' &!<A' &#' +@(1' <)##+'P

91 [' .A' ?+!' aN'(' H(A' +?' &!<A' I!+&<1' <)##+P

91 [' A' T& ' ?+!' >&*(A' #+' !#)?)H(!A') ' &!<AP

.91 [' ?+!')@I(!!' 4(' <)##+' P

&H7 F3 I-4NF$C3 H I * $Q34 $ED $ ' H F34 P$ 34 $ C &H4 F3'B- D E2'
'31$ 4' $ED <- & ' H& F3 P33 ' &H4 F3 H4D E$4O '31$ 4 H& ?F 1C E
8$4QH-4' $ED &H4 F1 '31$ 4 H& GHN+C' 9 F$4&C' $ED B- D E2C' &H4
C-ED4O ; 13EN3C H& ?$ $ ' '31$ 4C' $ED @HE 30$EN3 H& ? H43C'
&H4 ; 13EN3C H& I-4 30H4C $ED @HE 34 34C H& * J Q34 ' &H4 F3 I-4R
NF$C3 <* ?F 1C $ED 3CC3 C' &H4 F3 '31$ 4 H& 8 C P$(3C O C ?F 1C $'
H F34 F$E % E2 C I H4 C' $ED &H4 $4 H-C H F34 EN D3E $' ; 13EN3C'
$ CH &H4 F3 I-4NF$C3 $ED '31$ 4 H& ? 3$ J' P$NF E34O' H F3 *F 4 O'

1. ' ?+!' ('&)!A1' #+' A# ')' P

& 4C' G$O H& ') 6 !' FH-C$ED 3 2F ' F-ED43D $ED F 4 O H' $ED
$EO ?- J' H4 ?- J C H& PHE3O EH' 3 N33D E2 ?3 3E 33E FH-C$ED & 3
F-ED43D IH-EDC' H D3&4$O F3 @F$423 H& '31$ 4C $ED J 14H 3R
J3E C E 8 C P$(3C O C =$ DC $' 8H J3 $ED Q4H$D' H F3 *F 4 O'
& 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O H'

1 ' A' ?+!' ") +#&*(1' 4H1' <)##+P

$ED. $E(' ?- J' H4 ?- J C H& PHE3O EH' 3 N33D E2 * 3 3 FH-C$ED
$ED F 4 O H IH-EDC *3E ?F E2C' H D3&4$O F3 @F$423 H&
I H $23 $ED H F34 @HE E23EN 3C' H F3 *F 4 O & 4C' G$O H& ')'

.1 . ' 9A' -<' C?+!' !& A' +!# (!2)H(1' ' <' !() 5# +? #+!(A1' ??)##+P

<E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O H' $ED $EO ?- J' H4
?- J C H& PHE3O EH' 3 N33D E2 6 3 FH-C$ED C ' F-ED43D $ED
3 2F O & 3 IH-EDC 6H-4 33E ?F E2C $ED , E3 13EN3' H D3&4$O F3
@F$423 H& F3 *4$EC1H4' ; C $Q CF J3E C' $ED F3 @F$423 &H4 643 2F'
H& , $ $' $ED N -$ E2 ? H43C' H F3 *F 4 O & 4C' G$O H& ')'

91 ' ?' #)!(' +? "&H; (#A1' <)##+P

<E3 FH-C$ED < 2F' F-ED43D $ED F 4 O H' $ED $EO ?- J' H4 ?- J C
H& PHE3O EH' 3 N33D E2 IH-4' FH-C$ED C ' F-ED43D $ED F 4 O
IH-EDC' H D3&4$O F3 ; 13FN3 H& F3 8 43 H& I $N+3 C' H F3 *F 4 O'

- 1 ' ?+!' &2&' " & ? "&B1' <)##+P

& 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O H' $ED
$EO ?- J' H4 ?- J C H& PHE3O EH' 3 N33D E2 <E3 F-ED43D E E3 O H
FH-C$ED 3 2F' F-ED43D IH-EDC' H D3&4$O F3 @F$423 H& 8 $ & I $O H
, $ $' <&& N34C' H F3 *F 4 O & 4C' G$O H& ')' <E3 FH-C$ED 3 2F'

1 . ' Z+' <' ?+!' &25' " (D A)+ A1' <)##+P

F-ED43D $ED F 4 O H' $ED $EO ?- J' H4 ?- J C H& PHE3O EH' 3 R
N33D E2 ?3 3E O H FH-C$ED C ' F-ED43D $ED & 3 IH-EDC ; 2F'
?F E2C $ED <E3 I 3EEO &H4 I 3EEHEC H , $ $' <&& N34C' F3 4 9 DH C'
$ED '3 $ 3C' H F3 *F 4 O & 4C' G$O H& ')' <E3 FH-C$ED 3 2F'

/ 1 ' ?+!' J&' &) A1<)##+P

$ED F 4 O H' $ED $EO ?- J' H4 ?- J C H& PHE3O EH' 3 N33D E2 <E3
FH-C$ED F433 F-ED43D IH-EDC' H D3&4$O F3 @F$423 &H4 BH-E O H
@F$1 JEC' H F3 *F 4 O & 4C' G$O H& ')' <E3 FH-C$ED 3 2F'
F-ED43D $ED F 4 O 9H' $-D $EO ?- J' H4 ?- J C H& PHE3O EH' 3 R

.1 ' ?+!' G#%" (A)+ (!A' +?' !! & ' <)##+P

N33D E2 ? O & 3 FH-C$ED IH-EDC' H $4DC I $O J3E' H& F3 <- '
; 3EC HEC H& !!# ' ' 8HC1 $' H F3 *F 4 O & 4C' G$O H& ')' <E3

1 . ' A' 9& ' ?+!' G' (!D & G&#)+ A1' 4H') ' &2&' $(%' Y&!#@(#A1<)##+P

FH-C$ED 3 2F' F-ED43D $ED F&4 O H' $ED $EO ?- J' H4 ?- J C H&
PHE3O EH' 3 N33D E2 *F 4 O C3 3E FH-C$ED C ' F-ED43D $ED 3E O'
& 3 IH-EDC ; 2F 33E ?F E2C $ED 6 3 13EN3' H D3&4$O F3 @F$423
H& ?-134$EE-$ HEC H @H J J CC HE34C' ?3N43 $4 3C' @ 34+C' ! ' ' ! ! '
&H4 J34 O 3 J1 HO3D E F3 @ ' ; C $Q CF J3E' H& F3 , $ O' H F3
*F 4 O & 4C' G$O H& <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O
H' $ED $EO ?- J' H4 ?- J C H& PHE3O EH' 3 N33D E2 *F 4 O HE3

19 ' ?+!' !()*J# +? #+!(A1' 4H' <)##+P

FH-C$ED &H-4 F-ED43D IH-EDC' 1 D3&4$O F3 @F$423 H& 643 2F' H&
?F 1C &H4 F3 @HE 30$EN3 H& *4HH1C $ED ? H43C' HE $NNH-E' H& F3
4 JO$ED <4DE$EN3 G-Q$ 3 *F 4 O & 4C' G$O H& ')

' ?+!' !()*J# +? "&AA(*(!A' + ' &HH+G # +?#J(' + +)&' $(D '&!#@(#1' <)##+P

<E3 FH-C$ED 3 2F' F-ED43D $ED4 F 4 O H' $ED $EO ?- J' H4 ?- J C
H& PHE3O EH' 3 N33D E2 *F43D 'DED43D IH-EDC' H D3&4$O F3 @F$423
H& F3 643 2F' H& ?F 1C &F4 ' @HF @ FN3 H& I $CC3E234C $ED ? H43C
HE $NNH-E' H& F3' @H&H4 $5 G3A $ D J3F ' H F3 *F 4 O & 4C' G$O H&
')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O H' $ED $EO ?- J'

H4 ?- JC H& PHE3O EH'3 N33D E2 * 3E O H FH-C$ED HE3 F-ED43D $ED 3E O & 3 IH-EDC' H D3&4$O F3 ; 13EN3 H& NHE 3O E2 @HE N C H E ! F'+ ' Z%!1' H F3 *F 4 O & 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O H' $ED $EO ?- J' H4 ?- JC H& PHE3O EH' 3 N33D E2 <E3 F-ED43D $1D 3 2F O IH-EDC' H D3&4$O F3 @F$423 &H4 BH-E O $ H 3D &H4 F3 @$1 -43 H4 G3C 4-N HE H& I 4$ N$' 3CC3 C' H F3 *F 4 O & 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O H' $ED $EO ?-E' H4 ?- JC H& PHE3O EH' 3 N33D E2 <E3 F-ED43D $ED & & O FH-C$ED 3 2F' F-ED43D IH-EDC' &H4 N -$ C &H4 F3 C$ D *F 4 O < FH-C$ED P3E' H F3 *F 4 O & 4C' G$O H& ')' <E3 FH-C$ED 3 F' F-ED43D $ED F 4 O H' $' F3 '$ 3 H& <E3 IH-ED , $3 ?F E2C P$1 PHE F' $ED $EO ?- J' H4 ?- JC H& PHE3O EH' 3 N33D E2 ?3 3E FH-C$ED & 3 F-ED43D $ED 3 3 IH-EDC *3E ?F E2C' H D3&4$O F3 ?$ $4 3C H& F3 <&& N34C $ED F3 NHE E23E' ; 13EN3C H& F3 N -$ E2 <&& N3' H F3 *F 4 O & 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O H' $ED $EO ?- J' H4 ?- JC H& PHE3O EH' 3 N33D E2 6 & 33E FH-C$ED 3 2F' F-ED43D $ED F 4 O 3 2F' IH-EDC 6 3 ?F E2C' H D3&4$O F3 ?$ $4 3C H& F3 <&& N34C $ED F3 NHE E23E' ; 13EN3C H& F3 N -$ E2 =$4DC' H F3 *F 4 O & 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O' H' $ED $EO ?- J' H4 ?- JC EH' 3 N33D E2 ? ' FH-C$ED $ED &H4 O &H-4 IH-EDC ? 33E ?F E2C' H D3&4$O F3 ?$ $4 3C H& F3 <&& N34C $E ' F3 NHE E23E' ; 13EN3C H& F3 , $ $' P3D N$' ; C $QR CF J3E C' H F3 *F 4 O & 4C' G$O H& ')' <E3 FH-C$ED 3 2F' Q-ED 3D $ED F 4 O H' $ED $EO ?- J' H4 ?- JC H& PHE3O EH' 3 R N33D E2 ?3 3E FH-C$ED & 3 F-ED43D IH-EDC' H D3&4$O F3 @F$423 H& P3D N$' ? H43C $ED 8 HC1 $' I4H C HEC' H F3 *F 4 O & 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O H' $ED $EO ?- J' H4 ?- JC H& PHE3O EH' 3 N33D E2 ?3 3E FH-C$ED E E3 F-ED43D $ED H IH-EDC ; 3 3E ?F E2C' H D3&4$O F3 @F$423 &H4 I4H C HEC H <&& N34C $ED P3E H& ?F 1C E <4D E$4O' H F3 *F 4 O' & 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O H' $ED $EO ? J' H4 ?- JC H& PHE3O EH' 3 N33D E2 * H FH-C$ED HE3 F-ED43D $ED F 4 O E E3 IH-EDC , E3 ?F E2C' H D3&4$O F3 @F$423 &H4 I4H C HEC &H4 F3 <&& N34C $ED P3E H& F3 =$4D ?34 N3 $& H$' H F3 *F 4 O & 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED &H 4 O H: $ED $EO ?- J' H4 ?- JC H& PHE3O EH' 3 N33D E2 6H4 O' F433 FH-C$ED C3 3E F-ED43D $ED & & O F433 IH-EDC' H D3&4$O F3 @F$423 &H4 I4H C HEC &H4 *4HH1C $ED M$44 CHEC E 6H43 2E ? $ HEC($ED &H4 F3 @HE N' ?34 N3' $ED F3 $ -3 H& '$ HEC &H4 *4HH1C H Q3 3 JQ$4+3D HE QH$4D ?F 1C H& 9 $4 $ED *4$EC1H4 C' H F3 *F 4 O' & 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O H' $ED $EO ?- J' H4 ?- JC H& PHE3O EH' 3 N33D E2 *F 4 O E E3 FH-C$ED F433 F-ED43D $ED E E3 O &H-4 IH-EDC ?3 3E ?F E2C' H D3&4$O F3 @F$423 H& 8 $ & I$O' I3EC HEC' $ED ?-134$EE-$ HEC E F3 N -$ E2 $ED P3D N$' G31$4 J3E C' H F3 *F 4 O & 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O H' $ED $EO ?- J' H4 ?- JC H& PHE3O E-' 3 N33D E2 ; 2F' F-ED43D & & O HE3 FH-C$ED HE3' F-ED43D $ED C3 3E O & 3 IH-EDC' &H4 9 $23C &H4 * 3E O C3 3E FH-C$ED P3E' EN -D E2 , E3 FH-C$ED 'HO$' P$4 E3C' H F3 *F 4 O & 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O F433' $' F3 '$ 3 H& * H IH-EDC ; 2F' ?F E2C $ED ? 13EN3 5 ! ' P$E 5 ! ' PHE F' $ED $EO ?- J' H4 ?- JC H& PHE3O EH' 3 N33D E2 ?3 3E O H FH-C$ED IH-EDC

1 .5' ?+!' H+ 2(B) *' + 2)H#A' #+ E '. ' %!1' #+' A# P ')'

' ?+!' 1' ' &'#G!(' +?' ")!&#)H&' 1 (AA(A1' <)##+' P

. 1 [' ?+!')H#G& A' ?+!' 1 ' (1' <)##+P

1. [' .' ?+!' N' (H(A' +?' #J(')H#G&) *' ??)H(1' <)##+'

.1 [' .A' ?+!' & &!)(A1' 4H' +?')H#G&) *' &!<A1' <)##+P

1 99[' .' ?+!/ &2&' (<)H&' A#& I)AJ@(#A1C <)##+P

1. [' ?+!' (<)H&' #+!(A1' <)##+P

1- [' .1' ?+!' "!+2)A)+ A')I!' J)'A') ' !<)D &!B1' <)##+P

1 -[' -.' ?+!' 5!+2)A)+ A' ?+!' &!< (!2)H(' &? +&#1' <)##+P

9 1 . [' ?+!' "!+2)A)+ A' + ' +!()* ' #&#)+ A1' <)##+P

-1 -9[' A' ?+!' > +!;A') ')HD #G&) *' & <' (<)H&' $ (D '&!#@(#A1' <)##+P

. 1 [' ?+! O (!1 H& 1 (1' #+ A# ' P

1 [' ?+!' >&*( )1' 4H' ?+!

(AA(A) ʻ !<)D &!B #+ʻ ʻ # ʻ)ʻ ʻP
IH-EDCʻ H1$O F3 9$23C H& <&&N34 ʻ?F 1+33134Cʻ$EDʻ P3E H& 3CC3 C
E <4D E$40 &H4 <E3 =3$4ʻ H F3 *F40&4Cʻ G$O H& ʻ)ʻ6#!ʻ FH-R
1 . Wʻ A <ʻ ?+!ʻ#J(ʻ &2B "&B ??)H(1 <)##+P
C$ED 3 2Fʻ F-ED43D $ED F40 F433ʻ $ED $EO ?-Jʻ H4 ?-JC H&
PHE3O EHʻ3 N33D E2 *F4(FH-C$ED F433 F-ED43D $ED &&OC ʻ
IH-EDC * 3 3 ?F E2C $ED * H 13EN3ʻ H D3&4$O F3 ?$ $4 3C H&
F3 [N34C $ED F3 NHE E23Eʻ ; 13EN3C H& F3 ,$ O I$O <&&N3 &H4
<E3 =3$4ʻ H Fb *F40&4Cʻ G$O H& ʻ)ʻ <E3 FH-C$ED 3 2Fʻ
1 . Aʻ)ʻ ?+!ʻ#J(ʻ H)(#)?)H $('&!#@(#Aʻ+? #J(ʻ 5&2B1 <)##+P
F-ED43D $ED F40 F433 ʻ $ED $EO ?-Jʻ H4 ?-JC H& PHE3O EHʻ
3 N33D E2 * 3E O FH-C$ED $ED &&O HE3 IH-EDC * 3 3 ?F E2C
$ED? 13EN3ʻ H D3&4$O F3 ?$ $4 3C H& F3 <&&N34C $ED F3 NHE E23Eʻ
; 13EN3C H& F3 C3 34$ʻ ?N 3E &N G31$4 J3E C H& F3 ,$ O &H4 <E3
=3$4ʻ H F3 *F40&4Cʻ G$O H& ʻ)ʻ <E3 FH-C$ED 3 2Fʻ F-ED43D
1 9[ʻ XD1ʻ <ʻ?+!ʻ &&!)(A1 4Hʻ+? &!<A &# +@(1 <)##+P
$ED F40 F433ʻ $ED $EO ?-Jʻ H4 ?-4$C H& PHE3O EHʻ3 N33D E2
?3 3E O H FH-C$ ʻ H F-ED43D $ED 3E O &H-4 IH-EDC , E3 33E
?F E2C $ED *F433 13EN3ʻ H D3& $O F3 ?$ $4 3C H& F3 <&&N34C $ED
F3 NHE E23Eʻ ; 13EN3C H& I C P$(3C O C =$4DC $ʻ 8HJ3 &H4 <E3
=3$4ʻ H F3 *F40&4Cʻ G$O H& ʻ)ʻ <E3 FH-C$ED 3 2Fʻ
1 Aʻ <ʻ ?+!ʻ N'(H(A+? &!<A I!+&<1 <)##+P
F-ED43D $ED F40 F433ʻ $ED $EO ?-Jʻ H4 ?-JC H& PHE3O EHʻ
3 N33D E2 ?3 3E 33E FH-C$ED HE3 F-ED43D $ED C 33E IH-EDC
; 3 3E ?F E2C $ED *F433 13EN3ʻ H D3&4$O F3 ?$ $4 3C H& F3
<&&N34C $ED F3 NHE E23Eʻ ; 13EN3C H& 8 C P$(3C O C =$4DC Q4H$D
&H4 <E3 =3$4ʻ H F3 *F40&4Cʻ G$(H& & *Nʻ <E3 FH-C$ED 3 2Fʻ
. 19- ʻ-Aʻ ?+!ʻ >&*(A #+ʻ !#)?)H(!A)ʻ % <)##+1 <)##+P
F-ED43D $ED F40 F433 $ED $EO ?-4$ H4 ?-4$C H& PHE3O EHʻ
3 N33D E2 6 3 F-ED43D HE3 FH-C$ED &H-4 F-ED43D $ED E E3 Oʻ
H IH-EDC , E3 ?F E2Cʻ H 1$O F3 9$23C H& 4 &N34Cʻ >$QH-434Cʻ
$ED H F34C 3J1 HO3D E 8 C P$(3C O C =$4DC $ʻ 8HJ3 $ED Q4H$D
&H4 <E3 =3$4ʻ H F3 *F40&4Cʻ G$O H& ʻ)ʻ <E3 FH-C$ED 3 2Fʻ
9 . 1 ʻ?+!ʻ)@I(!1 ('&)!A +? J)'A1& <ʻ AG <!B %)% '(H(5 <)##+
F-ED43D $ED F40 F433ʻ $ED $EO ?-Jʻ H4 ?-JC H& PHE3O EHʻ
3 N33D E2 6H-4 F-ED43D &&O C3 3E FH-C$ED H F-ED43D $ED C3 3E
IH-EDCʻ &H4 F3 I-4NF$C3 H& * JQ34 $ED $ʻ H F34 P$ 34$C &H4
F3 B(D E2ʻ '31$4ʻ $ED <- &ʻH& F3 6 33 ʻ &H4 F3 H4D E$40 '31$4
H& ?F 1C E 8$4QH-4ʻ $ED &H4 F3 '31$4 H& GHN+Cʻ 9F$4&Cʻ $ED
B- D E2Cʻ &H4 C-ED40 ; 13EN3C H& ?$ $23ʻ '31$4Cʻ $ED @HE 30$EN3
H& ? H43Cʻ &H4 ; 13EN3C H& I-4 30H4C $ED @HE 34 34C H& * JQ34ʻ &H4
F3 I-4NF$C3 H& ?F 1C $ED 3CC3 Cʻ &H4 F3 '31$4 H& 8 C P$(3C O C
?F 1C $ʻ H F34 F$E %E2 C IH4 Cʻ $ED &H4 $4 H-C H F34 EN D3E $ʻ
; 13EN3Cʻ $ED $CH &H4 F3 I-4NF$C3 $ED '31$4 H& ? 3$Jʻ P$R
NF E340ʻ &H4 <E3 =3$4 H F3 *F40&4Cʻ G$O H& ʻ)ʻ <E3
9 1 ʻ?+!ʻ ('A?)!A)ʻ &!<A1 <)##+P
FH-C$ED 3 2Fʻ F-ED43D $ D F40 F433ʻ $ED $EO ?-Jʻ H4 ?-JC
H& PHE3O EHʻ 3 N33D E2 6H4 O C3 3E FH-C$ED IH-EDCʻ H D3&4$O
F3 @F$423 H& '31$4C $ED J14H 3J3E C E 8 C P$(3C O C =$4DC $ʻ
8HJ3 $ED Q4H$D &H4 <E3 =3$4ʻ H F3 *F40&4Cʻ G$O H& ʻ)ʻ
. 1- ʻ?+!ʻ +#&*(114Hʻ <)##+ʻP
<E3 FH-C$ED 3 2Fʻ F-ED43D $ED F40 F433 ʻ $ED $EO ?-Jʻ H4 ?-JC
H& PHE3O EHʻ3 N33D E2 *F40 3 2Fʻ FH-C$ED E E3 F-ED43D $ED 3 2F O
IH-EDCʻ H D3&4$O F3 @F$423 H& I H $23 $ED H F34 @HE E23EN 3C &H4
<E3 =3$4ʻ# / F3 *F40&4Cʻ G$O H& ʻ)ʻ6#!ʻ FH-C$ED 3 2Fʻ F-ER
1-. ʻ Aʻ ?+!ʻ !& A'+!# (!2)H(1& <ʻ !()*J#+? #+!(A1 <)##+P
D43D $ED F40 F433ʻ $ED $EO ? Jʻ H4 ?-JC H& PHE3O EHʻ3 N33D E2
* 3E O HE3 FH-C$ED E E3 F-ED43D $ED &&O F433 IH-EDC *3E
?F E2Cʻ H D3&4$O F3 @F$423 H& F3 *4$EC1H4ʻ ;C $Q CF J3E Cʻ $ED
F3 @F$423 &H4 643 2Fʻ H& ,$ $ʻ $ED N -$ E2 ? H43Cʻ &H4 <E3
=3$4ʻ H F3 *F40&4Cʻ G$O H& ʻ)ʻ <E3 FH-C$ED 3 2Fʻ F-ED43D
1. ʻ?+!ʻ)!(+?"&H;(#A1 <)##+P
$ED F40 F433ʻ $ED $EO ?-Jʻ H4 ?-JC H& PHE3O EHʻ3 N33D E2
; 2F 33E FH-C$ED & 3 F-ED43D $ED 3E O IH-EDCʻ H D3&4$O F3
Sʻ ʻ ʻ ; 13EN3

; 13EN3ʹ H&ʹ F3ʹ 8 43ʹ H&ʹ I$N+3 Cʹ &H4ʹ <E3ʹ =3$4ʹ Hʹ F3ʹ *F40&4Cʹ G$Oʹ
H&ʹ ')ʿ <E3ʹ FH-C$EDʹ 3 2Fʿ F-ED43Dʹ $EDʹ F40 F433ʿ $EDʹ $EOʹ
?-Jʹ H4ʹ ?-JCʹ H&ʹ PHE3Oʹ EHʿ 3 N33D E2ʹ ?3 3Eʹ F-ED43Dʹ 3 2F O& 3ʹ
FH-C$EDʹ & 3ʹ F-ED43Dʹ $EDʹ C3 3Eʹ IH-EDCʹ ? 33Eʹ ?F E2Cʹ $EDʹ
6H-4 13EN3ʿ Hʹ D3&4$Oʹ F3ʹ @F$423ʹ H&ʹ 8$&ʹ I$Oʹ Hʹ ,$ $ʿ <& N34Cʹ &H4ʹ
<E3ʹ =3$4ʿ Hʹ F3ʹ *F40&4Cʿ G$Oʹ H&ʹ ')ʿ <E3ʹ FH-C$EDʹ 3 2Fʿ
F-ED43Dʹ $EDʹ F40 F433ʿ $EDʹ $EOʹ ?-Jʹ H4ʹ ?-JCʹ H&ʹ PHE3Oʹ EHʿ
3 N33D E2ʹ * Hʹ F-ED43Dʹ && F4ʿ FH-C$EDʹ & 3ʹ F-ED43Dʹ $EDʹ
C3 3E O& 3ʹ IH-EDCʹ * 3 3ʹ ?E F-2Cʹ $EDʹ 6H-4 13EN3ʿ &H4ʹ I3EC HECʹ
Hʹ ,$ $ʿ <& N34Cʿ F3 4ʹ 9 DH Cʹ $EDʹ '3$ 3Cʿ &H4ʹ <E3ʹ =3$4ʿ Hʹ F3ʹ
*F40&4Cʿ G$Oʹ H&ʹ ')ʿ <E3ʹ FH-C$EDʹ 3 2Fʿ F-ED43Dʹ $EDʹ F40ʿ
F433ʹʿ $EDʹ $EOʹ ?-Jʹ H4ʹ ?-JCʹ H&ʹ PHE3Oʹ EHʿ 3 N33D E2ʹ <E3ʹ FH-C$EDʹ
F433ʹ F-ED43Dʹ IH-EDCʿ Hʹ D3&4$Oʹ F3ʹ @F$423ʹ &H4ʹ BH-E Oʹ Hʹ @F$1 $ ECʹ
&H4ʹ <E3ʹ =3$4ʿ Hʹ F3ʹ *F40&4Cʿ G$Oʹ ,:ʿ ')ʿ <E3ʹ FH-C$EDʹ 3 2Fʿ
F-ED43Dʹ $EDʹ F40 F433ʿ $EDʹ $EOʹ ?-Jʹ H4ʹ ?-JCʹ H&ʹ PHE3Oʹ EHʿ
3 N33D E2ʹ * Hʹ F-ED43Dʹ $EDʹ &&Oʹ FH-C$EDʹ IH-EDCʿ H $4DCʹ F3ʹ
I$O J3Eʿ H&ʹ &NHʹ <-F I3EC HE$ H&ʹ !!#F ')ʿ 8HC1 $ʿ &H4ʹ <E3ʹ =3$4ʿ Hʹ
F3ʹ *F40&4Cʿ G$Oʹ H&ʹ ')ʿ <E3ʹ FH-C$EDʹ 3 2Fʿ F-ED43Dʹ $EDʹ
F40 F433ʿ $EDʹ $EOʹ ?-Jʹ H4ʹ ?-JCʹ H&ʹ PHE3Oʹ EHʿ 3 N33D E2ʹ <E3ʹ
F-ED43Dʹ &&O C3 3Eʹ FH-C$EDʹ $EDʹ Hʹ IH-EDCʹ ?3 3Eʹ ?F E2Cʿ Hʹ
D3&4$Oʹ F3ʹ @F$423ʹ H&ʹ ?-134$EE-$ HECʹ Hʹ @HJJ CC HE34Cʿ ?3N43 $4 3Cʿ
@34+Cʿ !ʿʿ ! ʿ &H4 J34 Oʹ 3 J1 HO3Dʹ Eʹ F3ʹ @ ʿ ;C $Q CF J3E Cʹ H&ʹ
F3ʹ ,$ Oʿ &H4ʹ <E3ʹ =3$4ʿ Hʹ F3ʹ *F40&4Cʿ G$Oʹ H&ʹ ')ʿ <E3ʹ
FH-C$EDʹ 3 2Fʿ F-ED43Dʹ $EDʹ F40 F433ʹ $EDʹ $EOʹ ?-Jʹ H4ʹ ?-JCʹ H&ʹ
PHE3Oʹ EHʿ 3 N33D E2ʹ <E3ʹ F-ED43Dʹ $EDʹ &&33Eʹ FH-C$EDʹ IH-EDCʿ
Hʹ D3&4$Oʹ F3ʹ @F$423ʹ H&ʹ 643 2Fʿ H&ʹ ?F 1Cʹ &H4ʹ F3ʹ @HE 3O$EN3ʹ H&ʹ
*4HH1Cʹ $EDʹ ? J3Cʹ HEʹ $NNH-Eʿ H&ʹ F3ʹ 4JOʹ $EDʹ <4DE$EN3ʹ G31$4 R
J3E Cʹ ,ʿ <E3ʹ =3$4ʿ ,ʿ F3ʹ *F40&4Cʿ G$Oʹ H&ʹ ')ʿ <E3ʹ FH-C$EDʹ
3 2Fʿ F-ED43Dʹ $EDʹ F40 F433ʹ &ʹ $EDʹ $EOʹ ?-Jʹ H4ʹ ?-JCʹ H&ʹ PHE3Oʹ EHʿ
3 N33D E2ʹ <E3ʹ FH-C$EDʹ & 3ʹ F-ED43Dʹ IH-EDCʿ Hʹ D3&4$Oʹ F3ʹ @F$423ʹ
H&ʹ F3ʹ 643 2Fʿ H&ʹ ?F 1Cʹ &H4ʹ F3ʹ @HE 3O$EN3ʹ H&ʹ I$CC3E234Cʹ $EDʹ ? H43Cʹ
HEʹ $NNH-Eʿ H&ʹ F3ʹ @H HE $ʿ G31$4 J3Eʿ &H4ʹ <E3ʹ =3$4ʿ Hʹ F3ʹ *F40ʿ
&4Cʿ G$Oʹ H&ʹ ')ʿ <E3ʹ FH-C$EDʹ 3 2Fʿ F-ED43Dʹ $EDʹ F40 F433ʿ
$EDʹ $EOʹ ?-Jʹ H4ʹ ?-JCʹ H&ʹ PHE3Oʹ EHʿ 3 N33D E2ʹ ; 2F O 3 2Fʿ FH-C$EDʹ
& 3ʹ F-ED43Dʹ IH-EDCʿ Hʹ D3&4$Oʹ F3ʹ ; 13EN3ʹ H&ʹ NHE 3O E2ʹ @HE NCʹ
Hʹ E!Fʿ+)ʿ %!1ʿ &H4ʹ <E3ʹ =3$4ʿ Hʹ F3ʹ *F40&4Cʿ G$Oʹ H&ʹ ')ʿ
<E3ʹ FH-C$EDʹ 3 2Fʿ F-ED43Dʹ $EDʹ F40 F433ʿ $EDʹ $EOʹ ?-Jʹ H4ʹ ?-JCʹ
H&ʹ PHE3Oʹ EHʿ 3 N33D E2ʹ 6H-4ʹ F-ED43Dʹ 3E O HE3ʹ FH-C$EDʹ Hʹ
F-ED43Dʹ IH-EDCʿ Hʹ D3&4$Oʿ F3ʹ @F$423ʹ &H4ʹ N -$Cʹ &H4ʹ F3ʹ C$Dʹ
* 3E O C3 3Eʹ FH-C$EDʹ P3Eʹ &H4ʹ <E3ʹ =3$4ʿ Hʹ F3ʹ *F40&4Cʿ G$Oʹ H&ʹ
')ʿ <E3ʹ FH-C$EDʹ 3 2Fʿ F-ED43Dʹ $EDʹ F40 F433ʿ $ʿ F3ʹ '$3ʹ H&ʹ
<E3ʹ IH-EDʹ 6H-4ʹ ?F E2Cʹ 5!ʿ P$Eʹ 5!ʿ PHE Fʿ $EDʹ $EOʹ ?-Jʹ H4ʹ
?-JCʹ H&ʹ PHE3Oʹ EHʿ 3 N33D E2ʹ 6H4 O 3 2Fʿ FH-C$EDʹ E E3ʹ F-ED43Dʹ
$EDʹ C3 3E O C3 3Eʹ IH-EDCʹ 6H-4ʹ ?F E2Cʹ $EDʹ , E3 13EN3ʿ Hʹ D3&4$Oʹ
F3ʹ ?$ $4 3Cʹ H&ʹ F3ʹ <& N34Cʹ $EDʹ F3ʹ NHE E23Eʿ ; 13EN3Cʹ H&ʹ F3ʹ
N -$ E2ʹ =$4DCʹ &H4ʹ <E3ʹ =3$4ʿ Hʹ F3ʹ *F40&4Cʿ G$Oʹ H&ʹ ')ʿ
<E3ʹ FH-C$EDʹ 3 2Fʿ F-ED43Dʹ $EDʹ F40 F433ʿ $EDʹ $EOʹ ?-Jʹ H4ʹ
?-JCʹ H&ʹ PHE3Oʹ EHʿ 3 N33D E2ʹ * 3E O &H-4ʹ FH-C$EDʹ E E3ʹ F-ER
D43Dʹ $EDʹ & 3ʹ IH-EDCʹ 6H-4 33Eʹ ?F FE2Cʿ Hʹ D3&4$Oʹ F3ʹ ?$ $4 3Cʹ
H&ʹ F3ʹ <&& N34Cʹ $EDʹ F3ʹ NHE E23Eʿ ; 13EN3Cʹ H&ʹ F3ʹ ,$ $ʿ P3D N$ʿ
;C $Q CF J3E Cʹ &H4ʹ <E3ʹ =3$4ʿ Hʹ F3ʹ *F40&4Cʿ G$Oʹ H&ʹ ')ʿ
<E3ʹ FH-C$EDʹ 3 2Fʿ F-ED43Dʹ $EDʹ F40 F433ʹʿ $EDʹ $EOʹ ?-Jʿ
Sʹ #ʿ H4

.1. [ʿ X;1ʿ T&ʿ ?+!ʿ &2&ʿ & ?ʿ "&Bʿ #+ʿ A#ʿ ')ʿ P

1 161"ʿ Aʿ 9!?ʿ ?+!ʿ &2&ʿ "(A)+ A1ʿ <)##+P

1 [ʿ ?+!ʿ J&')&) A1<)##+P

.1 [ʿ ?+!ʿ G#%"(A)+ (!Aʿ +?ʿ !!#F ')ʿ <)##+ʿ P

.1 [ʿ Aʿ ?+!ʿ G'(!&ʿ G&#)+ A1ʿ 4Hʿ)ʿ &2&ʿ $('&!#D @(#A1ʿ <)##+P

.1 [ʿ ?+!ʿ !()*J#ʿ +?ʿ #+!(A1ʿ 4Hʿ <)##+P

1. [ʿ ?+!ʿ + D 2(B& H(ʿ +?ʿ &W% A(*H!Aʿ +ʿ &HH+G # +?ʿ +O +)&ʿ $('&!#D @(#1ʿ <)##+P

1. [ʿ ?+!ʿ H+ 2(B) *ʿ +ʿ 2)H#Aʿ #+ʿ E ʿ+ʿ ?C %!+Uʿ <)##+P

9 1 [ʿ ?+!ʿ #J()!ʿ)H#G& A1ʿ <)##+P

9 1- [ʿ 9Wʿ D&ʿ ?+!ʿ & &!)(A1ʿ 4(ʿ +?ʿ)H#G&) *ʿ &!<A1ʿ <)##+P

91- .[ʿ XT1ʿ ?+!ʿ &2&ʿ (<)H&ʿ A#&I%)AJ) H aʿ <)##+P

' ?#L' (<)H&' #+!(A1' #+' + %1 ' ')' P

H4 ?-4$C H&' PHE3O EH' N3 5E2 * 3E O & 3' FH-C$ED' H' F-ED43D'
IH-EDC' H' D3&4 ' F3' @F$4 ' H&' P3D N$' ? H43C $ED' 8HC1 $' I4HR
C HEC' &H4' <E3' = 9 ' 3' F3' *F 4 0 & 4C' G$O' H&' ')' <E3' FH-C$ED'

-1 9 ' A' ?+!' "!+2)A)+ A' ?+!' J)'A') ' !<) &!B1'<)##+P

3 2F ' F-ED43D' $ED' F 4 0 F433' $ED' $EO' ?- J' H4' ?- JC' H&' PHE3O' EH'
3 N33D H' * 3E E E3' FH-C$ED' F433' F-ED43D' $ED' &H4 0 C3 3E'
IH-EDC' *3E' ?F E2C' H' D3&4$O' F3' @F$423' &H4' I4H C HEC' &H4' F3'
<&& N34C' $ED' P3E' H&' ?F 1C' E' <4D E$4O' &H4' <E3' =3$4' H' F3' *F 4 O'

1- '?+!' "!+O 2)A)+ A' ?+!' &!9' (!2)H(' &? +&#1' <)##+P

& 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433' $ED'
$EO' ?- J' H4' ?- JC']& P J 3O' EH' 3 N33D E2' ; 2F ' FH-C$ED' E E3' F-ER
D43D' $ED' C3 3E O' IH-EDC' H' D3&4$O' F3' @F$423' &H4' I4H C HEC' &H4' F3'
<&& N34C' $ED' P3E' H&' F3' =$4D' ?34 N3' $& H$' &H4' <E3' =3$4' H' F3' *F 4 O'

-1 P' A' <' ?+!' +B&' &D !) (A1' <)##+'P

& 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433' $ED'
$EO' ?- J' H4' ?- JC' PHE3O' EH' 3 N33D E2' * 3E O E E3' FH-C$ED' HE3'
F-ED43D' $ED' C O 3 2F ' IH-EDC' <E3' ?F E2' $ED' ? 13EN3' H' D3&4$O'
F3' @F$423' &H4' F3' ?34 N3' H&' F3' ' HO$' P$4 E3C' &H4' <E3' =3$4' H' F3'
*F 4 0 & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O'

91 AU' ?+!' "(A)+ A) ')H#G&) *' & <' !& A'+!# $(' '&!#)G(#A1' <)##+P

F433' $ED' $EO' ?- J' H4' ?- JC' H&' PHE3O' EH' 3 N33D E2' *F 4 0 &H-4'
FH-C$ED' H' F-ED43D' $ED' 3 2F 0 F433' IH-EDC' *3E' ?F E2C' H'
D3&4$O' F3' @F$423' H&' I3EC HEC' $ED' ?-134$EE-$ HEC' E' F3' N -$ E2'
P3D N$' $ED' *4$EC1H4' G31$4 J3E C' &H4' <E3' =3$4' H' F3' *F 4 O'
& 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433''

. 1 '?+!' "!+2)A)+ A' + ' +!F* ' #&D #)+ A1' 4 '<)##+'P

$ED' $EO' ?- J' H4' ?- JC' H&' PEE3O' EH' 3 N33D E2' <E3' F-ED43D' $ED'
& & O' FH-C$ED' IH-EDC' H' D3&4$O' F3' @F$423' &H4' I4H C HEC' &H4' *4HH1C'
HE' 6H43 2E' ? $ HEC' $ED' &H4' F3' @HE N' ?34 N3' $ED' F3' $ -3' H&'
'$ HEC' &H4' *4HH1C' H' Q3' 3 JQ$4+3D' HE' QH$4D' ?F 1C' H&' 9 $4 $ED'
*4$EC1H4 C' &H4' <E3' =3$4' H' F3' *F 4 0 & 4C' G$O' H&' ')' <E3'

. '?+!' > +!#A' #' ! ! ' O'& <' !!0 % ' #+' A#' ')' I

FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433' $ED' $EO' ?- J' H4' ?- JC' H&'
PHE3O' EH' 3 N33D E2' 6 & 0 H' FH-C$ED' IH-EDC' H' D3&4$O' F3'
@F$423' &H4' E3 ' 9H4+C' $' ! ! %' $ED' !!0 O' H' F3' *F 4 0 & 4C'
G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H' $ED' $EO'

'?+!' > +! ;A') ')H%' #G&))5$('&!#%' # (#1' #+' A#' ')' P

?- J' H4' ?-4$C' H&' PHE3O' EH' 3 N33D E2' ? O' FH-C$ED' IH-EDC' H'
D3&4$O' F3' @F$423' H&' E3 ' 9H4+C' 3 3N- E2' &H4' F3' N -$ E2' G3R
1$4 J3E' &H4' <E3' *3$4' H' F3' *F 4 0 & 4C' G$O' <&' ')' <E3' FH-R

9 1 - ' A' ''?G!' & &!)(A1' K @ '+?#J(' <D @)!& #B' ??)H(' <)##+P

C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433' $ED' $EO' ?-E' H4' ?- JC' H&' PHE3O'
EH' 3 N33D E2' 6H4 O' H' FH-C$ED' H' F-ED43D' $ED' C O E E3' IH-EDC'
; 3 3E' ?F E2C' $ED' <E3' I3EEO' H' D3&4$O' F3' ?$ $4 3C' H&' F3' <&& N34C'
$ED' F3' NHE E23E' ; 13EN3C' H&' F3' DJ 4$ O' <&& N3' &H4' <E3' =3$4'
H' F3' *F 4 0 & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED'

9.1 ' A' <'?+!' #J(' &2B' ??)H(1' <)##+P

F 4 0 F433' $ED' $EO' ?- J' H4' ?- JC' H&' PHE3O' EH' 3 N33D E2' 6H4 O'
& 3' FH-C$ED' C ' F-ED43D' $ED' &4 4 O' IH-EDC' * 3 3' ?F E2C' $ED'
?3 3E 13EN3' H' D3&4$O' F3' ?$ $4 3C' H&' F3' <&& N34C' $ED' F3' NHE E23E'
; 13EN3C' H&' F3' ?$ O' <&& N3' &H4' <E3' =3$4' H' F3' *F 4 0 & 4C' G$O' H&'

1. '?+!' N'(H(A' + ?1 #J(')H#G&) *' ?) H(1' <)##+P

')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433' $ED' $EO' ?- J'
H4' ?- JC' H&' PHE3O' EH' 3 N33D E2' * J" O ? ' FH-C$ED' & 3' F-ED43D'
$ED' C O' IH-EDC' H' D3&4$O' F3' ?$ $4 3C' H&' F3' <&& N34C' $ED' F3' NHER
E23E' ; 13EC3C' H&' F3' 3 -$8 '<&& N3' &H4' <E3' =3$4' H' F3' *F 4 O'
& 4C' 1$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433'

1 .- ' A' <'?+!' & ?' "&B' & <' "(D A)+ A') ')HD #G&) *' & <' (<)H&' $(D '&!#@(#A1<)##+

$ED' $EO' ?- J' H4' ?- JC' H&' PHE3O' 3 N33D E2' <E3' F-ED43D' F 4 O'
HE3' FH-C$ED' C ' F-ED43D' $ED' & & 0 E E3' IH-EDC' $ED' *3E 13EN3' H'
D3&4$O' F3' @F$423' H&' 8 $ &' I$O' $ED' I3EC HEC' E' F3' N -$ E2' $ED'
P3D N$' G31$4 J3E C' &H4' <E3' =3$4' H' F3' *F 4 0 & 4C' G$O' H&' ')'
<E3' FH-C$ED' 3 2F ' F-ED43D' $ED' Q 4 0 433

W ' ED ' C F343QO $C1' 3E$N 3D' *F$' H-' H&' $' H4 $EO F3 (?('AJ& '
DC H4 ?-11 3C$ 3C$ $' F341'CF$ '$ED E$O Q3 CC-3D $ED $11 3D & A+' I('&'')(<'
$EO ?-J' H4 ?-JC H&' PH 3O EH'3 N33D E2 ; 2F' J HEC E E3 F-ER 1- .19 .5' A' ?&'?+!' E& <'
D43D C O & 3 FNJC$ED &H-4 F-ED43D $ED 3E O & 3 IH-EDC ; 2F' +!H(AP' 2)c
?F E2C $ED ?3 3E 13EN3" &H4 $ED H $4DC J$ E $ E E2 8 C P$(3C O C
>$ED 6H4N3C' $ED H F34 ?34 N3C F343 E $& 34 JH43 1$4 N- $4 O J3ER
HE3D '^ F$' C H C$O ' $EO ?-J' H4 ?-JC H&' PHE3O EH' 3 N33D E2 .1- [' A'
; 2F' F-ED43D & 3 FH-C$ED E E3 F-ED43D $ED C O HE3 IH-EDC -<'?+!' #J('
<E3 ?F ' $ED , E3 13EN3' &H4 D3&4$O E2 F3 @F$423 H&' 8 C +!H(A') '#J(' =)#(<' a) *D
P$(3C O C >$ED 6H4N3C &H4 ?34 N3 E F3 #E 3D % E2DH J' H&' ! ' <+@'& <' #&D
" #' $ED $!% #&' $ED HE ? $ HEC Q4H$D ^3 N31 E2 F3 #)+ A' I!+&<' '(NH('#'#J('
'32 J3E C 3 J1 HO3D E F3 *344 H4 $' IHCC3CC HEC H&' F3 " 1 '$#& ' 8 '%P3 !1 '?+!'
@HJ1$EO ' &H4 *F433 PHE FC' &4HJ' F3 6 4C' G$O H&' ? #3 ' H F3 J!((' + #JAP
*F 4 O & 4C' G$O H&' ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O'
H' QH F G$OC EN -C 3' $ED $EO ?-J' H4 ?-JC H&' PHE3O EH' 3 R .# AAAP' %6 '
N33D E2 *F 4 O FH-C$ED C ' F-ED43D $ED C O C ' IH-EDC ?3 3E 33E [' ?+!' : ((!&'
?F E2C $ED ?3 3E 13EN3' &H4 D3&4$O E2 F3 @F$423 H&' M3E34$' ? $&& #&?? ??)H(!A'
<&& N34C D' <&& N34C H&' F3 8HC1 $C C34 E2 F 8 C P$(3C O C 4H' <)##+P
6H4N3C E F3 #E 3D % E2DH J' H&' ! ' " #' $ED $!% #&' $ED HE
6H43 2E ? $ HEC ^3 N31 E2 $#& A' &H4 *F433 PHE FC' &4HJ' F3 6 4C'
G$O H&' ? #3 ' H F3 *F 4 O & 4C' G$O H&' ')' <E3 FH-C$ED 3 2F'
F-ED43D $ED F 4 O H' QH F G$OC EN -C 3' $ED $EO ?-J' H4 ?-JC .1 9.[' .A'
H&' PHE3O EH' 3 N33D E2 * 3E O & 3 FH-C$ED H F-ED43D $ED -<'?+!' +LD
&H4 O & 3 IH-EDC 6 & 33E ?F E2C $ED , E3 13EN3' &H4 D3&4$(DE2 F3 & H(A'#+)H+!A'
@F$423 H&' F3 H $EN3C H F3 14 EN 1$' <&& N34C H&' F3 C3 34$' 4H'+?'"G I)H'
I-Q N P $4O G31$4 J3E C E ! ' " #' $ED $!% #&' F3 4 $('&!#@(A' <)##+P
G31- 3C' @ 34+C' $ED NHE E23E' ; 13EN3C' &H4 *F433 PHE FC' &4HJ'
F3 6 4C' G$O H&' ? #3 ' H F3 *F 4 O & 4C' G$O H&' ')' <E3
FH-C$ED 3 2F' F-ED43D $ED F 4 O H' QH F G$OC EN -C 3' $ED [' ?+!'
$EO ?-J' H4 ?-JH H&' PHE3O EH' 3 N33D E2 *F433 FH-C$ED IH-EDC' (<)H) (A' 4H'
&H4 D3&4$O E2 F3 @F$423 H&' P3D N E3C $ED ?-42 N$' P$ 34 $ C &H4 ?+!' #J(' +!H(A' <)##+P
8 C P$(3C O C >$ED 6H4N3C &H4 *F433 PHE FC' &4HJ' F3 6 4C' G$O H&'
? #3 ' H F3 *F 4 O & 4C' G$O H&' ')' <E3 FH-C$ED 3 2F'
F-ED43D $ED F 4 O H' QH F G$OC EN -C 3' $ED $EO ?-J' H4 ?-JC 19 9[' A'
H&' PHE3O EH' 3 N33D E2 ; 2F' FH-C$ED &H-4 F-ED43D $ED 3E O' <'?+!' : &!!)D
&H-4 IH-EDC *F 4 33E ?F E2C $ED *3E 13EN3' &H4 D3&4$O E2 F3 A+ A' <)##+P
@F$423 H&' 8 C P$(3C O C M$44 CHEC $' 8H J3 $ED Q4H$D &H4 *F433
PHE FC' &4HJ' F3 6 4C' G$O H&' ? #3 ' H F3 *F 4 O & 4C' G$O H&'
')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O H' QH F G$OC
EN -C 3' $ED $EO ?-J' H4 ?-JC H&' PHE3O EH' 3 N33D E2 , E3 -- [' A' <'
F-ED43D $ED E E3 O IH-EDC *F 4 33E ?F E2C $ED *3E 13EN3' &H4 ?+!' +B&'))D
D3&4$O E2 F3 @F$423 H&' F3 'HO$' P $4O @H 323 &H4 *F433 #&!B' + (*(' <)##+P
PHE FC' &4HJ' F3 6 4C' G$O H&' ? #3 ' H F3 *F 4 O & 4C' G$O H&'
')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O H' QH F G$OC
EN -C 3' $ED $EO ?-J' H4 ?-JC H&' PHE3O EH' 3 N33D E2 6 3 .1 [' A' -<'
FH-C$ED C3 3E F-ED43D $ED C3 3E O F433 IH-EDC *3E ?F E2C $ED ?+!' +B&'))D
, E3 13EN3' &H4 D3&4$O E2 F3 @F$423 H&' F3 'HO$' P # $4O CO -J' #&!B' AB G@' & <' 4! # #'
$ED H&' F3 4! # #' P $4O ?NFHH ' &H4 *F433 PHE FC' &4HJ' F3))#&!B' HJ++ 1
6 4C' G$O H&' ? #3 ' H F3 *F 4 O & 4C' G$O H&' ')' <E3 FH-C$ED <)##+'P
3 2F' F-ED43D $ED F 4 O H' QH F G$OC EN -C 3' $ED $EO ?-J' H4 1 [' -A'
?-JC , ' PHE3O EH' 3 N33D E2 ? 33E FH-C$ED C3 3E F-ED43D $ED <'?+!' + G D
C O 3 2F' IH-EDC , E3 ?F E2C $ED *3E 13EN3' &H4 D3&4$O E2 F3 #((!' +!'A'<)##+P
@F$423 H&' H -E 334 @H41C E F3 #E 3D % E2DH J' H&' ! ' " #
$ED

ED !% #&&H4 *F433 PHE FCʻ &4HJ F3ʻ6 4Cʻ G$O H&? #3 ʻ H E)
*F 4 0 & 4Cʻ H& <E3 FH-C$ED 3 2Fʻ F-ED43D $ED F O
H ʻ QH F G$OC EN -C 3ʻ $ED $EO ?- J H4 ?- JC H& PHE3O EHʻ 3 R
N33D E2 6H-4 FH-C$ED 3 2Fʻ F-ED43D IH-EDCʻ &H4 D3&4$O E2 F3
@F$423 H& ; NF3X-34 633C E ! ʻ " # -1HE CC-3C H Q3 J$D3
&H4 3& I3N 3 4JO ?34 N3C E F3 *F433 PHE FC &4HJ F3 6 4Cʻ G$O
H& ? #3 ʻ H F3 *F 4 0 & 4Cʻ G$O H& ')ʻ <E3 FH-C$ED 3 2 ʻ
F 4D43D $ED F 4 0 Hʻ $ED $EO ?- J H4 ?- JC H& PHE3O EHʻ 3 R
N33D E2 *F 4 0 H FH-C$ED H F-ED43D IH-EDCʻ &H4 D3&4$O E2 F3
@F$423 H& F3 I$O H& M3E34$ʻ <&& N34Cʻ EHʻ Q3 E2 @H HE3 C H&
;32 E 3E Cʻ &H4 *F433 PHE FCʻ &4HJ F3 6 4Cʻ G$O H&? #3 ʻ H F3
*F 4 0 & 4Cʻ G$O H& ')ʻ <E3 FH-C$ED 3 2Fʻ F-ED43D $ED F 4 Oʻ
Hʻ QH F G$OC EN -C 3ʻ $ED $EO ?- J H4 ?- JC H& PHE3O EHʻ
3 N33D E2 * 3E O F433 FH-C$ED IH-EDCʻ &H4 D3&4$O E2 F3
@F$423 H& 6- ʻ I$O &H4 43D-N3Dʻ 43 43Dʻ $ED -E$ $NF3D <&& N34C
H& 8 C P$(3C O C 6H4N3Cʻ &H4 *F433 PHE FCʻ &4HJ F3 6 4Cʻ G$O
, ʻ? #3 ʻ H F3 *F 4 0 & 4Cʻ G$O H& ')ʻ <E3 FH-C$ED 3 2Fʻ
F-ED43D $ED F 4 0 Hʻ QH F G$OC EN -C 3ʻ $ED $EO ?- J
H4 ?- JC H& PHE3O EHʻ 3 N33D E2 <E3 F-ED43D C O E E3 FH-C$ED
C ʻ F-ED43D IH-EDCʻ &H4 D3&4$O E2 F3 @F$423 H& 8 $ & I$O $ED
P $4O H J N3C H 43D-N3D $ED 43 43D <&& N34C H& 8 C
P$(3C (&C >$ED 6H4N3C &H4 *F433 PHE FCʻ &4HJ F3 6 4Cʻ G$O
H& ? #3 ʻ H F3 *F 4 0 & 4Cʻ G$O H& ')ʻ <E3 FH-C$ED 3 2Fʻ
F-ED43D $ED F 4 0 Hʻ QH F G$OC EN -C 3ʻ $ED $EO ?- J H4 ?- JC
H& PHE3O EHʻ 3 N33D E2 * 3E O H FH-C$ED &H-4 F-ED43D $ED
3E O & 3 IH-EDCʻ &H4 D3&4$O E2 F3 @F$423 H& 8 $ & I$O $ED 43R
D-N3D H $EN3 H <&& N34C] D CQ$ED3D 6H43 2E @H41Cʻ H& I3EC HEC
H H-ED3D 6H43 2E <&& N34Cʻ $ED H& H $EN3C H F3 9 DH C $ED
@F D43E H& D3N3$C3D 6H43 2E <&& N34Cʻ &H4 *F433 PHE FCʻ &4HJ F3
6 4Cʻ G$O H&? #3 ʻ H F3 *F 4 0 & 4Cʻ G$O H& ')ʻ <E3 FH-C$ED
3 2Fʻ F-ED43D $ED F 4 0 Hʻ QH F G$OC EN -C 3ʻ $ED $EO ?- J H4
?- JC H& PHE3O FHʻ 3 N33D E2 ? ʻ FH-C$ED C ʻ F-ED43D $ED 3 2F Oʻ
F433 IH-EDC , E3 33E ?F E2Cʻ &H4 D3&4$O E2 F3 @F$423 H& H R
$EN3C H 43 43D <&& N34C H& P $ʻ H 43D-N3D D(- $E C H& >HN$ʻ
P $ʻ $ED H 43D-N3D D(- $E C $ED ?34(3$Eʻ P$(H4C H& =3H J$E4Oʻ
&H4 *F433 PHE FCʻ &4HJ F3 6 4Cʻ G$O H&? #3 ʻ H F3 *F 4 0 & 4Cʻ
G$O H& P$4NF <E3 FH-C$ED 3 2Fʻ F-ED43D $ED F 4 0 Hʻ QH F
G$OC EN -C 3ʻ $ED $EO ?- J H4 ?- JC H& PHE3O EHʻ 3 N33D E2
*F 4 0 C ʻ FH-C$ED E E3 F-ED43D $ED 3 2F O IH-EDCʻ &H4 D3&4$O E2
F3 @F$423 H& I3EC HEC H Q 3 $ Dʻ H F3 9 DQ C H& <&& N34C H& 8 C
P$(3C O C >$ED 6H4N3C &H4 *F433 PHE FCʻ &4HJ F3 6 4Cʻ G$O H&
? #3 ʻ H F3 *F 4 O4& 4Cʻ G$O H& ')ʻ <E3 FH-C$ED 3 2Fʻ F-ER
D43D $ED F 4 0 Hʻ QH F G$OC EN -C 3ʻ $ED $EO ?- J H4 ?- JC H&
PHE3O EHʻ 3 N33D E2 6H4 O &H-4 FH-C$ED $ED &H4 O C3 3E IH-EDCʻ
&H4 D3&4$O E2 F3 @F$423 H& H $EN3C HE F3 @H J1$CC HE$ 3 > C ʻ
H& H $EN3C $C H& 8 C P$(3C O C 'HO$ʻ BH-E Oʻ $ED H& I3EC HEC H
<&& N34C &H4 9H-EDCʻ &H4 *F433 PHE FCʻ &4HJ F3 6 4Cʻ G$O H&
$E H F3 *F 4 0 & 4Cʻ G$O H& <E3 FH-C$ED 3 2Fʻ F-ED43D
$ED F 4 0 Hʻ QH F G$OC EN -C 3ʻ $ED $EO ?- J H4 ?- JC H& PHE3O
#Hʻ 3 N33D E2 *F433 F-ED43D C3 3E O 3 2Fʻ FH-C$ED & 3 F-ER
D43D $ED C3 3E O E E3 IH-EDC <E3 ?F E2 $ED ?3 3E 13EN3ʻ &H4
D3&4$O E2 F3 @F$423 3&ʻ I)!)' ʻ $ED % #) ʻ 8HC1 $ Cʻ H& F3
E I3EC HE34C H& FHC3 ; C $Q CF J3E Cʻ $ED H& F3 <- I3EC HE34C H&

91 [ʻ ?+!ʻ NHJ(OG(!ʻ ((Aʻ G'+ ʻ AAG(Aʻ?+!ʻ !@Bʻ (!2)H(Aʻ ?+!ʻ J!((ʻ + #JAP

P [ʻ ?+!ʻ H(!#&) ʻ : ((!& ʻ ??)H(!Aʻ <)##+P

1 [ʻ ?+!ʻ G ʻ "&Bʻ ?+!ʻ !(#)!(<ʻ ??)H(!Aʻ <)##+P

-1 [ʻ ?+!ʻ & ?ʻ "&Bʻ <)##+ʻ

19 .[ʻ ?+!ʻ ,)?ʻ "&Bʻ 4Hʻ #+ʻ ??)H(!Aʻ +?ʻ <)AI& <(<ʻ +D !()* ʻ +! 'Aʻ <)##+P

1 [ʻ -Aʻ?+!ʻ !(<GH(< & <ʻ !(#)!(<ʻ))#)&ʻ ??)H(!5ʻ <)##+P

1- [ʻ ?+!ʻ "(A)+ Aʻ #+ʻ >)<+LAʻ <)##+P

991 9 [ʻ ?+!ʻ +@ '&AA)+ &#(ʻ E)A#ʻ 4Hʻ <)##+P

1. -[ʻ $1ʻ <ʻ?+!ʻ %ʻ "(A)+ (!Aʻ +?ʻ I)!%1! ʻ& <ʻ ? O #) ʻ <)##+P

I)!%1!' 8HC1 $' &H4 *F433' PHE FC' &4HJ' F3' 6 4C' G$0' H&? #3 '
H' F3' *F4 0&4C' 0']& ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' UY? ZC D'
F4 0 H' QH F' G$0C' EN -C 3' $ED' $E0' ?-J' H4 ?-JC' H& PHE30' EH' 3 N33D E2' * 3 3' FH-C$ED' C ' F-ED43D' $ED' E E3 0& 3' IH-EDC'
; 2F 33E' ?F E2C' $ED' <E3' I3EEO' &H4 D3&4$0 E2' F3' @F$423' H& G31$4 J3EC'
H $EN3C' @HJ13EC$ HEC' $ED' ; JH -J3E C' E' F3' ,$ -43' H&?-134'
FEE-$ HE' H4 '3 43D' H $EN3C' H' I34CHEC' &H4 J34 0' Q3 HE2 E2' H
F3' C3 34$' I -Q N P $40' G31$4 J3E C' E' F3' #E 3D' % E2DHJ' H&
! ' " # $ED' $!% #&' &H4 *F433' PHE FC' &4HJ' F3' 6 4C' G$0' H&
? #3 ' H' F3' *F 0 & 4C' G$0' H& ')' <E3' FH-C$ED' 3 2F' F-ER
D43D' $ED' F4 0 9H' QH F' G$0C' EN -C 3' $ED' $E0' ?-J' H4 ?-JC' H& &H4
PHE30' EH' 3 N33D E2' *F433' FH-C$ED' C ' F-ED43D' $ED' & & 0' IH-EDC' -1HE &H4'
&H4 D3&4$0 E2' F3' @F$423' H& ; NF3X-34 633C' E' ! ' " # -1HE EHE3&3D3'
CC-3C' H' Q3' J$D3' &H4 EHE 3&&3N 3' 4JO' ?34 N3C' E' F3' *F433' -H'
PHE FC' &4HJ' F3' 6 4C' G$0' H& ? #3 ' H' F3' *F4 0&4C' G$0' H&
')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F4 0 H' QH F' G$0C'
EN -C 3' $ED' $E0' ?-J' H4 ?-JC' H& PHE30' EH' 3 N33D E2' *F433' S[[[[[' &H4
F-ED43D' FH-C$ED' IH-EDC' H' D3&4$0' F3' 3 4$H4D E$40' ; 13EN3C' H&
F3' 4JO' &H4 <E3 \X$4 34 H& $ =3$4' &4HJ' F3' 6 4C' G$0' H& ? #3 ' #+' S C' ')'
H' F3' *F4 0&4C' G 'H& ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED'
F4 0 <($ED' &H4 <E3' =3$4 H F3' *F4 0&4C' G$0' H& ')'
<E3' FH-C$ED' 3 2F' F-ED43D' $ED' F4 0 F433' ' $ED' $E0' ?-J' H4 ?-JC' SU[' 11 'A<'
H& PHE30' EH' 3 N33D E2' *F4 33E' FH-C$ED' H' F-ED43D' $ED' &H-4 $/$ 3EC HEC H&
IH-EDC' 6 3' ?F E2C' $ED' ; 2F 13EN3' H' D3&4$0' F3' @F$423' H& F3' @HJJCC$4$'
8$ & 1$0' ?-134$EE-$ HEC' $ED' '3 43D' H $EN3C' $ED' I3EC HEC' H&
@HJ J CC$4 $' <&& N34C' F3 4 9 DH C' $ED' '3 $ 3C' &H4 <E3' <-$4 34'
H' F3' *F4 0&4C' G$0' H& ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED'
F4 0 H' $ED' $E0' ?-J' H4 ?-JC' H& PHE30' EH' 3 N33D E2' ; 2F 0' ZSUSC' &H4 F3
F433' FH-C$ED' H' F-ED43D' $ED' F4 0& 3' IH-EDC' H' D3&4$0' F3' @HJJCC$4$'
@F$423' H& F3' @HJ J CC$4 $' G31$4 J3E' &H4 <E3' \-$4 34' H' F3'
*F4 0&4C' G$0' H& ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F4 0'
H' $ED' $E0' ?-J' H4 ?-JC' H& PHE30' EH' 3 N33D E2' *F433' J HEC' S [V' VC
HE3' F-ED43D' C3 3E 0' FH-C$ED' C3 3E' F-ED43D' $ED' C3 3E 0 E E3
IH-EDC' , E3 33E' ?F # JC' $ED' * H 13EN3' &H4 D3&4$0 E2' F3' @F$423' -E 3D' E2'
H& 8 C' P$(3C 0 C' >$ED' 6H4N3C' &H4 ?34 N3' E' F3' #E 3D' % E2DHJ' H& Q I!+ 5'
! ' " # $ED' $!% #&' $ED' HE' ? $ HEC' Q4H$D' ^3 N31' E' F3' `(NH('#J('
'32 J3E C' 3 J1 H03D' E' F3' *344 H4 $' IHCC3CC HEC' H& F3' 8 1' $#& '
@HJ1$E0' &H4 F3' =3$4 &4HJ' F3' 6 4C' G$0' H& / 5 % <E3' FH-C$ED' #+' ' # ')'
3 2F' F-ED43D' $ED' F4 0 H' H' F3' *F4 0&4C' G$0' H& ')' <E3'
FH-C$ED' 3 2F' F-ED43D' $ED' F4 0 F433' QH F' G$0C' EN -C 3' $ED' U ' VC
$E0' ?-J' H4 ?-JC' H& PHE30' EH' 3 N33D E2' <E3' F-ED43D' C303E 33E'
FH-C$ED' H' F-ED43D' $ED' C3 3E 0 &H-4 IH-EDC' , E3 33E' ?F E2C' H&N34 KN'
$ED' *3E 13EN3' &H4 D3&4$0 E2' F3' @F$423' H& M3E34$' ? $& <&& N34C'
$ED' <&& N34C' H& F3' 8HC1 $C' C34 E2' F' 8 C' P$(3C 0 C' 6H4N3C' E
F3' #E 3D' % E2DHJ' H& ! ' " # $ED' $!% #&' $ED' HE' 6H43 2E'
? $ HEC' ^3 N31 E2' $#& A' &H4 F3' =3$4 &4HJ' F3' 6 4C' G$0' H& / 5 %
<E3' FH-C$ED' 3 2F' F-ED43D' $ED' F4 0 H' H' F3' *F4 0&4C' G$0' H&
')' <E [FH-C$ED' 3 2F' F-ED43D' $ED' F4 0 F433' QH F' G$0C'
EN -C 3' $ED' $E0' ?-J' H4 ?-JC' H& PHE30' EH' 3 N33D E2' <E3' 1 P') ! F'
F-ED43D' F433' FH-C$ED' $ED' &H-4 33E' IH-EDC' 6 & 33E' ?F E2C' $ED'
?3 3E 13EN3' &H4 D3&4$0 E2' F3' @F$423' H& F3' H $EN3C' H' F3' H(!AI' 4H' +?'
14 EN 1$' <&& N34C' H& F3' C3 34$' I -Q N G31$4 J3E C' E' ! ' " #
$ED' $!% #&' F3 4 G31- 3C' @34+C' $ED' NHE E23E' ; 13EN3C' &H4

F3

U K'S'M#> ;>P ' ' @$1' UY

*'+ '@ 9' *'@ ' 3' @' ' *) 1' 7*' *) 1 1'
1' * 3A 4 ' *' * 3A@ ' 3' @' ')' ' *) 1' 7*'
XB \\\X' ?+!' *) 1 1' 1' * 3A * 5' 2 *' 3' :) B / 1' 3')9' '
(<)() (A' 4H1')9' @' ; 3' ' 1 7 4 :B' *) 1' 0) 1 5' @ '
?+!' #J(' +!H(A1' 1 @ 3 7 *'"* 7' @' ; 1 ' 1') 7 :' ; :' @ ' C '
?!+@ A#' ; < 3B' . 1'D 5' 1' @' ' C :' " 7 5' @ '
'#+' A#' ')' *'+ '@ 9' *'D ' 3' @' /5 %' ' *) 1' 7*' *) 1 1'
P 1' 2 3 4' ' *' * 3A@ ' 3' @' ')' ' *) 1' 7*'
1 A'B&' *) 1 1' 1' * 3A * 5' 2 *' 3' :) B / 1' 3')9' '
?+!' :&!!)A+ A1')9' @' ; 3' ' 1 7 * 3A * ' *) 1' '*) 1 1'
<)##+'P' % 1' B 3' 0) 1' ' *:: 7' 1' 4 A 5' @ ' 1 @ 3 7
'" 7' @' C ' ; < 3B' ' ' C 9' 1'#2 1' @ ' *'
+ '@ 9' *'D ' 3' E@' ' *) 1' 7*' *) 1 1' 1
* 3A 4' ' *' & * 3A@ ' 3' @' ')' ' *) 1' 7*'
1 1' A <1' *) 1 1' 1' * 31* 5&' 2 *' 3' :) B / 1' 3')9' '
?+!' +B&'3<))%')9' @' ; 3' ' 1 7 4' *) 1' '*) 1 1' 1'
#&!B' +)(1' * 3A 7*' 0) 1' %: B ' *:: 7' 1' ' 0 3S' @ ' 1 @ 3 7
<)##+P *'"* 7' @' *'$ 3 :' ; : 3' " :: 7' @ ' *'+ '@ 9' *'D '
=' @' /5 %' ' *) 1' 7*' *) 1 1' 1' * 3A 4' ' *'
* 3A@ ' 3' @' ' *) 1' 7*' *) 1 1' 1' * 3A'
1 = ' <1' * 5' 2 *' 3' :) B'< 1'<93')9' ')9' @' ; 3' ' F
?+!' +B&' 5))%' 1 7 4 3A 4' ' *) 1' 7*' *) 1 1' 1' 7* 3A@B' 0) 1'
#&!B' 5J)&)1' *$ 7' 1'% 7* & 5'@ '1 @ 3 7 *'"* 7' @' *'! 3 :'
& <'$ " ! #' ; : 3'# 3:) 95' 1' @' *' 4! # #' ; : 3' * :5' @ ' *'+ '
))#&!B' HS + 1' @ 9' *'D ' 3' @' /5 %' ' *) 1' 7*' *) 1 1' 1' * 3A'
<)##+P 4' ' *' * 3A@ ' 3' @' ')' ' *) 1' 7*' *) 1 1'
--1 XB '/ & ' 1' * 3A * 5' 2 *' 3' :) B / 1' 3')9' ')9' @'
?+!' + G #((!' ; 3' ' 1 7 3A ' *) 1' '*) 1 1' 1' 7*'
+!'AP' <)##+P' 1 0) 1' 4 :B' *:: 7' 1'D) A 5' @ ' 1 @ 3 7 *'"* 7'
@' (:) ' " ' ' *' 1' 6 71 9' @' ! '" #' 1'
$!% #& @ ' *'+ '@ 9' *'D ' 3' @' /5 %' ' *) 1'
=72' *) 1 1' 1' * 3A 4' ' *' * 3A@ ' 3' @' ')' '
1. '?+!' *) 1' 7*' *) 1 1' 1' * 3A * 5' 2 *' 3' :) B'/ 1'
NHJ(OG(!' ((A' 3')9' ')9' @' ; 3' ' 1 7 B ' *) 1'
+ ' AAG(A'?+!' @B' *) 1 1'0) 1 5' @ ' 1 @ 3 7 *'"* 7' @'% * G) 'D '
!@B' (!2)H(A1' ' ! '" #') ') ' '2' 9 1' @ '# 93' B ' ' *'
<)##+P + '@ 9& *'D ' 3' , '/5 %' ' *) 1' 7*' *) 1 1' 1'
* 3A 4' ' *' * 3A@ '%23' @' ')'6#!' *) 1' 7*' *) F
.1 '?+!' 1 1' 1' * 3A * 5' 2 *' 3' :) B / 1' 3')9' ') ' @'
H(!#&) ' : ((!&' ; 3' ' 1 7 ' *) 1 1' 4 3A@B' *) 1' 0) 1 5'
??)H(!A1' <)##+P @ ' 1 @ 3 7 *'"* 7' @' *'0 3' @' :' @@ ' ' C ' ; F
< 3B'D 5' ' 2 7 " : :' @' ! 7 9 5' @ ' *'+ '@ 9'
*'D ' 3' @' /5 %' ' *) 1' 7*' *) 1 1' 1' * 3A 4' '
*' * 3A@ ' 3' @' ' 6#!' *) 1' 7*' *) 1 1' 1' * 3A'
V[H<H' ?+!' * 5' 2 *' 3' :) B / 1' 3')9' ')9' @' ; 3' '
G ' "&B'?+!' !(' 1 7 3' *) 1' 0) 1 5' @ ' 1 @ 3 7 *' "* 7' @'
#)!(< ??)H(!A1' D):' 0 3' @ ' 1) 1' 1' 1' @@ ' @' C ' ; < 3B' D '
<)##+P @ ' *'+ '@ 9' *'D ' 3' @' ' *) 1' 7*' *) 1 1'
1' * 3A 4' ' *' * 3A@ ' 3' @' ')' ' *) 1' 7*'
1. Y' ?+!' *) 1 1' 1' * 3A * 5' 2 *' 3' :) B / 1' 3')9' ')9'
& ?' "&B1' @' ; 3' ' 1 7 '*) 1 1' 3A ' *) 1' @B' *) F
<)##+P 1 1'0) 1 5' @ ' 1 @ 3 7 *'"* 7' @' C :@'0 3' 1' ; : 3'
#:: 4 ' ' 1) 1' 1' 1' @@ ' @' C ' ; < 3B' . 1
S D

& D ' @ ' * ' + '@ 9' * ' D ' 3' @' / 5 %' ' *) 1' 7* '
*) 1 1' 1' * 3A 4 ' ' * ' * 3A@ ' 3' @' ') ' ' *)F
1' 7* ' *) 1 1' 1' * 3A * 5' 2 *' 3 ' :) B / 1' 3' ,,H [illegible] ?+!'
) 9' ') ' @' ; 3' ' 1 7' % 7* 3A 7* ' *) 1' ' = '= @'
*) 1 1' 0) 1 5' @' ' 1 @ 3 7' * ' " * 7' ' @' C :@' 0 3' 1' 1) 1' 1 2 1 1' '
#:: 4 ' ' @@' ' @' 1 2 1 1' D 7 ' " 5' @' 0 ' '
4) 1 1' D 7 ' @@ 5' 1' @' #:: 4 ' ' * ' 1 4 ' 1' '
" * :1 ' @' 1 1' D 7 ' @@ 5' @ ' * ' + '@ 9' * ' D ' 3'
@' / 5 %' ' *) 1' 7* ' *) 1 1' 1' * 3A 4 ' ' * ' * 3A'
@ ' 3' @' ') ' ' *) 1' 7* ' *) 1 1' 1' * 3A * 5'
2 *' 3 ' :) B ' / 1' 3') 9' ') 9 ' @' ; 3' ' 1 7' ?5 [illegible] ! <[illegible]@ '
4 3A ' *) 1' * ' *) 1 1' 1' * 3A@) ' 0) 1 ' D @ '
* :: 7 5' @ ' 1 @ 3 7' * ' " * 7' ' @' #:: 4 ' ' 1) 1' . :' @@ 51 /
; : ' #1<) 5' 1' @@ ' @' * ' ; : 5' 1' 1) 1' #1F
<) ' 1' < ' ; < ' @' + 9 3 5' @ ' * ' + '@ 9' * ' D '
3' @' / 5 %' ' *) 1' 7* ' *) 1 1' 1' * 3A 4 ' ' * '
* 3A@ ' 3' @' ') ' ' *) 1' 7* ' *) 1 1' 1' * 3A'
* 5' 2 *' 3 ' :) B ' / 1' 3') 9' ') 9 ' @' ; 3' ' 5 [illegible] ?+!'
1 7' ' *) 1 1' @ 3A B ' *) 1' @) ' *) 1 1' 1' 1 /
4 3A * ' 0) 1 5' @ ' 1 @ 3 7' * ' " * 7' ' @' 0 ' ' 2 '
1' ' * ' 1 4 ' @' @@ ' @' C ' ; < 3 8 ' . 1' D ' @ '
* ' + '@ 9' * ' D ' 3' @' / 5 %' ' *) 1' 7* ' *) 1 1'
1' : 3A 4 ' ' * ' * 3A@ ' 3' @' ') ' ' *) 1'
7* ' *) 1 1' 1' * 3A * 5' 2 *' 3 ' :) B ' / 1' 3' 5[[illegible] ?+!'
) 9' ') 9 ' @' ; 3' ' 1 7' ' *) 1 1' B 3A@ B ' . = ' @@ 4A'
*) 1' 1' @ 3A ' 0) 1 5' @' ' 1 @ 3 7' * ' " * 7' ' #:F
: 4 ' ' * ' " 9 . 5' @' #:: 4 ' ' @' C '
; <= 3 8 ' ! 3 1' $) 3 5' 1' @' 0 5') 5' 1' #:: 4A'
' ' @@ ' @ ') 1 5' @ ' * ' + '@ 9' * ' D ' 3' @'
/ 5 %' ' *) 1 5' 7* ' *) 1 1' 1' * 3A 4 ' ' * ' * 3A'
@ ' 3' @' ') ' ' *) 1' 7* ' *) 1 1' 1' * 3A * 5'
2 *' 3 ' :) B ' / 1' 3') 9' ') 9 ' @' ; 3' ' 1 7' 5 [illegible] 5- [illegible] Y [illegible]
' 9 :: ' * = ' *) 1 1' @ @ 3' *) 1' @ B ' *) 1 1' 1' * '
0) 1 ' ' * :: 7 ' 1' % 7* A 5' @ ' 1 @ 3 7' * ' " * 7' @' '2 1!7 #7
I) ! %1 ! ' 1' % #) ' C : 5' @' * ' A0 ' @' * '
% 2: * 9 5' 1' @' * ') A0 ' @' I) ! %1 ! ' C :5' @ ' ≫J8
* ' + '@ 9' * ' D ' 3' @' / 5 %' ' *) 1' 7* ' *) 1 1'
1' * 3A 4 ' ' * ' * 3A@ ' 3' @' ') ' ' *) 1' 7* '
*) 1 1' 1' * 3A * 5' 2 *' 3 ' :) B ' < 1' 3') 9' ' - 5 - [illegible] Y [illegible]
) 9 ' @' ; 3' ' 1 7' D @ 3' *) 1' B ' *) 1 1' 1' : > @ ' G ' (!%
@ @ 3' 0) 1 ' ' * :: 7 ' 1' A 5' @ ' 1 @ 3 7' * ' & = A'
" * 7 ' @' #:: 4 5' " 9 5' 1' %9 :) 9 ' ' * ') ' 1 /
@')) A' ' ! 1' #:: 4 5' ' 0 ' @ 9 :3'
2 : 7 7' ' * ' B @' 0) 2: ' 9 ' ' * ' 1' 6 7F
1 9' @' @ ' " #' 1' $! % #& ' @ ' * ' + '@ 9' * ' D '
3' @' / 5 %' ' *) 1' 7* ' *) 1 1' 1' * 3A 4 ' ' * '
* 3A@ ' 3' @' ;) #' ' *) 1' 7* ' *) 1 1' 1' * 3A'
* 5' 2 *' 3 ' :) B ' / 1' 3') 9' ') 9 ' @' ; 3' ' [illegible]- [illegible] ?+!'
1 7 D) ' *) 1' @ B ' *) 1 1' 0) 1 5' @ ' 1 @ 3 7' * ' % * G) ' D '
" * 7 ' @' % * G) ' D ' ' ! ' " #') ') ' ' 2 ' 9 1 '
@ ' A @@ B ' # 9 3' B ' @ ' * ' + '@ 9' * ' D ' 3' @' # 3' B 5'
/ 5 %' ' *) 1' 7* ' *) 1 1' 1' * 3A 4 ' ' * ' * 3A@ '
3' @' ') ' ' *) 1' 7* ' *) 1 1' 1' * 3A * 5' 2 *

.1.9 [?+! #J(+@@)A A&!)&#1 #+ A# ') P

G$OC EN -C 3 $ED $EO ?-J H4 ?-JC H& PHE3O EH 3 N33D E2 *F433 F-ED43D &&33E FH-C$ED & 3 /F-ED43D $ED &H4 0 C IH-EDC H D3&4$O F3 @F$423 H& F3 @HJ&BCC$4$ G31$4 J3E &H4 <E3 =3$4 H F3 *F40&4C G$O H& ') <E3 FH-C$ED 32F

..1 -[A ?+! & ? "&B & < "(A)+ A +? +@@)AA&!)&#1 <)##+ P

F-ED43D $ED F40 F433 $ED $EO ?EJ H4 ?-JC H& PHE3O EH 3 N33D E2 6&0& 3 FH-C$ED HE3 F-ED43D $ED F40 E E3 IH-EDC $ED , E3 13EN3 H D3&4$O F3 ; 13E@3 H& F3 8$& I$O H&@HJJ CR C4 <&&N34C $ED &H4 ?-134$EE-$ HEC $ED '3 43D H $EN3C $CH &H4 I3EC HEC H& 9 DH C H&@HJJ CC4 <&&N34C $ED @HJ1$CC HE$ 3 H $EN3C H F34 @F D43E &H4 <E3 =3$4 H *F40&4C G$O H&

19 [A < ?+! $)A(@D I+<)(<))#)&1 ?!+@ A#3& #+ A# ') P

') <E3 FH-C$ED 32F F-ED43D $ED F40 F433 $ED $EO ?-J H4 ?-JC H& PHE3O EH 3 N33D E2 * D F-ED43D H FH-C$ED &H-4 F-ED43D $ED 32F0 H IH-EDC *3E ?F E2C $ED *3E 13EN3 &H4 D3&4$O E2 F3 @F$423 H& &H3 G C3 J QHD 3D P $ H& F3 #E 3D %E2DHJ H& ! ' " # $ED $!% #& &H4 F3 ?34 N3 H& F3 I34 HD &4HJ F3 64C G$O H& ? #3 <E3 F C$$D 32F F-ED43D $ED F40 H H F3 *F40&4C G$O H& ') <E3 FH-C$ED 32F

.1 [?+! +@'(A&#)+ A)')(G +? "(A)+ A

F-ED43D $ED F40 F433 $ED $EO ?-J H4 ?-4$C H& PHE3O EH 3 N33D E2 6&O FH-C$ED IH-EDC H J$+3@HJ13EC$ HE H $EN3C H ED D-$C E 3- H& I3EC HEC < 1-4C-$EN3 H& $E N H& F3 64C =3$4 H& F3 '32E H& 8 C 143C3E P$O3C0

)(!(AJ& 'I(&'')(< 1 .1 [?+! #J(!< & H($('&!#@(#1 2)c

W ED C F343QO $CH 31$N 3D *F$ H- H& $ H4 $EO F3 DC H4 ?-11 3C $&H43C$ D F343 CF$ $ED J$O Q3 CC-3D $ED $11 3D $EO ?-J H4 ?-JC H& PHE3O EH 3 N33D E2 \E3 J HE C3 3E F-ED43D C 0& 3 FH-C$ED 32F F-ED43D $ED C IH-EDC &H4 $ED H $4DC F3 <4DE$EN3 ?34 N3C Q343 E $&34 JH43 1$4 N-$4O

-1 [?+! !< & H(&#J(7,F! 'R %% ..< # NG).#+ ?!+@ A#? # #+ A# ') P

J3E HE3D ^F$ C H C$O $EO ?-J H4 ?-JC H& PHE3O EH 3 N33D E2 , E3 33E FH-C$ED 32F F-ED43D $ED 3E 0 3&3F IH-EDC &H4 D3&4$O E2 F3 ?$ $4 3C H& &H3 @ ;C $Q CF J3E C Q3 HE2 E2 H F3 <&&N3 H& <4DE$EN3 $ &H3 7,F! 'R %% %% $ED 23 &4HJ F3 64C G$O H& ? #3 H F3 *F40&4C G$O , ')6#! FH-C$ED 32F F-ED43D $ED F40 H $-D $EO ?-J H4 ?-JC H& PHE3O EH

1 --[?+! #J($('&!#@(#A &# ,,%FJ' <)##+ P

3 N33D E2 * H FH-C$ED H F-ED43D $ED E -30J E3 IH-EDC &H4 D3&4$O E2 F3 ?$ $4 3C H F3 G31$4 J3E C H& F3 <&&N3 H& <4DE$EN3 $,,%F ') &4HJ F3 64C G$O H& ? # H F3 *F40&4C G$O

1 .9[?+!)2) A#&I)AJD @(#A +? #J(!< & H(&# +@(1 <)##+ P

H& ') <E3 FH-C$ED 32F F-ED43D $ED F40 H $ED $EO ?-J H4 ?-JC H& PHE3O EH 3 N33D E2 *F433 FH-C$ED 22F F-ED43D $ED &&0 &H-4 IH-EDC &H4 D3&4$O E2 F3 ?$ $4 3C H& F3 C3 34$ @ ;C $Q CF J3E C H& F3 <&&N3 H& <4DE$EN3 $ &H3 8HJ3 ?$ HEC &4HJ F3 64C G$O H& ? #3 H F3 *F40&4C G$O H& ') <E3 FH-R

1- -[?+! !< & H(I!+&< & <) $!% #&A <)##+ P

C$ED 32F F-ED43D $ED F40 H $ED $EO ?-J H4 ?-JC H& PHE3O EH 3 N33D E2 ? FH-C$ED E E3 F-ED43D $ED 3E 0 E E3 IH-EDC &H4 D3&4$O E2 F3 ?$ $4 3C $ F3 <-'?$ HEC E $!?V #& $ED ?$ HEC Q4H$D &4HJ F3 64C G$O , ? #3 H &H3 *F40&4C G$O H& ')

-19 9[?+! #J(&!!&H; $('&!#@(#1 <)##+ P

<E3 FH-C$ED 32F F-ED43D $ED F40 H $ED $EO ?-4$ H4 ?-JC H& PHE3O EH 3 N33D E2 , E3 FH-C$ED &H-4 F-ED43D $ED F40 &H-4 IH-EDC &H4 D3&4$O E2 F3 ; 13EN3 H& ?$ $4 3C H &H3 C3 34$ B44N+ P$C 34C $ED B$44$N+ ?34(3$E C $ F3 ?$ HEC E ! ' " # $!% #& $ED F3 @H HE 3C &4HJ F3 64C G$O H& ? #3 H F3 *F40&4C G$O H& ') <E3 FH-C$ED 32F F-ED43D $ED F40

1 [?+! &AD #(! :G (!A1 <)##+ P

H $ED $EO ?-J H4 ?-JC H& PHE3O EH 3 N33D E2 <E3 FH-C$ED H F-ED43D $ED C3 3E 0 H IH-EDC &H4 D3&4$O E2 F3 ; 13EN3 H& P$C 34

P$C34 M-EE34Cʻ $ʻ F3ʻ M$44CHECʻ $EDʻ B$ 343Cʻ Eʻ ! ʻ" #ʻ
3! #1! ʻ?! 1! ʻ$EDʻ$!% #&ʻ &4HJʻ F3ʻ 6 4Cʻ G$0ʻ H&ʻ? #3 ʻ Hʻ F3ʻ
*F40&4Cʻ G$0ʻ H&ʻ ')ʻ <E3ʻ FH-C$EDʻ 3 2Fʻ F-ED43Dʻ $EDʻ F40ʻ
Hʻ ʻ $EDʻ $E0ʻ ?-Jʻ H4 ?-JCʻ H&ʻ PHE30ʻ EHʻ 3 N33D E2ʻ * 3E 0ʻ FH-R
C$EDʻ F433ʻ F-ED43Dʻ $EDʻ 3E 0 C3 3Eʻ IH-EDCʻ &H4ʻ D3&4$0 E2ʻ F3ʻ
; 13EN3ʻ H&ʻ F3ʻ 'HO$ʻ ;E2 E334Cʻ F3ʻ @H41Cʻ H&ʻ 'HO$ʻ ?$1134Cʻ $EDʻ
P E34Cʻ $EDʻ F3ʻ ;C $Q CFJ3Eʻ &H4ʻ F3ʻ EC4-N HEʻ H&ʻ 'HO$ʻ ?$1134Cʻ
$EDʻ E34Cʻ &H4ʻ ! ʻ" #ʻ$!% #&ʻ $EDʻ F3ʻ @H HE 3Cʻ &4HJʻ F3ʻ
6 4Cʻ G$0ʻ H&ʻ? #3 ʻ Hʻ F3ʻ *F40&4Cʻ G$0ʻ H&ʻ ')ʻ <E3ʻ FH-C$EDʻ
3 2Fʻ F-ED43Dʻ $EDʻ F40 Hʻ ʻ $EDʻ $E0ʻ ?-Jʻ H4 ?-JCʻ H&ʻ PHE30ʻ EHʻ
3 N33D E2ʻ? 0 E E3ʻ FH-C$EDʻ F433ʻ F-ED43Dʻ $EDʻ 3 2F 0& 3ʻ IH-EDCʻ
&H4ʻ D3&4$0 E2ʻ F3ʻ ; 13EN3ʻ H&ʻ F3ʻ 'HO$ʻ '32 J3Eʻ H&ʻ 4 340ʻ &H4ʻ
! ʻ" #ʻ$!% #&ʻ $EDʻ F3ʻ @H HE 3Cʻ &4HJʻ F3ʻ 6 4Cʻ G$0ʻ H&ʻ
? #3 ʻ Hʻ F3ʻ *F40&4Cʻ G$0ʻ H&ʻ ')ʻ <E3ʻ FH-C$EDʻ 3 2Fʻ F-ER
D43Dʻ $EDʻ F40 Hʻ ʻ $EDʻ $E0ʻ ?-Jʻ H4 ?-JCʻ H&ʻ PHE30ʻ EHʻ 3 N33D E2ʻ
, E3ʻ FH-C$EDʻ $EDʻ F433ʻ IH-EDCʻ &H4ʻ D3&4$0 E2ʻ F3ʻ ; 13EN3ʻ H&ʻ F3ʻ
B4 2$D3ʻ H&ʻ 'HO$ʻ 8H4C3ʻ 4 340ʻ $EDʻ $CHʻ &H4ʻ F3ʻ ' D E2ʻ 8H-C3ʻ
*4HH1ʻ &H4ʻ ! ʻ" #ʻ $EDʻ$!% #&ʻ &4HJʻ F3ʻ 6 4Cʻ G$0ʻ H&ʻ? #3 ʻ
Hʻ F3ʻ *F40&4Cʻ G$0ʻ H&ʻ ')ʻ <E3ʻ FH-C$EDʻ 3 2Fʻ F-ED43Dʻ $EDʻ
F40 Hʻ $EDʻ $E0ʻ ?-Jʻ H4 ?-JCʻ H&ʻ PHE30ʻ EHʻ 3 N33D E2ʻ *F433ʻ
F-ED43Dʻ $EDʻ C ʻ IH-EDCʻ &H4ʻ D3&4$0 E2ʻ F3ʻ ; 13EN3ʻ H&ʻ F3ʻ G 43N H4ʻ
M3E34$ʻ H&ʻ F3ʻ 4 340ʻ $EDʻ &H4ʻ F3ʻ 6 3 Dʻ *4$ Eʻ G31$4 J3Eʻ &4HJʻ
F3ʻ 6 4Cʻ G$0ʻ H&ʻ? #3 ʻ Hʻ F3ʻ *F40&4Cʻ G$0ʻ H&ʻ ')ʻ <E3ʻ
FH-C$EDʻ 3 2Fʻ F-ED43Dʻ $EDʻ F40 Hʻ $EDʻ $E0ʻ ?-4$ H4 ?-JCʻ H&ʻ
PHE30ʻ EHʻ 3 N33D E2ʻ * Hʻ FH-C$EDʻ &H-4ʻ F-ED43Dʻ $EDʻ 3E 0 C ʻ
IH-EDCʻ &H4ʻ D3&4$0 E2ʻ F3ʻ ; 13EN3ʻ H&ʻ F3ʻ P3D N$ʻ ;C $Q CFJ3Eʻ &H4ʻ
F3ʻ P $40ʻ G31$4 J3Eʻ H&ʻ F3ʻ <4DE$EN3ʻ &H4ʻ ! ʻ" #ʻ$!% #&ʻ
$EDʻ F3ʻ @H HE 3Cʻ &4HJʻ F3ʻ 6 4Cʻ G$0ʻ H&ʻ? #3 ʻ Hʻ F3ʻ * 40&4Cʻ
G$0ʻ H&ʻ ')ʻ <E3ʻ FH-C$EDʻ 3 2Fʻ F-ED43Dʻ $EDʻ F40 Hʻ ʻ $EDʻ $E0ʻ
?-Jʻ H4 ?-JCʻ H&ʻ PHE30ʻ EHʻ 3 N33D E2ʻ * Hʻ F-ED43Dʻ IH-EDCʻ &H4ʻ
D3&4$0 E2ʻ F3ʻ ; 13EN3ʻ H&ʻ F3ʻ N$D3J N$ʻ ;C $Q CFJ3Eʻ $ʻ ,,), ')ʻ
&4HJʻ F3ʻ 6 4Cʻ G$0ʻ H&ʻ? #3 ʻ Hʻ F3ʻ *F40&4Cʻ G$0ʻ H&ʻ ')ʻ <E3ʻ
FH-C$EDʻ 3 2Fʻ F-ED43Dʻ $EDʻ F40 Hʻ $EDʻ $E0ʻ ?-Jʻ H4 ?-JCʻ H&ʻ
PHE30ʻ EHʻ 3 N33D E2ʻ 6&33Eʻ FH-C$EDʻ F433ʻ F-ED43Dʻ $EDʻ &&0 &H-4ʻ
IH-EDCʻ &H4ʻ D3&4$0 E2ʻ F3ʻ @F$423ʻ &H4ʻ F3ʻ ?-134 E 3ED3EN3ʻ ! ʻ ' ! ! ʻ
&H4ʻ 9H4+Cʻ $EDʻ '31$4Cʻ Eʻ ! ʻ" #ʻ$!% #&ʻ $EDʻ F3ʻ @H HE 3Cʻ
&4HJʻ F3ʻ 6 4Cʻ G$0ʻ H&ʻ? #3 ʻ Hʻ F3ʻ *F40&4Cʻ G$0ʻ H&ʻ !)6#Yʻ
FH-C$EDʻ 3 2Fʻ F-ED43Dʻ $EDʻ F40 Hʻ $EDʻ $E0ʻ ?-Jʻ H4 ?-JCʻ H&ʻ
PHE30ʻ EHʻ 3 N33D E2ʻ 6 3ʻ FH-C$EDʻ F433ʻ F-ED43Dʻ $EDʻ F40 E E3ʻ
IH-EDCʻ &H4ʻ D3&4$0 E2ʻ F3ʻ ; 4$H4D E$4 3Cʻ H&ʻ F3ʻ <& N3ʻ H&ʻ <4DE$EN3ʻ
HEʻ $NNH-Eʻ H&ʻ F3ʻ ? H43+33134Cʻ G31$4 J3Eʻ Eʻ ! ʻ" #ʻ$!% #&ʻ
$EDʻ 6H43 2Eʻ ? $ HECʻ &4HJʻ F3ʻ 6 4Cʻ G$0ʻ H&ʻ? #3 ʻ Hʻ F3ʻ *F40ʻ
&4Cʻ G$0ʻ , ʻ ')ʻ <E3ʻ FH-C$EDʻ 3 2Fʻ F-ED43Dʻ $EDʻ F4 (Hʻ $& 34ʻ
D3D-N E2ʻ *F4 33Eʻ FH-C$EDʻ IH-EDCʻ &H4ʻ '3E Cʻ ! ʻ''!%! ʻ Hʻ Q3ʻ
43N3 3Dʻ $EDʻ $E0ʻ ?-Jʻ H4 ?-JCʻ H&ʻ PHE30ʻ EHʻ 3 N33D E2ʻ ? 33Eʻ
FH-C$EDʻ F433ʻ F-ED43Dʻ $EDʻ &&0 C ʻ IH-EDCʻ &H4ʻ D3&4$0 J2ʻ F3ʻ ; 4$R
H4D E$4 3Cʻ H&ʻ F3ʻ <&& N3ʻ H&ʻ <4DE$EN3ʻ HEʻ $NNH-Eʻ H&ʻ B$44$N+ʻ P$C 34Cʻ
; 13ED -43Cʻ $EDʻ H $EN3Cʻ $EDʻ &H4ʻ P CN3 $E3H-Cʻ @F$ 23Cʻ Eʻ
! ʻ" #ʻ$!% #&ʻ $EDʻ F3ʻ @H&HE 3Cʻ &4HJʻ F3ʻ 6 4Cʻ G$0ʻ H&ʻ
? #3 ʻ Hʻ F3ʻ *F40&4Cʻ G$0ʻ H&ʻ ')ʻ <E3ʻ FH-C$EDʻ 3 2Fʻ F-1ʻ
D43Dʻ $EDʻ F40 Hʻ ʻ $EDʻ $E0ʻ ?-Jʻ H4 ?-JCʻ H&ʻ PHE30ʻ EHʻ 3 N33D E2ʻ
6H4 0ʻ FH-C$EDʻ 3 2Fʻ F-ED43Dʻ $EDʻ 3 2F 0 C ʻ IH-EDCʻ &H4ʻ D3&4$0 E2ʻ
F3ʻ ; 4$H4D E$4 3Cʻ H&ʻ F3ʻ <&& N3ʻ H&ʻ <4DE$EN3ʻ HEʻ $NNH-Eʻ H&ʻ P E $40ʻ
Sʻ =ʻ ʻ ʻ $ED

1 [ʻ?+!ʻ #J(ʻ +!'Aʻ+?ʻ) +B&ʻ *) ((!A1ʻ &''(!A1ʻ 4Hʻ ?!+@ʻ A#3)@ʻ #+ʻ A#ʻ ')ʻ P

-1 . ʻ?+!ʻ #J(ʻ a+B& (*)@(# +?ʻ !#) (!B1ʻ <)##+P

-1 [ʻ?+!ʻ !)D *&<(ʻ+?ʻ +B&ʻ +!A(ʻ !?) (!B1ʻ <)##+ʻ

[ʻ?+!ʻ #J(ʻ)(<ʻ !&)ʻ $('&!#@(#1ʻ <)##+P

19 [ʻ?+!ʻ #J(ʻ (<)H&ʻ A#&ID)AJ@(# ?#J(ʻ !< & (1ʻ <)##+P

[ʻ?+!ʻ))D #&!Bʻ ++<(@B1 &#ʻ é <)##+P

.1 .9[ʻ?+!ʻ GD '(!) #(<(H(1ʻ 'X $4?4K3ʻ <)##+P

.1 -[ʻ?+!ʻ #J(ʻ N#!&+!<) &!)(Aʻ ?#J(ʻ !<D & H(1ʻ <)##+ʻ

1 . [ʻ?<!ʻ !< & H('& <ʻ #$ 4$3+ʻ 9H4+oʻ <)##+ʻP

..;ʻ ʻ !<))& H+ʻ ND #!&+!<) &!)(Aʻ + ʻ &(++)@#+?ʻ + ʻ #) *(H)(A1ʻ <)##+P

$ED @ '@HE E23EN 3C' ? H43C' ! ' ! J ! '&H4 ! ' " # ' $!% #&'
$ED F3 @H HE 3C' &4H J F3 6 4C' G$O H&? #3 ' H F3 *F 4 0 & 4C' G$O
H& ')' <E3 FH-C$ED 3 2F' F-E 3D' $ED F 4 0 H' $ED $EO ?- J'
H4 ?- JC H& PHE3O EH '3 N33D E2 * 3E 0 E E3 FH-C$ED C 'F-ED43D
$ED C3 3E 0 HE3 IH-EDC' &H4 D3&4$0 E2 F3 ; J 3FN3 H& F3 P $4O
? H43 B4$ENF &H4 ! ' " # ' $!% #&' $ED F3 @H HE 3C' &4H J' F3
6 4C' G$O , '? #3 ' H F3 *F 4 0 & 4C' G$O H& ')' <E3 FH-C$ED
3 2F' F-ED43D $ED F 4 0 H' $ ' $EO ?$ J' <4 ?- JC H& PHE3O EH'
3 N33D E2 *F433 F-ED43D $ED C3 3E 0 E E3 IH-EDC' &H4 D3&4$0 E2 F3
; 13EN3C H& ?- JC H Q3 1$ D $' F3 ; NF3X-34 &H4 633C HE F3
JH-E' H& F3 <4DE$EN3 ;C J$ 3C &4 " D 3 6 4C' G$O H& ? #3 '
H F3 *F 0 & 4C' G$O H& ')' <E3 F1-C$ED 3 2F' F-ED43D $ED
F 4 0 H' $ED $EO ?- J' H4 ?- JC H& PHE3O EH '3 N33D E2 ?3 3E 0'
F433 FH-C$ED F433 F-ED43D $ED 3 2F' 6H-EDC' &F4 D3&4$0 E2 F3
@F$423 H& F3 <&& N3 H& <4DE$EN3 E ! ' " #' $ED $!% #&' HE
$NNH-E' H& F3 H $EN3C H ?-134$EE-$ 3D' '3 43D' $ED 8 $ & I$O
<&& N34C' H ?-134$EE-$ 3D $ED G C$Q 3D P3E' $ CH &H4 I3EC HEC H
9 DH C $ED @F D43E H& D3N3$C3D <&& N34C $ 3 Q3 HE2 E2 H F3
C3 34$' <4DE$EN3 P $4O @H41C' &4H J' F3 6 4C' G$OO H& ? #3 ' H
F3 *F 4 0 & 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED
F 4 0 H' $ED $EO ?- J' H4 ?- JC H& PHE3O E<'3 N33D E2 6H-4 33E
FH-C$ED & 3 F-ED43D $ED C 0 H 6H-EDC' &H4 F3 @F$423 H&
H $EN3C' @H J 13EC$ HEC' $ED ; JH - J3E C E F3 ,$ -43 H&
?-134$EE-$ 3D H4 '3 43D H $EN3C H I34CH C $ 3 Q3 HE2 E2 H
F3 <&& N3 H& <4DE$EN3 $ED H F3 B$44$N+ G31$4 J3E' E ! '
" # ' $!% #&' $ED F3 @H HE 3C' E 43C13N' H& F3 4 F$ E2 F3 D
$EO I -Q N <&& N3C H4 ; J1 HO J3E C H& $ @ ' %$ -4H' $ED $ CH &H4
F3 @F$423 H& 9 DH C I3EC HEC' &4H J' F3 6 4C' G$O H& ? #3 ' H
F3 *F 4 0 & 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED
F 4 0 H' $ED $EO ?- J' H4 ?- JC H& PHE3O EH '3 N33D E2 ?3 3E 0'
C3 3E FH-C$ED C 'F-ED43D $ED F 4 0 E E3 IH-EDC' &H4 D3&4$0 E2
F3 ?$ $4 3C H F3 P$C 34 M3E34$' E3 14 EN 1$' <& N34C' @ 34+C'
$ED 3ED$E C Q3 HE2 E2 H F3 <&& N3 H& <4DE$EN3 $' F3 7 , F ! '
* %%' %% 7 , , %! ' + ! ! '$ED 2 3 4 % #' &H4 F3=3$4 3ED E2 HE F3 *F 4 0'
& 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 F433'
$ED $EO ?- J' H4 ?- JC H& PHE3O EH '3 N33D E2 , E3 FH-C$ED HE3
F-ED43D $ED E E3 0 E E3 IH-EDC' , ' D3&4$0 E2 F3 ?$ $4 3C H F3
G31$4 J3E C H& F3 <&& N3 H& <4DE$EN3 $' , , %F ')' E F3 =3$4
3ED E2 HE F3 *F 4 0 & 4C' G$O , ' ')' <E3 FH-C$ED 3 2F'
F-ED43D $ED F 4 0 F433' $ED $EO ?- J' H4 ?- JC H& PHE3O EH'
3 N33D E2 6 & 33E FH-C$ED HE3 F-ED43D $ED F 4 0 E E3 IH-EDC' &H4
D3&4$0 E2 F3 ?$ $4 3C H& F3 @ ' ;C $Q CF J3E C H& F3 <&& N3 H&
<4DE$EN3 $' ? $ HEC $' 8H J3 &H4 F3 =3$4 3ED E2 HE F3 *F 4 0'
& 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 F433'
$ED $EO ?- J' H4 ?- JC H& PHE3O EH' 3 N33D E2 * 3E 0 C3 3E
FH-C$ED F433 F-ED43D $ED C3 3E 0 & 3 IH-EDC' &H4 D3&4$0 E2 F3
?$ $4 3C H& F3 @ ' ;C $Q CF J3E C H& F3 <&& N3 H& <4DE$EN3 $' <-'
? $ HEC E $!% #&' $ED' ? $ HEC Q4H$D' &H4 F3 =3$4 3ED E2 HE F3
*F 4 0 & 4C' G$O H& ')' <F3 FH-C$ED 3 2F' F-ED43D $ED F 4 0'
F433' $ED $EO ?- J' H4 ?- JC H& PHE3O EH '3 N33D E2 *F 4 0 C3 3E
FH-C$ED C3 3E F-ED43D $ED F 4 0 & 3 6H-EDC' &H4 D3&4$0 E2 F3
?$ $4 3C H& F3 B$44$N+ P$C 34C $ED B$44$N+ ?34(3$E C Q3 HE2 E2 H
F3 <&& N3 H& <4DE$EN3 E ! ' " # ' $!% #&' $ED Q3 @H HE 3C'
&H4

U Ć K ʻ SL ʻ M # > ; > P ʻ ʻ @$1 UY

&H4 F3 =3$4 3ED E2 HE F3 *F 4 0 & 4C ʻ G$0 H& ') ʻ <E3 FH-C$ED
3 2F ʻ F-ED43D $ED F 4 0 F433 ʻ $ED $E0 ?- J ʻ H4 ?- JC H& PHE30 EH ʻ
3 N33D E2 6 3 FH-C$ED $ED 3 2F 0 3 2F ʻ IH-EDC ʻ &H4 D3&4$0 E2 F3
; 13EN3 H& P$C 34 M-EE34C $ ʻ F3 M$44 CHEC $ED B$ 34 3C E ! ʻ
" # ʻ $ED $! % # & ʻ &H4 F3 =3$4 3ED E2 HE F3 *F 4 0 & 4C ʻ G$0 H&
') ʻ <E3 FH-C$ED 3 2F ʻ F-ED43D $ED F 0 F433 ʻ $ED $E0 ?-E ʻ
H4 ?- JC H& PHE30 EH ʻ 3 N33D E2 ; 2F 0 HE3 FH-C$ED & 3 F-ED43D ʻ
$ED F 4 0 & 3 IH-EDC ʻ &H4 ʻ D3&4$0 E2 F3 ; 13EN3 1& F3 @H41C H&
' HO$ ʻ ; E2 E334C ʻ F3 @H41C H& ' HO$ ʻ ?$1134C $ED P E34C ʻ $ED H&
F3 ; C $Q CF J 3E ʻ &H4 F3 EC 4-N HE H& ?$1134C $ED P E34C ʻ &H4
! ʻ " # ʻ $! % # & ʻ $ED F3 @H HE 3C ʻ &H4 F3 =3$4 3ED E2 HE F3
*F 4 0 & 4C ʻ G$0 H& ') ʻ <E3 FH-C$ED 3 2F ʻ F-ED43D $ED F 4 0 ʻ
F433 ʻ $ED $E0 ?- J ʻ H4 ?- JC H& PHE30 EH ʻ 3 N33D E2 * H F-ED43D
C3 3E 0 3 2F ʻ FH-C$ED H F-ED43D $ED C 0 &H-4 IH-EDC ʻ &H4 D3R
&4$0 E2 F3 ; 13EN3 H& F3 ' HO$ ʻ ' 32 J 3E ʻ H& 4 340 &H4 ! % ʻ
" # ʻ $! % # & ʻ $ED F3 @H HE 3C ʻ E F3 =3$4 3ED E2HE F3 *F 4 0 ʻ
& 4C ʻ G$0 H& ') ʻ <E3 FH-C$ED 3 2F ʻ F-ED43D $ED F 4 0 F433 (
$ED $E0 ?- J ʻ H4 ?- JC H& PHE30 EH ʻ 3 N33D E2 *F 4 0 C ʻ FH-C$ED
HE3 F-ED43D $ED & 3 IH-EDC ʻ &H4 D3&4$0 E2 F3 ; 13EN3 H& F3
B4 2$D3 H& ' HO$ ʻ 8H4C3 4 340 ʻ $ED $ CH &H4 F3 ' D E2 8H-C3
*4HH1 ʻ &H4 ! ʻ " # ʻ $ED $! % # & ʻ &H4 F3 =3$4 3ED E2 HE F3
*F 4 0 & 4C ʻ G$0 H& ') ʻ <E3 FH-C$ED 3 2F ʻ F-ED43D $ED F 4 0 ʻ
F433 ʻ $ED $E0 ?-4$ H4 ?- JC H& PHE30 EH ʻ 3 N33D E2 <E3 FH-C$ED
H F-ED43D $ED 3E 0 C ʻ IH-EDC ʻ &H4 D3&4$0 E2 F3 ; 13EN3 H&
F3 G 43N H4 M3E34$ ʻ H& 4 340 ʻ $ED &H4 F3 6 3 D *4$ E GHA 4 ʻ
J3E ʻ &H4 F3 =3$4 3ED E2 HE F3 *F 4 0 & 4C ʻ G$0 H& ') ʻ <E3
FH-C$ED 3 2F ʻ F-ED43D $ED F 4 0 F433 ʻ $ED $E0 ? E H4 ?- JC H&
PHE30 EH ʻ 3 N33D E2 , E3 FH-C$ED 3 2F ʻ F-ED43D $ED E E3 0 &H-4
IH-EDC ʻ &H4 D3&4$0 E2 F3 ; 13EN3 H& F3 P3D N$ ʻ ; C $Q CF- 3E ʻ &H4
F3 P $40 G31$4 J 3E ʻ H& F3 <4DE$EN3 E ! ʻ " # ʻ $! % # & ʻ
$ED F3 @H HE 3C ʻ &H4 F3 =3$4 3ED E2 HE F3 *F 4 0 & 4C ʻ G$0 H&
') ʻ <E3 FH-C$ED 3 2F ʻ F-ED43D $ED F 4 0 F433 ʻ $ED $E0 fE J ʻ
H4 ?- JC H& PHE30 EH ʻ 3 N33D E2 ; 2F ʻ F-ED43D 1H-EDC ʻ &H4
D3&4$0 E2 F3 ; 13EN3 H& F3 ; C $Q CF J 3E ʻ H& <& ?N34C ʻ I 4H&3CCH4C ʻ
Q $C 34C ʻ ! ʻ ' ! ! ʻ H& F3 ' HO$ ʻ P $40 N$D3 J 0 $ ʻ , , % ') ʻ &H4
F3 =3$4 3ED E2 HE F3 *F 4 0 & 4C ʻ G$0 H& ') ʻ <E3 FH-C$ED
3 2F ʻ F-ED43D $ED F 4 0 F433 ʻ $& 34 D3D-N E2 F3 ?- J ʻ H& * 4433
FH-C$ED $ED C 0 C ʻ IH-EDC H Q3 43N3 3D &H J ʻ F3 64 3EDC H&
M3E 3 J 3E @$D3 C &H4 F3 4 ʻ EC 4-N HE E F3 C$ D =3$4 ʻ $ED $E0
?- J ʻ H4 ?- JC H& PHE30 EH ʻ 3 N33D E2 *F 4 0 &H-4 &HH-C$ED $ED
3E 0 E E3 IH-EDC ʻ &H4 D3&4$0 E2 F3 ; 13EN3 H& F3 ?-134 E 3ER
D3EN3 H& F3 <4DE$EN3 9 H4+C $ED ' 31$ 4C E ! ʻ " # ʻ ? ! % # & ʻ
$ED F3 @H HE 3C ʻ E F3 =3$4 3ED E2 HE F3 *F 4 0 & 4C ʻ G$0 H&
') ʻ <E3 FH-C$ED 3 2F ʻ F-ED43D $ED F 4 0 F433 ʻ $ED $E0 ?- J ʻ
H4 ?- JC H& PHE30 EH ʻ 3 N33D E2 * 3E 0 C ʻ FH-C$ED C ʻ F-ED43D
$ED & & 0 &H-4 IH-EDC ʻ &H4 D3&4$0 E2 F3 ; 13EN3 H& <4DE$EN3 9 H4+C
$ED ' 31$ 4C ʻ $ED F3 ? H43+33134C ; 13ED -43 ʻ E ! ʻ " # ʻ
$! % # & ʻ $ED F3 @H HE 3C ʻ &H4 F3 =3$4 3ED E2 HE F3 *F 4 0 & 4C ʻ
G$0 H& ') ʻ <E3 FH-C$ED 3 2F ʻ F-ED43D $ED F 4 0 F433 ʻ $& 34
D3D-N E2 F3 ?- J ʻ H& <E3 F-ED43D E E3 0 F433 FH-C$ED HE<
F-ED43D ʻ $ED 3E 0 C ʻ IH-EDC &H4 ' 3E C ʻ ?$ 3C H& H D ? H43C ʻ $ED
-E3 13ED3D ?- JC H& &H4 J 34 M4$E C ʻ $ED $E0 ?- J ʻ H4 ?- JC H& PHE30
EH ʻ 3 N33D E2 * 3E 0 C3 3E FH-C$ED F433 F-ED43D $ED 3 2F 0 " E3
IH-EDC

1 ʻ) ʻ &A#(! ʻ : #@% ʻ C34 H A# ʻ P

1. . ʻ ?+! ʻ #J (ʻ +! ' A ʻ +? ʻ *) ((!A1 ʻ & ' ' (!A1 ʻ 4H 1 ʻ <

1 9 ʻ ?+! ʻ #J (ʻ) +B& ' 35 *) % ʻ @ (# +? !#) D (!B1 ʻ 5) ## +P

1 . ʻ ?+! ʻ) 5 < (' +? ʻ +B& ʻ +!A (4 340 ʻ $+ H

1 5 ʻ ?+! ʻ #J (ʻ a () & ʻ !&### $ (' &!#@ (##1 ʻ <) ## +P

+ T ʻ ?+! ʻ #J (ʻ (<) H& ʻ A#& I ! ʻ) AJ@ (# A? ʻ #J (ʻ !< & H(1 ʻ <) ## + ʻ

ʻ ?+! ʻ)) D #&!B ʻ H&<(@B ʻ &# ʻ F) ʻ <) ## +P

S [UV ʻ &H4 ??) H(ʻ +? ʻ !< & H(1 % <) ## +P

1 9 ʻ) ʻ !<) && ? H(> 5 A ʻ & < ʻ (' & !A1 <) ## +P

? [1] - E 3 ( ) +? D3ENY1& <) ## +P

IH-EDC' &H4 D3&4$O E2 F3 ; 13EN3 H& F3 ?"134 E 3ED3EN3 H& F3
Q- D E2 $ED '31$ 4 H& B44N+C E ! '" # '$!% #&' $ED F3
@H HE 3C' E F3 =3$4 3ED E2 YE F3 *F 4 O & 4C' G$O ,+' ')' <E3

1 [' ?+!' IG) <) *'& <' ('&)!' +?' &!!&H;A1' #+' A#' ')' P

FH-C$ED 3 2F' F-ED43D $ED F 4 O F433 ($ED $EO ?- J' H4 ?- JC H&
PHE3O EH' 3 N33D E2 <E3 F-ED43D 3 2F' FH-C$ED HE3 F-ED43D $ED
F 4 O IH-EDC' &H4 D3&4$O E2 F3 ; 131N3 H& F3 Q- D E2 $ED '31$ 4 H&
B44N+C E ! '" # '$!% #&' @H HE 3C' E F3=3$4 3ED E2
HE F3 *F 4 O & 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED
F 4 O F433' $& 34 D3D-N E2 F3 ?-E' H& 6H4 O HE3 FH-C$ED IH-EDC

. -19 [' ?+!' #J(' &!!&H;' &A#(!A' ND '(<)#G!(1' z'' <)##+P

&H4 F3 '3E C H& @$E 33EC' ! ''! ! ' H Q3 43N3 3D' $ED $EO ?- J' H4
?- JC H& PHE3O EH' 3 N33D E2 6 & O E E3 FH-C$ED &H-4 F-ED43D $ED
3 2F O IH-EDC' &H4 D3&4$O E2 F3 B$44$N+' P$C 34C ; 13ED -43C $ED
H $EN3C' $ED &H4 B$44$N+' P CN3 $E3H-C @F$423C' E ! '" #'
54H& D' $ED F3 @H HE 3C' &H4 F3=3$4 3ED E2 HE F3 *F 4 O & 4C'

.1. [' ?+!' + #) *(H)(A' +?'#J(' !<%', & H(1' <)##+P

G$O H& &$4N ' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O F433' $ED
$EO ?- J' H4 ?- JC H& PHE3O EH' 3 N33D E2 <E< F-ED43D & & 33E
FH-C$ED & 3 F-ED43D $ED C3 3E O IH-EDC' &H4 D3&4$O E2 F3
; 13EN3 H& F3 <4DE$EN3 P $4O $ED @ ' @HE E23EN 3C E
! '" # '$!% #&' $ED F3 @H HE 3C' E F3 =3$4 3ED E2 HE F3
*F 4 O & 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O'

. 1- [' ?+!' !< & H(' #+!(A1' <)##+P

F433' $ED $EO ?- J' H4 ?- JC H& PHE3O EH' 3 N33D E2 6 & O 3 2F'
FH-C$ED E E3 F-ED43D $ED C3 3E O C ' 6H-EDC' &H4 D3&4$O E2 F3
; 13EN3 H& F3 <&& N3 H& <4DE$EN3 &H4 ? H43C E ! '" #'
$!% #&' $ED F3 @H HE 3C' &H4 F3 =3K4 3ED E2 HE F3 *F 4 O & 4C'
G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 O F433'
EN -D E2 F3 ?- J' , ' 6 & O C ' FH-C$ED & 433 F-ED43D $ED 3 2F O'
C ' IH-EDC' F343 H&H43 NF$423D -ED34 F3 8 3$D H& P $4O ? H43

1 [1' ?+!' #J(' A#!&+!<) &!)(A' +?'#J(' !< & H(')' 'P

B4$ENF' $ED $EO ?- J' H4 ?- JC H& PH#3O EH' 3 N33D E2 *F433
FH-C$ED C ' F-ED43D $ED 3 3 IH-EDC' &H4 D3&4$O E2 F3 ; 13EN3
H& ?34 N3C 134&H4 J 3D QO F3 <&& N3 H& <4DE$EN3' $ED EH' 14H D3D
&H4 QO I$4 $ J3E ' E F3 =3$4 <E3 FH-C$ED 3 2F' F-ED43D $ED

1. [' ?+!' NHJ(OG(!' ((A' +' !< & H(' A#)@&#(1' #+' A#' ')' 'P

F 4 O HE3' $ED $EO ?- J' H4 ?- JC H& P J 3O EN' 3 N33D E2 <E3
FH-C$ED & 3 F-ED43D $ED 3E O IH-EDC' &H4' D3&4$O E2 F3 ?- JC
H Q3 1$ D &H4 ; NF3X-34 633C HE F3 JH-E' H& F3 <4DE$EN3
;C J$ 3 &H4 F3 =3$4 3ED E2 HE F3 *F 4 O & 4C' G$O H& ')' <E3

- 1 [' ?+!' !< & H(' G'(!& G&D #)+ A1' (#)!(<' +L& H(A1' "(A)+ A1' 4H' <)##+P

FH-C$ED 3 2F' F-ED43D $ED F 4 O F433' $ED $EO ?- J' H4 ?- JC H&
PHE3O EH' 3 N33D E2 * H F-ED43D E E3 O F433 FH-C$ED H
F-ED43D $ED F 4 O HE3 IH-EDC' &H4 F3 @F$423 H& F3 <&& N3
H& <4DE$EN3 E ! '" #' $ED $ & #&' HE $NNH-E' H& F3
H $EN3C H ?-134$EE-$ 3D' '3 43D' $ED 8 $ & I$O <&& N34C' H
?-134$EE-$ 3D $ED G C$Q 3D P 3E $ED I 3EC HE34C' $ED $ CH &H4
I 3EC HEC H 9 DH C $ED @F D43E H& D3N3$C3D <&& N34C $ 3 Q3 HE2 E2
H F3 C3 34$' <4DE$EN3 P $4O @H41C' &H4 F3 =3$4 3ED E2
HE F3 *F 4 O & 4C' G$O H& ')' <E3 FH-C$ED 3 2F' F-ED43D

. 1 9 [' ?+!' +L& H(A') ' !< & H('& <' &!!&H;')2)' $('&!#@(#A5' 4H' <)##+

$ED F 4 O F433' $ED $EO ?- J' H4 ?-&& C H& PHE3O EH' 3 N33D E2
6 & O 3 2F' FH-C$ED H F-ED43D $ED &H4 O C ' IH-EDC' &H4 F3
@F$423 H& H $EN3C' @H J 13EC$ HEC' $ED ; JH - J3E C E F3
,$ -43 H& ?-134$EE-$ 3D H4 '3 43D H $EN3C H I 34CHEC $ 3
Q3 HE2 E2 H F3 <&& N3 H& <4DE$EN3 E ! '" #' $ED $!% #&' E
43C13N' H& F3 4 F$ E2 F3 D $EO I -Q N <&& N3C H4 ; J 1 HO J 3E C H& $
@ ' ,$ -43' $ED $ CH &H4 F3 @F$423 H& 9 DH C I 3EC HEC '$ED &H4
F3 '3 43D H $EN3C H B$&4$N+' P$C 34C' &H4 F3 =3$4 3ED E2 HE
F3 *F 4 O & 4C' G$O H& ')' <E3 FH-C JD 3 2F' F-ED43D $ED
F 4 O

4 0 F433' ' $ED' $EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' * 3E 0' WC V'&E'
E E3' FH-C$ED' & 3' F-ED43D' $ED' C3 3E 0 E E3' IH-EDC' &H4' D3&4$0 E2'
F3' @F$423' HE' F3' C-11 3 J 3E $4O' ; C J$ 3' H&' F3' <&& N3' H&' <4DE$EN3' $33H&(C$C
E' F3' =3$4 <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 H' &H4' F3'
'3NHEC 4-N HE' $ED' '31$ 4' H&' <4DE$EN3' $ED' " ' ' " 3 %+ (M'
D3C 4HO3D' H4' D$ J$23D' $' " 4 &, !1' QO' F3' 8-44 N$E3' H&' F3' ; 3 3E F'
G$O' H&' / 3 (31 ' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 HE3' ($ED' $EO'
?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' * H' FH-C$ED' F433' F-ED43D'
IH-EDC' &H4' D3&4$0 E2' F3' @F$423' HE' F3' C-11 3 J 3E $4O' ; C J$ 3' H&' '
F3' <&& N3' H&' <4DE$EN3' E' F3' =3$4 <E3' FH-C$ED' 3 2F' F-ED43D' $ED'
F 4 0 H' &H4' F3' '3NHEC 4-N HE' $ED' '31$ 4' H&' <4DE$EN3' $ED'
B44N+' B- D E2C' D3C 4HO3D' H4' D$ J$23D' $' +'3 'C #'!# 1' FO F3'
8-44 N$E3' H&' F3' ; 3 3E F' G$O' H&' / 3 (31 ' <E3' FH-C$ED' 3 2F' 8-E'
D43D' $ED' F 4 0 HE3' ' $ED' $EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D 5 ' U$HH& '
* 3E O' FH-C$ED' IH-EDC' &H4' D3&4$0 E2' F3' @F$423' HE' F3' C-11 3' D H&' '
J3E $4O' ; C J$ 3' H&' F3' <&& N3' H&' <4DE$EN3' E' F3' *3$4 <E3' F4E ' (H $4&$&
C$ED' 3 2F' F-ED43D' $ED' F 4 0 H' HE' $NNH-E' H&' ? H43C' 43X- 43D' &H4' '
6H43 2E' 9H4+C' $ED' '31$ 4C' E' <E3' FH-C$ED' 3 2F' F-ED43D' $ED'
F 4 0 F433' F3' $&H43C$ D' ?-J' Q3 E2' H' Q3' D3D-N 3D' &4HJ' F3' H 3'
E' F3' $EE-$' ; C J$ 3' &H4' F$' =3$4' $ED' $EO' ?-J' H4' ?-95C' H&' ! VS &H'
PHE3O' EH' 3 N33D E2' 6 3' FH-C$ED' E E3' F-ED43D' $ED' C3 3E 0 F433' PC3D 3HJC
IH-EDC' &H4' D3&4$0 E2' F3' P CN3 $E3H-C' @F$423C' H&' F3' <&& N3' H&' [4?O0 &H4
<4DE$EN3' &H4' B$44$N+' ?34 N3C' E' ! ' " #' $ED' ? ! &' F3' B$44$NN?34'
=3$4' 3ED E2' HE' F3' *F 4 0 & 4C' G$O' H&' ') ' <E3' FH-C$ED' 3 2F' '
F-ED43D' $ED' F 4 0 F433' F3' C$J3' F$ E2' Q33E' 14H D3D' E' &34 J34'
$EE-$' ; C J$ 3C' Q-' H J 3D' E' F$' $ 43$DO' H 3D' &H4' F C' =3$

W ' ED' ' C' F343QO' $ CH' 3E$N 3D' *F$' H-' H&' $ ' H4' $EO' F<' *Q3 3 F$
DC' H4' ?-11 3C' $&H43C$ D' F343' CF$ ' $ED' J$O' Q3' CC-3D' $ED' $11 3D
$EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' * 3E 0 & 3' JDFH& 3' C '
F-ED43D' $ED' C 33E' FH-C$ED' &H-4' F-ED43D' IH-EDC' H' 1$O' H&&' $ED'
D CNF$423' ; N 3X 34' B C' $ED' F$' F3' C$ J3' J $OQ3' CC-3D' $ED'
$11 3D' H $4DC' 1$0 E2' H&&' $ED' D CNF$42 E2' $EO' ; NF3X-34' B C'
NF$423D' HE' F3' DC' H4' ?-11 3C' H&' F3' =3$4C' <E3' FH-C$ED' 3 2F'
F-ED43D' $ED' F 4 0 HE3' H4' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0'
H' EH ' 3 J$ E E2' -E1$ D' $ED' -E14H D3D' &H4

W ' ED' ' C' F343QO' $ CH' 3E$N 3D' *F$' H-' H&' $ ' H4' $EO' F3' EDCH
DC' $ED' ?-11 3C' $&H43C$ D' F343' CF$ ' $ED' J$O' Q3' CC-3D' $ED' $11 3D
$EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' * H' F-ED43D' $ED' 3 2F O' 1$C&H4
FH-C$ED' H' F-ED43D' IH-EDC' H' 1$O' H&&' $ED' D CNF$423' ; NF3X-34'
B C' CC-3D' 1-4C-$E' H' C3 34$' N C' &H4' N$440 E2' HE' I-Q N' 9H4+C'
$ED' 6 CF34 3C' $ED' &H4' Q- D E2' $DD HE$' @F-4NF3C' H- C $ED E2' $ED'
-E14H D3D' &H4

W ' ED' ' C' F343QO' $ CH' 3E$N 3D' *F$' H-' H&' $ ' H4' $EO' &(3' W9&3
DC' H4' ?-11 3C' $&H43C$ D' F343' CF$ ' $ED' J$O' /Q3' CC-3D' $ED' $1 93D
$EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' 6H-4' FH-C$ED' E E3' C? P$ 38'
F-ED43D' C3 3E 0 F433' IH-EDC' $ED' 6H-4' ?F E2C' H' D3&4$O'
@F$423' H&' F3' @ ' ; C $Q CF J 3E' H&' F3' B$F$ J$ C $EDC' $ED' F3'
EN D3E $' @F$423C' $ 3ED E2' F3' C$ J3' &H4' <E3' \-$4 34' H' F3'
*F 4 0 & 4C' G$O' H&' ') ' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0'
H' $ED' &H4' <E3' =3$4' H' F3' *F 4 0 & 4C' G$O' H&' ') ' <E3' FH-'
S' e' ' C$ED

C$ED 3 2F ' F-ED43D $ED F 4 0 F433' $ED F$ ' F3 C$ D ?- J' Q3 CC-3D
$ED 1$ D FH- ' $EO 633 H4 H F34 G3D N HE F$ CH3 34' $ED $EO
?- J' H4 ?- JC H& PHE3O EH ' 3 N33D E2 ; 2F ' F-ED43D IH-EDC' H
D3&4$O F3 @F$423 H& F3 @ ' ;C $Q CF J3E ' H& E , 0 ' + ' , ' &4H J'
F3 6 4C' G$O H& ? #3 ' <E3 FH-C$ED 3 2F ' F-ED43D $ED F 4 0 '
H H F3 *F 4 0 & 4C ' G$O H& ') ' 6 # ! ' FH-C$ED 3 2F ' F-ED43D
$ED F 4 0 H' $ED F$ ' F3 C$ D ?- J' F3 CC-3D $ED 1$ D FH- ' $EO
633 H4 H F34 G3D-N HE F$ CH3 34 $ED $EO ?- J' H4 ?- JC H&
PHE3O EH ' 3 N33D E2 6 3 FH-C$ED C ' F-ED43D $ED 3E 0 &H-4
IH-EDC ; 3 3E ?F E2C $ED ; 2F 13E33' H D3&4$O F3 @F$423 H&
F3 @ ' ;C $Q CF J3E ' H& F3 C $ED H& " ! 3 & ' &H4 <E3 \ -$4 34
H F3 *F 4 0 & 4C ' G$O H& ') ' <E3 FH-C$ED 3 2F ' F-ED43D $ED
F 4 0 H' $ED &H4 <E3 =3$4 H F3 *F 4 0 & 4C ' G$O H& ') ' <E3 '
FH-C$ED 3 2F ' F-ED43D $ED F 4 0 F433' $ED F$ ' F3 C$ D '?-4$ Q3
CC-3D $ED 1$ D FH- ' $EO 633 H4 H F34 G3D-N HE F$ CH3 34 '
$ED $EO ?- J' H4 ?- JC H& PHE3O EH ' 3 N33D E2 6H-4 FH-C$ED $ED
3E 0 & 3 IH-EDC' H D3&4$O F3 @F$423 H& F3 @ ' ;C $Q CF J3E '
H& * # ' ! ' 8 & F & 1 ' $1% # & ' &H4 <E3 \ -$4 34 H' F3 *F 4 0 & 4C ' G$O
H& ') ' <E3 FH-C$ED 3 2F ' F-ED43D $ED &4 4 0 H' $ED &H4 <E3
=3$4 H F3 *F 4 0 & 4C ' G$O , ' ') ' <E3 FH-C$ED 3 2F ' F-ED43D
$ED F 4 0 F433' $ED F$ ' F3 C JD ?- J' Q3 CC-3D $ED 1$ D FH- '
$EO 633 H4 H F34 G3D-N HE F$ CH3 34 ' $ED $EO ?- J' H4 ?- JC H&
PHE3O EH ' 3 N33D E2 ? 33E FH-C$ED & 3 F-ED43D C3 3E O C '
IH-EDC $ED 6 3 ?F E2C' H D3&4$O '@F$423 ' H& F3 @ '
;C $Q CF J3E ' H& F3 C $ED H& E , F U) & ' , ' <E3 \ -$4 34 H
F3 *F 4 0 & 4C ' G$O H& ') ' <E3 FH-C$ED 3 2F ' F-ED43D $ED
F 4 0 H' $ED &H4 \E3 =3$4 H F3 *F+ 0 & 4C ' G$O H& ') '
<E3 FH-C$ED 3 2F ' F-ED43D $ED F 4 0 F433' $ED F$ ' F3 C$ D
?- J' Q3 CC-3D $ED 1$ D FH- ' $EO 633 H4 H F34 G3D-N HE
F$ CH3 34 ' $ED $EO ?- J' H4 ?- P H& PHE3O EH ' 3 N33D E2
6H4 0 F433 FH-C$ED $ED &H4 0 F433 IH-EDC ?3 3E ?F E2C $ED
<E3 I3EEO' H D3&4$O F3 @F$423 H& F3 @ ' ;C $Q CF J3E C H&
F3 ?3 3 J3E C E ! 1 ! # ' / ' ' &H4 <E3 \ -$4 34 H F3 *F 4 0 & 4C '
G$O H& ') ' <E3 FH-C$ED 3 2F ' F-ED43D $ED F 4 0 H' $ED &H4
<E3 =3$4 H F3 *F 4 0 & 4C ' G$O H& ') ' <E3 FH-C$ED 3 2F '
F-ED43D $ED F 4 0 F433' $ED F$ ' F3 C$ D a- E Q3 CC-3D $ED 1$ D
FH- ' $EO 633 H4 H F34 G3D-N HE F$ CH3 34 ' $ED $EO ?- J' H4
?- JC H& PHE3O EH ' 3 N33D E2 * 3E 0 C3 3E FH-C$ED &H-4 F-ED43D
$ED F 0 3 2F ' IH-EDC *F 4 33E ?F E2C $ED <E3 I3EEO' H D3&4$O
F3 @F$423 H& F3 ; NN 3C $C N$ ' ;C $Q CF J3E ' H&) ! ' " 1) ' E ,) '
/ ! ' # ' I4H EN3C' $ED X& F3 ?HN 3 O &H4 F3 ' I4H1$2$ HE H& F3
MHC13' E N34 $ E H& 8 C P$(3C 0 C @H HE 3C' &H4 <E3 \ -$4 34 H F3
*F 4 0 & 4C ' G$O H& ') ' <E3 FH-C$ED 3 2F ' F-ED43D $ED F 4 0 '
H' $ED &H4 <E3 =3$4 H F3 *F 4 0 & 4C ' G$O H& ') ' <E3
FH-C$ED 3 2F ' F-ED43D $ED F 4 0 F433 ' $ED F$ ' F3 C$ D ?- J' Q3
CC-3D $ED 1$ D FH- ' $EO 633 H4 H F34 G3D-N HE F$ CH3 34 '
$ED $EO ?- J' H4 ?- JC H& PHE3O EH ' 3 N33D E2 *F 4 33E FH-C$ED
&H-4 F-ED43D $ED & & 0 C ' IH-EDC , E3 ?F E2C $ED 6 3 13EN3' H
D3&4$O F3 @F$423C H& F3 ?3 3 J3E ' E ! 1 ! # ' / 3 1 % ' &H4 <E3
\ -$4 34 H F3 *F 4 0 & 4C ' G$O <& ') ' \E3 FH-C$ED 3 2F '
F-ED43D $ED F 4 0 H' $ED &H4 <E3 =3$4 H F3 *F 4 0 & 4C ' G$O H&
') ' <E3 FH-C$ED 3 2F ' F-ED43D $ED F 4 0 F433' $ED F$ ' F3
C$ D ?- J' Q3 CC-3D $ED 1$ D FH- ' $EO '633 H4 H F34 G3D-N HE
[' F$ CH3 34

[' ?+! ' E , 0 ' + ' , ' ?!+@ A# [& ' #+' A# ') ' P

.1 9[' . ' !? ' ?+! ' " ! 3 & ' #+' A# ') ' P

91 .[' ?+! ' ? # ' ! ' &F & 1 ' $1% # & ' <)##+P

X; 9P;X ' 91 ' ?+! ' E !3 ,3#&% # & ' <)##+P

9 1 9 [' A ' < ' ?+! ' ! 1 ! # ' / ' ' <)##+P

19 [' X -1 ' $& ' ?+! HH (A)&A#)H& ' A#& I)AJ@(# +? " 1) ' E ,) ' / ! ' # ' "!+D 2) H(A' 4H' <)##+P

19. [' -A ' < ' ?+! ' ! 1 ! # ' / 3 1 % ' <)##+P

$ CH3 34 $ED $EO ?- J H4 ?- JC H& PHE3O & H 3 N33D E2 * 3E O !1 W ?+! #J(
& 3 FH-C$ED IH-EDC H D3&4$O F3 @F$423 H& F3 ; C $Q J 3E
H& F3 $#& # G31$4 J 3E E O55! $ED < , F ! I # & &H4 <E3
\ -$4 34 H F3 * F 4 0 & 4C G$O H& ') <E3 FH-C$ED 3 2F
F-ED43D $ED F 4 0 H $ED &H4 <E3 =3$4 H F3 * F 4 0 & 4C G$O H& JC
') <E3 FH-C$ED 3 2F F-ED43D $ED F 4 0 F433 $ED F$ F3
C$ D ?- J Q3 CC-3D $ED 1$ D FH- $EO 633 H4 H F34 G3D-N HE
F$ CH3 34

W ED C F343QO $ CH 3E$N 3D * F$ H- H& $ H4 $EO F3 *F343 F$-
DC H4 ?-11 3C $&H43C$ D F343 CF$ $ED J $O Q3 CC-3D $ED $11 3D
$EO ?- J H4 ?- JC H& PHE3O EH 3 N33D E2 * F433 P HEC H D C C-11 & L
NF$423 F3 +3 JH-E H& ?-11 3C 24$E 3D &H4 F3 ?34 N3 H& F3
=3$4 <E3 FH-C$ED 3 2F F-ED43D $ED F 4 0 HE3 H4 H& $EO 143N3D E2
=3$4 $ED $EO ?- J H4 ?- JC H& PHE3O EH 3 N33D E2 <E3 F-ED43D 1 W ?+!
$ED E E3 0 E E3 FH-C$ED IH-EDC H D3&4$O F3 @F$423 &14 @
@HE E23EN 3C &H4 <E3 \ -$4 34 H& $ =3$4 &4H J F3 6 4C G$O H& -C5&H43
? #3 H F3 * F 4 0 & 4C G$O H& ') <E3 FH-C$ED 3 2F
F-ED43D $ED F 4 0 H $ED &H4 <E3 =3$4 H F3 * F 4 O & 4C G$O H&
') <E3 FH-C$ED 3 2F F-ED43D $ED F 4 0 F433 $ED $EO ?- J 1 W &H4
H4 ?- JC H& PHE3O EH 3 N33D E2 <E3 F-ED43D FH-C$ED IH-EDC &H4
F3 ' 3 3& H& N34 $ E H& 8 C P$(3C O C ?-Q(3N C E F3 C $EDC H& 4 &, !1 1
" 4 &, !1 + # C # ' !# $ED + # < 3 ' FH F$ 3 C-&&343D &4H J
$ 8 -44 N$E3 $ED F$ F3 C$ D ?- J Q3 CC-3D $ED 1$ D FH- $EO
633 H4 H F34 G3D-N HE F$ CH3 34 $ED $EO ?- J H4 ?- JC H& ! DBB W!
PHE3O EH 3 N33D E2 ? 33E FH-C$ED E E3 F-ED43D $ED 3E O
H IH-EDC H D3&4$O F3 3C J $ 3D ; 13ED -43 H& F3 " 1) ') 131
31!3 &H4 F3 =3$4 3ED E2 $ I) 1 1 <E3 FH-C$ED 3 2F
F-ED43D $ED F 4 0 H $ED F$ F3 C$ D ?- J Q3 CC-3D $ED 1$ D
FH- $EO 633 H4 H F34 G3D-N HE F$ CH3 34 $ED $EO ?- J H4 HZ H0&H4
?- JC H& PHE3O EH 3 N33D E2 ?3 3E O FH-C$ED 3 2F F-ED43D
IH-EDC H D3&4$O &H4 <E3 \ -$4 34 H F3 * F 4 0 & 4C G$O H&) *A & < 5+?%
') <E3 FH-C$ED 3 2F F-ED43D $ED F 4 0 H $ED *H4)#G!(+? "G I)H ? H(A #+
<E3 =3$4 H F3 * F 4 0 & 4C G$O H& ') <E3 FH-C$ED 3 2F A# & W
F-ED43D $ED F 4 0 F433 F3 ; 13EN3 H& 9 H4+C $ED ' 31$ 4C P
H& I-Q N B- D E2C $ED &H4 6-4E -43 $ED H F34 @F$423C H&
I-Q N B- D E2C $ED F3 6-4E -43 $ED H F34 @F$423C H& I-Q N
<&& N3C $ED G31$ J 3E C $ED &H4 F3 ' 31$ 4C $ED 34$ HEC H&
' HO$ I $ $N3C $ED 9 H4+C E F3 ' HO$ M$4D3EC F343 H&H43 NF$423D
-1HE F3 @ > C $ED &H4 F3 ' 31$ 4C H& F3 ' HO$ I $ $N3
H& , % , , & , 31! $ED N34 $ E I-Q N B- D E2C E + ' , % # &
F343 H&H43 NF$423D HE F3 8343D $4O ' 3 3E-3 H& + ' , % # & $ED F$
F3 C$ D ?- J Q3 CC-3D $ED 1$ D FH- $EO 633 H4 H F34 G3D-N HE
F$ CH3 34 $ED $EO ?- J H4 ?- JC H& PHE3O EH 3 N33D E2 ?3 3E Z ! &H4
FH-C$ED 3 2F F-ED 3D $ED C3 3E O & 3 IH-EDC H D3&4$O E F3 34$ HEC E
=3$4 <E3 FH-C$ED 3 2F F-ED43D $ED F 4 0 H F3 ; 13E33 H&
NH J 1 3 E2 N34 $ E 34$ HEC $ED DD HEC H 8 C P$(3C O C I $ $N3
$ ' 402 0 H $ED F$ F3 C$ D ?- J Q3 CC-3D $ED 1$ D FH- $EO
633 H4 H F34 G3D-N HE F$ CH3 34 $ED $EO ?- J H4 ?- JC H& PHE3O
EH 3 N33D E2 6 3 FH-C$ED C F-ED43D $ED C O 3 2F IH-EDC H
D3&4$O F3 ; 13EN3 H& 9 H4+C $ * , * 8$4QH-4 &H4 <E3 1 #)
\ -$4 34 H F3 * F 4 0 & 4C G$O H& P$4N O <E3 FH-C$ED 3 2F F-E b b
D43D $ED F 4 0 H $ED &H4 <E3 =3$4 H F3 * F 4 0 & 4C G$O H&
')

U' KSLM # > ; > P ' ' @$1' UY

') ' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 F433' $ED F$' F3 C$D ?-J' Q3 CC-3D $ED 1$D F E' $EO I33 E4 H F34 G3D-N HE F$ CH3 34' $ED $EO ?-J' H4 ?-4$C H& PHE3O EH' 3 N33D E2 6 3 FH-C$ED IH-EDC' H D3&4$O 63 ; 13E@3 H& 9H4+C $' 2 ,# () &!!' 8$4QH-4' &H4 <E3 \-$4 34 H F3 *F 4 0 & 4C' G$O H& ') ' <E3 FH-C$ED 3 2F' F-ED4 3D $ED F 4 0 H' $ED &H4 <E3 =3$4 H F3 *F 4 0 & 4C' G$O H& ') ' <E3 FH-C$ED' 3 2F' F-ED43D $ED F 4 0' F433' $ED F$' F3 C$D ?$J' Q3 CC-3D $ED 1$D FH-' $EO 633 H4 H F34 G3D-N HE F$ CH3 34' $ED $EO ?-J' H4 ?-JC H& PHE3O EH' 3 N33D E2 *F433 FH-C$ED E E3 F-ED43D $ED F 4 33E IH-EDC' H D3&4$O F3 ; 13EN3C H& F3 ,%)! &' $ED ,F)' 'H$DC $ED 8$4R QH-4C &H4 F3 =3$4 <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 H' $ED F$' F3 C$D ?-J' Q3 CC-3D $ED 1$D' FH-' $EO 633 H4 H F34 G3D-N HE F$ CH3 34' $ED $EO ?-J' H4 ?-JC H& PHE3O EH' 3 R N33D E2 *3E FH-C$ED IH-EDC' H D3&4$O F3 ; 13EN3 H& F3 E3 ' B- D E2C $' F3 " 1)' 31!3 ' &H4 <E3 \-$4 34 H F3 *F 4 0 & 4C' G$O H& ') ' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 H' $ED &H4 <E3 =3$4 H F3 *F 4 0 & 4C' G$O H& ') ' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 F433' $ED F$' F3 C& D K J' Q3 CC-3D $ED 1$D FH-' $EO 633 H4 H F34 G3D-N HE F$ CH3 34' $ED $EO ?-J' H4 ?-JC H& PHE3O EH' 3 N33D E2 6 & O FH-C$ED IH-EDC' H D3&4$O F3 ; 13EN3 H& '31$4C $ED 34$ HEC $' #&1, ' I 1%!' &H4 <E3 \-$4 34 H F3 *F 4 0 & 4C' G$O H& ') ' <E3 FH-C$ED 3 2F' F-ER D43D $ED F 4 0 H' $ED &H4 <E3 =3$4 H F3 *F 4 0 & 4C' G$O H&

') ' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 F433' $ED F$' F3 C$D ?-J' Q3 CC-3D $ED 1$D FH-' $EO' 633 4 H F34 G3D-N HE F$ CH3 34' $ED $EO ?-J' H4 ?-JC H& PHE3O EH' 3 N33D E2 , E3 FH-C$ED & 3 F-ED43D IH-EDC' H D3&4$O F3 ; 13EN3C H& 343N E2 F3 ? $ 3 I$134 <&& N3' &H4 <E3 \-$4 34 H F3 *F 4 0 & 4C' G$O H&

') ' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 H' $ED &H4 <E3 =3$4 H F3 *F 4 0 & 4C' G$O H& ') ' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 F433' $ED F$' F3 C$D ?-J' Q3 CC-3D $ED 1$D FH-' $EO 633 H4 H F34 G3D-N HE F$ CH3 34' $ED $EO ?-J' H4 ?-JC H& PHE3O EH' 3 N33D E2 ? ' FH-C$ED IH-EDC' H D3&4$O F3 ; 13EN3 H& 9H4+C $' F3 @H 323 H& 8& #43 ()' E & 3 =3$4 <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 H' $ED F$' F3 C$D ?-J' F3 CC-3D $ED 1$D FH-' $EO 633 H4 H F34 G3D-N HE F$ CH3 34A' $ED $EO ?-J' H4 ?-JC H& PHE3O EH' 3 N33D E2 6H4 0 &H-4 FH-C$ED & 3 F-ED43D $ED &H-4 33E IH-EDC' H D3&4$O F3 @F$423 5K4 F3C3 ?$ $4 3C H& F3 <&& N34C H& F3 8H-C3 H& >H4DC $ED H& F3 8H-C3 H& @H J JHEC' $ED H& I3EC HEC &H4 43 43D <&& N34C H& F3 * H 8H-C3C' F NF $43 1$D $' F3 *43$C-40' $ED $ CH H& F3 JH-E' F NF 'Q3 43X- 43D E $D H& F3 633 6-EDC H& F3 * H 8H-C3C' &H4 F3 =3$4 <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 H' $ED $EO ?-J' H4 ?-JC H& PHE3O EH' 3 N33D E2 6 & 33E FH-C$ED F433 F-ED43D.' IH-EDC' H D3&4$O F3 ; 13EN3C H& F3 8H-C3 H& >H4DC $ED H& F3 8H-C3 H& @H J JHEC' &H4 <E3 \-$4 34 H F3 *F 4 0 & 4C' G$O H& P$4NF <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 H' $ED &H4 <E3 =3$4 H F3 *F 4 0 & 4C' G$O H& ') ' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 F433' $ED $EO ?-J' H4 ?-JC H& PHE3O EH' 3 N33D E2 *F 4 0 3 2F' FH-C$ED H F-ED43D IH-EDC' H J$+3 2HHD F3 G3& N 3ENO H& F3 633 6-ED E F3 G31$4 J3E' H& 8 C P$(3C 0 ? *43$C-40' &H4 <E3 \-$4 34 H F3 *F 4 0 & 4C' G$O H& P$4NF <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0

.1 [' ?+!' ,# () &1!' &!I+G!I' #+' ' # ') ')

1- [' ?+!' ,%)! &' & < #0)' N' (% H(A' ?+!' '

1 [' ?+!' (L' G) <) *A' &# #J(' " 1)' 31!3 ' #+' ' # ') ' P

. 1 [' ?+!' ('&)!A' &# U #&1, ' I 1%! ' <)##+P

-1. [' ?+!' (!(H#) *' #J(' #&#(' "&' (!' ??)H(I' <)##+P

1 [' ?+!' > +!;A' &# #J(' + (*(' +? 8& #43 ()') ' P

991.W9[' ?+!' #J(' ??)H(!A' +?' #J(' +GA(A' +?E+!<A' & < +) + A' ?+!' P

.1 [' ?+!' #J(' N'H H(A' +? I+#J' +GA(AI' #+' . ' # ') ' P

1 [' ?+!' $(?)H)(HB' +? ((' G < &# #J(' !(&AG!BI' <)##+' P

E4 0 H' $ED &H4 <E3 =3$4 H F3 *F 4 0 & 4C' H& 3 ' ' <Fb
FH-C$ED 3 2F' F-ED43D $ED F 4 0 F433' $ED $E0 ?- J' H4 ?- J0 H& 6 &RMS6'?+!' ((
PHE30 EH' 3 N33D E2 *F 4 33E FH-C$ED E E3 F-ED43D IH-EDC' H G <'&#'#J(' +@&' ??)H(1'#+'
J$+3 2HHD F3 G3& N 3EN0 H& F3 633 6-ED E F3 G31$4 J3E' H& A#' ('
8 C P$(3C 0 C 8HJ3 ?3N43 $40 H& ? $ 3' &H4 <E3 \ -$4 34 H F3 P
*F 4 0 & 4C' G$0 H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0'
H' $ED &H4 <E3 =3$4 H F3 *F 4 0 & 4C' G$0 H& ')' <E3 FH-R
C$ED 3 2F' F-ED43D $ED F 4 0 F433' $ED $E0 ?- J' H4' ?- JC H& PHE30 # 1 - . #' &#'#J('
EH' 3 N33D E2 ? 33E FH-C$ED 3 2F' F-ED43D $ED E E3 0 & 3 IH-EDC' +!()*&' ??)H(1' <)##+P
H J$+3 2HHD F3 G3& N 3EN0 H& F3 633 6-ED E F3 G31$4 J3E' H&
8 C P$(3C 0 C 6H43 2E ?3N43 $40 H& ? $ 3' &H4 <E3 \ -$ &34 H F3
*F 4 0 & 4C' G$0 H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0'
H' $ED &H4 <E3 =3$4 H F3 *F 4 0 & 4C' G$0 H& ')' <E3 FH-R
C$ED 3 2F' F-ED43D $ED F 4 0 F433' EDE0 ?- J H4 ?- J C & PHF30 91- '&#'#)#('
EH' 3 N33D E2 6H-4 33E FH-C$ED E E3 F-ED43D $ED F 4 0 IH-EDC' + (#))&' ??)H(1' <)##+P
H J$+3 2HHD F3 G3& N 3EN0 H& F3 633 6-ED E F3 G31$4 J3E' H&
8 C P$(3C 0 C ?3N43 $40 H& ? $ 3 &H4 F3 @H HE 3C' &H4 <E3 \ -$4 34
H F3 *F 4 0 & 4C' G$0 H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED
F 4 0 H' $ED &H4 <E3 =3$4 H F3 *F 4 0 & 4C' G$0 H& ')' <E3
FH-C$ED 3 2F' F-ED43D $ED F 4 0 F433' $ED $E0 ?- J' H4' ?-&H? H& ' 9 8' ' - '
PHE30 EH' 3 N33D E2 ?3 3E 33E FH-C$ED & 3 F-ED43D $ED &H-4 "!)0B +G F&)1' <)##+P
IH-EDC' H J$+3 2HHD F3 G3& N 3EN0 H& F3 633 6-ED E F3 G $4 '
J3E C H& 8 C P$(3C 0 C PHC' 8HEH-4$Q 3' I4 0 @H-EN ' $ED @H J R
J 33 H& I4 0 @H-EN ' &H4 *4$D3' &H4 <E3 \ -$4 34 H F3 *F 4 0'
& 4C' G$0 H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 H' $ED
&H4 <E3 =3$4 H F3 *F 4 0 & 4C' G$0 H& ')' 6 J' H-C$ED 3 oF'
F-ED43D $ED F 4 0 F433' $ED $E0 ?- J' H4 ?- JC H& PHE30 EH' 3 R 1 ['?+!'
N33D E2 * H FH-C$ED IH-EDC' H D3&4$0 F3 @F$423 H& F3 ?$ $40 H& & &!P!'#+'#J(' E+!<' "!)2B'
F3 >H4D I4 0 ?3$' &H4 <E3 =3$4' H F3 *F 4 0 & 4C' G$0 H& ')' (&Y1??)##+P
<E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 F433' $ED F$' F3 C$ D ?- J'
Q3 CC-3D $ED 1$ D FH-' $E0 633 H4 H F34 G3D-N HE F$ CH3 3 '
$ED $E0 ?-4$ H4 ?- JC H& PHE30 EH' 3 N33D E2 , E3 FH-C$ED &H-4 &9 `-'?+!' + %'
F-ED43D IH-EDC' H D3&4$0 F3 NHE E23E' ; 13EN3C $ED P3CC3E234C #) *(02H)(A&##J('
B C E F3 G31$4 J3E' H& 8 C P$(3C 0 C *43$C-40' &H4 <E3 \ -$4 34 !(&AG!B1' <)##+P
H F3 *F 4 0 & 4C' G$0 H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED
F 4 0 H' $ED &H4 <E3 =3$4 H F3 *F 4 0 & 4C' G$0 H& ')' <E3
FH-C$ED 3 2F' F-ED43D $ED F 4 0 F433' $ED $E0 ?- J' H4 ?- JC H& 19 ['?+!' + %'
PHE30 EH' 3 N33D E2 ; 2F' FH-C$ED &H-4 F-ED43D $ED C 0 E23E$&H$ E F ' " H "!5 J'
IH-EDC' H D3&4$0 F3 NHE E23E' ; 13EN3C $ED P3CC3E234C B &3 @& 5' <)##+b
E F3 G31$4 J3E' H& 8 C P$(3C 0 C 8HJ3 ?3N43 $40 H& ? $ 3' &H4
<E3 \ -$4 34 H F3 *F 4 0 & 4C' G$0 H& ')' <E3 FH-C$ED boF'
F-ED43D $ED F 4 0 H' $ED &H4 <E3 =3$4 H F3 *F 4 0 & 4C' G$0
H& ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 F433' $ED $E0 9 1 [') '#J(
?- J' H4 ?- JC H& PHE30 EH' 3 N33D E2 6H4 0 C3 3E FH-C$ED C3 3E +!()*'$('&!#A' <)##+P
F-ED43D $ED & & 0 IH-EDC' H D3&4$0 F3 NHE E23E' ; 13EN3C $ED
P3CC3E234C B C E F3 G31$4 J3E' H& 8 C P$(3C 0 C 6H43 2E
?3N43 $40 H& ? $ 3' &H4 <E3 \ -$4 34 H F3 *F 4 0 & 4C' G$0 H&
')' <E3 FH-C$ED 3 2F' F-ED43D $ED F 4 0 H' $ED &N&&
<E3 =3$4 H F3 *F 4 0 & 4C' G$0 H& ')' <E3 FH-C$ED 3 2F'
F-ED43D $ED F 4 0 F433' $ED $E0 ?- J' H4 ?- JC H& PHE30 EH' 1 .-[') '#J(
3 N33D E2 6 3 FH-C$ED $ED & & 0 & 3 IH-EDC' H D3&4$0 F3 3H 4 H<+)< ()L# E && -H
E23E' ; 13EN3C $ED P3CC3E234C B C E F3 G31$4 J3E' H& 8 C
P$(3C 0 C ?3N43 $40 H& ? $ 3 &H4 F3 @H HE 3C' &H4 <E3 \ -$4 34 H F3
*F 4 0

*F 4 0 & 4C' G$0' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0'
H' $ED' &H4' <E3' =3$4' H' F3' *F 4 0 & 4C' G$0' H&' ')' <E3'
91 . ['?+!' + %' #)))*(GH (A'&#' #J(' "!)2B' +G H) n' #+' A#' ')' P FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 F433' ($ED' $E0' ?- J' H4' ?- JC' H&'
PHE30' EH' 3 N33D E2' 6H-4' FH-C$ED' C3 ' F-ED43D' $ED' & & 0' IH-EDC'
H' D3&4$0' F3' NHE E23E' ; 13EN3C' $ED' P 3CC3E234C' B C' E' F3'
G31$4 J3E C' H&' 8 C' P$(3C 0 C' PHC' 8HEH-4$Q 3' I4 0' @H-EN ' $ED'
@HJ J 33' H&' I4 0' @H-EN ' &H4' *4$D3' &H4' <E3' \-$4 34' H' F3'
*F 4 0 & 4C' G$0' H&' P$4N&3' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0'
H' $ED' &H4' <E3' =3$4' H' F3' *F 4 0 & 4C' G$0' H&' ')' <E3'
.19 ['?+!' (AD A(*(!A'&#' #J(' !(&AG!B'& < NHJ(OG(!' <)##+= FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 F433' ! $ED' $E0' ?- J' H4' ?- JC' H&'
PHE30' EH' 3 N33D E2' 6 3' FH-C$ED' &H-4' F-ED43D' IH-EDC' H'
D3&4$0' F3' ; 13EN3C' H&' P 3CC3E234C' $ 3ED E2' F3' 6 4C' >H4D' H&' F3'
*43$C-40' $ED' @F$EN3 H4' H&' F3' ; NF3X-34' F3' 6H-4' I $ 3E' ' P3CR
C3E234C' H&' F3' @H-4' H&' ; NF3X-34' $ED' $4 H-C' $EN 3E' H $EN3C'
H' F3' <&& N34C' H&' F$' @H-4 ' &H4' <E3' \-$4 34' H' F3' *F 4 0 & 4C'
G$0' H&' P$4N (<E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 H' $ED' &H4'
<E3' =3$4' H' F3' *F 4 0 & 4C' G$0' H&' ')' <E3' FH-C$ED' 3 2F'
-. ['91'?+!' H(!D #&) '"!+?(AA+!A'&#' 6J , &'& < I # ' 4 &(! ' <)##+P F-ED43D' $ED' F 4 0 F433' $ED' $E0' ?$ J' H4' ?- JC' H&' PHE30' EH'
3 N33D E2' , E3' F-ED43D' & & 0 3 2F' IH-EDC' $ED' 6 3' ?F E2C' H'
1$0' F3' ?$ $4 3C' $ED' H $EN3C' $E D' < N34 $ E' I4H&3CCH4C' E'
F3' #E 34C' 3C' H&' 6J , &' $ED' IV #4 &(! ' &H4' 43$D E2' @H-4C3C' H&'
>3N -43C' E' F3' =3$4' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 H'
1 ['?+!' D A+ 2(#' $(I#+!A' +G!#I' <)##+P $ED' $E0' ?- J' H4' ?- JC' H&' PHE30' EH' 3 N33D E2' *F 4 33E' FH-C$ED'
C ' F-ED43D' $ED' 3 2F 0' IH-EDC' H' (1$0 F3' ?$ $4 3C' H&' F3' @HJ J CR
C HE34C' H&' F3' ECH 3E' G3Q H4C' @H-4' H&' F3 4' @ 34+C' $ED' F3'
NHE E23E' ; 13EN3C' H&' F3 4' <&& N3' $ED PCH' F3' ; 13EN3C' $ 3ED$E'
-1HE' F3 4' @ 4N- C' &H4' <E3' \-$4 34' H' F3' *F 4 0 & 4C' G$0' H&'
')' <E3' FH-C$ED' 3 2F' F-ED #D' $ED' F 0 H' $ED' &H4' <E3'
=3$4' H' F3' *F 4 0 & 4C' G$0' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D'
$ED' F 4 0 F433' $ED' F$' F3' C$ D' ?-4$ 9' CC-3D' $ED' 1$ D' FH-'
1 - ['?+!' G%' '(!) #(<(H(' +?')(AI' 4H' <)##+P $E0' 633' H4' H F34' G3D-N HE' F$ CH3 34' $ED' $E0' ?- J' H4' ?- JC' H&'
PHE30' EH' 3 N33D E2' * H' FH-C$ED' $ED' E E3 0 H' IH-EDC' H' 1$0'
F3' ?$ $4 3C' H&' F3' <&& N34C' $ED' F3' @HE E23E' ; 13EN3C' H&' F3'
<&& N3' &H4' F3' ?-134 E 3ED3EN3' H&' 3EC' &H4' <E3' \-$4 34' H' F3'
*F 4 0 & 4C' G$0' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0'
H' $ED' &H4' <E3' =3$4' H' F3' *F 4 0 & 4C' G$0' H&' ')' <E3' FH-C$ED'
3 2F' F-ED43D' $ED' F 4 0 F433' $ED' F$' F3' C$ D' ?- J' Q3' CC-3D' $ED'
91 ['?+!' #J(' "( )#(#)&!B' &#' %4 &' ' <)##+P 1$ D' FH-' $E0' 633' H4' H F34' G3D-N HE' F$ CH3 34' $ED' $E0'
?- J' H4' ?- JC' H&' PHE30' EH' 3 N33D E2' * 3E 0 &H-4' FH-C$ED' H'
F-ED43D' $ED' 3 2F 0 C3 3E' IH-EDC' H' D3&4$0' F3' ; 13EN3' H&' F3'
I3E 3E' $40' $' %4 # ' &H4' <E3' \-$4 34' H' F3' *F 4 0 & 4C' G$0' H&'
')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 H' $ED' &H4' <E3'
=3$4' H' F3' *F 4 0 & 4C' G$0' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D'
$ED' F 4 0 F433' $ED' F$' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH-'
19 ['?+!' ((' G <'+?' ??)H(' +?' 5/A#!B'+?' + +)&' &2(AI' <)##+P $E0' 633' H4' H F34' G3D-N HE' F$ CH3 34' $ED' $E0' ?- J' H4' ?- JC' H&'
PHE30' EH' 3 N33D E2' <E3' FH-C$ED' &H-4' F-ED 3D' $ED' C 0 H'
IH-EDC' H' J$+3' 2HHD' F3' G3& N 3EN0' H&' F3' 633' 6-ED' E' F3' <&& N3'
H&' '32 C 40' H&' @H HE $' ? $ 3C' E ! ' + # ' &H4' <E3' \-$4 34' H'
F3' * -4 0 & 4C' G$0' H&' ')' <E3' F4$ C$$D' 3 2F' F-ED43D' $ED'
F 4 0 H' $ED' &H4' <E3' =3$4' H' F3' *F 4 0 & 4C' G$0' , ' ')' <E3'
.19 [I'?+!' N%' '(H(A' +?' #&#(' "&'(!' ??)H(I' z ' <)##+P <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 0 J433' $E ' $E0' ?- J' H4'
?-4$C' H&' PHE30' EH' 3 N33D E2' 6 3' FH-C$ED' &H-4' F-ED43D' IH-EDC'
H' D3&4$0' F3' ; 13EN3C' H&' F3' ? $ 3' I$134' <&& N3' F3' <& N3' &H4'

F3

3 @-C HDO H& '3NH4DC E F3 7 , F ! $ED F3 <&& N3 &H4 F3
@-C HDO H& F3 ; NF3X-34 '3NH4DC E F3 @F$1 34 8H-C3 !1
#1 ! &H4 <E3 \-$4 34 H F3 *F 4 0 & 4C G$O H& ')
FH-C$ED 3 2F F-ED43D $ED F 4 0 H $ED &H4 <E3 =3$4 H F3
*F 4 0 & 4C G$O H& ') <E3 FH-C$ED 3 2F F-ED43D $ED F 4 0
F433 $ED $EO ?-J H4 ?-JC H& PHE3O EH 3 N33D E2 ? 0 ?#)!!(%
C FH-C$ED HE3 F-ED43D $ED & & 0 HE3 IH-EDC H D3&4$O F3 #)!(<)#=+L& H(A #+ "GI)H ??)D
@F$423 H& 43 43D H $EN3C H4 ?-134$EE-$ HEC H I34CHEC &H4R H(!A1 #+ A#
J34 O 3J1 HO3D E F3 I-Q N <&& N3C H4 G31$4 J3E C H4 E F3 (
I-Q N ?34 N3 &H4 <E3 \-$4 34 H F3 *F 4 0 & 4C G$O H&
') <E3 FH-C$ED 3 2F F-ED43D $ED F 4 0 H $ED &H4 <E3
=3$4 H F3 *F 4 0 & 4C G$O H& ') <E3 FH-C$ED 3 2F F-ED43D
$ED F 4 0 F433 $ED F$ F3 C$ D ?-J Q3 CC-3D $ED 1$ D 9 FH-
$EO 3 H4 H F34 G3D-N HE F$ CH3 34 $ED $EO ?-J H4 ?-JC H& 1 P?+! (%1
PHE3O EH 3 N33D E2 ? 33E FH-C$ED IH-EDC H 3E$Q 3 8 C P$(O)(?#+ Q! $!#*%*
H 24$E '3 3& &H4 <E3 \-$4 34 H F3 *F 4 0 & 4C G$O H&) ') &G< 5$ % (# @)*!& #A1
<E3 FH-C$ED 3 2F F-ED43D $ED F 4 0 H $ED &H4 <E3 =3$4 < NG (&2&
F3 *F 4 0 & 4C G$O H& ') <E3 FH-C$ED 3 2F F-ED43D $ED ??)H(!A1 & <
F 4 0 F433 H 7,3%,#!1! $ED I, 1 ' # ; J 24$E C 2 3 ') , $ $ + 'N(# #/!' G??(!(!A1 4H1
<&& N3 C + # ' 2 , #(, ?-&&3434C / ! ' # >HO$ C C $ED H F34C <)##+P
FH F$ 3 F343 H&H43 43N3 3D H $EN3C &4H J 8 C P$(3C O $ED
FH &H4 ?34 N3C 134&H4 J 3D H4 >HCC3C C-C $ E3D E F3 " 1) ?34 N3
F$ 3 C13N $ @$ JC -1HE 8 C P$(3C O C 5-C N3 $ED >Q34$ O
$ED F$ F3 C$ D ?-J Q3 CC-3D $ED 1$ D FH- $EO 633 H4 H F34
G3D-N HE F$ CH3 34 $ED $EO ?-J H4 ?-JC H& PHE3O EH 3 N33DR & MM. + #J(
E2 * H FH-C$ED H F-ED43D IH-EDC H D3&4$O F3 ; 1J N53 H& &HH) (A#&I%
F3 ,$ HE$ $NN E3 ;C $Q CF J3E &H4 F3 =3$4 <E3 FH-C$ED 3 2F =)A<)@()#1 ?+! P
F-ED43D $ED F 4 0 H $ED F$ F3 C$ D ?-J Q3 CC-3D $ED 1$ D
FH- $EO 633 H4 H F34 G3D-N HE F$ CH3 34 $ED $EO ?-J H4 1 ? ?+! #J(
?-JC H& PHE3O EH 3 N33D E2 *F433 FH-C$ED IH-EDC &H4 F3 (?G*(?+! #J(
?-11H4 H& F3 EC - HE N$ 3D F3 '3&-23 &H4 F3 G3C - 3 $ (A#)#G#(1<)##+P
&H4 F3 =3$4 <E3 FH-C$ED 3 2F F-ED43D $ED F 4 0 H $ED F$
F3 C$ D ?-J Q3 CC-3D $ED 1$ D FH- $EO 633 H4 H F34 G3D-N HE
F$ CH3 34 $ED $EO ?-J H4 ?-JC H& PHE3O EH 3 N33D E2 *F433 1 ?+!
FH-C$ED C F-ED43D $ED 3 2F 0 H IH-EDC H D3&4$O F3 ; 13E33 H&) &) #()) *
NHE& E E2 $ED J$ E $ E E2 @4 J E$ >-E$ NC &H4 <E3 \-$4 34 H F3 !)@) & $G%
*F 4 0 & 4C G$O H& $4N <E3 FH-C$ED 3 2F F-ED43D $ED F 4 0 &#)HA1 #+ A# (P
H $ED &H4 <E3 =3$4 H F3 *F 4 0 & 4C G$O H& ') <E3
FH-C$ED 3 2F F-ED43D $ED F 4 0 F433 $ED F$ F3 C$ D ?-J Q3
CC-3D $ED 1$ D FH- $EO 633 H4 H F34 G3D-N HE F$ CH3 34
$ED $EO ?-J H4 ?-JC H& PHE3O EH 3 N33D E2 6 3 FH-C$ED(<E3 &. M. ?+! $)A%
F-ED43D $ED & & O IH-EDC H D3&4$O &H4 <E3 \-$4 34 H F3 *F 4 0 A(#)+*))A P
& 4C G$O H& ') <E3 FH-C$ED 3 2F F-ED43D $ED F 4 0 OH $ED #(!A1 '++!
&H4 <E3 =3$4 H F3 *F 4 0 & 4C G$O H& ') <E3 FH-C$ED 3 2F 9 *#() (?G*((
F-ED43D $ED F 4 0 F433 F3 -C-$ H $EN3C H I4H 3C $E G CR (!*B1 4+ ??)##+ P
C3E E2 P E C 34C E 8#(% #& 1HH4 R !#') '3&-233 @ 3420 1HH4
R !#') '3&-233 >$ O $ED C-ED4O C J$ NF$4 $Q 3 $ED H F34
H $EN3C H F3 IHH4 H& + # # 1 #)! R !%&1 $ED H F34C
$ED $EO ?-J H4 ?-JC H& PHE3O EH 3 N33D E2 6H4 O &H-4 FH-C$ED ?+!
F433 F-ED43D $ED 3E O & 3 IH-EDC &H4 8 C P$(3C O C 6H43 2E #+(# (!2)H(A1 <)##+PU
$ED H F34 ?3N43 ?34 N3C &H4 <E3 \-$4 34 H F3 *F 4 0 & 4C G$O H&
') <E3 FH-C$ED 3 2F F-ED43D $ED F 4 0 H $ED &H4 <E3
=3$4 H F3 *F 4 0 & 4C G$O H& ') <E3 FH-C$ED 3 2F F-& D43D
$ED

$ED F40 F433'$ED F$' F3C$D?-J'*3 CC-3D $ED 1$D FH-'$EO
I33H4 H F34 G3D-N HE F$ CH3 34d $ED $EO ?-J'H4 ?-JC H&' PHE3O
EH'3 N33D E2 6&OC ' FH-C$ED IH-EDC' H D3&4$O F3 ; 13EN3 H&'
14E E2 NC'B C' '31H4 C' $ED H F34 I$134C &H4 F3 * H 8H-C3C H&'
I$4 $J3E '&H4 F3 =3$4 <E3 FH-CJ 3 'FJ 3D $ED F40 H'
$ED $EO ?-J H4 ?-JC H&' PHE3O EH'3 N33D E2 , E3 O E E3 FH-C$ED
& 3 F-ED43D IH-EDC' H D3& $O F3 ; . 3EN3 H&'14H D E2 ?$ HE340'
I4E E2'$ED B ED E2 &H4 F3 ?3 34$' G31$4 J3E C H&' MH 34E J3E' E
8#(% #&'$ED $!% #&' &4H J' F3 6 4C'G$O H&' / 5 %' <E3 FH-C$ED 3 2F'
F-ED43D $ED F40 H H F3 *F40&4C' G$O H&' ')' <E3 FH-R
C$ED 3 2F' F-ED43D $ED F40 F433' $ED $ CH &H4 14H D E2 I$134
&H4 F3 I4E E2 FNF J$O Q3 H4D343D E ?3CC HE <E3 FH-C$ED
3 2F' F-ED43D $ED F40 F433 &H4 DJ'* H 8H-C3C H&' I$4 $J3E'
$ED $ CH &H4 F3 @F$423 H&' F3 ;C$Q CF J3E' H&' F3 ?$ HE34O
<&& N3'$ED F$' F3 C$D ?-J' Q3 CC-3D $ED 1$D FH-'$EO 633 H4
H F34 G3D-N HE F$ CH3 34' $ED $EO ?-J' H4 ?-JC H&' PHE3O EH'
3 N33D E2 6H-4 FH-C$ED & 3 F-ED43D IH-EDC' H D3&4$O F3 3 4$R
H4D E$4O ; 13EN3C H&' F3 P E')=' 3 @H E$23 H&' MH D'&H4 <E3
\-$4 34 H F3 *F40&4C' G$O H&' ')' <E3 FH-C$ED 3 2F'
F-ED43D $ED F40 H' $ED &H4 <E3 =3$4 H F3 *F40&4C' G$O H&'
')' <E3 FH-C$ED 3 2F' F-ED43D $ED E40 F433' $ED $EO ?-J'
H4 ?-JC H&' PHE3O EH'3 N33D E2 *3E FH-C$ED IH-EDC' H D3&4$O
F3 3 4$H4D E$4O ; 13EN3C F$' J$O Q3 EN-443D &H4 I4HC3N- HEC
&H4 <&&3EN3C 2 EC' F3 >$ C 3$ E2 H @H E'&H4 <E3 \-$4 34 H F3
*F40&4C'G$O H&' ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F40'
H' $ED &H4 <E3 =3$4 H F3 *F40&4C'G$O H&' ')' <E3 FH-R
C$ED 3 2F' F-ED43D $ED F40 F433' $ED $EO ?-J' H4 ?-JC H&'
PHE3O EH'3 N33D E2 ; 2F 33E FH-C$ED C3 3E F-ED43D $ED &&O
IH-EDC' H D3&4$O F3 ; 13EN3 H&' >$ '@F$423C'&H4 <E3 \-$4 34 H
F3 *F40&4C' G$O H&' ')' <E3 FH-C$ED 3 2F' F-ED43D $ED
F40 H' $ED &H4 <E3 =3$4 H F3 *F40&4C' G$O H&' ')' <E3
FH-C$ED 3 2F' F-ED43D $ED F40 F433' $ED $#O ?-J' H4 ?-JC H&'
PHE3O EH'3 N33D E2 <E3 F-ED43D E E3 33E FH-C$ED 3 2F' F-ED43D
$ED C O IH-EDC' H D3&4$O F3 ; 13EN3 $ 3EDF ' F3 NHE&E E2'
J$E $E E2'$ED 3J1 HO E2 @HE NC $' 8HJ3 $ED E "! 3& ' &H4
<E3 \-$4 34 H F3 *F40&4C'G$O , ' ')' <E3 FH-C$ED 3 2F'
F-ED43D $ED F40 H' $ED &H4 @F3 =3$4 H *F40&4C' G$O
H&' ')' <E3 FH-C$ED 3 2F' F-ED43D $ED F40 F433' $ED F$'
F3 C$D ?-J' Q3 CC-3D $ED 1$D FH-'$EO 633 H4 H F34 G3D-N HE
F$ CH3 34' $ED $EO ?-J' H4 ?-JC H&' PHE3O EH'3 N33D E2 *F40'
HE3 FH-C$ED H F-ED43D $ED &&O IH-EDC' H D3&4$O F3 ; 13EN3C
EN-443D &H4 F3 ?-11H4' H&' N$1 -43D , 324H3C $ED Q34$ 3D / ' #1'
-ED34 F3 C3 34$' NC &H4 F3 QH HE H&' F3 ?$ 3 *4$D3'&H4 <E3
\-$4 34 H F3 *F40&4C' G ' H&' ')' <E3 FH-C$ED 3 2F'
F-ED43D $ED F40 <'$ED &H4 <E3 =3$4 H F3 *F40&4C'G$O H&'
')' <E3 FH-C$ED 3 2F' F-ED43D $ED F40 F433' $ED F$' F3
C$D ?-J' Q3 CC-3D $ED 1$D FH-'$EO 633 H4 H F34 G3D-N HE
F$ CH3 34' $ED $EO ?-4$ H4 ?-JC H&' PHE3O EH'3 N33D E2 ; 2F'
FH-C$ED & 3 F-ED43D $ED E E3 33E IH-EDC' H 1$O'&H4 <E3 \-$4 34
H F3 *F40&4C' G$O H&' ')' <E3 FH-C$ED 3 2F' F-ED43D $ED
F40 H' $ED &H4 <E3 =3$4 H F3 *F40&4C'G$O H&' ')' <E3
FH-C$ED 3 2F' F-ED43D $ED F40 F433' F3 ?$ $4 3C $ED EN D3E $'
; 13EN3C H&' F3 @HJJ CC HE34C $11H E 3D D' F3 I$4' H&' 8C
P$(3C O

P$(3C O' -ED34' F3' *43$ 3C' F' +5 #' *, 3(%' $ED' F3' E!)! '
% #&1' &H4' 143 3E E2' F3' 32$' *4$&& N' E' ?$ 3C ' $ED' F$' F3'
C$ D' ?-J' Q3' CC-3D' $ED' 1$ D' FH-' $EO' 633' H4' <F34' G3R
D-N HE' F$ CH3 34' $ED' $EO' ?-J' H4' ?-JC' 1&' PHE3O' EH' 3 ' 1 o' > %'
N33D E2' <E3' F-ED43D' & 3' FH-C$ED' C ' F-ED43D' $ED' F 4 O' +!' & &!)(A' +? + AG A(' #+'
3 2F' IH-EDC' 6 & 33E' ?F E2C' H' 1$O' &H4' <E3' \-$4 C' H' F3' A#' (' '
*F 4 O & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O' P
H' $ED' &H4' <E3' =3$4' H' F3' *F 4 O & 4C' G$O' H&' ')' <E3'
FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O F433' F3' ?$ $4 3C' H&' 8 C'
P$(3C O C' @HEC-C' M3E34$' @HEC-C' $ED' N3' @HEC-C' $ED' $ CH'
F3' NHE E23E' @F$423C' $ED' ; 13EN3C' NHEE3N 3D' F' F3' I-Q N'
G- 3C' $ED' ;C $Q CFJ3E C' H&' C-NF' @HEC-C' M3E34$' @HEC-C' $ED'
N3' @HEC-C' $ED' F$' F3' C$ D' ?-J' Q3' CC-3D' $ED' 1$ D' F1-' $EO'
633' H4' H F34' G3D-N HE' F$ CH3 34' $ED' $EO' ?-J' H&' ?-JC' H&' PHE3O' 1 d[' #+'
EH' 3 N33D E2' <E3' F-ED43D' C3 3E O H' FH-C$ED' H' F-ED43D' <(?!&B') A' <!&L '?!+@'
$ED' F 4 O C ' IH-EDC' H' D3&4$O' &H4' <E3' \-$4 34' H' F3' *F 4 O & 4C' *@' !G '
G$O' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O H' $ED' &H4' TQ .*%&' <)##+'
<E3' =3$4' H' F3' *F 4 O & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F'
F-ED43D' $ED' F 4 O' F433' F3' @F$423' H&' J$ E $ E E2' @HE N C' $'
E!F' +,3)' %!1' $ED' C # 2 ! !# 1' < #&' $ED' F$' F3' C$ D' ?-J' Q3'
CC-3D' $ED' 1$ D' FH-' $EO' 633' H4' H F34' G3D-N HE' F$ CH3 34' ($ED' %,*1>>9 ,'
$EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' *3E' FH-C$ED' &H-4'
F-ED43D' IH-EDC' H' D3&4$O' F3' ; 13EN3' E' F3' =3$4' <E3' FH-C$ED' 1$3 3D $ &$'
3 2F' F-ED43D' $ED' F 4 O H' H&' 1$O E2' F3' 633C' D-3' $ED' 1$O$Q 3' H' ``
F3' <&& N34C' H&' F3' I$4 $J3E' HE' $' B C' &H4' NHE E-E2' H4'
$J3ED E2' $EO' N C' &H4' J$+ E2' H4' J$ E $ E E2' +331 E2' E' 431$ 4' H4'
J14H E2' *-4E1 +3' 'H$DC' F NF' CF$' 1$CC' F3' * "' 8H-C3C' H&'
I$4 $J3E' $ED' 43N3 3' F3' 'HO$' CC3E' $ED' F$' F3' C$ D' a-J' Q3'
CC-3D' $ED' 1$ D' FH-' $EO' 633' H4' H F34' G3D-N HE' F$ CH3 34' $ED' ! '&H4
$EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' , E3 33E' FH-C$ED' & 3'
F-ED43D' IH-EDC' H' D3&4$O' &H4' <E3' \-$4 34' H' F3' *F 4 O & 4C' G$O'
H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O H' $ED' &H4' <E3'
=3$4' H' F3' *F 4 O & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D'
$ED' F 4 O F433' F3' @F$423' &H4' F3' ?$ $4 3C' H&' F3' @HJ J CC HE34C'
&H4' EX-4 E2' E H' @F$4 3C' F3' ?$ $4 3C' H&' F3 4' ?3N43 $4O' $ED' @ 34+C'
$ED' F3 4' NHE E23E' ; 13EN3C' $ED' F$' F3' C$ D' ?-J' Q3' CC-3D' $ED'
1$ D' FH-' $EO' 633' H4' H F34' G3D-N HE' F$ CH3 34' $ED' $EO' ?-J' ! '&H4
H4' ?-4$C' H&' PHE3O' EH' 3 N33D E2' 6 & 33E' FH-C$ED' IH-EDC' H' D3&4$O'
F3' ; 13EN3C' H&' F3' @HJ J CC HE34C' $11H E 3D' H' EX-43' E H' E" ' EX-4O'
I4$N N3' $ED' I4HN33D E2C' H&' F3' ?-134 H4' @H-4 C' H&' @HJ J HE' G$ '
$ED' E H' F3' >$ ' H&' 8#(% #&' 43C13N E2' '3$' I4H134 O' &H4' F3' =3$4'
<E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O H' $ED' F$' F3' C$ D' ?-J'
Q3' CC-3D' $ED' 1$ D' FH-' $EO' 633' H4' H F34' G3D-N HE' F$ CH3 34' '
$ED' $EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 N33D E2' *3E' FH-C$ED' IH-EDC' '&H4
H' D3&4$O' F3' ; 13EN3C' EN-443D' -ED34' F3' G 43N HE' $ED' P$E$23'
J3E' H&' F3' @HJ J CC HE34C' H&' '3NH4DC' &H4' <E3' =3$4' H' F3' *F 4 O & 4C' ('+!<d(#+'
G$O' H&' ')' <E3' FH-C$ED' 3 2F' Q-ED 3D' $ED' F 4 O F433' $ED'
F$' F3' C$ D' ?-J' Q3' CC-3D' $ED' 1$ D' FH-' $EO' 633' H4' H F34'
G3D-N HE' F$ CH3 34' ($ED' $EO' ?-J' H4' ?-JC' H&' PHE3O' EH' 3 ' ' '&H4
N33D E2' 6 & 33E' FH-C$ED' C3 3E' F-ED43D' IH-EDC' H' J$+3' I$O J3E' H'
F3' '3143C3E $ 3C' H&' F3' $ 3' P C 34' ! 3 H' H&' F3' JH-E' $ $4D3D' H' *4$C1H4O'
H' F3 J' HE' $NNH-E' H&' ; 13EN3C' EN-443D' QO' F J' E' 1431$4 E2' @HE'
4$N C' $ED' ?3N-4 3C' 43 $ 3' H' F3' *4$EC1H4 $ HE' H&' @HEO N C' H' &4H$ CC H'
' B

E!F' +,3)' %!1' $ED' * # 2! ! 1') #&' &4H J' F3' =3$4' <E3' FH-C$ED' C3 3E' F-ED43D' $ED' 3 2F 0 E E3' 1' F3' =3$4' <E3' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' 3E 0 E E3 ' $ED' F$ ' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $EO' 633' H4' H F34' G3D-N HE' F$ CH3 34' $ED' $EO' ?- J' H4' ?- J C' H&' 8 HE30' EH ' 3 N33D E2' 6 & 33E' FH-C$ED' C3 3E' F-ED43D' $ED' C 33E' I H-EDC' * F 4 33E' ?F E2C' $ED' , E3 ' 13EN3 ' H' D3&4$O' F3' @F$423' H&' 1$O E2' H' @ $ J$E C' &H4' >HCC3C' C-&&343D' QO' F3 J' E' NHEC3X-3EN3' 1&' F3' <NN-1$ HE' H&' + # ' 2 , #(,' QO' F3' " 1)' * 4HH1C' &4H J' <E3' FH-C$ED' C3 3E' F-ED43D' $ED' E E3 0 ' F433' H' <E3' FH-C$ED' C3 3E' F-ED43D' $ED' E E3 0 3 2F ' F3' ?- J C' F NF' F$ 3' Q33E' $ $4D3D' H' F3 J' QO' $' @H J J 33' H&' F3' BH$4D' H&' * 43$C-4O' $11H E 3D' &H4' F$ ' I -41HC3 ' $ED' F$ ' F3' C$ D' ?- J' Q3' CC-3D'

$ED' 1$ D' FH- ' $EO' 633' H4' H F34' G3D-N HE' F$ CH3 34' ' $ED' $EO' ?- J' H4' ?- J C' H&' P HE30' EH ' 3 N33D E2' <E3' FH-C$ED' I H-EDC' H' NH J 1 3 3' F3' @F$423' &H4' @ ' @HE E23EN 3C' &H4' F3' =3$4' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H ' $ED' $EO' ?- J' H4' ?- J C' H&' P HE3O' EH ' 3 N33D E2' 6 & 33E' FH-C$ED' I H-EDC' H' D3&4$O' F3' ; R 13EN3' H&' F3' ; 43N HE' H&' $' , $ HE$ ' M$ 34O' $ED' ' 3NH4D' <&& N3 ' &H4' <E3' =3$4' H' F3' * F 4 0 & 4C ' G$O' H&' ')' <13' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433 ' $ED' F$ ' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D'

FH- ' $EO' 633' H4' H F34' ' 3D-N HE' F$ CH3 34' $ED' $EO' ?- J' H4' ?- J C' H&' P HE3O' EH ' 3 N33D E2' 6 3' FH-C$ED' I H-EDC' H' J $+3' @H J R 13EC$ HE' H' %% ' +)' " , &' &H4' >HCC3C' C-C $ E3D' QO' F J' E' NHEC3X-3EN3' H&' F3' ?3 T-43' H&' F3' ?F 1' / %# ,)' $ ' E ! F' +, 3)' %!1' E' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' 3E 0 & 3' $ED' F$ ' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $EO' 633' H4' H F34' G3D-N HE' F$ R CH3 34' ' $ED' $EO' ?- J' H4' ?- J C' H&' P HE3O' EH ' 3 N33D E2' ? 0 H' FH-C$ED' & 3' F-ED43D' I H-EDC' H' D3&4$O' F3' @F$423' &H4' <E3' \ -$4 34' H' F3' * F 4 0 & 4C ' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H ' $ED' &H4' <E3' =3$4' H' F3' * F 4 0 & 4C ' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F&33 ' H&' J 14H E2' F3' 9 $ 34' @H J J -E N$ HE' E' I # & ' $ED' F$ ' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D'

FH- ' $EO' 633' H4' H F34' G3D-N HE' F$ CH3 34' ($ED' $EO' ?- J' H4' ?- J C' H&' P HE3O' EH ' 3 N33D E2' ; 2F 33E' FH-C$ED' 3 2F ' F-ED43D' I H-EDC' H' D3&4$O' F3' @F$423' H&' F3' P $ E 3E$EN3' $ED' ' 31$ 4' H&' F3' L &! 3' @E ' $ED' &H4' F3' P E23 J 3E ' H&' F3' >HN+C ' &H4' <E3' =3$4' H' F3' * F 4 0 & 4C ' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433 ' $ED' F$ ' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $EO'

633' H4' H F34' G3D-N HE' F$ CH3 34 ' $ED' $EO' ?- J' H4' ?- J C' H&' P HE3O' EH ' 3 N33D E2' ; 3 3E' FH-C$ED' &H-4' F-ED43D' $ED' 3 2F 0 C ' I H-EDC' H' D3&4$O ' &H4' <E3' =3$4' &4H J' F3' & 4C ' G$O' H&' / 5 %' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H' H' F3' * F 4 0 & 4C ' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433 ' F3' @F$423' H&' ?$ $4 3C' H' MH 34EH4C' > 3- 3E$E ' MH 34EH4C' $ED' H F34C' E' 8 C' P $(3C 0 C' !1' $#& ' @H HE 3C' &H4 J 34 O' NF$423D' -1HE' F3' 6H-4' $ED' 8 $ &' 5 ! ' I !# ' G- 3C' H4' 1$ D' &4H J' @ ' @HE E23EN 3C' $ED' F$ ' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $EO' 633' H4' H F34' G3D-N HE' F$ CH3 34

W ' ED' ' C' F343QO' $ CH' 3E$N 3D' * F$ ' H- ' H&' $ ' H4' $EO' F3' DC' H4' ?-11 3C' $&H43C$ D' F343' CF$ ' $ED' J ' Q3' CC-3D' $ED' $11 3D' $EO' ?- J' H4' ?- J C' H&' P HE3O' EH ' 3 N33D E2' <E3' F-ED43D' E E3 0 & 3' FH-C$ED' I H-EDC' H' 14H D3' &H4' F3' I $0 J 3E ' H&' N34 $ E' ?$ $4 3C' H $EN3C' I 3EC HEC' $ED' ?34 N3C' F343 H&H43' 1$ D' H- ' H&' F3' @

C ' H&' 8#(% #&' $ED' $!% #&' F3' 8343D $40' '3 3E-3C' H&' F3'
@4H E' E' +', % #&' $ED' F3' 6H-4' $ED' 8 $ &' I 'G-&O' Q '&H4
F NF' EH' I4H C HE' F$C' Q33E' J $D3' E' F3' @ ' > C ' H&' 8 C' 143C3E'
P $(3C O'&4H J' F3' I34 HD' H' F NF' F3' C$ D' ?34 N3C' 343' C3 34$ O'
$C'1$ D' H' F3' 6 & F' G$O' H&' / 5 %' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED'
F 4 O H' $ED' F$' F3' C$ D' ?-J' Q3' CC-3D' $ED' 1$ D' &HH-' $EO'
633' H4' H F34' G3D-N HE' F$ CH3 34' $ED' $EO' ?E J' H4' ?-J C' H&' ZHH &H4
P HE3O' EH' 3 N33D E2' ?3 3E O 3 2F' FH-C$ED' I H-EDC' H' D3&4$O'&H4
<E3' \-$4 34' H' F3' *F 4 O & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F' # ?) ('&)<+ #
F-ED43D' $ED' F 4 O H' $ED' &H4' <E3' =3$4' H' F3' *F 4 O & 4C' G$O' E&'
')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O F433' N34 $ E' @F$423C' G(A// #+'
E' +', % #&' F343 H&H43' 1$ D' H-' H&' F3' 8343D $40' '3 3E-3' $ED' F$'
F3' C$ D' ?-J' Q3' CC-3D' $ED' 1$ D' FH-' $EO' 633' H4' < F34' G3D-N HE'
F$ CH3 34

W W' ED' ' C' F343QO' $ CH' 3E$N 3D' *F$' H-' H&' $ ' H4' $EO' F3' J(!(AJ&'
DC' H4' ?-11 3C' $&H43C$ D' F343' CF$' $ED' J $O' Q3' CC-' $ED' $11 3D' J(&' 'a(<
$EO' ?-J' H4' ?-J C' H&' P HE3O' EH' 3 N33D E2' *F 4 O' FH-C$ED' 3 2F' 5 1 - '?+!' #J(+G <) *
F-ED43D' $ED' E E3 O H' I H-EDC' H' D3&4$O' F3' ; 13EN&' 1&' F3' +A')#& 1
6H-ED E2' 8HC1 $' E' 234% #' &H4' <E3' \-$4 34' <' F3' *F(4&O & 4C' B;) #&' #+' . A# (
G$O' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' J D' F 4 O H' $ED' &H4' J C
<E3' =3$4' H' F3' *F 4 O & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F'
F-ED43D' $ED' F 4 O F433' $ED' F$' F3' C$ D' ?-J' Q3' CC-3D' $ED' 1$ D'
FH-' $EO' 633' H4' H F34' G3D-N HE' F$ CH3 34'' $ED' $EO' ?E J' H4' 1 - '?+!' #J(
?-J C' H&' P HE3O' EH' 3 N33D E2' * 3E O H' FH-C$ED' H' F-ED43D' +GA(+? D
$ED' E E3 O 3 2F' I H-EDC' H' D3&4$O' F3' ; 13EN3' H&' F3' 8H-C3' H&' <GA#!B!' 4H' <)##+P
ED-C 4O' E' 234% #' F3' >-E$ N' G31$4 J 3E ' $ED' F3' *F433' <3E34$'
8HC1 $ C' $ $NF3D' &H4' <E3' \-$4 34' H' F3' *F 4 O & 4C' G$O' H&' &H4N '
<E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O H' $ED' &H4' <E3' =3$4' H' F3'
*F 4 O & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O'
F433' $ED' F$' F3' C$ D' ?-J' Q3' CC-3D' $ED' 1$ D' FH-' $EO' 633' H4'
H F34' G3D-N HE' F$ CH3 34'' $ED' $EO' ?-J' H4' ?-J C' H&' P -3O' EH' +@ '?+!' #J(
3 N33D E2' <E3' FH-C$ED' C3 3E' F-ED43D' $ED' F 4 O & 3' I H-EDC' H' @!#$' A#)H' AB G@!'
D3&4$O' F3' ; 13EN3' H&' F3' L ') ,#&' >-E$ N' CO-J' &H4' <E3' <)##+P
\-$4 34' H' F3' *F 4 O' & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F' F-ER
D43D' $ED' F 4 O H' $ED' &H4' <E3' =3$4' H' F3' *F 4 O & 4C' G$O' H&'
')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O F433' $ED' F$' F3'
C$ D' ?-J' Q3' CC-3D' $ED' 1$ D' FH-' $EO' 633' H4' H F34' G3D-N HE'
F$ CH3 34' $ED' $EO' ?-J' H4' ?-J C' H&' P HE3O' EH' 3 N33D E2' <E3' 1 9 '?+!' #J(
FH-C$ED' $ED' &H4 O C ' I H-EDC' H' D3&4$O' F3' ; 13EN3' H&' F3' *# #' &!) (+H)(#B!
4! # #' P $4 E3' ?HN 3 O' &H4' <E3' \-$4 34' H' F3' *F 4 O & 4?' G$O' <)##+P
H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O H' $-D' &H4'
<E3' =3$4' H' F3' *F 4 O & 4C' G$O' ' ')' <E3' FH-C$ED' 3 2F'
F-ED43D' $ED' F 4 O F433' $ED' F$' F3' C$ D' ?-J' Q3' CC-3D' $ED' 1$ D'
FH-' $EO' 633' H4' H F34' G3D-N HE' F$ CH3 34' $ED' $EO' ?-J' 1 .9 '?+!' #J(
H4' ?-J C' H&' P HE3O' EH' 3 N33D E2' <E3' FH-C$ED' F433' F-ED43D' $ED' /( )&(!'J&'
& & O &H-4' I H-EDC' H' D3&4$O' F3' ; 13EN3' H&' F3' 63 J $ 3' <41F$E' C) 5 "O+)
8H-C3' E' 234% #' &H4' <E3' \-$4 34' H' F3' *F 4 O & 4C' G$O' H&' ')'
<E3' FH-C$ED' 3 2F' F-ED43D' $ED' F 4 O H' $ED' &H4' <E3' =3$4' H'
F3' *F 4 O & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F' F-ED43D' JC-'
F 4 O F433' $ED' F$' F3' C$ D' ?-J' Q3' CC-3D' $ED' 1$ D' FH-' $EO'
633' H4' H F34' G3D-N HE' F$ CH3 34' $ED' $EO' ?-J' H4' ?-J C' H&' P HE3O' $C<NP6 &H4 F3
EH' 3 N33D E2' *F433' FH-C$ED' & 3' F-ED43D' I 1-EDC' H' D3& $O' F3 EYH;' +A')#& 1
; 1 J N3

; 13EN3' H&' F3' !1 , !% #&' >HN+' 8HC1 $ ' &H4' <E3' \ -$4 34' H' FF
*F 4 0 & 4C ' G$0' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 '
H ' $ED' &H4' <E3' =3$4' H' F3' *F 4 0 & 4C ' G$0' H&' ')' <E3' FH-R
C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433 ' $ED' F$ ' F3' C$ D' ?- J' Q3' CC-3D'
19 O' ?+f' #J+' EB) *%) ' +AD ')#& 1 #+' A# (' P
$ED' 1$ D' FH- ' $EO' I 33' H4' H F34' G3D-N HE' F$ CH3 34 ' $ED' $EO'
?- J' H4' ?- JC' H&' P HE3O' EH ' 3 N33D E2' <E3' FH-C$ED' &H-4' F-ED43D'
$ED' 3E O F433' I H-EDC ' H' D3&4$O' F3' ; 13EN3' H&' F3' >O E2 E'
8HC1 $ ' &H4' <E3' \ -$4 34' H' F3' *F 4 0 & 4C ' G$0' H&' ')' <E3' FH-R
C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H ' $ED' &H4' <E3' =3$4' H' F3' *F 4 0 '
& 4C ' G$0' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433 '
$ED' F$ ' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $EO' 633' H4' H F34'
1- ' ?+f' $!' *2*#%C +A')#& 1 <)##+' e
G3D-N HE' F$ CH3 34 ' $ED' $EO' ?- J' H4' ?- JC' H&' P HE3O' EH ' 3 N33DR
E2' <E3' FH-C$ED' E E3' F-ED43D' $ED' C O H' I H-EDC ' H' D3&4$O' F3'
; 13EN3' H&' GHN H4' + !0!#1' 8HC1 $ ' &H4' \ -3' \ -$4 34' H' F3' *F 4 0 '
& 4C ' G$0' H&' ')' 6#!' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H ' $ED'
&H4' <E3' =3$4' H' F3' *F 4 0 ? ' G$0' <E3' FH-C$ED' 3 2F
F-ED43D' $ED' F 4 0 F433 ' $ED' F$ ' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D'
91 . ' ?+f' #J((2(f' +A')#& 1 <)##+ I
FH- ' $EO' I 33' H4' H F34' G3D-N HE' F$ CH3 34 ' $ED' $EO' ?- J' H4'
? J EC' H&' P HE3O' EH ' 3 N33D E2' I H-4' FH-C$ED' 3 2F ' F-ED43D' $ED'
3E O & 3' I H-EDC ' H' D3&4$O' F3' ; 13EN3' H&' F3' I 3 34' 8HC1 $ '
$ED' 8 H-C3' H&' ' 3NH 340 ' @?,)' + ' 234% #' &H4' <E3' \ -$4 34' H' FH'
*F 4 0 & 4C ' G$0' H&' ')' 6#!' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 '
H ' $ED' &H4' <E3' =3$4' H' F3' *F 4 0 & 4C ' G$0' H&' ')' <E3 ' FH-R
C$ED' 3 2F ' -ED43D' $ED' F 4 0 F43 ' $ED' F$ ' F3' C$ D' ?- J' Q3' CC-3D'
. ' ?+f' +AD ')#&' ?+f' HG!D &I (A1 <)##+P
$ED' 1$ D' FH- ' $EO' I 33' H4' H F34' G3D-N HE' F$ CH3 34 ' ' $ED' $EO'
?- J' H4' ?- JC' H&' P HE3O' EH ' 3 N33D E2' ? ' F-ED43D' $ED' 3E O & 3'
I H-EDC ' H' D3&4$O' F3' ; 13EN3' H&' F3' 8HC1 $' &H4' EN-4$Q 3C ' &H4'
<E3' \ -$4 34' H' F3' *F 4 0 & 4C ' G$0' H&' ')' <E3' FH-C$ED' 3 2F '
F-ED43D' $ED' F 4 0 H ' $ED' &H4' < 3' =3$4' H' F3' *F 4 0 & 4C ' G$0' H&'
')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433 ' $ED' F$ ' F3'
C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $EO' I 33' H4' H F34' G3D-N HE'
1 . ' ?+f' #J(+B&' ##)) +H)(#B1 <)##+P
F$ CH3 34 ' $ED' $EO' ?-4$' H4' ?- EC' H&' P HE3O' EH ' 3 N33D E2' ? '
FH-C$ED' C ' F-ED43D' $ED' 3E O & 3' I H-EDC ' H' D3&4$O' F3' ; R
13EN3' H&' F3' ' HO$ ' 234% #' ?HN 3 O ' &H4' <E3' \ -$4 34' H' F3' *F 4 0 '
& 4C ' G$0' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H '
$ED' &H4' <E3' =3$4' H' F3' *F 4 0 & 4C ' G$0' H&' ')' <E3' FH-C$ED'
3 2F ' F-ED43D' $ED' F 4 0 F433 ' $ED' F$ ' F3' C$ D' ?- J' Q3' CC-3D'
. ' ?+f' #J(+B&' > % ' H&<(@B1 <)##+P
$ED' 1$ D' FH- ' $EO' I 33' H4' H F34' G3D-N HE' F$ CH3 34 ' $ED'
$EO' ?- J' H4' ?- JC' H&' P HE3O' EH ' 3 N33D E2' *F433' F-ED43D' $ED'
C3 3E O & 3' I H-EDC ' H' D3&4$O' F3' ; 13EN3' H&' F3' ' HO$ ' $ 1)'
N$D3 J O ' &H4' <E3' \ -$4 34' H' F3' *F 4 0 & 4C ' G$0' H&' ')' <E3' FH-R
C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H ' $ED' &H4' <E3' =3$4' H' F3' *F 4 0 '
& 4C ' G$0' H&' P $4NF' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433 ' $ED'
F$ ' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $EO' I 33' H4' H F34' G3R
1 . ' ?+f' #J(*.+ %' H&<(% @)H&' A#)#GD #)+ 1 <)##+P
D-N HE' F$ CH3 34' ($ED' $EO' ?- J' H4' ?- JC' H&' P HE3O' EH ' 3 N33D E2'
<E3' FH-C$ED' 3 2F ' F-ED43D' $ED' C3 3E O & 3' I H-EDC ' H' D3&4$O' F3'
; 13EN3' H&' F3' " !% 1 ' N$D3 J N$ ' EC - HE ' &H4' <E3' \ -$4 34' H' F3'
*F 4 0 & 4C ' G$0' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 '
H ' $ED' &H4' <E3' =3$4' H' F3' *F 4 0 & 4C ' G$0' H&' ')' <E3' FH-R
C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433 ' $ED' F- ' F3' C$ D' ?- J' Q3' CC-3D'
1. ' ?+f' <2& H(@(# +? <GH&#)+ 1 <J#+P
$ED' 1$ D' FH- ' $EO' I 33' H4' H F34' G3D-N HH' F$ CH3 34 ' $ED' $EO' ?- J'
H4' ?- JC' H&' P HE3O' EH ' 3 N33D E2' *F 4 0 C3 3E' FH-C$ED' & 3' F-ED43D'
I H-EDC ' H' 3E$Q 3' F3' >H4D' > 3- 3-$ 4 ' '$!% #&' H' CC-3' P HE3O' E
$ D

/$D' H&' ?NFHH C' $ED' &H4' F3' D $EN3 J 3E ' H&' ; DEN$ H ' & P' < E3'
\ -$4 34' H' F3' * F 4 0 & 4C ' G$0' H&' ') Y ' FH-C$ED' 3 2F ' F-ER
D43D' $ED' F 4 0 H ' $ED' &H4' < E3' =3$4' H' F3' * F 4 0 & 4C ' G$0' H&'
')' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433 ' $ED' F$ ' 3'
C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $E0' 633' ' H 34' G3D-N HE' '
F$ CH3 34 ' $ED' $E0' ?- J' H4' ?- J C' H&' P HE30' EH ' 3 N33D E2' * F433' S ! '&H4 F3
FH-C$ED' C3 3E' F-ED43D' $ED' & & 0' I H-EDC ' H' D3&4$0' F3' ; 13EN3' H&'
F3' I 4H 3C $E ' @F$4 34' ?NFHH C' H&' $!% #& ' &H4' < E3' \ -$4 34' H' F3' E' W?' '
* F 4 0 & 4C ' G$0' H&' ')' \ E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 /'
H ' $ED' &H4' < E3' =3$4' H' F3' * F 4 0 & 4C ' G$0' H&' & ' ' < E3' FH-R
C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433 ' $ED' F$ ' F3' C$ D' ?- J' Q3' CC-3D'
$ED' 1$ D' FH- ' $E0' 633' H4' H F34' G3D-N HE' F$ CH3 34 ' $-D' $E0' E CH '?+!'
?- J' H4' ?- J C' H&' P HE30' EH ' 3 N33D E2' ; 3 3E' FH-C$ED' HE3' F-ED43D'
$ED' C 0' I H-EDC ' H' D3&4$0' F3' ; 13EN3' H&' F3' ; HH $ ' @$ FH N' '
@H 323' $ ' #, , % ' &H4' < E3' \ -$4 34' H' F3' * F 4 0 & 4C ' G$0' H&'
')' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 9 < ' $ED' &H4' < E3'
=3$4' H' F3' * F 4 0 & 4C ' G$0' , %' ')' < E3' FH-C$ED' 3 2F ' F-ED43D'
$ED' F 4 0 F433 ' $ED' F$ ' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- '
$E0' 633' H4' H F34' G3D-N HE' F$ CH3 34

WW ' ED' ' C' F343Q0' $ CH' 3E$N 3D' * F$ ' H- ' H&' $ ' H4' E0' F3' J(!('AJ& '
DC' H4' ?-11 3C' $&H43C$ D' F343' CF$ ' $ED' J $0' Q3' CC-3D' $ED' $11 3D' &A+' I('&' ')(< 9 '?+!' +&!<
$E0' ?- J' H4' ?- J C' H&' P HE30' EH ' 3 N33D E2' ; 2F ' F-ED43D' $ED' C3 3E 0 ' +? J&!)#&I (
& 3' I H-EDC ' H' D3&4$0' F3' ; 13EN3' H&' F3' BH$4D' H&' @F$4 $Q 3' B3X-3C C' (OG(A#A' #+' A' . + ('
$ED' GHE$ HEC ' &H4' < E3' \ -$4 34' H' F3' * F 4 0 & 4C ' G$0' H&' 9 F4N ' < E3' #
FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H ' $ED' &H4' < E3' =3$4' H' F3' * F 4 0 '
& 4C ' G$0' H&' ')' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433 ' $ED'
F$ ' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $E0' 633' H4' H F34' G3D-NR
HE' F$ CH3 34' ' $ED' $E0' ?- J' H4' ?- J C' H&' P HE30' EH ' 3 N33D E2' 6H-4R 91 '?+!'
33E' FH-C$ED' 3 2F ' F-ED43D' I H-EDC ' H' D3&4$0' F3' ; 13EN3' H&' F3' #J(' +&!<+? > ' ! ; K' <)##+P
BH$4D' H&' 9 H4+C ' &H4' < E3' \ -$4 34' H' F3' * F 4 0 & 4C ' G$0' H&' &$4N '
' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H ' $ED' &H4' < E3' =3$4' 1' F3'
* F 4 0 & 4C ' G$0' H&' &$4N ' < E3' FH-C$ED' 3 2F ' F-ED43D' $ ED' F 4 0 F433 '
$ED' F$ ' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $E0' 633' H4' H F34'
G3D-N HE' F$ CH3 34 ' $ED' $E0' ?- J' H4' ?- J C' H&' P HE30' EH ' 3 N33D E2' 1 ' , %'
* 3E 0 3 2F ' FH-C$ED' C3 3E' F-ED43D' $ED' C 33E' I H-EDC' $ED' * 3E ' 3 #+ '?+!' (H!(D
13EN3' 8 $ &13EE0 ' H' 1$0' F3' ?$ $4 3C' $ED' ; 13EN3C' H&' F3' < && N3C' H&' #&!)(A' !' " ! $')HG#(&) #' 4H'
F3' @F 3&' $ED' #ED34' ?3N43 $4 3C' H' F3' > H4D' > 3- 3E$E ' H&' $!% #& ') ' *. # &' ' 9)##+P
H&' F3' I 4 0' @H-EN ' < && N3 ' $ED' H&' 8 C' P $(3C 0 C' I 4 E 34' E'
$!% #& ' &H4' < E3' \ -$4 34' H' F3' * F 4 0 & 4C ' G$0' H&' ')' < F3'
FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 H ' $ED' &H4' < E3' =3$4' H' F3'
* F 4 0 & 4C ' G$0' H&' ')' < E3' FH-C$ED' 3 2F ' F-ED43D' $& D' F 4 0 '
F433 ' $ED' F$ ' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $E0' ; 33' H4'
H F34' G3D-N HE' F$ CH3 34 ' $ED' $E0' ?- J' H4' ?- J C' H&' P HE30' EH ' 1 9?+!
3 N33D E2' ?3 3E 33E' FH-C$ED' C ' F-ED43D' $ED' C3 3E 0 ?3 3E' I H-EDC ' +GA(J+ <+? #J(' +!<' ?)(0%'
H' D3&4$0' F3' @F$423' H&' ?$ $4 3C' &H4' F3' < && N34C' $ED' 3ED$E C' H&' #(& #' <)##+P
F3' 8 H-C3FH D' H&' F3' > H4D' > 3- 3E$E ' H&' $!% #& ' $ED' N34 $ E' H F34'
< && N34C' $ED' ?34 N3C ' &H4 J 34 0' NF$423D' HE' F3' @ ' > C ' E' 43 $ J '
&H4' < E3' \ -$4 34' H' F3' * F 4 0 & 4C ' G$0' H&' ')' < E3' FH-C$ED'
3 2F ' F-ED43D' $ED' F 4 0 H ' $ED' &H4' < E3' =3$4' H' F3' * F 4 0 & &C '
G$0' H&' ')' < E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 0 F433 $ED'
F$ ' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $E0' 633' H4' H F34'
G3D-N HE' F$ CH3 34 ' $ED' $E0' ?- J' H4' ?- J C' H&' P HE30 ' "< ' 3W'
' @' N33D E2

1 [' B' ?+f #J(??)H(+?#J( )H(!(&AG!(f & < ((f+?#J(NHJ(OG(f) ' > *. #$& #+' A# (' P

N33D E2' ; 2F ' FH-C$ED' 3 2F ' F-ED43D' $ED' C3 3E' I H-EDC' ; 2F 33E' ?F E2C' H' D3&4$O' F3' @F$423' H&' F3' <&& N3' H&' F3' N3' *43$C-434' $ED' *3 34' H&' F3' ; NF3X-34' E' $!% #&' &H4' <E3' \-$4 34' H' F3' *F O & 4C' G$O' H&' ')' <E3' FH-C$ D' 3 2F ' F-ED43D' $ED' F 4 O' H' $ED' &H4' <E3' =3$4' H' F3' *F 4 O & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O F433' $ED' F$' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $EO' 633' H4' H F34' G3D-N HE' F$ CH3 34'

.1 .[' ?+f '!) #) *' "!+D H &@&#)+ A' & < #&#G#(Af <)##+P

$ED' $EO' ?- J' H4' ?- JC' H&' P HE3O' EH ' 3 N33D E2' 6 3' FH-C$ED' HE3' F-ED43D' $ED' 3E O & 3' I H-EDC' H' D3&4$O' F3' ; 13EN3' H&' 14 E E2' $ED' 1-Q CF E2' I 4HN J HEC' $ED' H F34' P$ 34C' H&' $' I -Q N' , $ -43' E' F3' 234% #' ! !' E' $!% #&' $ED' H&' 14 E E2' ? $ - 3C' E' $!% #&' &H4' <E3' \-$4 34' H' F3' *F 4 O & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' $ED' &H4' <E3' =3$4' H' F3' *F 4 O & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O F433' $ED' F$' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $EO' 633' H4' H F34' G3R

1. [' ?+f !)@) &' "!+A(D HG#)+ Af <)##+P

D-N HE' F$ CH3 34' $ED' $EO' ?- J' H4' ?- JC' H&' P HE3O' EH ' 3 N33D E2' ?3 3E O H' FH-C$ED' & 3' F-ED43D' I H-EDC' H' D3&4$O' F3' ; 13EN3' H&' @4 J E$' I 4HC3N- HEC' $ED' < F34' >$ ' ; 13EN3C' E' $!% #&' &H4' <E3' \-$4 34' H' F3' *F 4 O & C' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' $ED' &H4' <E3' =3$4' H' F3' *F 4 O & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O F433' $ED' F$' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $EO' 633' H4' H F34' G3D-N HE'

1 [' .A' ?+f $)AA(#) *'))A#(!Af <)##+P

F$ CH3 34' $ED' $EO' ?- J' H4' ?- JC' H&' P HE3O' EH ' 3 N33D E2' *F 4 O' FH-C$ED' H' F-ED43D' $ED' 3 2F O' I H-EDC' 6 3' ?F E2C' H' D3&4$O' F3' ; 13EN3' H&' , HE NHE&H4 J E2' ?3N3D E2' $ED' I 4H 3C $E ' G CC3E E2' P E C 34C' E' $!% #&' &H4' <E3' \-$4 34' H' F3' *F 4 O & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' $ED' &H4' <E3' =3$4' H' F3' *F 4 O & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ER D43D' $ED' F 4 O F433' $ED' F$' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D'

91- [' ?+f #J("+)H(+?NG) ' #&' <)##+P

FH- ' $EO' 633' H4' H F34' G3D-N HE' F$ CH3 34' $ED' $EO' ?- J' H4' ?-4$C' H&' P HE3O' EH ' 3 N33D E2' * 3E O &H-4' FH-C$ED' E E3' F-ED43D' $ED' F C3 3E' I H-EDC' H' D3&4$O' F3' ; 13EN3C' H&' F3' I H N3' $ED' 9 $ NF' ; C $Q CF4$3E C' H&' F3' @ O' H&' 234% #' &H4' <E3' \-$4 34' H' F3' *F 4 O & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O' H' $ED' &H4' <E3' =3$4' H' F3' *F 4 O & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O F433' $ED' F$' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $EO' 633' H4' H F34' G3D-N HE' F$ CH3 34'

919.9[' %' $A' ?+f "GI)H >+!;Af <)##+P

$ED' $EO' ?- J' H4' ?- JC' H&' P HE3O' EH ' 3 N33D E2' 6H-4' FH-C$ED' &H-4' F-ED43D' $ED' & & O &H-4' I H-EDC' 6H-4' ?F E2C' $ED' *F433 13EN3' 8 $ &R 13EEO' H' D3&4$O' F3' ; 13EN3' H&' F3' ?$ $4 3C' H&' F3' @H J J CC HE34C' H&' I -Q N' 9 H4+C' E' $!% #&' $ED' H&' N34 $ E' @HE E23EN 3C' NHEE3N 3D' F343 F' &H4' <E3' \-$4 34' H' F3' *F 4 O & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' $ED' &H4' <E3' =3$4' H' F3' *F 4 O & 4C' G$O' H&' ')' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O' F433' $ED' F$' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $EO' 633' H4'

1. ?+!)WF % # *' &!I+G!f ?+f P

H F34' G3D-N HE' F$ CH3 34'($ED' $EO' ?- J' H4' ?- JC' H&' P HE3O' EH ' 3 N33D E2' ?3 3E' FH-C$ED' & 3' F-ED43D' I H-EDC' H' D3& $O' F3' ; 13EN3' H&' 9 H4+C' $ED' '31$ 4C' / 23# , !' 8 $4QH-4' E' F3' =3$4' <E3' FH-C$ED' 3 2F ' F-ED43D' $ED' F 4 O H' $ED' F$' F3' C$ D' ?- J' Q3' CC-3D' $ED' 1$ D' FH- ' $EO' 633' H4' H F34' G3D-N HE' F$ CH3 34'

1 [A' #+' 'G!HJ&A(+@D @)AA)+ Af 4H') ' #J(&## (' N(: G&!<AP

$ED' $EO' ?- J' H4' ?- JC' H&' P HE3O' EH ' 3 N33D E2' * 3E O C ' FH-C$ED' C ' F-ED43D' $ED' C O 3 2F ' I H-EDC' *3E' ?F E2C' H' 3E$Q 3' 8 C' P $(3C O' H' 1-4NF$C3' F3' C3 34$' @H J J CC HEC' $ED' 11H E J 3E C' E ' ' F3

T4 T : =E E ' ' &7S& '

' F3' B$ 3' 3' M-$4DC' H&' 20)O#' $ED' F$' F3' C$ D' ?-J' Q3' CC-3D'
$ED' 1$ D' FH-' $EO' 633' H4' H F3' G3D-N HE' F$ CH3 34' $ED' $EO' UCHH HC4'
?-J' H4' ?-JC' H&' P HE3O' EH' 3 N33D E2' * H' FH-C$ED' & 3' F-ED43D'
I H-EDC' H' 1$O' F3' $EE-$' @H J 13EC$ HE' &H4' < E3' =3$ '$ $4D3D' H' ? 4' &3 H?HE H&
/4) ' " &%! ' #(' $ 3' % E2 C' ? $ HE34' E' $! &' &H4' >HCC3C' I$3E'
C-C $ E3D' QO' F J' QO' 43$CHE' H&' F3' '3 HN$ HE' H&' F C' I$ 3E ' $ED'
F$' F3' C$ D' ?-J' Q3' CC-3D' $ED' 1$ D' FH-' $EO' 633' H4' H F34'
G3D-N HE' F$ CH3 34

WW ' ED' ' C' F343QO' $ CH' 3E$N 3D' * F$' F3' C$ D' DC' $ED' ?-11 3C' H'Q3
?-11 3C' 14H D3D' $C' $&H43C$ D' CF$ ' EH' Q3' CC-3D' $ED' $11 3D' H' $EO
#C3' E 3E ' H4' I-41HC3' F$ CH3 34' H F34' F$E' F3' #C3C' E 3E C' &?+!(A&)<1'
$ED' I-41HC3C' Q3&H43' J 3E HE3D' H4' &H4' F3' H F34' I$O J 3E C' D - 3D'
H' Q3' C$ C& 3D' F343H-' QO' $EO' N ' H4' N C' H4' $EO' 1$4 N- $4' @ $-C3'
H4' @ $-C3C' &H4' F$' I-41HC3' NHE $ E3D' E' $EO' H F34' N ' H4' N C' H&'
F C' ?3CC HE' H&' I$4 $ J 3E

WW ' ED' $C' H' F3' 43C13N 3' ?-JC' H&' < E3' F-ED43D' $ED' C O' ; & 3C HQ3
E E3' FH-C$ED' C ' F-ED43D' I H-EDC' $ED' ? ' F-ED43D' $#D' C O C '
FH-C$ED' & 3' F-ED43D' I H-EDC' QO' F C' N ' $114H14 $ 3D' H# $NNH-E ' #J(' G@' &' ' !+%
H&' 8 $ &' I$O' $C' $&H43C$ D' ' C' F343QO' 3E$N 3D' $ED' D3N $43D' * F$' F3
' - 3C' F343$& 34' 143CN4 Q3D' CF$ ' Q3' D- O' HQC34 3D' E' F3' 11 N$ HE'
H&' F3' C$ D' 8 $ &' I$O' ' ^ F$' C' H' C$O _' F$' EH' I34CHE' CF$ ' F$ 3' H4'
43N3 3' $EO' I$4' H&' F3' C$ J 3' FH-' $+ E2' $E' < $ F' H' C-NF'
I-41H4' $ED' ; &&3N ' $C' CF$ ' Q3' 43X- 43D' E' F$' B3F$ &' QO' 8 C
P $(3C O C' 9 44E C' D 43N E2' F3' CC-3' H&' ' 3' 8 $ &' I$O' H' Q3'
43N3 3D' ' F$' EH' I34CHE' CF$ ' F$ 3' H4' 43N3 3' $EO' I$4' H&' F3' C$ J 3'
FH' $C' -ED34' F3' 23' H&' ? 33E' =3$4C' $' F3' * J 3' F3E' F3'
' 32 J 3E ' * 4HH1' H4' @H J 1$EO' E' F NF' F3' C34 3D' $C' 43D-N3D'
F$' EH' I34CHE' CF$ ' F$ 3' H4' 43N3 3' $EO' I$4' H&' F3' C$ J 3' FH'
D D' EH' DH' $N -$' ?34 N3' E' CH J 3' ' 32 J 3E ' B$ $ HE' * 4HH1'
H4' @H J 1$EO' E' 8 C' P $(3C O C' ?34 N3' 3 N31 ' E' @$C3C' E' F NF'
F3' @H J J CC HE' $C' 43N3 3D' -ED34' @ 4N- J C $EN3C' F NF' D D' EH '
$NNH4D E2' H' F3' ' 32- $ HEC' H&' F3' 4 J O' 43X- 43' F3' < & N34'
H' C34 3' F$' EH' I34CHE' CF$ ' F$ 3' H4' 43N3 3' $EO' 6$4' H&' F3' C$ J 3'
FH' F$C' 43C 2E3D' F C' @H J J CC HE' $ED' F$C' F$D' E1' @H J J CC HE'
C EN3' F$' EH' I$4' H&' F3' C$ J 3' CF$ ' Q3' $ H 3D' H' $EO' I34CHE' QO'
4 -3' H&' $EO' 9 EE ' H4' 11H E J 3E ' 3 N31 ' H' C-NF' I34CHE' $C'
H- D' F$ 3' Q33E' H F34 C3' 3E 3D' F343 H' $C' $' ' 3D-N3D' < && N34'
F$' EH' I34CHE' CF$ ' F$ 3' H4' 43N3 3' $EO' I$4' H&' F3' C$ J 3' &H4' $EO'
* J 3' D-4 E2' F NF' F3' CF$ ' FH D' $EO' H F34' P $ O' I $N3' <4
; J 1 HO J 3E ' H&' I4H& ' -ED34' 8 C' P $(3C O' H4' E' 8 C' P $(3C (&C'
@H HE 3C' H4' I HCC3CC HEC' Q3OHED' F3' ?3$C' 3 N31 ' HE' F3' ? $&&' H4' E'
M$44 CHE' ' $ED' F$' E' C-NF' 3 N31 3D' @$C3C' H4' E' @$C3C' H&' F C' FH D E2'
$EO' P $4O' I $N3' H4' ; J 1 HO J 3E ' H&' I4H& ' -ED34' $EH F34' MH 34ER
J 3E ' EH' < && N34' CF$ ' 43N3 3' $EO' I$4' H&' F C' 8 $ &' I$O' -E 3CC' F' 8 C'
P $(3C O C' 114HQ$ HE' H' Q3' C 2E & 3D' QO' F3' ?3N43 $4O' H&' 9 $4' H' F3'
I$O J $C 34' M3E34$' H&' 8 C' P $(3C O C' >$ED' 6H4N3C' ' $ED' F3' < && N34' '
N $ J E2' F3' 8 $ &' I$O' E' 1-4C-$EN3' H&' C-NF' 114HQ$ HE' CF$ ' C13D &'
E' F C' < $ F' H4' && D$ ' F3' H F34' P $4O' I $N3' H4' ; J 1 HO J 3E ' "
I4H& ' HE' F3' ? $&&' H4' E' M$44 CHE' F NF' F3' J $O' FH D' H4' F$ 3' F3 D'
-ED34' 8 C' P $(3C O' H4' E' F3' @H HE 3C' H4' I HCC3CC HEC' H&' 8 C' P 3C O'
Q3OHED' F3' ?3$C' H4' -ED34' $EO' H F34' MH 34E J 3E ' F$' E-' I34CHE
FH

U/KS`M#> ;>P ʻ ʻ @$1ʻ UY

FH CF$ ʻ HE H4 Q3&H43 F3 * 3E O 3 2F F G$O H&ʻ?3% ʻ<E3 FH-ʻ7
C$ED 3 2F ʻ F-ED43D $ED 9 3E O 3 2Q ʻF$ 3 F3 D $EO @ ʻ I $N3 H4
; J 1 HO J 3E ʻ H& I4H& ʻ B& D3 ʻ 8 C P $(3C O ʻ H4 E F3 @H HE 3C H4
I HCC3CC HEC H& 8 C P $(3C O Q3OHED F3 ?3$C ʻ H4 -ED34 $EO H F34
MH 34E J 3E ʻ CF$ ʻ F$ 3 H4 43N3 3 $EO I $4 ʻ H& F3 C$ J 3 &H4 $EO
* J 3 D-4 E2 F NF F3 CF$ ʻ FH D $EO C-NF @ ʻ I $N3 H4 ; J 1 HOR
J 3E ʻ H& I4H& ʻ -ED34 8 C P $(3C O ʻ H4 E F3 @H HE 3C H4 I HCC3CC HEC
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3 N31 ʻ E @$C3C ʻ E F NF F3 C$ J 3 CF$ ʻ EH ʻ 3 N33D *F433 * J 3C
F3 J H-E ʻ H& F3 F 2F3C ʻ(ʻ $ 3 H& 8 $ & I $O $ $NF3D H F3 ʻ $E+ E
4 -3 H& F NF F3 N $ J C H 43N3 3 8 $ & I $O ʻ H4 $C F343 E $& 34 J 3ER
HE3D ʻ EH4 E $EO C-NF 3 N31 3D @$C3C ʻ -E 3CC 8 C P $(3C O C C13N $ ʻ
114HQ$ HE Q3 C 2E & 3D $C $&H43C$ D ʻ $ED F3 <&& N34 N $ J E2 F3
8 $ & I $O E 1-4C-$EN3 H&C-NF 114HQ$ HE CF$ ʻ C 2E &O E F C <$ F H4
&& D$ ʻ F3 @ ʻ I $N3 ʻ ; J 1 J ʻ I4H& ʻ F NF F3 J $O FH D
H4 F$ 3 F3 D $C $&H43C$ D ʻ Q- ʻ & F3 E3 ʻ $EE-$ ʻ ; J H - J 3E C H& C-NF
@ ʻ I $N3 H4 ; J 1 HO J 3E ʻ CF$ ʻ 3 N33D *F433 * J 3C F3 J H-E ʻ H&
8 $ & I $O $C $&H43C$ D ʻ $ED CF$ ʻ &$ ʻ CFH4 ʻ H& 6H-4 * J 3C F$ ʻ
J H-E ʻ F3E ʻ CF$ ʻ Q3 $ &- ʻ &H4 F3 I $O J $C 34 M3E34$ ʻ H& F3
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G$O H& 2 ! ' ! 4 ! ʻ <E3 FH-C$ED $2E ʻ F-ED43D $ED F 4 O H ʻ CH
J -NF H& F3 8 $ & I $O N $ E 3D QO $EO C-NF <&& N34 $C CF$ ʻ H23 F34
F F3 E3 ʻ $EE-$ ʻ ; J H - J 3E C H& F3 @ ʻ I $N3 H4 ; J 1 HO J 3E ʻ
Q3 3X-$ ʻ H 6H-4 * J 3C F3 J H-E ʻ H& C-NF 8 $ & I $O ʻ $ED F3 <&& N34
N $ J E2 F3 8 $ & I $O E 1-4C-$EN3 H& C-NF 114HQ$ HE CF$ ʻ C13N &O
E F C <$ F H4 && D$ ʻ F3 @ ʻ I $N3 <4 ; J 1 HO J 3E ʻ H& I4H& ʻ
F NF F3 J $O F$ 3 F3 D $C $&H43C$ D ʻ $ED F3 $N -$ ʻ J H-E ʻ H& F3
; J H - J 3E C F343H& ʻ E C-NF P $EE34 $ED 6H4 J ʻ $ED N$ N- $ 3D -1
H C-NF I 34 HD H4 I 34 HDC ʻ $C CF$ ʻ Q3 43X- 43D QO F3 ?3N43 $4O $ ʻ
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CF$ ʻ F$ 3 H4 43N3 3 $EO I $4 ʻ H& F3 ?$ J 3 &H4 $EO * J 3 D-4 E2
F NF F3 CF$ ʻ FH D $EO C-NF @ ʻ I $N3 H4 ; J 1 HO J 3E ʻ H& I4H& ʻʻ
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$EO H F34 MH 34E J 3E ʻ H F34 F$E F$ ʻ H& $ B44N+ P $C 34 -ED34
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ʻ 3C 4 N HEC Q3&H43 J 3E HE3D ʻ Q3 3E 3D H 43N3 3 F C 8 $ & I $O ʻ
+##+ ' !(2(# I4H D3D $ $OC ʻ F$ ʻ EH F E2 E F C N ʻ NHE $ E3D CF$ ʻ 143 3E ʻ
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@H41H4$ ʻ $ED I4 $ 3 ʻ C34 E2 E F3 M3E34$ ʻ H4 >HN$ ʻ P $ ʻ H4
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J$0 Q3 ' $ED C $ E2 E C-NF <$ F F3 @HJJ CC HE H4 ; J1 HO E3E ' F NF F3 F3 D E F3 M3E34$' H4 >HN$' P $' F3 =3HJ$E40 H4 H -E 334C '

WW ' I4H D3D $ $OC ' *F$ ' &4HJ' $ED $& 34 F3 '6 4C 'G$0 H& ? #3 ' <E3 FH-C$ED 3 2F ' F-ED43D $ED F 4 0 F433 ' CF$ 'Q3 $ &-' &H4 F3 I$0J$C 34 M3E34$' H CC-3 F3 8$& I$0 H4 $EO IH4 HE F343H& H $EO <&& N34 $11H E 3D H @ ' <&& N3 H4 ; J1 HOR J3E '-ED34 8 C P$(3C O ' H4 -ED34 $EO H F34 MH 34E J3E ' C EN3 F3 * 3E O 3 2F F G$0 H&'?3% ' <E3 FH-C$ED 3 2F ' F-ED43D $ED 3E O ' 3 2F ' & 8 C P$(3C O C I 3$C-43 H F$ ' ; E3N ' Q3 C 2E & 3D QO F3 >H4DC @HJJ CC HE34C H& 8 C P$(3C O C *43$C-40 ' H4 $EO *F433 H& F3J ' F4H-2F F3 ?3N43 $40 $' 9$4' Q-' C-NF I34J CC HE H Q3 24$E 3D -ED34 F3 '3C 4 N HEC Q3&H43 J3E HE3D.' I4H D3D $ $OC ' F$ '$E NNH-E ' CF$ 'Q3 $ D Q3&H43 I$4 $J3E ' E 3 340 =3$4 ' HE H4 Q3&H43 F3 6 4C 'G$0 H& / 5 % & I$4 $J3E ' CF$ 'Q3 3E C E2 ' <4 & I$4 $J3E ' CF$ ' EH ' F3E Q3 C E2 HE F3 6 4C 'G$0 H& I$4R $J3E ' C E2 $& 34 F3 6 4C 'G$0 H& / 5 % ' H& F3 , -JQ34 H& <&& N34C FH $43 $ H 3D H 43N3 3 F3 4 8$& I$0 F @ ' ; JR 1 HOJ3E C 'C13N &O E2 F3 , $J3C H&C-NF <&& N34C ' F F3 43C13N 3 JH-E ' H& F3 4 8$& I$0 $ED F3 ; JH -J3E C H& F3 4 43C13N 3 @ ' ; J1 HOJ3E C ' $ED D C E2- CF E2 E 3 340 C-NF NNH-E ' F3 <&& N34C H FHJ 'C-NF 8$& I$0 CF$ 'F$ 3 Q33E $ H 3D C-QC3X-3E ' H 143N3D E2 NNH-E C

WW ' I4H D3D $ $OC ' $ED Q3 ' &-4 F34 3E$N 3D ' *F$ ' ' CF$ ' *43$C-40 J$O Q3 $ &-' &H4 F3 @HJJ CC HE34C H& F3 *43$C-40 ' H4 $EO *F433 H4 - JH43 H& F3J ' &H4 F3 * J3 Q3 E2 ' H $- FH4 T3 F3 43N3 E2 8$& N -' ; J1HO I$0 QO P $40 <&& N34C F @ ' ; J1 HOJ3E C E $EO @$C3C E F NF F3 C$ D @HJJ CC HE34C CF$ ' Q3 H& H1 E HE F$ ' F3 ; J1 HO ' J3E 'H&C-NF P $40 <&& N34C E F3 @H HE 3C H4 3 C3 F343 ' E @ ' ? -$ HEC H& '3C1HEC Q O ' F CJ$ ' ; JH -J3E ' 'Q3 NHED-N 3 H ; NHEHJO ' $ED F343QO Q3E3& N$' H F3 I-Q N ?34 N3 ' $ED E 3 340 C-NF @$C3 F3 <&& N34 CH $- FH4 T3D H 43N3 3 8$& I$0 F F3 ?$ $40 H4 ; JH -J3E C H& $EO @ ' ; J1 HOJ3E ' CF$ ' C 2E &O F3 C$J3 E F C <$ F H4 && D$ ' C13N &O E2 F3 <&& N3 ' $ED F3 - FH4 O -ED34 F NF F3 C CH $ H 3D H 43N3 3 F C 8$& I$0

WW ' ED F343$C $ NHEC D34$Q 3 I$4 ' H& F3 PHE30 $(4H ' 14$ 3D HE $NNH-E ' H& 8$& I$0 QO $E N ' 1$CC3D E F3 %4C ' $ED ?3NHED =3$4C H& F3 '3 2E H& 8 C 143C3E ' P$(3C O ' E - 3D /# / ' ' ,' 55% ')! +3 ' 6#! %% ,# ! ( ) ')3#& !&),31 #& K 9 N? R, #&1 ,3 ' , ')! I ,#1,%& !& R3#& ,')! +! 0 '! , ')! H! 6#!),31 #& ! ( ) ')3#& !& #&) ,#! ' #& ,' 55 ,5 !)! +355% !1 (# !& #) 1 +!11 ,# , ' * % !# ' F$C Q33E CC-3D FH-' 43X- 4 E2 ' QO I34CHEC CC- E2 H4 1$0 E2 ' $ED FH-' F3 $+ E2 QO F3 I34CHEC 43N3 E2 8$& I$0 ' F3 <$ FC 143CN4 Q3D H Q3 $+3E QO <&& N34C N$ J E2 8$& I$0 ' $ED I$4 ' H& F3 C$D PHE 3C F$ 3 Q33E 1$ D H <&& N3 C N$ J E2 $ED 3E 3D H 8$& I$0 ' FH $' F3 C$J3 * J3 F3 D $ED J$0 C ' FH D F3 ? -$ HE H& $ED C34 3 43C13N 3 O $C ?-423HEC ' ?34(3$E C P$(H4C ' ?3 (3$- C @H41H4$ C ' H4 I4 $ 3C E F3 M3E34$ ' H4 >HN$' P $' H4 =3HJ$E40 H4 H -E 334 @H41C ' E ! ' " # H4 $!% #& ' $ED ' C 3 13D 3E ' 'G' F$

Margin notes:
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F$ʻ$ ʻC-NF I34CHEC CFH- D Q3 ED3 BE & 3D : B3 ʻ F343&H43 3E$N 3Dʻ *F$ʻ$ ʻ I34CHEC NHEN34E3D E F3 $D C E2ʻ $- FH4 T E2ʻ H4 D 43N E2 F3 CC- E2ʻ H4 E F3 CC- E2 H& $EO 8 $ & I$Oʻ H4 $EO P HE 3C &H4 8 $ & I$Oʻ H4 E F3 11 N$ HE H& $EO P HE3O $114H14 $ 3D QO F3 C$ D N ʻ &H4 F$ʻ I -41HC3ʻ H4 E F3 43N3 E2 H4 Q3 E2 NHEN34E3D E F3 43N3 E2 $EO I H4 HE H& F3 P HE3O CH $114H14 $ 3D &H4 C-NF 8 $ & I$Oʻ FH- ʻ 43X- 4 E2 H4 $+ E2 F3 C$ D <$ FCʻ H4 H H4 HE $NNH-Eʻ H& $EO C-NF <& N34C ! I34CHEC $C $&H43C$ Dʻ CF$ ʻ Q3 $ED $43 F343QO &- O ED3 J E & 3Dʻ $ED CF$ ʻ Q3 $ED $43 F343QO &- O 3 HE34$ 3D $ED D CNF$423D &4H J ʻ $ ʻ I3E$ 3Cʻ 6H4&3 -43Cʻ I4HC3R N- HECʻ H4 I4HN33D E2Cʻ E 43C13Nʻ H& $EO F E2 DHE3 E 43 $ HE F343 Hʻ E $ ʻ@$C3C E F NF C-NF 8 $ & I$Oʻ H4 I$O J 3Eʻ &H4 H4 E 43C13Nʻ H& 8 $ & I$Oʻ CF$ ʻF$ 3 Q33E H4 J $O F343$& 34 Q3 CC-3D H4 43N3 3D E NHE&H4 J O F F3 I4H C HEC H& F3 C$ D 43N 3D N ʻ H4 F C N ʻ $ED F3ʻ#C$23C F343 H&H43 3C $Q CF3D $ED HQC34 3D E 43 $ HE H F3 CC- E2ʻ 1$O E2ʻ $ED 43N3 E2 H& 8 $ & I$O E $ ʻ H F34 43C13N Cʻ 3 N31 ʻ CH $4 $C 43 $ 3C H F3 D3 J $ED E2ʻ 43X- 4 E2ʻ H4 $+ E2 F3 C$ D <$ FCʻ $ED $ ʻC-NF I$O J 3E C $ED CC-3C H& 8 $ & I$O F NF CF$ ʻ F$ 3 Q33E H4 J $O Q3 CC-3D H $EO C-NF I34CHE $C $&H43C$ D CF$ ʻ Q3 D33 J 3D $ D $& Dʻ 3&&3N -$ʻ I$O J 3E Cʻ $ED F3 I$O J $C 34 M3E34$ ʻ $ED $ ʻ H F34 I34CHEC NHEN34E3D E F3 CC- E2 $ED 1$O E2 F3 C$ J 3ʻ CF$ ʻ Q3 $ED $43 F343QO &- O D CNF$423D $ED 3 HE34$ 3D E 43C13Nʻ F343H& E $ ʻ NNH-E C 43 $ E2 H C-NF CC-3C $ED I$O J 3E C ʻ $EO F E2 NHE $ E3D E $EO N ʻH4 N Cʻ H4 $EO >$ ʻ ʻ- 3C H4 ʻ32- $ HECʻ 43 $ E2 H F3 CC- E2 $ED 1$O E2 H& 8 $ & I$Oʻ H F3 NHE 4$4O EH FC $ED E2

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WW ʻ ED F343$C F3 <&& N343 H& F3 ʻHO$ʻ ʻ32 J 3Eʻ H& #Jʻ 63EN Q 3C 3E2$23D H C34 3 E F3 C$ D @H41C -1HE $? 1- $ HE NHE $ E3D E F3 >3 34 H& ?34 N3 -ED34 F NF F3O 343 4$ C3Dʻ F$ʻ F3O CFH- D Q3 $ H 3D H 43N3 3 $EO 8 $ & I$O H F NF F3O J 2F ʻQ3 3E 3Dʻ EH FC $ED ʻ F3 4 FH D E2 ?-Q$ 34E @H J J CR C HEC E F3 C$ D @H41C ʻ Q- ʻEH H C HE F$C Q33E J $D3 QO I$4 $R J 3Eʻ&H4 I$O J 3Eʻ H& C-NF 8 $ & I$O ($ED ʻ C F343&H43 3 13D 3Eʻ F$ʻ I4H C HE CFH- D Q3 EH ʻ J$D3 &H4 I$O J 3Eʻ H& F3 443$4C H& 8 $ & I$O H C-NF <&& N34C $C $&H43C$ Dʻ B3 ʻ F343&H43 3E$N 3Dʻ *F$ʻ <&& N34C FH 343 3E 3D H 8 $ & I$Oʻ $ED FH $NN31 3D H4 F3 D ?-Q$ 34E @H J J CC HEC E F3 ʻHO$ʻ ʻ32 J 3Eʻ H& #J 63EN Q 3Cʻ CF$ ʻEH FC $ED E2 F3 4 F$ E2 F3 D F3 6- ʻ I$O H& C-NF @H J R J CC HECʻ Q3 3E 3D H 43N3 3 F3 443$4C H& C-NF 8 $ & I$O &H4 $EO =3$4 H4 * J 3 E F NF F3O CF$ ʻ EHʻ F$ 3 Q33E Q3&H43 $ H 3D H 43N3 3 F3 C$ J 3ʻ -1HE $+ E2 F3 <$ F Q3&H43 F3 <&& N34 -C-$ O $D J E C 34 E2 <$ FC H I34CHEC &H4 F3 I -41HC3 H& 43N3 E2 8 $ & I$Oʻ F$ʻ F3O F$D EH ʻ E $EO =3$4 H4 I J 3 &H4 F NF C-NF 443$4 C N $ J 3Dʻ $EO <&& N3 H4 ; J 1 HO J 3Eʻ H& I4H& ʻ@ ʻH4 P $4Oʻ -ED34 8 C P$(3C Oʻ Q3C D3C F3 4 H $EN3 H& 8 $ & I$Oʻ C$ 3 $ED 3 N31 ʻ F3 4 I$O $C C-NF ?-Q$ 34E <&& N34C H& F3 ʻHO$ʻ ʻ32 J 3Eʻ H& #Jʻ 63EN Q 3Cʻ $ED F3 $+ E2 F3 <$ F CF$ ʻ FH- ʻ $+ E2 $EO H F34ʻ <$ Fʻ Q3 C-&& N 3Eʻ H 3E 3 C-NF <&& N34 H 43N3 3 F C 8 $ & I$O

8$& I$O / $ ʻ J3E HEH ʻ

WW ʻ ED F343$C @F$1 $ EC H& ʻ32 J 3E C FH F$ 3 Q33E 1 $N3D -1HE 8 $ & I$O F$ 3 EH ʻQ33E $ H 3D H 43N3 3 C-NF 8 $ & I$O E CH J N =N$4Cʻ E XHEC3X-3EN3 H& Q3 E2 E I HCC3CC HE $ʻ F3 * J 3 H&

U/ K' SL' M#> ;>P ' ' @$1' UY

34 $ E' ; NN 3C $C N$' B3E3& N3C' H4' I 43&34 J 3E C' FH-2F' F3' C$ J 3' 343' Q3E2' E' IHCC3C'
EH ' E' F3' I $ 4HE$23' H&' F3' @4H E'. ED' F343$C' 'F$C' Q33E' (-D23D' ?$8N$ B E'
&$ 4' $ED' 43$CHE$Q 3' F$' F30' CFH- D' Q3' $ H 3D' H' 43N3 3' C-NF' 8 $ &' ?((A<(!)2(<
I $O' FH-2F' E' I HCC3CC HE' H&' ; NN 3C $C N$' I 43&34 3E ' 14H D3D' F3'
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F$' F30' CFH- D' $ CH' Q3' 3E 3D' H' 43N3 3' F3' 443$4C' H&' 8 $ &' I $O'
&H4' C-NF' &H4 J 34' =3$4C' $C' $&H43C$ D'. B3' ' F343&H43' 3E$N 3D' * F$' $ '
@F$1 $ EC' FH' $& 34' F$ E2' Q33E' 1 $N3D' -1HE' 8 $ &' I $O' CF$ ' F$ 3'
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=3$4' E' NHEC3X-3EN3' H&' FH D E2' $EO' ; NN 3C $C N$' B3E3& N3' EH ' D3'
4 3D' &4H J' H4' E' F3' M & ' H&' F3' @4H E' CF$ ' Q3' 3E 3D' H' 43N3 3'
F3' 443$4C' H&' C-NF' 8 $ &' I $O' &H4' C-NF' =3$4' -1HE' J $+ E2' & D$ '
Q3&H43' F3' 14H134' <&& N34' &H4' $D J E C 34 E2' <$ FC' H' I 34CHEC' &H4' 3E '
E2' F3 J' H' 43N3 3' 8 $ &' I $O' F$' F30' F3 D' EH' ; NN 3 $C N$'
B3E3& N3' H4' I 43&34 J 3E ' E' $EO' C-NF' =3$4' D34 3D' &4H J' F3' @4H E' EH4'
$EO' I $N3' H4' ; J 1 HO J 3E ' H&' I 4H& ' -ED34' 8 C' P $(3C O ' $ED' F3'
$+ E2' F3' C$ D' <$ F' CF$ ' FH- ' $+ E2' $EO' H F34' <$ F' Q3'
C-&& N 3E ' H' 3E 3' C-NF' @F$1 $ E' H' 43N3 3' F C' 8 D&' I $O

WW ' ED' F343$C' QO' F3' C$ D' 43N 3D' N ' 1$CC3D' E' F3' 6 4C ' B' ' 4 > 9'
$ED' ?3NHED' =3$4C' H&' F3' ' 3 2E' H&' 8 C' 143C3E ' P $(3C O' F3' C3 34$' H' 9' &' G@
?-11 3C' F NF' F$D' Q33E' 24$E 3D' H' 8 C' P $(3C O ' $C' C' F343 E' J 3ER L&A' &' ' !+' !)%'
HE3D' 343' $114H14 $ 3D' H' F3' C3 34$' #C3C' $ED' I -41HC3C' F343 E' &#(<' #+' I (' '&)<'
3 143CC3D' $ J HE2C ' F NF' $EO' ?- J' H4' ?- J C' H&' P HE30' EH ' 3 N33D E2' #+' & ?' "&B
? 'F-ED43D' E E3 O C3 3E' FH-C$ED' 3 2F ' F-ED43D' I H-EDC' $C' $114HR ??)H(! A' #J('
14 $ 3D' H' Q3' 1$ D' HE' $NNH-E ' H&' 8 $ &' I $O' &H4' F3' =3$4' <E3' FH-C$ED' G! ' GA' +?
3 2F ' F-ED43D' $ED' F 4 O HE3 ' C-Q(3N ' E3 34 F3 3CC' H' C-NF' ' - 3C' H' LJ)' J')A' J(!(IB'
Q3' HQC34 3D' E' F3' 11 N$ HE' H&' F3' C$ D' 8 $ &' I $O' $C' E' $ED' QO' F3' & J+!)c(<' #+'
$&H43C$ D' N ' 343' 143CN4 Q3D' E' F$' B3F$ &'. , H ' ' C' F343QO' 14HR I (' <)A' +A(<+?
D3D' 3E$N 3D' $ED' D3N $43D' * F$' CH' J -NF' H&' F3' C$ D' ?- J' H&' ? ' &A')A' & (A#B'
F-ED43D' $ED' E E3 O C3 3E' FH-C$ED' 3 2F ' F-ED43D' I H-EDC' $C' C' H4' CF$ ' AJ& ' <)!(H#
Q3' J H43' F$E' C-&& N 3E ' H' C$ C&O' F3' C$ D' ' 3D-N3D' <&& N34C' $NNH4DR
E2' H' F3' ' - 3C' H' Q3' HQC34 3D' E' F3' 11 N$ HE' F343H&' H4' $EO'
I $4 ' H&' C-NF' < 341 -C' CF$ ' $ED' J $O' Q3' D C1HC3D' H&' H' C-NF' <&& N34C'
FH' $43' J $ J 3D' H4' F$ 3' HC ' F3 4' > J QC' E' F3' $ 3' 9 $4' H4' C-NF'
H F34C' $C' QO' 43$CHE' H&' F3 4' HE2' ?34 N3' H4' H F34 C3' 8 C' P $(3C O'
CF$ ' (-D23' H' Q3' 14H134' <Q(3N C' H&' @F$4 O ' H4' H' F3' 9 DH C' H4'
@F D43E' H&' C-NF' <&& N34C' $NNH4D E2' H' C-NF' 9 44E ' H4' 9 44E C'
-ED34' 8 C' P $(3C O C' ' HO$' ? 2E' P $E-$ ' $C' CF$ ' Q3' C 2E3D' E' F$'
B3F$ & ' $EO' F E2' E' F C' N ' H4' E' F3' C$ D' N ' H' F3' NHE 4$4O'
EH FC $ED E2

WW W' ED' $C' H' F3' 43C13N 3' ?- J C' H&' * F 4 O C ' FH-C$ED' L)<+LA' & <'
E E3' F-ED43D' $ED' 3 2F O' I H-EDC' $ED' <E3' F-ED43D' &H4 O C3 3 ' "(!A+ A' H &)@%'
FH-C$ED' &H-4' F-ED43D' $ED' 3E O F433' I H-EDC' QO' F C' N ' $1 ' H4 1c$*N$C'
14H14 $ 3D' &H4' D3&4$O E2' F3' @F$423' H&' I 3EC HEC' H' Q3' 1$ D' H' F3' CF$' $H3 F3
9 DH C' H&' <&& N34C' H&' 8 C' P $(3C O C' >$ED' 6H4N3C' $C' $&H43C$ D ' $ED
$C' H' F3' 43C13N 3' ?- J C' H&' 6H4 O &H-4' FH-C$ED' $ED' &H4 O C3 3E'
I H-EDC' $ED' <E3' F-ED43D' C3 3E O & 3' FH-C$ED' $ED' &H4 O HE3'
I H-EDC' QO' F C' N ' $114H14 $ 3D' &H4' D3&4$O E2' F3' @F$423' H&' R
H $EN3C' HE' F3' @H J 1$CC HE$ 3' > C ' H&' H $EN3C' $C' H&' 8 C'
P $(3C O C' ' HO$' BH-E O ' $ED' H&' I 3EC HEC' H' <&& N34C' &H4' 9 H-EDC'
$C' $&H43C$ D ' ' C' F343QO' 3E$N 3D' $ED' D3N $43D' * F$' EH' 9 DH ' H&

$E

U ` K SLM # > ; > P ʿ ʿ @$1 UY

$E <&& N34 H& F3 >$ED 6H4N3C ʿ $ED EH I34CHE N $ J E2 $E H R $EN3 HE F3 @H J 1$CC HE$ 3 > &3 ʿ H(H& H $EN3C $C H& 8 C P $R (3C O C ' HO$ ʿ BH-E O ʿ CF$ ʿ F$ 3 H4 43N3 3 $EO I $4 ʿ H& F3 C$ J 3 FH- ʿ $+ E2 $E <$ F ,ʿ C-NF I -41H4 ʿ $ED ; &&3N ʿ $C CF$ ʿ F3 43X- 43D E F$ ʿ B3F$ & QO 8 C P $(3C O C 9 44E ʿ D 43N E2 F3 CC-3 H& C-NF I 3EC HEC $ED H $EN3C H Q3 43N3 3D ʿ C-NF <$ F H Q3 $+3E Q3&H43 $EO 5-C N3 H4 5-C N3C H& F3 I 3$N3 ʿ H4 H F34 I34CHE D- O $- FH4 T3D H $D J E C 34 $E <$ F ʿ H4 Q3&H43 F3 @$CF 34 H& 9 DH C I 3EC HEC ʿ H4 F3 ' 4C ʿ CC C $E ʿ ; $ J E34 H& F3 C$ J 3 ʿ &H4 F3 * J 3 Q3 E2 ʿ E Fa <&& N3 H& F3 I $O J $C 34 M3E34$ ʿ H& 8 C P $(3C O C >$ED 6H4N3C ʿ FH $43 F343QO $- FH4 T3D H $D J E C 34 F3 C$ J 3

BO FHJ F3 <$F H Q3 $DJ EC 343D

> < , G < , : I 4 E 3D QO # + . (/ Œ ʿ $ED) * (+ , ʿ O1 . 223% , . . * + ʿ
I 4 E 34C H F3 % E2 C J <C ʿ ; N3 3E ʿ P $(3C O ʿ ZSU

, , <ʻ ? ; @# , G<ʻ Kʻ * ; ' * <

M # > ; > P ʻ ʻ ' ; M ?

@ I ʻ @WW

Eʻ Nʻ&H4ʻ $11H E E2ʻ $DD HE$ʻ @H J J CC HE34Cʻ Hʻ 1- ʻ Eʻ 3 3N- HEʻ F3ʻ N Cʻ &H4ʻ 24$E E2ʻ $Eʻ Dʻ Hʻ 8 Cʻ P $(3C Oʻ QOʻ $ʻ >$EDʻ * $ ʻ $EDʻ NHE E- E2ʻ F3ʻ G- 3Cʻ HEʻ I 34CHE$ʻ ; C $ 3C ʻ <&& N3C ʻ $EDʻ I 3EC HEC ʻ

I Y Fʻ # ʻ ZSU m

> 8 ; ' ; ?ʻ $Eʻ N ʻ $Cʻ 1$CC3Dʻ Eʻ F3ʻ ?3 3E Fʻ $EDʻ ; 2F Fʻ =3$4Cʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ $ 3ʻ P $(3C Oʻ % E2ʻ ! , (!ʻ F3ʻ 6H-4 F ʻ E - 3Dʻ / #ʻ / ' ʻ ,ʻ 55, # ʻ I , 11 ,#! 1ʻ , ʻ ʻKZʻMʻ ʻ ' #(ʻ # ,ʻ !J!'3 ,#ʻ 1!0! %ʻ / ' 1ʻ (# #(ʻ #ʻ / &ʻ ,ʻ 1ʻ U!1 ʻNʻ ʻ 4 ʻ ʻ< #&ʻ 7 Jʻ ,ʻ 4!ʻ 1!&ʻ #ʻ M43$ʻB4 $ E ʻ #&ʻ ' ,# #3 #(ʻ ,ʻ 1ʻ U!1 ʻ ' ! #ʻ 2 3 !1ʻ ,#ʻ * ! 1 ,# %ʻ 8 1 !1ʻ 6 '!1ʻ #&ʻ * !#1 ,#1ʻ #ʻ ; E2 $ED ʻ EDʻ F343$Cʻ $EH F34ʻ N ʻ $Cʻ 1$CC3Dʻ Eʻ F3ʻ , E Fʻ =3$4ʻ H&ʻ F3ʻ ' 3 2Eʻ H&ʻ 8 Cʻ C$ Dʻ $ 3ʻ P $(3C O ʻ E - 3Dʻ / #ʻ / ' ʻ , ʻ ! ' #(ʻ ʻ / ʻ ʻNʻSZʻ 1 !1ʻ #ʻ) !ʻ E !1ʻ , ʻ) !ʻ < #&ʻ 7 Jʻ I , 11 ,#! 1ʻ #&ʻ , ʻ 55, # #(ʻ && ,# %ʻ I , 11 ,#! 1ʻ #&ʻ #&! # #(ʻ13' ʻ* ! 1,#1ʻ 1ʻ ʻ) 0!ʻ ' !&ʻ F) ,3 ʻ &3!ʻ / 3) , ʻ #ʻ !J!'3 ,#ʻ , ʻ) !ʻ / ' 1ʻ) ! ! #ʻ ! ' !& ʻ EDʻ F343$Cʻ ʻ Cʻ 3 13D 3E ʻ Hʻ $11H E ʻ $DD HE$ʻ I 34CHECʻ Hʻ 1- ʻ Eʻ 3 3N- HEʻ F3ʻ C3 34$ʻ N Cʻ &H4ʻ 24$E E2ʻ $Eʻ Dʻ Hʻ 8 Cʻ P $(3C Oʻ QOʻ $ʻ >$EDʻ * $ ʻ Eʻ ! ʻ " # ʻ $EDʻ &H4ʻ NHE E- E2ʻ Hʻ 8 Cʻ P $(3C Oʻ N34 $ Eʻ G- 3Cʻ HEʻ I 34CHE$ʻ ; C $ 3C ʻ <&& N3C ʻ $EDʻ I 3EC HECʻ Eʻ 8#(% #&ʻ B3ʻ ʻ F343&H43ʻ 3E$N 3Dʻ QOʻ F3ʻ % E2 Cʻ J HC ʻ ; N3 3E ʻ ʻ ; ʻ

P $(3C O

U

U' K' √ M#> ; >P ' ' @$1' U

' ' +) #@(#' +?' &<<)#)+ &' C HE34C +@@)A%'

P$(3C O' QO' $ED' F' F3' D N3' $ED' @HEC3E ' H&' F3' >H4DC' ?1 4 -$' $ED' *3 J 1H4$ ' $ED' @H J JHEC' E' F C' 143C3E ' I $4 $ J 3E ' $CC3 J Q 3D' $ED' QO' F3' - FH4 O' H&' F3' C$ J 3' *F$ ' F3' C3 34$' $ED' 43C13N 3' I 34CHEC' F343 E $& 34' E$ J 3D' CF$ ' $ED' J $O' $ED' $43' F343QO' 3 J 1H 343D' $- FH4 T3D' ^Q3 E2' D- O' X -$ & 3D_' H' 1- ' E' 3 3N- HE' F3' C$ D N C' $ED' $ ' F3' @ $-C3C' I H 34C' P$ 34C' $ED' *F E2C' F$ CH3 34' F343 E' NHE $ E3D' $C' @H J J CC HE34C' E' $ED' &H4' F3' C3 34$' $ED' 43C13N 3' @H-E 3C' ?F 43C' ? 3 $4 4 3C' $ED' I $N3C' H&' ! ' " #' F343 E $& 34' C3 34$ O' $ED' 43C13N 3 O' J 3E HE3D' $ED' 3 143CC3D' $C' &- O' $ED' 3&&3N -$ O' $C' &' F3O' F$D' Q33E' E$ J 3D' F' F3' H F34' @H J R J CC HE34C' E' F3' C$ D' N ' H&' F3' ?3 3E F' $ED' ; 2F F' =3$4C' H&' 8 C' $ 3' P$(3C O' % E2' !, (!' F3' 6H-4 F' ^ F$ ' C' H' C$O _

R, ')!' L!1' , ')!' I ,3# ' , 'B3D&H4D

@F$4 3C' >HE2-3 ' 8 22 EC' ' NF$4D' >HE2-3 ' <4 3Q$4' 9 $ J' 643D34 N+' 6$4434' 8 3E4O' G$ C' 9 $4D' I %!

R, ')!' " , ,3()' , ' Q E2DHE

*FH J $C' @H13 $ED' 1!# , ' *FH J $C' @-4 C' @F$4 3C' 4NF34' @-4 C' 8 3E4O' %E$11' M3H423' BH 3C' P H4 $ED' + ' @F$4 3C' ?$ HE' " ,#! ' 9 $ J' *O443

6H4')!' L!1' , ')!' I ,3# ' , 'B34+C

; D E' P$4 E' + EC' 9 $ J' 8HC+ EC' P$4 E' + EC' M3H423' B- 34' 5HFE' B$4E3C' 5HC31F' M3H423' @HH+' I %! ' 9 $ J' @F$ J Q34C' I %! ' 5$ J 3C' G3 3' 9 $ J' B$ 3 J $E' G$CF HHD' 9 $ J' ; $EC' I %! ' *FH J $C' G$ CHE' 8 -DCHE' I %! ' 9 $ J' =$4E HE' P C' I %! ' ; C' P C' 5HFE' 3C' P$E 3 ' M3H423' P$E 3 ' U3# , ' ; D $4D' BH- 34 3' I -C3O' I %! ' 9 $ J' BH- 34 3' I -C3O' I 4OC3' >H 3D3E' I 4OC3' ; D $4D' >H 3D3E' I 4OC3' 5HFE' I 3 ' I 4OC3' *FH J $C' 8 $O $4D' ?H- FQO' ' HQ34 ' M3H423' *F4HN+ J H4 HE' , NFH $C' *F4HN+ J H4 HE' 5HFE' 534 C' *F4HN+ J H4 HE' @F4 C H1F34' 9 $4D' *FH J $C' 9 $4D' *FH J $C' >H 3D$O' H ; $C' C 3O' I %! ' M3H423' ?F34 HHD' ; $EC' 9 3C' C 3O' I %! ' 9 $ J' P H4 $ED')!' ,3#(! ' , ' 9 3C' C 3O' ; D $4D' *- ' , ' I 3$C3 J H43' 8 3E4O' 8 11 C 3O')!' ,3#(! ' , ' >$ J QH-4E' ; D $4D' *FH J 1CHE' , ' >$ J QH-4E' I %! ' @F$4 3C' 9 $1CF$43' , ' ; $C' 8 3ED43D' I %! ' >3 C' ?E3OD' , ' ; $C' >HN+ E23' I %! ' 9 $ J' 8 $O $4D' , ' @F$4 HE' I %! ' 5HFE' , 3 CHE' H @F D43O' I %! ' *FH J $C' I 3$4CHE' , ' ?1$4CFH ' ' 9 $ J' 6 4 F' , ' >3 NH J Q' B$CC3 ' I %! ' 5HC $F' B-4D' H&' 9 $E $23' I %! ' 5HFE' B4H E' , 1 , I Z(!

R, ')!' 7, ' , 'B-N+ E2F$ J ')' BH4 HE' BH4 HE FH D' I 43Q3ED' ; ED' #&' >3EDQH4H-2F

' HQ34 ' B4H E3' 5HFE' 9 $ ' @H 3O' 5HFE' 63 H 3C')!' !%&! ' 5HFE' 63 H 3C')!' ,3#(! ' @F$4 3C' *FH J $C' M4H 3' 5$ J 3C' 8 $44 CHE' 9 $ J' 83$ F' 5HFE' % E2' M3H423' % E2' *HQ $C' >3DQ4HH+3' 5HFE' " 34 D23' 5$ J 3C' P$C 34C

U` KS7 M#> ;>P ' ' @$1' U . U !

' R, ')!' ", ,3()' , ' I 0 (' ', ' Y

5HFE' @$4 34' , ' 9 $J' 'HC3' 'HQ34' 9 F33 34' ' NF$4D' B$440' ? $ 34' 9 $J' ?14HC HE' 9 $J' I$4+34' *FHEX $C' 9 3C HHD' 5HFE' P$ F 3' 5HFE' , $CF' /%&! !#=' 5HFE' I$4+34' 7, F#' I%! =' 9 $J' 8$ 342$' M3H423' 8$4 J$E' *FH J $C' ;D J HEDC' ?$J -3' ;D J HEDC

R, ')!' I, 3# ' , ' B-N+C

*FH J $C' '$O J HED' B$4+34' *FH J $C' G$4QO' @H 3E 40' 9 $J' 'HQ34' @ $O HE')!' L!0! !#&' @F$4 3C' 'HQ34' 6ECF 3')!' L!0! !#&' ;D $4D' , 3$ 3' *FH J $C' 9 3 F343D' *FH J $C' I334C' 9 $J C' 5HC31F' 9 4 2F')!' !%&! ' 9 DFJ' 9 OEDF$J' /& %' 8 3E40' B$134' ;D $4D' 8H4 HHD' 5$J 3C' *43 H4' 1!#, ' 9 $J' 8H $4D' I%! ' B3E($J E' 'HQ34' I34+ EC' I%! ' 5HFE' 3' 5HFE' 8H4 30' I%! ' M3H423' P H4 30' I%! ' ;' 9' 6' >$ J34' @7 ?'' J E' 'HQ34' I34+ EC' I%! ' ' NF$4D' 'HQ34 C' I%! ' *FH J $C' 9 $J' ;O43' I%!

R, ')!' 7, F#' , ' @$J Q4 D23

9 $J' D$J C' ? 31F3E' DNHN+' 9 $E' M$4&' CF HE' *FH J $C' B$+34' 8 3E40' B$ C' U3#, ' 5HFE' B$4+34' / ' 5HFE' 'HQ34' 8 3440' 9 $J' B CFH1 8 3E40' 5HFE' 8 $O 3C' BHED' $A ' B3E($J E' B4 D23C' -2-C E3' M- 34 D23' B4 J 30' @F$4 3C' ;D $4D' B4H E' P$4+' B- 3E' 643D34 N+' D$J' @$ O' L!0! !#&' *FH J $C' @$- 30' / ' L!0! !#&' *3J 1 3' @F3 $ 34' " 2 ' @F$4 3C' @ $ODHE' ;D $4D' @H40' 5HFE' 53EE E2C' @4 QQ' L!0! !#&' * , !11, ' M-J J E2' 5HFE' G3 2F HE' 5HC31F' 5HE$ F$E' G3 2F HE' 9 $J' ;$D3E' 8 3E40' ;$D3E' 9 P$$;$D3E' U3#, ' ?$J -3' ; $EC' *FH J $C' 6 N+ E' 'H $ED' P H44 C' 6$ N3 ' 64$EN C' 6 CF34' ' NF$4D' 6HC 34' U3#, ' 5$J 3C' P NF$3' 6HC 34' 5$J 3C' 6- 34' 64$EN C' 5HFE' M-EE E2' *FH J $C' 8$ $N+4' 5HFE' 8$ $ED' 2 ' @F$4 3C' I 3C 3' 8$44 C' 9 $J' 9 HHDNHN+' 8$O $4D' 8 3E40' 8 3$D O' 'HQ34' 8 3$D O' 64$EN C' 8 HDCHE' 64$EN C' 8 H1+ EC' 8 3E40' 8 -DCHE' 9 $J' %33D' 5$J 3C' >$ ' C$$N' P $4CF' 8 3E40' $4CF$' U3#, ' 5$J 3C' , - 34' *FH J $C' , - 34' @F$4 3C' , 3 QO' ' NF$4D' , 3 QO' 5HFE' <+3C' @F$4 3C' <44 D23' M3H423' I 40 J 3' / ' 8 3E40' '$E33' 643D34 N+' '$ED$' ? 31F3E' 'H 30' 9 $J' ?3$4 3' 8 3E40' ? 3 $4D' *FH J $C' ? 3 3ECHE' 9 $J' ? J 1CHE' 9 $J' ? $EE')!' C! ' L!0! !#&' *FH J $C' *-4 HE' 2 2 ' 2! #' , ' I3 34QH4H-2F' 5$J 3C' I3 34CHE' * CC' M3H423' 5HC31F' * CC' ' NF$4D' *$Q4$J' M3H423' 9 $443E' U3#, ' 9 $J' 9 $443E' M3H423' %3 3' 9 F33 34' 3 $ED34' 9 $ &H4D

R, ')!' $1%!' , ' ; O

'HQ34' B$ 34' 'HQ34' G$ Q$4E' *FH J $C' G$ Q$4E3' 8 3E40' 6$4D3' I%! ' *FH J $C' 64-CF34' 9 $J' 533+C' 8 J O' 83$NF' 8 3E40' P H4 HE' *FH J $C' ? 3$4' M3H423' 8$44 CHE' 9 F$4 HE' *FH J 1CHE' I) %!' 8$4 30' P$ F3 ' #C ' 8 3 3 ' 9 $ CHE' I%! ' 'HQ34' G ' 'HQ34' 8 -2F' ; $EC' U3#, ' 8 3E40' >$-43EN3' 9 $J' '$OE34' *FH J $C' I$23' 9 $J' @4$ 30' >3$NF' I%! ' ;D $4D' BH O34' a1$4+3' I)' *FH J $C' B-423CC' 9 $J' @-4 C' 9 $J' 3E' @F$ & 3 D' I ' *FH J $C' ;$4 ' *FH J $C' M4$E ' *FH J $C' , 3 ' 5N&FE' ' NF$4DCHE' 2

8 H4C3 $O

U Y U K S M # > ; > P @$1 U

8H4C3 $O 'HQ34 '-C HE U3# , ' NF$4D '-C HE U3# , 5HC31F ?$QQ34 HE ?$QQ34 HE 5HFE ?3 $4D 5HFE ?3 3 83E4O ?+33 C 5HC31F ?J F 5$J3C ?J F 5HFE '-C HE *FHJ$C ?$&&H4D I%! 5HC31F 8$ 9 4 2F 5HC31F B3$+ 3O U , C$$N >3$ F3C I%! 5H(J 8H4C3O 9$D D E2 HE

R,)! L!1 ,)! I ,3# , @$JQ4 D23

+ ?7 EN3E @H HE " , 9 $J I 2H M3H423 M4$F$J IHC 34 I 2H I 2H I%! ' NF$4D 8H44 C 3 $ED34 @H HE I%! 83E4O *$C+34 I%! ;D $4D 6H4DF$J 5HFE 8$ @F$4 3C 9$234 9$ CHE 5HFE % E2 8$2234C HE 9 $J 9 HHDNHN+ 8$0 HHD @F$4 3C ;DJ-ED %33E @e34 / ? J3HE >33 3 5$N+3O >33 3 ? 31F3E I 134 83E4O I3 34 ? $ED 3O @F$ 3$ && ' NF$4D ;$ HE U3# , 5HFE GHQ3D3 ?$ CQ-4O G-EE M3H423 53E0EC U3# , >3HE$4D 53E0EC I%! ;D $4D 8-J1F4OC M433E 5HFE ?$N+ 'HQ34 G3$JH43 6 CHE 9 $J N HE 6! 5HFE 8-E 34 ?$J-3 , 3 HE ;D $4D 9H $C HE I%! + P$4+ 9HHD " ,#! 5HFE *F$41 5HC31F ? DE3O *F$413 83E4O 6$4D3 I%! 5HFE ?F$ I%! 5HFE B$4+34 I%! ;DJ-ED 6 CF34 I%!

R,)! I ,# ` @F3C 34

7)! ,#,3 4%! M3H423 34EHE ', % ' %%!& <, & 34EHE , IHOE HE)! ,#,3 4%! M3H423 B E2F$J ', ,#% ' %%!& <, & B E2F$J , ?- HE)! ,#,3 4%! *FHJ$C J34 N-C ;4C+ E3 , D E2 HE + 5HFE *FHJ$C ?$E 3O " ,#! , ,3 F34 D34 3O + ;D $4D ? 4$N3O " ,#! @ *0 F34 E2 HE M QQC @4$ &H4D E 4HQ-C H1 ;$ HE *FHJ$C 3E H1 P$NN 3C& 3 D *FHJ$C EC H4F H1 P$NN 3C& 3 D 5HFE B4HN+ 3F-4C)! !%&! H I P$NN 3C& 3 D 9 $J B4HN+ 3F-4C H1 *0 F34 E2 HE 5HFE B4HN+ 3F-4C)! ,3#(! , 8-4DC& 3 D *FHJ$C B4HN+ 3F-4C H1 8-4DC& 3 D 5HFE 'H C B4H E3 , B- 3O 'HQ34 B$2CF$, P$NN 3C& 3 D *FHJ$C BHD3E H1 P$NN 3C& 3 D I3 34 B4H E3 H1 P$NN 3C& 3 D 64$EN C B4$ED I , M$-C H4 F 9 #$J B$4E3 H1 P$NN 3C& 3 D *FHJ$C B3ED H1 <1 P$NN 3C& 3 D *FHJ$C B4HD4 N+ , P$NN 3C& 3 D 9 $J @4 3ED3E @4 3ED3E I%! , P$NN 3C& 3 D 9 $J @ $0 HE H1 D E2 HE G$ D ?F$4 @ $0 HE V 9H4 F *FHJ$C @4 31 3O H1 ?- HE 83E4O @4 31 3O , P$NN 3C& 3 D 5$J3C @HN+CHE H1 P$NN 3C& 3 D 5HFE ?J F G$ E 4O H1 , H4 F4HD3 *FHJ$C G$ E 4O H1 , H4 F4HD3 P NF$3 G$ E 4O H1 , H4 F4HD3 5HFE G$E3O Y! ?! V P$4 HE 9 $J B E 3O G N+3ECHE H1 P$NN 3C& 3 D 'D $4D G$ 3C G$ 3E1H4 H1 @$13C FHJ3 5HFE G3 $4 H1 6 &&CF$ 5HC31F 6 4 F H1 P$NN 3CR & 3 D ;D $4D 6HD3E , P$NN 3C& 3 D 5HFE 6 33 H1 P$NN 3C& 3 D 64$EN C 6 22 EC ?- HE 5HFE '$C+3 M 322 , < D 9 E2 HE 5HFE #1 HE M$C+3 B1 E2 HE 'H $ED MH- D H1 P$NN 3C& 3 D *FHJ$C M4 4$CD NF H1 P$NN 3C& 3 D 9 $J M433E H1 P$NN 3C& 3 D *FHJ$C 8 QQ34 H1 < 34 D34 O 5$C134 8- 3O , '$ EH , $ F$E 3 8 22 EQH F$J V ?- HE ;D 4$4D 8$ H1 P$NN 3C& 3 D 9 $J 8H13C V P$NN 3C& 3 D 5HFE 9 $J 5HD43 , 83EQ-4O *FHJ$C >32F H1>0J3 64$EN C >$0 3J$ED P$NN 3C& 3 D 5HC31F >HO43O H1 P$NN 3C& 3 D *FHJ$C >3$E V P$NN 3C& 3 D)! , L!', &! #& I 5 % "3 (!11!1 ,)! ", ,3() , P$NN 3C & 3 D

UL' K' S ' M # > ; > P g' ' @$1' U U

& 3 D34')!' 7 !' 4! #(')!' * !' I3 ' V ')!' * ,') %' I , !%'
P $NN 3C& 3 D' , ')!' 7 !' 4! #(')!' ! &' 1 !)!' R !!'
' +'),,%' , ' #(' ;D $4D')!' + J)' #' , ')!
7 !' 4! #(' ;DJ -ED' P $CC30' , ' PH F4$J' ?' ED43 ' 64$EN C' , 3 '
QH D' I%! ' , ' P $NN 3C& 3 D' *FHJ$C' , H4Q-40' , ' P $NN 3C& 3 D' 5HFE'
, H4Q-40' I43C Q-40' *FHJ$C' < 34' , 'BH E2 HE' 6FHJ$C' I$4+34'
, ' @F3 &H4D' ?$J -3' I3$4CHE' , ' B-2 $E H ' , $ F$E 3' I3$4CHE' '
P $NN 3C& 3 D' ' NF$4D' I3$4N3' , ' P $NN 3C& 3 D' *FHJ$C' I$44H ' '
P $NN 3C& 3 D' 5$J 3C' 9 F 3' IH 3#' , '?- HE' G$E 3' I1 3 ' , ' P $NR
N 3C& 3 D' 5HFE' ' O 3' , ' I$4+' 8H-C3' P $NN 3C& 3 D' 5HFE' ' HQ ECHE' -G à
M$ C H4 F' @F4 C H1F34' ?F$ ' ' H3' , ' P $NN 3C& 3 D' 5HFE' ' 3$DO' '
P $NN 3C& 3 D' ;D $4D'? $E 30' I%! ' H , 3 F34' D34 O' ;D $4D' 5HFE'
? $E 30' , ' , 3 F34' D34 O' 9 $J' < 3E' ? $E 30' H , 3 F34' D34 O'
9 $J' ?J O F' * , !11, ' , ' ,&! #' 1 , ' ;D $4D' ?J O F' , '
8-4DC& 3 D' ?$J -3' ? HE3' P $NN 3C& 3 D' IF 1'? $E F' P $NR
N 3C& 3 D' *FHJ$C' ?' $E' N+' +& G ' H P $NN 3C& 3 D' 5HC F'? $E N+'
, ' I43C Q-40' *FHJ$C' ? $E N+' , ' P $NN 3C& 3 D' @ 3J 3E' ? 3 3E'
F$J' , '?HJ 34&H4D' BHH F' 5HFE' IH 3 ' ? $E N+' , ' P $NN 3C& 3 D'
5$J 3C' ? EE34 HE' , ' P $NN 3C& 3 D' *FHJ$C' ? 4 E234' -G= P $NN 3C& 3 D'
5HFE' ? $EC& 3 D' , ' P $NN 3C& 3 D' 9 $J' *-4E34' , ' ? 4 E2 30' I$4+'
9 $J' *$O H4' , ' P $NN 3C& 3 D' 5HC31F' *-EEN &&' ' P $NN 3C& 3 D'
' HQ34 ' *-4E34' P $NN 3C& 3 D' 5$J 3C' $- ' H ' P $NN 3C& 3 D' @F$4 3C'
9 HHD' , ' P $NN 3C& 3 D' ' NF$4D' 9 HHD' , ' *O F34 12 HE' *FHJ$C'
9 $4D' , 'P $NN 3C& 3 D' 8 3E40' 9 $4D 3' , 'P $NN 3C& 3 D' *FHJ$C' 9 $4D 3'
H P $NN 3C& 3 D' P$ F3 ' $4DEH F' P $NN 3C& 3 D' 5 FHJ$C' NF3 '
EH4' 9 $ C' , ' P $NN 3C& 3 D' 5HC31F' 9 D3' , ' P $NN 3C& 3 D' @F$4 3C'
HHD')!' ,3#(! ' P $NN 3C& 3 D' ' NF$4D' 9 4 2F' -G= P $NN 3C& 3 D'
M3H423' 4 2F' X / P $NN 3C& 3 D

R, ')!' I ,3# ' X /@H4E $

5HFE' B- 34' =$4D3' B- 34' 643D34 N+' *FHJ$C' BE 34' ' NF$4D'
B- 34' I%! ' 8 3E40' BH4 $C3' I%! ' 5HFE' G33Q 3' B4H E3' 9 $J'
@$4QOHE' ;D $4D' @H EC' L E ' M3H423' @H4E CF' I%! ' G34 @E'
@H 34 D23' I%! ' 8 3E40' *HJ + E' @H- CHE' I%! ' @F$4 3C' G$E 3 '
5HFE' G$-Q3440' I%! ' 5HFE' G$ 3C' M QQ34 ' ;D $4D' @H EC' M DDO'
@F$4 3C' M DDO' 9 $J' M Q33' I%! ' ;D $4D' 9 $J' M4 && FC'
I%! ' ?$J -3' M4HC3' I$CNH3' M43E&3 'U3# , ' 5HFE' 8 3O HHD' 8 $ R
+ EC' 64$EN C' B4H E3' 8 $J Q O' 643D34 N+' 8 ' 5HC31F' 8 $ +30'
' NF$4D' 8 NF3EC' *FHJ$C' 8 3 ' 5HFE' ?+ EE34' % E2' 9 & $J' % E2'
DHE' I%! ' 5HFE' G$J 13E' I%! ' @F$4 3C' >OE3 ' I%! ' ' 5HFE' , NFH $C'
' NF$4DC' P 3 ' 9 $J' I$ CHE' 2 ' 9 $J' @$413E 34' ' H 3'
8 3E40' I3 34' '$ E2C' 5HE$ F$E' *43 $ E30' 8 3E40' ' HC3 $4E3'
*FH44 CHE' 8 H4$ H' *HDD' I%! ' 5$J 3C' *4 JQ$ F' 5HFE' 9 HHD' I%! '
@F$4 3C' 4HD 30' I%! ' I43C HE' 9 $ C' ' NF$4D' 9 C3' 2 ' 5HFE'
8 $440' 2 ' , ' 8 3 $ED' ?$J -3' ?O J HEC' , ' MHE 3E$' ;2 HCF$O 3'
$J' 4-ED3' =3H' 2 ' , ' ?/ P E 34' 9 $J' ?$EDOC' ?$EDOC'
, ' ?/ P E 34' + ' = $J' PH 3C H4 F' " ,#! ' , ' I3EN$44H ' ;2 HCR
F$O 3

R, ')!' I ,3# ' X@@- J Q34 $ED

7)!' ,#,3 4%!' ' HQ34 ' >33C E' Q4$J' >3 O' ?$J -3' @$ * E2 HE'
' 5$J 3C' I$4+ E' @F4 C H1F34' I$4+34' 9 $J' I$4+34' '$ HE' + K HE
' 6' ,

, @$4 C 3 ' HQ34 CHE @$4 C 3 5HFE BH J $E , BH NF34QO 5HFE @HEE3 , @$4 C 3 5$ J 3C @H(E3 , @$4 C 3 9 $ J GHQ E CHE @$4 C 3 5HFE G HE %E3 C ' NF J HED 63 , + HE 8 $ 8 3E40 6$4434 , % 4+ E HE 8 $ 5$ J 3C 6$ N3 , ?N$ 3QO @$C 3 5HFE 6$ N3 I3 34 B$E+ 5HC31F 6342-CHE , @$4 C 3 ?$ J -3 5$ J 3C @ HHD3 H-2F @$4 C 3 9 $ J , NFH CHE 8 HD2CHE , @$4 C 3 *FH J $C @H- F$4D 5 3OCF$ J , @$4R C 3 *FH J $C 8 - D E @$4 3 *FH J $C 8 H-2F HE 8 HD2CHE , 8 H-2F HE 8 H-C3 5HFE 8 HD2CHE , BH E3CC M3H423 8 3E40 8 3 H&B-42F *FH J $C 8 HD2CHE ? $E 5$ J 3C P - N$C 34 H ? $E *FH J $C P H-EC30 , @$4 C 3 M3<423 M P H-EC30 @$4 C 3 ' HQ34 P $ F3 C , @$4 C 3 9 $ J , H4 J $E , @$4 C 3 9 $ J , $ECHE , @$4 C 3 8 -2F I $ 4 N+CHE , % 4+ E HE I $4+ 9 $ J I $ 4 N+CHE H& @4HCQO *FH J $C I F 1C , @4HCQO *FH J $C ' $ J CF$O H&B4$ J 1 HE 5HFE ' $ J CF$O X& , $ H4 F ^&3 L ! 0 ! ! #& ' NF$4D ' N3 H& 8 $0 HF M3H423 ?F$D&H4 F H& <4NF$4D 8 H-C3 M3H423 ?$- , B4-EC HN+ 8 H-C3 5HFE ?Q$DF (J 3 % E2 J HH4 M3H423 *3EE C HHD H&BHH F 30 9 $ J 9 D3 H& @$4 C 3

R,) ! I ,3# , G34QO

7) ! ,#,3 4%! 8 3F. P J E3 J @$ D CF B$4H 9 $ 341$4+ ,) ! #(&, , 43 $ED 9 $ J B$4Q34 I) 8 3E40 5$ J 3C 6 3 D3E I%!) 9 $ J 8 $0Q-4C 8 $ 8 3E40 B$E+C 8 $ I%! ' 5HFE P 30 E3 5HFE ? J F H& G34QO ' HQ34 ? J 1CHE I%!) ' NF$4D @H+3 9 J H I%! 8 3E40 5HFE B$4+34 9 $ J I H 3 *FH4EF B3E($ J E B4HH J F3$D 9 $ J >HE2CDH4 9 8 F P 3 $ED M3H423 9 $ J , 3 HE 5HFE 9 $ J 9 4 2F *FH J $C ' $D&H4D , 8 2F$ J 5HC31F 9 CHE @$ J & 3 D ? 31F3E 9 + $CHE 8 DHD 3 M = ' 9 + ECHE H& @F3C 34& 3 D 9 $ J 8 -4D H& CFQH4E3 5HFE , NFH CHE H& CFQH4E3 @F$4 3C 9 3QC J CFQH4E3 9 $ J *OCHE H& CFQH4E3 B4HH+ BHH FQO H& CFQH4E3 @3N BHH FQO H& CFR QH4E3 8 3E40 *FH J $C B -N+C HE3 I%! X&B4$DQH J 3 5HFE 5HFECHE H&B3E 30 9 $ J 6 TF34Q34 X& * E2 HE 5HC31F MH- D , I C Q-40 5HFE B @$E 43 H& @4HE+C HE M4$E23 8 3E40 5HFE MHHDR E I X&P $11 3 HE 9 $ J B$ 3 J $E P DD 3 HE =H- 243$ 3) ! , H& @F3C 34& 3 D 7 ! 4! #(9 $ J G4$QQ 3 9 $ J 9 $ 34 ?$ J -3 G- HE 9 $ J 3CHE ' NF$4D ' H 3E D$# 8 -4 HHD ?$ J -3 G HE ' NF$4D G HE *FH J $C 9 NHN+CHE 5$ J 3C ' HQ ECHE 5HC31F M4$ HE 5HC31F M4$ HE U3# , *FH J $C B -N+ 30 I%! ; D $4D B N+ I%! 9 E ($ J @$E 43 I%! 8 3E40 ' HQ34 @43 3 ; D J -ED >3 C @43 3 ' NF$4D B3$- J HE @F D 5HFE 8 $ H4 F H& , 3 HE ?H E30 ?$ J -3 8 D -4 FO I%! 9 ? >33 I%! 5HC31F <CQH4E U3# , , ?1HEDHE M 3C I 4 N+3 Y ! 5HFE * 3 30 ? J F I%! ; D $$ D *FH4E3 H& , 3 HE ?H R E30 *FH J $C 9 H4 F E2 HE , 8 $4 CFH4E3 8 3E40 9 H4 F E2 HE , @H HE M3H423 9 HH HE H& @F3 $C HE *FH J $C 9 4 2F 9 F $+34 I%!

R,) ! I ,3# , G3 HE

5HFE QQH I%! M3H423 643D34 N+ 4 F-4 I%! + E FHEO B- 34 # ( ) ; 4 E2 @ $4+ 5HFE ' HH 3 + ' $ 1F >H13T " ,#! 5HC31F ?NHQ3 *FH J $C 8 H4$ H 9 $ +34 I%! M3H423 I HEC&H4D

! 9 $ J

ULKSLM # > ; > P ' ' M$1 U U V

9 $J'>$JQ34 '5HFE'>$JQ34 '83E40'' NF$4D' M OEE' LZ0! !#&'
5HFE' B$4 FH HJ3 ')!' L!0! !#&' ED43 ' \ - NF3' 9 $J' 6-DHE2'
9 C3' , NFH $C' >HN+034' ' , ' $4HE' *HT34' 9 $J'?EH '8$44 C '
;DJ-ED' >HN+034' I0J' 643D34 N+' I0J' I%! ' *FHJ$C' E FHEO'
? 3 $4 ' *FHJ$C' M ' ;D $4D' B4H E3' + ' 9$ 34' I$&N' @$43 '
" ,#! ' + ' 5HFE' >3 C' G-E T3' " ,#! ' 9 $J' G N+3ECHE'
;D $4D' ? JNH3' G43 ' *4 C 4$J' 8 E3' M3H423' 5$J3C' ' DD3 '
9 $J' ?O+3C' I%! '5$J3C' I$4 4 D23

R, ')!' I ,3# ' , 'GH4CD

+ '83E40' G 2QO' I " ' P E 34E' 8H-C3' J')!'* 1)' , 'P E 34E'
P$2E$' ;D $4D' ?7 EN3E 'G 2QO' , ')!'1 !' I&3N3' %3E3 HE' 83E40'
G 2QO' , ')!' 1 !' *% '!' @F$4 3C' 6403&' , '@$ C HN+' O' 5'
B $N+ HHD' , '?OD E2' ?' , NFH $C' M3H423' 63$ H4' ` ')!'1 !' *% '!'
I%! ' ?$J-3' @4$E3' , 'MHDJ$EC HE3' *FHJ$C' @HN+34$J'U3# , ' , '
@34E3' QQ$C' *FHJ$C' BHOC' G$ C' , ')!' 1 !' *% '!' 5HFE' $-2F$E'
, '#1' @34E3' *FHJ$C' B4 D23' , ' I DD 3 43E F D3' ' NF$4D' 53E+OE'
? HE3' , '@34E3' QQ$C' I%! ' ?$ E 'B$4Q3' *432HE 3 '5HFE' *432HE'
3 ')!' L!0! !#&' ; $E' G$ 3C' I%! ')!' L!0! !#&' ?$J-3' >$E3'
I%! ' 5HFE' 6 HO34' ' HQ3 '9 $JCO H4' 83E40' 64$J1 HE' M3H423'
9 3QQ' *HQ E')!' ,#,3 4%!' M3H423' > HE3' G$ CHE' G$J34' 5HFE'
@H QH-4E3' , ' ? -4J EC 34' 9 $J' BH-NF34' ' *FH4EF ' 8H-C3'
83E40' BH-NF34' I%! ' 8 HE ' 64$EN C' 9 $J' 6$E3' B$ F '5HFE'
MHHD4 D23' , '? -4J EC 34' M3H423' ' 34C' 8-E 34' I%! ' , '<N+&H4D'
6 T1$ E3' *FHJ$C' 8H1CHE' I%! ' , '> D ENF' !, (!' @H QO' >H& -C'
, '9 HH $ED' *FHJ$C' < 34' , '@F D' <N+&H4D' ;D $4D' I3$NHN+'
I%! ' , '6 &3F3$D' P$2D$ 3E' 8$440' 5H4D$E' I $N3' I)! ' , 'P$4EF-8 '
83E40' %34' ! !'U3# , ' 8$E&H4D' 8$440' 6$E '= 3 $ 4 $ $ E , '
? HN+FH-C3' 83E40' 9$ 34' I%! ' , '8$T3 Q-40' B40$E' 5$J3C' @F$J '
E3CC' 60 34' , '83&& 3 HE' + 'M3H423' ' D3H- 'B E2F$J' @ " A')!'
,#,3 4%!' ?$J-3' B3C' I%! ' 9 $J' BH-NF34' 83E40' BH-NF34'
I%! ' 5HFE' 6H4 3CN-3' B4 N+D$ 3' 643D34 N+' 83E40' @H 3E 40')!'
,#,3 4%!' 83J 0' G$ CHE' G$4E34' 5HFE' ?$J-3' 9 $E 30' ?$ Q4 D23'
;4 3' G4$ ' 5$J3C' 5HFE' 6$4X-F$ CHE' U3# , ' 5$J3C' @F$J E3CC' 60 34'
M3H423' 6 34' 5$J3C' 83EE E2' 5HFE' 9$ C' I%! '

R, ')!' I ,3# ' /G-4F$J

9 $J' $E' ' HQ34' 83E40' $E' 5HFE' BH 3C' 5HFE' B3 '
' HQ34' BH NF34QO' *FHJ$C' @F$423' @F$4 3C' @H E2' 9 $J' @F$0 H4'
)!' ,3#(! ' 5HFE' @ $4 $- ' @F$0 H4' P$ F3 ' 8- HE' @F$0 H4'
5$J3C' , NFH CHE' @H 034' B3E($J E' G-EE' 5HFE' 6H22' ; H '@H4E3R
-C' 8$44 CHE' ' NF$4D' 8HD2CFHE' ;D $4D' P$CHE' *FHJ$C' P NF E'
CHE' P$-D3' 9 $J' P$-D3' 5' 9' G43D23' P343C' I%! '5HFE'
GH- F $ 3' , 3CF$J')!' ,3#(! ' 5$J3C' IH C' I%! ' 9 $J' ' HQCHE'
*FHJ$C' ?-4 33C' '$ E3' 5HFE' ' NFJHED' *FHJ$C' ?F$& H' ' HQ34'
G-ENHJQ3' ?F$& H' @F4 C H1F34' ?F34 HHD' 9 $J' 8- HE' ?30JH-4'
5HFE' ?J-4 F $ 3' *FHJ$C' ?H 34QO' ;D $4D' 9$ DO' ;D $4D' 9$ C'
5$J3C' 9$ CHE')!' ,3#(! ' P$ F3 ' 9 + ECHE' *FHJ$C' 9 4 2F CHE'
83E40' 9 F$J' 83E40' 5HFE' 9 ($J' 9 $J' >$ 43EN3' 9 Q$J'
M3H423' 9 F$J' *FHJ$C' 9 F$J' 9 $J' B$ 3' 9 4 2F CHE' 'H R
$ED' B-EDHE' U3# , ' 9 $J' P C' I3 34' I3ECHE' I%! ' @F$4 3C
HHD

HHDʻ M3H423ʻ B44Cʻ M3H423ʻ *FDJ$Cʻ >3$ HEʻ B 3E+ ECH11ʻ7
%$ 1Fʻ @$44ʻ , ʻG-EC J ʻ *&3HJ$Cʻ @H CHoʻ *FHJ$Cʻ 63$ F34C HEʻ
5HC31Fʻ M$4E3 ʻ5HFEʻ M4$N3ʻ ʻHQ34ʻ 8ND 30ʻ ʻHQ34ʻ P$4CF$ ʻ P$ R
F3 ʻ I -JJ34ʻ5$J3Cʻ IH HN+ʻ5HFEʻ ʻ3 N$C 3ʻ *FHJ$Cʻ ? EQ-4E3ʻ
5HFEʻ 9 $Jʻ 9 $JCHEʻ C$$Nʻ @HH+CHEʻ 9 $Jʻ6$ $

R, ʻ)!ʻ !1ʻ$R&#(ʻ ʻ)Mʻ I,3# ʻ, ʻ=H4+

ʻ NF$4Dʻ ? 34ʻ M$CNH 2E3ʻ 5$J3Cʻ I P 34ʻʻ ?$J -3ʻ ? HN+Cʻ G$E 3ʻ
P$-D3ʻ 5$J3Cʻ IH4 34ʻ 83E4Oʻ 5$N+CHE ʻ ;D $4Dʻ 5$N+CHEʻ *FHJ$Cʻ
5$N+CHEʻ 5HC31Fʻ 8H DC H4 Fʻ 9 $Jʻ NHN+ʻ5HFEʻ NHN+ʻ 9 $Jʻ
>$N3ʻ5HFEʻ QQH CHEʻ5HFEʻ BHEEOʻG3 FE4C ʻ5HFEʻ?$ 3OʻG3 F-4C ʻ
ʻ NF$4Dʻ @F$JQ34 $Eʻ 9 $Jʻ ?3D2 N+ʻ U3# , ʻ 5HFEʻ @H- F-4Cʻ
U3# , ʻ 6HC 34ʻ @Q$JQ34 $Bʻ @F4 C H1Q3Nʻ 83 F34 HHDʻU3# , ʻ *FHJ$Cʻ
B$OE3Cʻ I43C HEʻ I3 34ʻ M$4& "D ʻ P J D3Eʻ P$4N-Cʻ 9 H4C 30ʻ
5HFEʻ 9 $JCHEʻ)!ʻ ,3#(! ʻ $4HEʻ P$E 9ʻ I%! ʻ ʻHQ34ʻ; J F 4C ʻ
5HFEʻ M433E HHDʻ 64$EN Cʻ %3ED ʻ 9 $Jʻ ?F31F34Dʻ 9 $Jʻ
@ $4+3ʻ ʻHQ34ʻ @H- D 3 ʻ @ $4+3ʻ 5HC31Fʻ B3N+3 ʻ 5HFEʻ ? $E &H4 Fʻ
B3N+3 ʻ 9 $Jʻ 4J $ ʻ 4NFQ3 ʻ 5HC31Fʻ , H4 Fʻ M433Eʻ 4J Oʻ
$23ʻ M3H423ʻ 4J $23ʻ ($ J Eʻ , H4 Fʻ ʻHN+ 30ʻ B$ Oʻ @F$4 3Cʻ
B4HH+ʻ 5HC31Fʻ B4HH+ʻ 9 $Jʻ B4HH+ʻ ʻPH Dʻ M433Eʻ 5HFEʻ B4HH+3ʻ
ʻ@4HC $ED F$ &ʻ @F$4 3Cʻ 8H4C&$ ʻ B& ʻ * JH FOʻ B3E 30ʻ *FHJ$Cʻ
8$4DOʻ G$E 3ʻ >3DO$4Dʻ ;D $4Dʻ >33Cʻ ? DE30ʻ , H44 Cʻ 5343J $Fʻ
ʻ 30ʻ 5$J3Cʻ ʻHQ34 Cʻ ? $EC&3 Dʻ ʻ$ CHEʻ *FHJ$Cʻ ? $4+30ʻ 64$EN C
?F$ ʻ B-N+ 30ʻ M 3Cʻ ?F$ ʻ 5HFEʻ 9 4 2 30ʻ 5HC31Fʻ ?$J -3ʻ 9 $ +34ʻ
5HFEʻ %3E H4 FOʻ 9 $ +34ʻ P G ʻ *FHJ ʻ ;D $4Dʻ GOCHEʻ , ʻ?+ 4ʻ
HH$ ʻ 5343J $Fʻ GOCHEʻ H&ʻ?+ 43H$ ʻ * Q $Cʻ ʻ$JCD3Eʻ , ʻ?+ 4NH$ ʻ
@F$4 3Cʻ , H44 Cʻ H&ʻ 9 $4 30ʻ 9 $Jʻ5 N ʻ , H44 Cʻ , ʻ8$ &$ ʻ 9 $Jʻ
B4 22Cʻ H&ʻ8$ &$ ʻ5HFEʻ ? $ 3 30ʻ 8 $ &F

6H4ʻ)!ʻ E,)ʻ " & #(ʻ, ʻ)!ʻ I,3# ʻ, ʻ=H4+

7)!ʻ ,#,3 4%!ʻ ʻ NF$4Dʻ I31134ʻ 4D ʻ*FHJ$Cʻ 11 3QOʻ 9 $Jʻ
44$ $23ʻ 9 $Jʻ $Eʻ5HFEʻ $Eʻ B3K5$J Eʻ 2$4ʻ I%! ʻ M3H423ʻ
+ ECHEʻ 9 $Jʻ 5HFEʻ ED34CHEʻ 5HFEʻ >3$ F 30ʻ 4J $23ʻ 5HFEʻ
2$4ʻ ʻ NF$4Dʻ ED34CHEʻ @F4 C H1F34ʻ D34CHEʻ D34CHEʻ 5HE$ F$Eʻ
D34CHEʻ I%! ʻ 9 $Jʻ B3C N+ʻ *FHJ$Cʻ BHH Fʻ M3H423ʻ B$4+34ʻ
9 $Jʻ B$4+34ʻ *FHJ$Cʻ B$4C H ʻ 9 $Jʻ B$4E3Cʻ I%! ʻ5HFEʻ BHH Fʻ
*FHJ$Cʻ B$4+34ʻ 5HFEʻ B3 ʻ ʻHQ34ʻ BH 34ʻ ʻHQ34ʻ BH 34ʻU3# , ʻ
5HFEʻ BH-4E3ʻ 83E4Oʻ B $EDʻ E FHEOʻ B ʻ 5HFEʻ B3ECHEʻ 5HFEʻ
B43 C 34ʻ I%! ʻ @$ 34 30ʻ B3 N+3ʻ B3 N+3ʻ * JH FOʻ 6OCFʻ 6HH4Dʻ
BH 3Cʻ I%! ʻ 64$EN Cʻ IF 1ʻ B3D E2&3 Dʻ *FHJ$Cʻ B$ 3Cʻ ?$J -3ʻ
? $ED323ʻ BO4HEʻ 9ʻ ?ʻ B ECF4Dʻ ʻM3H423ʻ @$O 30ʻ ʻHQ34ʻ
@$J1 HEʻ ED43 ʻ @F3$1ʻ I%! ʻ 5HFEʻ @$O 30ʻ5HFEʻ @$O 30ʻ I%! ʻ
9 $4NH1ʻ @HEC3 ʻ 9 $Jʻ @H$ 3Cʻ ;D JDʻ 5HFEʻ @$4 34ʻ 9 $Jʻ
@F Dʻ 5HCF-$ʻ @4HJ1 HEʻ *FHJ$Cʻ^+D F Jʻ@)ʻ @F4 C H1F34ʻ , NFH R
CHEʻ @ $4+3ʻ ?+3 DHEʻ @4$DHN+ʻ ?$J -3ʻ @4HJ1 HEʻ ʻHQ34ʻ @F$ HE34ʻ
5HFEʻ @$J1 HEʻ M3H423ʻ @FH J 30ʻ 64$EN Cʻ @FH J3 30ʻ 5HFEʻ @ HC3ʻ
5HFEʻ @H E2ʻ 9 $Jʻ I 1ʻ I%! ʻ 83E4Oʻ @ $4+3ʻ M3H423ʻ 6H4D3ʻ
@ $4+3ʻ I%! ʻ 5HFEʻ @F$1J$Eʻ 5HFEʻ @H- HEʻ 9 $Jʻ @F$O H4ʻ 5HFEʻ
@ 34 $- ʻ@F$O H4ʻ @H4E3 -Cʻ @$O 30ʻ *FQJ$Cʻ @$ED 34ʻ *FHJ$Cʻ 5HFEʻ
@$ED 34ʻ *FHJ$Cʻ 8 - HEʻ @4H&ʻ I%! ʻ 4 F-4ʻ @$O 30ʻ &! ʻ *FHJ$Cʻ
@HJQ34ʻ I%! ʻ @F$4 3Cʻ @HEC $Q 3ʻ &! ʻ 8$44Oʻ @4H&ʻ 6HC 34ʻ >3NF
ʻ ʻ J343

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J343' @HH43' ;D $4D' ? E2& 33' @$O 30' ;D $4D' @F$1J$E' 9 $J'
@$EE E2' I%! ' 9 $J' 'HH+3C' @ HJ1HE' G$ECHE' ' NF$4DCHE'
@-4434' I%! ' @F$4 3C' 8$ ' @4H&' I%! ' 64$EN C' @FH J3 30 3J H4'
5' 8' @FH J3 30' *FHJ$C' @F$423' 9 #$J' ' NF$4D' @$4 34'
@F$O H4' 5HFE' @ $4+CHE' ;D $4D' *FHJ$C' @H1 30' 5HFE' 9 ED' @H$ 3C'
9 $J' 5HC31F' @H J$E')!' L ()' ,#,3 4%!' >$ 43EN3' <, &'
G-ED$C')!' ,#,3 4%!' *FHJ$C' G-ED$C')!' ,#,3 4%!' 5HFE'
@F$4 3C' G-ED$C')!' ,#,3 4%!' *FHJ$C' >$ &3EN3' G-ED$C' I '
)!' ,#,3 4%!' M3H423' 83E3$23' >$ 43EN3' G-ED$C')!'<%,#,3 4)'
+ ' 'HQ34' >$ 43EN3' G-ED$C')!' ,#,3 4%!' 83E40' G-ENHJQ3'
I%! ')!' ,#,3 4%!' 9 $J' 83E40' GH E ' I%! ' + ' ;D $4D'
GHDC H4 F' + ' M3H423' 9 $J' G3EOC' 83E40' G$4 30' 5$E 3C' G$ HE'
I%! ' 9 $J' G3E ' I%! ' 'HQ34' G3E ' 5HFE' G$ HE' 9 $J'
G$ CHE' 9 $J' G3$ 40' I%! ' M3H423' G$ CHE' *FH $C' G-ER
NHJQ3' ? E2CQO' G-ENHJQ3' M3H423' 9 HHDNHN+' GH +34' 5HFE'
GH +34' 5HFE' G3E ' *FHJ$C' G$ C' 64$EN C' 9 $J' G3$ 40' Y! '
5HFE' G$ HE'(P H4' 'HQ34' PHC3C' G ECD$ 3' 8-E40' B43 C 34' G$4 30'
@F$4 3C' Q34' G$4 30' &43D' 8H4$ H' G$4 30' M3H423' G HE' I%! '
*FHJ$C' ;44 E2 HE' 83E3$23' ; C 30' I%! ' @F$4 3C' 83E3$23' ; C 30'
*FHJ$C' ; J J34CHE' I3 34' ; $4' I%! ')!' L ()' ,#,3 4%!' @F$4 3C'
<, &' 63 34CF$J')!' L ()' ,#,3 4%!' <, &' R1', '6(5&N $E ' + '
9 $J' 6H- C' + ' 'HQ34' 64$E+ $ED' @F$4 3C' M432H40' 6$ 4&$ '
@F$4 3C' M432H40' 6$ 4&$ 'U3#, ' 9 $J' DD CHE' 6H-E $ E' I%! '
*FHJ$C' 8$4 $ED' 6H 3' I%! ' E FHEO' 64$E+ $ED' *FH9$C' 6H 3 '
B3E($J E' 6 H-ED34C' 5$J3C' 6$ 3 ' 5HFE' 9 J34' 6 3 D' P$4CF$ '
6H 34' *FHJ$C' 6 CFQ-4E' P$4+' 6H- C' ?4' B3 E2F$J' '32 E$ D'
M4FJ' 9 $J' M$4&H4 F' '$ 1F' M43EC D3' I%! ' M3H423' M43EC D3'
*FHJ$C' M4$F$J' 9 $J' M $ C 34' I%! ' 5HFE' M QCHE' I%! ' IH 3 '
@H NF3C 34' M- C3' I%! ' 5HFE' M 1 E' I%! ')!' ,#,3 4%!' 9 $J'
M3H423' 8H $4D')!' ,#,3 4%!' @F$4 3C' M3H423' 8H $&D' M3H423'
8- NF ECHE' E FHEO' 8- NF ECHE' 5$J3C' 83QD3E' P$ F3 ' 8$O3C'
*FHJ$C' 8$O3C' I%! ' 5HE$ F$E' 8H J3C' I%! ' 'HQ34' 8HD2CHE'
5HFE' 8- HE' 5HFE' 8$44 CHE' ' NF$4D' 8$44 CHE' 5$J3C' 8$J J34 HE'
E FHEO' 8$JHED' M3H423' 8$4 30' 'HQ34' 8-22 ECHE' * JH FO'
8- HE' *FHJ$C' 8-C 34' 83E40' G$4N30' 8- HE' 5HFE' 83$D $J'
I%! ' 83E40' 8$ 3' 6H 34' 8 N+C' 5HFE' 8 EN+C' 5$J3C' 83 2 ''
I%! ' 83E40' 83 2 ' P$4J$D-+3' 8HD2CHE' 5HFE' 8H ' 83E40'
8 DO$4D' I%! ' 'HQ34' 8 DO$4D' ' NF$4D' 8 ' >3 3CHE' 3E$Q 3C'
34EHE' 8$4NH-4' I%! ' 9 $J' 8H F$J' 9 $J' @F$4 3C' 8$4 $ED'
9 $J' 3E$Q 3C' 34EHE' 8$4NH-4' I%! ' @F$4 3C' I%!
5HC31F' 8$ 2F' P$ F3 ' 8$E 30C' + ' 9 $J' JNH C' E2 QO'
+ ' 5HFE' $ED3E' B3J1D3' 5HFEC HE3' 9 $J' 9 $4D' 5$N+CHE' @F$4 3C'
5HFEC HE3' I%! ' M3H423' 5$N+CHE' 5$J3C' I 2H ' EN3' 5HFE' 53&&34CHE'
M3H423' %$O' *FHJ$C' %3ED$ ' 5HFE' %3ED$ ' $ 3E E3' % NF E2'
J$E' 83E40' % NF E2J$E' I%! ' 'HQ34' 83E40' % NF E2J$E' I%! 4'
)!' ,#,3 4%!' P$4J$D-+3' >$E2 30' + ' 5HFE' >H F34' + ' 83E40'
>$ CHE' + ' *FHJ$C' G 2QO' >32$4D' ED43 ' >$ CHE' 5HFE' >33'
5HFE' >HD23' '$ 1F' >HD23' 9 $J' >$NO' 'HQ34' >$N3 C' @I%! '
*FHJ$C' > C 34' 83E40' 5HFE' >H F34' *FHJ$C' >$ ' 'HQ34' B3''
> 3C30' 5HFE' > 3&3' 9 $J' > 1CNHJQ3' I%! ' 9 $J' >HN+ HHD '
B3E($J E' >-J 30' I%! ' G$ D' >$JQ34' *FHJ$C' >-ED' I%!)'
83E40' @HN+34 ' >3$ F$J' M3H423' > HOD')!' L () ' ,#,3 4%!'
M3H423' C1',3#' PH413 F')!' ,#,3 4%!' *FHJ$C' PH-CJ' I%! '
'M' ')!

)!' ,#,3 4%!' 3 $ED34' P$NDHE$D' + ' 5HFE' P Q$E+' 5HFE'
B$NHE' ?$ 430' PH44 ' *FHJ$C' P3N$&3' 5HFE' P3N$&3' *FHJ$C'
P NF3CHE' 9 $J' P3N$&3' *FHJ$C' 9 CHE' PH430' I%! '
*FHJ$C' P30E3 ' IF 1' P$N&4E' E FHEO' >$ ' P$0E$4D' ' NF$4D'
PHH4CHJ' ' NF$4D' ,,01, 'U3#, ' 'HQ34' PHH4CH4$'(P H4' @F$43C'
P NF3 ' 'HQ34' P$4+F$J' I%! ' 5HFE' P3N$&3' I%! ' 5HFE' @F$43C'
P$0E$4D' P$4+' P Q$E+' M3H423' P$4 HHD' I%! ' 5HFE' 5HC31F'
*FHJ$C' PHECHE' I%! ' 5$NHQ' P$4CF$ ' ?$J-3' , NFH ' ' NF$ D'
,3CC&3D' *FHJ$C' ,3 HE' I%! ' P$4+' ,HQ3' 9 $J' ,3 CF$4$'
I%! ' 9 $J' ,3 CF$J' ,H4N &3' ,H4N &&3' 8-J1F430' B4HH+'
<CQ$D3CHE' M3H423' <CQ$D3CHE' 5HFE' < 34HE' I%! ' *FHJ$C'
< F34' @F4CH1F34' < F34' @F$43C' < 30' 9 $J' < 34HE' I%! '
)!' ,#,3 4%!' *FHJ$C' IH 3 ' <4D3' IH 3 ')!' ,#,3 4%!' , #'
I3 3 ' @&34&' ' NF$4D' 9 $J' @F4CH1F34' I34C3' 83E40' I34NO'
I- 3E3' M3H423' I$ J3C' 5HFE' I$4+' 9 $J' I-4NF$C' E FHEO'
I E+E30' 5HFE' I C' P$4+' 5$J3C' I$ CHE' I%! ' 9 $J' I43C 30'
9 $J' I-4NF$C' *FHJ$C' I43CHE' I%! ' 8$E3' P &H4D' I3$NHN+'
I%! ' 9 $J' >3HE$4D' I N+$4D' I%! ' 'HQ34' I3NF' 9 $J'
*FHJ$C' ?7 \-E E')!' L ()' ,#,3 4%!' <, &' 'H+3QO' + ' 5HFE'
'$JCD3E' *FHJ$C' @- 34' '-DCHE' '3$D' I%! ' 9 $J' 'HQ ECHE'
'$1F' 'HQ ECHE' G$ D' 'HQ ECHE' 9 $J' '3 330' 5$J3C' 'HQCHE'
I%! ' @$3Q' '3$DCF$ ' I%! ' 'HQ34' 'HQ ECHE' 83E40' '3 330'
*FHJ$C' 'HQCHE' 64$ENC' '3D&3$4E' 5HFE' >3$ 34' ' NF$4DCHE' I%! '
9 $J' >HD23' 'HN &&3' @F4CH1F34' ' NF$4DCHE' ' NF$4D' '-DO34D'
8HJ34' '$0E$4D' 5HFE' 9$0E3' 'HN &&3' M4$0' ' 223' 9 $J' 83E40'
'-DCHE' '3$D' 5HFE' @F$43C' '$JCD3E' 5HFE' ' 11HE' I%! ' ;DJ-ED'
'HQ ECHE' 9 $J' '-CHE' + ' 9 $J' ?4ND$ED' + ' *FHJ$C'
*-4E34' ? E2CQO' 'HQ34' ?F31F34D' @F4CH1F34' ?O+3C' I%! ' *FHJ$C'
?$13HE' ' NF$4D' ?J F' *FHJ$C' ?J FCHE' 9 $J' ?J1CHE' 9 R
$J' ?EN$4' ' NF$4D' ?F31F34D' *FHJ$C' $E' ?4$EQ3ET33' @F$43C'
?J F' 9 #$J' ?+EE34' @F$43C' ? E2CQO' ;D $4D' ? $ECHE' ?4$E2'
$O3C' 9 $J' 'HH+3C' >33D3C' ?3(3$ECHE' ? JHE' *FHJ$C' ?N4HH13'
*FHJ$C' ? J1CHE' ' NF$4D' *344N+' ? $E&H4F' ' NF$4D' ? $E&H4F'
P$4 E' ?$10 HE' ' NF$4D' I-4NF$C' ?4$E2 $O3C' 'HQ34' ? $ 3C'
M3H423' ?4N+$ED' 3 $ED34' 5HFE' ?NH 'G G ' 5HFE' ? 43' I%! '
*FHJ$C' % NF E2J$E' ? $ 330' 64$ENC' ? J1CHE' I%! ' M3H423'
?$E&H4F' 5HFE' ?J F' 5HFE' ?HN+D$3' 5HFE' 9F E30' ?J F')!'
L ()' ,#,3 4%!' 8 %' , ' *O4NHEE3' 5HFE' * ED$ ' I$-' B3 QO'
*FHJ1CHE' 83E40' *FHJ1CHE' ' NF$4D' 5HFE' *FHJ1CHE' M3H423'
>H F34' *FHJ1CHE' >3HE$4D' *FHJ1CHE' 9 $J' *FHJ1CHE' ;D $4D'
*FHJ1CHE' 83E40' ?$&&H4D' *FHJ1CHE' 83E40' *H 34' 5HC31F' *$OH4'
I%! ' 5HFE' *4H 34' ;D $4D' *$OH4' 3 $ED34' *HDD' M3H423'
*H EC3ED' I%! ' >-1HE' *H1F$J' @F$43C' -2-C -C' *F-4H ' I%! '
9 F$J' *3 30' ;D $4D' #E E' 83E40' $EC $4' + ' M3H423'
9HJQ 3 ' 9- $J' 9F$30' I%! ' 9 $J' 93F34 ' 5HFE' 9 CHE'
*FHJ$C' 9 +ECHE' 5HFE' 9F$ O' 5HFE' 942F ' 9 $J' 9 Q34&H4N3'
' NF$4D' 9F$30' ' NF$4D' 9HHD' 5HFE' 'HQ34' 8 ' 93QQ' I%! '
*FHJ$C' 9 $J' 9$DO' @- FQ34' 9$CHE' *FHJ$C' ? -QQC' 9$+34'
*FHJ$C' 9FO 3F3$D' *FHJ$C' 9 +ECHE' 5HFE' 9$+34' 5HFE' 9F$4HE'
5$J3C' 9F$4HE' 9 $J' 9F$4HE' I%! ' 9 $J' 94$O' 5HFE' 9 R
$JCHE' 5$J3C' *$OH4' 94$O' 5HE$F' 9$CC3' 5HEFE' 9$+34' 9 $J'
93Q$E+' 5HFE' 9HHD$ ' *FHJ$C' IOJ' 9 $JCHE' I%! ' 5HFE' ?$E'
D34C' 9$ HE' 9 $J' B$ 3' 942FCHE' 9 #$J' GH E3C' 9 C' I%!

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M3H423' 9HJQ' 3 ' P$4J$D-+3' 9 0 ' PHE $2- '5H 9' 9 0E0$4D'
I ' 83E40' 9 H-2FQ0' 83E40' 9 F$J ' 83E40' 9 &3$E$
5$J3C' 9$+34' 9 $J' 9H4C 30' 9 $J' 5$J3C' G$4 30' 9$DD H 3'
I%! ' ;D $4D' 9 0 ' I%! ' 9 $J' 9 0 ' I%! ' 5HC -$' n 9 EN C'
9 F 3 ' 83E40' 9$+34' =3HJ$E' 5HFE' =H4+' >-+3' =$4+34' I%! '
)!' " % 1' I, ,#! 1' L!', &! ' #&') 1' 2!53 ' Z ')!' 7 !' 4! #('
, ')!' ", ,3()', '?N$4QH4H-2F' #&')!' , ' /%&! !#' I, ,#! 1'
L!', &! ' #&') 1' 2!53 ' , ')!' 7 !' 4! #(' , ')!' ", ,3()' ` '
' NFJHED' M3H423' B$E+C' , '>33DC' *FHJ$C' B3N+3 ' , '>33DC'
@F$4 3C' 5HFE' B4$ED E2' , ' P DD 3 HE' >HD23' 83E40' 8$ ' , '>33DC'
5HFE' I -JQ3' *3J13C' , '>HE2' 8$ ' 5HFE' 9 C3E' ' '?3$N4H&' 8$B'
)!' L!0! !#&' M3H423' P$N+343 F' , ' , -EE E2 HE' ' NF$4D' ?-44' @ '
B- 34 N+' ' NF$4D' ED34CHE' I%! ' 5HFE' @F$1J$E' 5HFE' @ $4+CHE'
9 $J' ' NF$4D' @$4 34' @F$0 H4' P$ F3 ' 8- HE' @F$0 H4' ' HC 34'
>' @HH43' '$ 1F' >HD23' @F4 C H1F34' < F34')!' ,#,3 4%!'
*' <' 'H 3 ' '$ 1F' 'HQ ECHE' 83E40' ?&N4$-Q3ET33 > 1 HE'
*H1F$J' P$4J$D-+3' 9 0 ' ;D $4D' 9 0 ' I%! ' 9 $J' 9 4$0'
5$J3C' *$0 H4' 9 4$0' + ' 'HQ34' 64$E+ $ED' " ,#! ' ! '*F 4+ 3Q0'
)!' L!0! !#&' @F$4 3C' 5HFECHE' , '?- HE' 5HC31F' G43CC34')!' !%&! 1'
, ' IH1N &&3' 5HFE' 9 3 Q$E+' @ ' @$4 HE' *FHJ$C' ? -QQC' 9$+3 '
U3# , ' , 'P$ EQ0' @F$4 3C' *$EN$4D' , ' 4D3E')!' L!0! !#&' 5$J3C'
ED34CHE' , '>HEDHED3440')!' L!0! !#&' 9 [$J' * 22' ' I N+F #'
)!' L!0! !#&' 8' I' 8$J HE' , ' 9$F' E FHE0' >$ ' P$0 '
E$4D' X P$4 HE' 3' PHH4' I3N+3 ' @$4 HE' 8 -C F $ 3' 5HFE'
B3 ' *F 4C ')!' L ()' ,#,3 4%!' <, &' C 1',3#' PHA53 F' M3H 23'
? 4 N+ $ED' 83E40' 9 H-2FQ0' P$4+' 6H- C' 9 $J' M$4&H4 F'
5HC31F' 8$ 2F' 83E40' @HN+34 ' >3$ F$J ' M3H423' , 3 Q# 0' 9 $J'
3E' 5HFE' 9$+34' 5 H4' ;D $4D' *$0 H4' 9 $J' @$EE E2' I%! '
9 $J' 9H4C 30' 'HQ34' L,F!' U3# , ' ' NF$4D' *344 N+' ? $ E&H4 F'
5HFE' ' NF$4DCHE' I%! ' 5HFE' 9 4 2F ' &43D' ? J1CHE' 'HQ34' @HQQ'
)!' L ()' ,#,3 4%!' >-N -C' @$430' <, &' C 1',3#' 6$ + $ED' '
?+- 34C+3 1' *FHJ$C' P 30E3 ')!' ,3#(! ' , ')!' C"11 , (!#!' ' =$4 E'
5HFE' B43 C 34')!' ,3#(! ' H= ; 22 3CN &&3' @&34>' P$4CF$ ' 6H 34' , '
I43C HE' @$ 34 30' B3 N+' B3 N+' H&@H QO' *FHJ$C' 9 $J' 9 $ DO'
H =$4J ' 8' 9' =3HJ$E' H ' ' NFJHED' *FHJ$C' ? $1 3 HE' '
' NFJHED' 9 $J' 9 4 2F' H=' ' NFJHED' M3H423' @4H&' U3# , ' , '
' NFJHED' *FHJ$C' 5 ECHE' , ' ' NFJHED')!' L!0! !#&' @'
'3DCF ' , ' ' NFJHED')!' L!0! !#&' 9' B$4E3C' @ ' ' NFJHED'
)!' L!0! !#&' '' 5HFECHE' , ' ' NFJHED' @' @ $4+CHE' '
' NFJHED' @' @4H&' , ' ' NFJHED' 9 $J' I4$ ' @ ' ' NFJHED'
5$NHQ' P$4CF$ ' + ' 5HFE' $ED3E' B3J1D3' 5HFEC HE' " ,#! ' + '
M3H423' @$0 30' " ,#! ' *FHJ$C' @$ED 34' 5HFE' * ED$ ' ;D $4D'
? FE2& 33' @$0 30' *FHJ$C' 8- HE' @4H&' I%! ' 5HFE' 9 HHD$ '
5HFE' 9 HHD$ ' 5 H4' ;D $4D' 8H1134' 83QD3E' 9 $J' B3C N+'
*FHJ$C' 5HC31F' @$ED 34' ' NF$4D' 9 CHE')!' " % 1' I, ,#! 1 '
L!', &! ' #&') 1' 2!53 ' , ')!' 7 !' 4! #(' ')!' ?", ,3()' , '
?N$4QH4H-2F' 83E40' 8 3 2 ' ' NF$4D' 9 $J' I3 4C3' 5$J3C' 'HQCHE'
I%! ' ;D $4D' ?X- 43' 83E40' *H 34' PHE $2-3' 5HFE' 9 0E0$4D'
I%!

R, ')!' 8 1' L & #(' , ')!' I,3# ' H(&' =H4+

7)!' ,#,3 4%!' @F$4 3C' >$E2D$ 3' >*HEH 4$&3 3' IF 1 ?+QJ HE'
)!' ,#,3 4%!' ? H-4 HE' *FHJ$C' FH413' 5$J3C' '4H E3

2 ' 64$EN C B3C ' I ' ' 9 $ J' 6' B3 F3 ' 9 $ J' 9 $ CHE' BH HE' @F4 C H1F34' BH ' 5HFE' 9 $ J ' BH 34' I%! ' ' ; D $4D' BH2F-4C ' <3H423' @H$ CHE' B40$E' @HH+' I%! ' ' G$E 3 6342-CHE' I %' ' 83E40' 9 $ J' 8 - HE' *FH J $C' 8 - HE' B3E($ J E' 8$ H4 F' 83E40' 9 $ J' 8 -E 34' I%! ' ' 9 $ J' %3$40' I%! ' ' 5HFE' 9 $ J' %EH 3C' >HN+ HHD' I) %' ' @F4 C H1F34' ?NH ' P $NF3 ' ' HQ34 ' P $NF3 ' 9 $ J' @HEC $Q 3' P $ 3 ' P $4 J $D-+3 @HEC $Q 3' P $ 3 ' 5HC3(' P $ 3 ' I3 34' P $ 3 ' 83E40' P $ 3 ' ' HQ34 ' ' $ +3C' U3# ! ' *FH J $C' ' $ +3C' 83E40' ' $ J CD3E' I%! ' ' ; Q3E3T34' ' HQ34 CHE' I%! ' ; D $4D' 9 $ J' ? J F' 5HC31F' ?O+3C' G$E 3 ' ?O+3C' ; NF$4D' 6 33 HHD' ?F$ ' M3H423' ?$ J 1CHE' I%! ' ' CHE' * 3E O ' *3440' # J 40' P 34 E' $ $CH-4' ' HQ34 ' 9 O 3' 5$ J 3C' % 34H' 9 $ CHE' @F$4 3C' 9 F $+34' 83E40' =$ 3C' 9 FO 3F3$D' 2 ') !' L !0! !#&' 9 B $ J' 9 $CC3' , ' 8 3DHE' E FHEO' 9 + ECHE' V ' 9 O HE' M3H423' D34' , ' ?- HE' ; D $4D' M QCHE' , ' G401HH ' ' HQ34 ' 8$44 CHE' X B3EE E H J 3 ' 5HC31F' ? J O F' 9 OEDF$ J' H 9 $NHE3

R , ') !' I ' #&' I ,3# ' , ') !' I ' H =H4+

7) !' L !0! !#&' 9 $ J' @HN+F ' ?A ' 2 ! #' , ' =H4+') !' ,#,3 4%!' *FH J $C' G-ED$C' ?$ J -3' D$ J' B$0E 34E' M3H423' ? $EE' 5HC31F' B HE' 9 CHE' 83E40' B $ED' 5HFE' ? $EE' M4$E 3' 34EHE' 8$4NH-4' I) #' !%%, ' , ' =H4+' 9 $ J' *$0 H4' I%! ' ') !' L !0! !#&' 83E40' 2 J ,#' / ')&! , , %' V ' H , ' 9 $ J' 8$ 3' M3H423' > HOD' I$-' B- QO' *FH J 1CH-' >NFH' ' HQ34 ' P C' *FH J $C' 9 HHD' 9 CHE' 5$ J 3C' 9 $ +34' B$ D E' 9 $+3' 2 ' 83E40' ? 31F3E' B3 NH J Q3' 2 ' 9 $ J' B ECF4D' $4 30' B3$ QO' 83E40' I 43C HE' 5HCF-$' @4H J 1 HE

R , ') !' 7 ,F#' #&' I ,3# ' ` ' % E2C HE -1HE 8 -

7) !' , ' L !' , &!&' / %&! !#' +) ! ' #&' I) 4! % #1' , ') !' 7 ,F#' , ' " , ,3()' , ' % E2C HE -1HE 8 - ' , ') !' 7 !' 4! #(') !' &!#1' , ') !' 7 # ' , !' ') ' 1 !' 7Z #' , ') !' 7 !' 4! #(' M3H423' D34' *FH J $C' B$4+ H4 F' M3H423' B$4+ H4 F' 9 $ J' !# ' B$4+ H4 F') !' L !0! !#&' %F 2C J $E' B$C+3 ' 5HFE' B3$D 3' ' HQ34 ' B3 ' 9 $ J' BH HE' 83E40' BH HE' 9 $ J' BH-4E3' 5$ J 3C' BH D3E' M3H423' 6H 34' BHO3C' @F4 C H1F34' B4 22C' 5HFE' B $N+CF$ ' B4 22C' 9 $ J' B4 22C' ' HQ34 ' B4 22C' 5HFE' B4H$D 30' 83E40' B4H$D 30') !' L !0! !#&' 5HFE' 83$530' B4H J QO' 9 $ J' B$ D E' @$44 N+' *F3H1F -C' M$44 N+' ?$ J -3' @HDD' ?$ J -3' @HH134' 9 $ J' ?10 33' @HH134' ; D $4D' 6HC 34' @H- CHE') !' L !0! !#&' *FH J $C' G +3C' 9 $ J' 8$0' G +3C' 5HC3(D' ? J O &3' ; 22 E HE' ?$ J -3' 8$ ' ; 22 E HE' 5HFE' ; 22 E HE' 5HFE' 6344$QO' * J H FO' 5HFE' 6HH4D' 5HC31F' MHD J HED' *FH J ?C' 8$ ' 5HFE' 8$ ' ?$ J -3' *$ QH ' 8$CC3 ' ? J HE' 8H4E34' 5HFE' 8H4C 30' *FH J $C' 5$N+CHE' E FHEO' 5HE3C' 9 $ J' %$O' ' NF$4D' %34') !' L! ,!#!#&' 5HFE' % E2' 5HFE' B33 H4' >$ J Q34 ' 9 $ J' >3 3 ' 9 $ E>3?& 5&3(3 2 4' M3H423' > DD3 ' 9 $ J' > DD3 ' ?$ J -3' > 2F &<H4' ' HQ34 ' > -EDO' @F$4 3C' > - ' D23' 83E40' 9 $ J' P $ C 34' 4 F-4' P $ C 34' M3H423' / P H HE' 5HFE' P H HE' 5HFE' , 3 J $4NF' , NFH $C' <CQH-4E3' 5HFE' @H F$ J' I$4+34' ' HQ34 ' @H13 $ED' I3$C3' 5HC31F' ' HQ ECHE' I3$C3' @ &&H4D' I3$C3' M3H423' I3$C3' 83E40' I3$C3' 5 J' % 4QO' I N "') !' L !0! !#&' P 3C ' IH11 3

ULKS`M#> ;>P ' ' @$1 U UU!

IH11 3' *FHJ$C' P$4J$D-+3' I N+3 ' 'HQ34 ' '$+3C' ED43 '6 TR
234$D' '3OEH DC' M3H423' '-DC HE' 83E4O' ?NFHEC $4' 5HFE' ?J F'
<C $D' ?J F' 5HFE' 83E4O' ?J F' 83E4O' ?O+3C' ' NF$4 '?O+3C'
5HC31F' ?O+3C' G$E 3' ?O+3C' 643D34 N+' ?O+3C' 5HFE' *344O' @$EC'
*FHJ1CHE'5HFE''*FH4E HE' 5HFE' *HDD'H ? EED' ?,)#' *HDD' , '
*4$EQO' 9 $J' MHHD$D' *HDD' C$$N' *-4E34' P$ F3 '*FHJ$C'
*4 22' 9 $J' H$C3' 5$J3C' %34H' 9$CHE' 5HFE' 9F $+34'
E FHEO' 9 +ECHE')!' L!O! !#&' 9 $J' 5HFE' 9 +ECHE' 5HFE'
9 CHE

R, ')!' 7,F#' , ' P$D3E

B3E($J E' B$+34' 5HFE' P$O' 5HFE' I$OE3' 5HFE' @H3' I$OE3' M3H423'
P$O' 5HC31F' I$ CCHE

R, ')!' L!1' , ')!' I,3# ' ;CC3

@F$4 3C' BHC$EX-3 '@F$4 3C' 8' B' '$T3 3O' I%!)' ?$J-3'
B3E HE' 64$EN C' B$EE C 34' 9D $J' @$EEHJ' B$44 E2 HE' @F$4 3C'
J34 N' B3 ' I%!)' 5HFE' B43 ' 5HFE' B43 'U3# , ' 5HC31F'
;DO 3E3' @H EJ EC' I%!)' 9 $J' @HN+34 HE' 5HFE' ;E2 CF' 5HFE'
M4QFJ' + ' 5HFE' 83$D' " ,#! ' + ' 9 $J' 83O2$ 3' " 5#! '
5HFE' %3QQ3 '5HFE' %E$11 E2' 5$J3C' %E 2F' I%! ' 9 $J' 83E4O'
% E2' 83E4O' >$JQ 4 F' *FHJ$C' >$ 34' 9 $J' P3 ' M3H423'
I3ED4 #' P$CHE' *FHJ$C' 8E4C' P$4CF' ;D $4D' P33' 643D34 N+'
,H $E' 2 2 ' @F4 C H1F34' I$4CHEC' 9 $J' 8-2F' '$E+ E' M3H423'
? $OE3' 2 2 ' *FHJ$C' ?NH ' ?N4$ HE' I%! ' 5$J3C' *$QH4' ?$J-3'
*$QH4' 234EHE' 8H ' 9F 3' @F$4 3C' 9$ E2 HF' I ' 5$J3C'
9 4 2F' 9HHD' 5HFE' @$N- $' 9F 3' I%!)' ;D $4D' ,39 HE' 9$ 34'
I%!)' IF 1' 9OEE3' =H4+' I%! ' ;DJ-ED' 6CF34' @F$4 3C' @$D '
;4 D23' 5HC31F' ? $E& 3D' 9 $J' ?F331CF$E+C' 5HFE' B$4E3C' *FHJ$C'
%3C 34J$E')!' L!O! !#&' 83E4O' ' NF$4D' ?HJ34C' ?J F')!' L!O! !#&'
M3H423' B-4J3C 34' + ' 5HFE' *O43 ' " ,#! ' *FHJ$C' 9'
B4$JC HE' 8' B4HH+' B4 D23C' *FHJ$C' B4HH+CQO'5$J3C' BH22 C'
5HFE' @4$QQ' ' NF$4D' @4$QQ' 5HFE' G CE3O' EN3E ' ;D $4DC' 5'
6' M H 34' 6H4 3CN-3' 'HQ34 '@ $43' 8$C3 &QH ' 5HFE' >3 C' 5HFE'
P >$ENF $E' 5HFE' '' ?13EN34' IF 1C' *FHJ$C' I3E4HC3' 9 $J'
@$413E 34' '$O' 5HFE' 5H &&3' E&E3 ' 5HFE' *OCC3E' *O43 ' 9 $J'
9$4E34' 5HFE' B4$JC HE' *FHJ$C' 64$EN C' B$ D CDHE3' B3E($J E'
BHED' 5HFE' B$DD 3O' P$4+' >3O' BO24$ 3' 'HQ34' B$4 3 ' ? $E3C'
B4HN+3' @F$JQ34 $OE3' M3H423' @F3 3 3O' ;D2$4' G CE3O' *FHJ$C'
; 4 D23' 5' 6$ F&-' 6H4 3CX-3' E FHEO' MHHD3 3' 9' 83E4O'
8$C3 &HH ' *FHJ$C' @F$4 3C' 8H NHJQ3' B$ E3C' B4HH+' 8$C HN+'
*FHJ$C' ?' 8HD23C' *FHJ$C' 8$4' %3JQ 3' 83E4O' >$QH-NF343'
@$43 ' E FHEO' ?7 5HFE' P DJ$O' ?$J-3' P $4' 5HFE' PH $23'
@F$4 3C' M' I$4+34' 5$J3C' 9 $J' IH4 34' 4 F-4' I3$4CHE' 5HFE'
< 3O' I$4+34' 'HQ34' 'HQ34 CHE' 5HFE' 'H-ED' @F$4 3C' 9& $J'
? DE3O' ;D $4D' M43C 3O' ? HE3' @F$4 3C' *OCCHE' 53EE34' * 443 '
I3D 3O' , '? 4$ &H4D' P 3' ;ED' 5HCF-$' I3D 3O' 5HFE' ?J F'
, 'M43$' G-EJH ' I%!)' ' NF$4D' I3 34' 9F CF' , 'B4H 3D' I%! '
5HFE' 9F 3' H&'B4H 3D' ? 31F3E' 234' H&'> EDC3

ʻ ʻ 6H4ʻ M H-N3C 34

ʻ *FHJ$Cʻ G$ CHEʻ 3Eʻ \! ʻ 5HFEʻ I 3EEʻ 3Eʻ ;D $4Dʻ 9 3Cʻ I%! ʻ M3H423ʻ '$0JHEDʻ B$4+34ʻ 5HFEʻ I 4 N3ʻ 5HE3Cʻ I%! ʻ 9 $Jʻ @4 11Cʻ 643D34 Nʻ @4 11Cʻ ' OJHEDʻ M4 11Cʻ)!ʻ ,#,3 4%!ʻ I 34NOʻ PH43 HEʻ ʻ 9 HHDNF3C 34ʻ 5$J3Cʻ B$ 3J$Eʻ 9 $ F3Eʻ, ʻ 9 HHDNF3C 34ʻ 83E40ʻ 9 HHDʻ H ʻ 8H4C 30ʻ ?$J-3ʻ > HODʻ @ H4 ʻ H č8H4C 30ʻ M3H423ʻ ? 4$NF30ʻ ` ʻ ' QH4H-2Eʻ 'HQ34ʻ ?EH ʻ I $-ʻ, ʻ 'HDQH4H-2Fʻ 5HFEʻ 64$J1 HEʻ I%! ʻ 7!)! ʻ @F$4 3Cʻ, H4&34Dʻ I% ʻ, ʻ 9 3C HEʻ B 4 ʻ, $ F$E 3ʻ @ $4+CHEʻ @ ʻ P ENF EQ 4$ 1 H8 ʻ)!ʻ ,#,3 4%!ʻ M3H423ʻ @F$4 3Cʻ M4$E& 30ʻ ' TF$4D E23ʻ B34+3 30ʻ 5HFEʻ B-4 $EDʻ 8$44 Cʻ B$1 Cʻ 9 $Jʻ 8 3+3Cʻ MH 30ʻ MHHDJ$Eʻ I%! ʻ 5HFEʻ 9 $JCʻ P$4 Eʻ ' NF$4Dʻ 64$EN Cʻ <-CH ʻ I%! ʻ <CJ$Eʻ ' N$4DHʻ 5$J3Cʻ @HJJ3 E3ʻ I%! ʻ *FHJ$Cʻ 9$ Cʻ ;D $4Dʻ 8H 3 ʻ ' NF$4Dʻ 9 3QQʻ ' NF$4Dʻ 6H 30ʻ <EC H ʻ 5HFEʻ @F4 C H1F34ʻ @$13ʻ C J$Eʻ 8$4 $EDʻ 5HFEʻ 6433J$Eʻ 5HFEʻ G4-JJ<FDʻ)!ʻ ,3#(! ʻ 5HFEʻ @$Jʻ *F$N+ 3 ʻ *FHJ$Cʻ ' NF$4DCʻ *FHJ$Cʻ @HJJ3 E3ʻ I%! ʻ 9 $Jʻ B-CF3 ʻ I%! ʻ 9 $Jʻ @F$4 3Cʻ 8H D34ʻ I%! ʻ @F$4 3Cʻ 8 ʻ I%! ʻ 5HFEʻ ? JHECʻ I%! ʻ ' NF$ Dʻ B4HH+3ʻ I%! ʻ 5HFEʻ ? H+3 ʻ 3 $ED34ʻ ?0JHEDCʻ 9 $Jʻ *F-4C HEʻ 834NE 3Cʻ 8$ 3Cʻ 5QJ3HN+Cʻ ?$J-3ʻ C HEʻ *FHJ$Cʻ ?3 3J3ʻ 5$J3Cʻ @-JJ ECʻ *F 9 $Cʻ 8$E+ ECʻ ' NF$ Dʻ >H 3 ʻ 5$J3Cʻ 8 ʻ 5HFEʻ PH4C3ʻ 5HFEʻ @$D 3ʻ *FHJ$Cʻ 8$4 $EDʻ 5HFEʻ P$ F3 Cʻ M3H423ʻ PHH43ʻ 8H C 34ʻ ;D $4Dʻ 'H $EDʻ BH 34ʻ 5HFEʻ 8 ʻ *FHJ$Cʻ @$D 3ʻ G$ Dʻ PH Q4$0ʻ 9$+34ʻ ;D $4Dʻ BH 34ʻ 9 $Jʻ PH42$Eʻ P$0 34ʻ JHCʻ ? 33Dʻ 5HC31Fʻ @HH+CHEʻ 9 $Jʻ 64 11ʻ 83E40ʻ B-CFʻ @$EEʻ 9$ + ECʻ @F$4 3Cʻ I$0E3ʻ 9 $Jʻ % 243 ʻ 9$ ʻ I3 34ʻ >3 34ʻ C$23ʻ 9 $Jʻ >3 Cʻ 5HFEʻ 9$ #E2ʻ 9 $Jʻ 83 J3ʻ P$CF 34ʻ 83 J3ʻ 5HC31Fʻ 9$ Cʻ ' NF$4Dʻ ?$EDOCʻ 9 $Jʻ 9 3$ 3ʻ G$4+3ʻ 2 ʻ @F$4 3Cʻ I$23ʻ ? 33 E2ʻ *FHJ$Cʻ ,3 ʻ & G ʻ 83E40ʻ ,H4 HHDʻ *403ʻ @F$4 3C B4$EDHEʻ *043ʻ @&34&ʻ5* Eʻ ;D JDCʻ Y!

R, ʻ)!ʻ L!1ʻ, ʻ)!ʻ I,3# ʻ, ʻ 8343&H4D

83E40ʻ B$44 3ʻ GHJ 3ʻ I ʻ X I ENHJQʻ 83E 0ʻ B$44 3ʻ GHJ 3ʻ]&I ENHJQʻ 5HFEʻ 6433J$Eʻ)!ʻ ,3#(! ʻ M$ E3Cʻ @F$4 3Cʻ G- HEʻ, ʻ B4 D3EQ-40ʻ 64$EN Cʻ 8$J1ʻ B$4 HEʻ 5HFEʻ IF 11Cʻ ;$ HEʻ B CFH1ʻ ' NF$4Dʻ I 4HCC34ʻ, ʻ B3 JHEDʻ + ʻ ;D Eʻ I $EN Cʻ ?N-D$JH43 ? $EFH13ʻ " ,#! ʻ, ʻ 8HJ3ʻ 64$EN Cʻ >3 Cʻ I%! ʻ, ʻ 8HJ3 >$N30ʻ 'HQ34ʻ 6 CF34ʻ H&ʻ 6 3 ʻ P$D 30ʻ G$E 3ʻ 83E40ʻ >33 9$4E34ʻ I%! ʻ, ʻ * QQ34 HEʻ @H-4 ʻ G$ Dʻ ' HDE30ʻ P-44$0ʻ I%! ʻ, ʻ B4$J1 HEʻ B43$C3ʻ 64$EN Cʻ @H+3ʻ, ʻ >H 34ʻ PHH4ʻ I%! ʻ M3H423ʻ @H+3ʻ 6! ʻ, ʻ >H 34ʻ PHH4ʻ 5HFEʻ 5$J3Cʻ M$4Q3 ʻ 9$ CF$Jʻ, ʻ %E 3ʻ 5HFEʻ @F33C3ʻ V ʻ >OHECF$ ʻ *FHJ$Cʻ 8$C E2Cʻ, ʻ * 30ʻ 5HFEʻ B CC ʻ I%! ʻ, ʻ * 30ʻ + ʻ ?$J-3ʻ ' -CFʻ P304 N+ʻ # () ʻ, ʻ MHHD4 NFʻ @H-4 ʻ > 3 3 Eʻ P304(N+ʻ MHHD4 NFʻ @H-4 ʻ 8-E234&H4Dʻ 8HC+OECʻ H&ʻ 8$43ʻ HHDʻ 83E40ʻ 9 $JCʻ ' HCCʻ V ʻ ' HN+ $EDCʻ @F$4 3Cʻ P$44 H ʻ V ʻ M$E343 ʻ 5$C134ʻ 6$4J$4ʻ V ʻ *43$2H ʻ 83E40ʻ @F$4 3Cʻ PH42$Eʻ I%! ʻ, ʻ MHHD4 NFʻ 8 N+&H4Dʻ B-44ʻ #1 HEʻ B KFN ʻ *8 HJ$Cʻ > HODʻ H&ʻ PH-E ʻ N4$ 2ʻ, $ F$E 3ʻ PH42$Eʻ, ʻ ' HCCʻ M3H423ʻ I$ J34ʻ, ʻ 9 3C HE -ED34ʻ I3E0$4Dʻ *FHJ$Cʻ; $ECʻ V ʻ ' H?Cʻ 8 2*N&&Dʻ B-44ʻ V ʻ =$ HEʻ 9 $Jʻ B4 D2J$Eʻ H&ʻ 9 3C HE -ED34 I3-0$4Dʻ 5HFEʻ 53EE E2Cʻ V ʻ GH4J E2 HEʻ *FHJ$Cʻ ?3423$-Eʻ H&ʻ > E HEʻ *FHJ$Cʻ G3 ʻ, ʻ, Q F34 HEʻ # B4$J1R HEʻ QQH Cʻ IF 1ʻ P$ F3 Cʻ H&ʻ > E HE

R,

R, ')!' L!1 ' , ')!' I ,3# ' , ' 834 &H4D'

9 $J' 'HQ34 'B$+34' , 'B$O&H4D' B-4O ' @ $-D3' M3H423' *FH4E HE'
, ' *3 E' M3H423' 5$NHQ' BHC$EX-3 ' 'B4H QH- J' B-4O ' ?4'@- E2'
;$4D 3O' ?J F' " ,#! ' , ' B3D 3 ' I$4+')!' ,#,3 4%!' " '
*FH J $C' G J CD$ 3' H ;CC3EDHE ' @F$4 3C' G J CD$ 3' , ' ;CC3EDHE ' 5H E'
P HC3C' @$4 34' 834 &H4D ' 9 $J' ?4$ HE 4& ' > 3' B34+F$J 1C 3D'
;D $4D' >3 C' , ' B$O&H4D ' M3H423' MH- D' P H42$E' , ' B N+3EDHE'
B-4O ' 8-2F' 8-2F3C' , ' 8HDD3CDHE ' I3 34' @F4 C 3' , ' 8HDD3CDHE ' 7
M3H423' @$ F4H ' 8HDD3CDHE ' *F3& $C' 9$ C] (4B41 QH- J ' M3H(23'
=3$ F34D' , ' 9$ 34&H4D ' 5HC31F' >$ 43EN3' H 834 &H4D ')!' L!0! !#&'
B34E$4D' M 1 E' , ' 834 &H4D ')!' L!0! !#&' @F$4 3C' I4H 3 ' V ' ? $1 3 '
&H4D ' *FH J $C' P C' V ' ' $D 3 ' 9 $J' B &DN3' '9 3 Oo' 9 %$J'
8-DCHE' , ' C HE ' 5HC31F' 8-DCHE' , ' C HE ')!' L!0! !#&' 9 $J'
G$ D' >HE2 $EDC' , ' C HE ' 5HFE' I4OH4' V ' B$ DHN+' P H44 C' I4OH4' , '
B$ DHN+' 'HQ34 '6 T(HFE' V ' B$ DHN+')!' L!0! !#&%' 5HFE' IH $ D' ` '
B3EE E2 HE ' 5HFE' @F-4NF' V ' 8$ & 3 D ')!' L!0! !#&' 5$J 3C' *3' M43 '
83CC3' , ' %E3Q H4 F')!' L!0! !#&' 5$J 3C' I4 N3' V ' M43$ ' P -ED E'
, $ F$E 3 ' ?E3 ' @F$-ENO' V ' > 3' P -ED3E ' @F$4 3C' ?ED ' @Q$-ENO'
H ' > 3' P -ED3E ' 9 $J' M$J Q 34' H ?$NH J Q ' 5HFE' T$4D' I4OH4'
9$ +34E ')!' L!0! !#&' 5$J 3C' @$J 134' 9 4 2F ' 9$ +34E ' @FH J3 '
3O' G34 E2' , ' OH ' ?'!>$ 3EN3 ' 5HFE' P $EC& 3 D' I P 2C 3& ' @F$4 3C'
B3 ' V ' 9 $43' 5HFE' M$J $ 3 ' > HOD' V ' P -NF' 8DFJ ' 5HFE' >3$D34'
, ' M43$ ' 8H4 J 3$D' 9 $J' B- ')!' ,3#(! ' V ' *$OC HE' , NFH $C'
I$44O' H > 3' 8$DF$J ' M3H423' 9 $ CF' 8 J $J' '6-4E3- ' I3 F$J '
)!' L!0! !#&' B-4&H4D' 2 '2 ' , '6-J3-W' I3 F$J ' 5$J 3C
9 H4 F$J' V ' ' HOC HE' *FH J $C' 9 H4 F$J')!' ,3#(! ' , ' ' HOC HE'
9 $J' >3$+3' B H ' , !' ' HQ34 ' I -J 34' 9 $4D' M C HE ' 83E4O'
M3H423' 9 $4D' H M C HE ' @F$4 3C' I F 1C' H 8-ECDHE ' G$E 3 ' 8$E+ E'
, ' ? $EC 3$D ' 5$J 3C' *$O H4' 8$O HN+' , ' ? $EC 3$D ' 5HC31F' @H O34' , '
*F-ED4 D23 ' ;D $4D' 83OCF$J' M433E' , ' *F-E 4 D23' B3E($J E'
% E2' X ? $EDHE ' 5HFE' P HC3C' @$4 34' H&' 834 &H4D ' 5HFE' M433E'
, ' !' ;D $4D' @F-N+' , ' 9 $43' 5HFE' @$CC' , ' 9 $43' 5HCF-$' I$23'
1!# , ' , ' 9 $43' 5HFE' 83E4O' 5-DCHE' , ' !' 5HFE' 6 $N+' 9 $43

R, ')!' L!1 ' V ')!' I ,3# ' V ' 8-E E2DHE

7)!' L!0! !#&' 9 $J' 6 ENF' , ' 9 $4QHOC' M3H423' ; + EC' ' '
QHOC' 5HFE' 83E4O' EC 3O' , ' 8H-2F HE ' 5HFE' P $ 3 ' V ' 8$4 &H4D'
QQH ' P $CHE' , ' ?H J 34CF$J ' @F$4 3C' 9 $4E34' ' ?H J 34CF$J ' 5HE$C'
*3QQ- ' , ' ;$4 F' P $ F3 ' *3QQ- ' ;$4 F' ' NF$4D' 8 + EC' V '
?$ E' 3C ' M3H423' M$J 3' G$O' , ' ?$ E' 3C ' 5HC31F' #1CF34' , ' ?$ E'
3C ' *FH J $C' G3EE C' I$-' V ' ?$ E' 3C ' 5HFE' 9 3C ' V ' B-4O ' 5HFE'
?34(3$E' H&' ' $J C3O ' 9 $J' C 3 ' 83E4O' 6H 3O ' ?$J -3 ' , 3 &EE'
M3H423' , 3 HE ' 5HFE' > E HE' U3# , ' 5$J 3C' > E HE' I !) ' ;D $4D'
' - 34' *F33D' I%! ' ' M3H423' 643343' I%! ' 9 $J' ? 4HE2' I%! '
9 $J' 9 E2' I%! ' 9 $J' ?J F' X&' ? HE ' /& !&' ' NF$4D'
83E4O' 8-CC3O ' ?$J -3 ' @HH134' I%! ' 9 $J' P H4 3O

R, ')!' 7,F#' #&' < 4! ' , ' GH 34'

7)!' , ' L!' , &! ' #&' ?3 1' , ')!' 7 !' 4! #(' 9 $J'
' $C $ ' G N+ ECHE ' I F 1H ' ; C 3D ' ' NF$4D' 53 ' M3H423' ' $ 1F
I$OE

I$OE' 5$4 C' ?$J-3' >$F$E' *FHJ$C' '- 3O')!' L!O! !#&' 5HFE' PH44EC' ;D $4D' '- 3O'C3 H4' 5$J3C' 9$+34' 83E4O' ,H44C' 9$CHE' 9 $J' %E2C&H4D' , '@F$4 H '?JE-3' P3N$&' >$F$J' M3H423' 9 $J' >3D234' 5HFE' I3JQ4HH+3' ;D $4D' '- 3O'U3#, ' 9 $J' IF 1H '>C3D' 5HFE' 53+NE' 83ECF$ ' '-CC3 ' 3 $ED34' 'HQECHE' M$3' M3H423' 6ENF' 53EE 2C' B3E($J E' 9H4FE2HE' ;D $4D' *$DDO' G$E3' 5$4 C' >G '5HF$' IH 3 ' IH 3 ' 'HQ34' *HJ E' 5$J3C' ,3$J3' 9 $J' 643D34N+' B$0$O' I%! '' 64$ENC' 9 $J' @HQQ' 5HFE' 643ED' , 'B&NFE2HE' 5HEE' 643ED' , 'B4HH+C3ED' >FJ' <CQH4E' 'HQ34' ?$N+3 ' *HJ E' 64$ENC' 6H4C34' M3H423' 8EEJ' 5HFE' @4$J1' M3H423' *$DDO' 643ED' MQHE' '4J3 ' *FHJ$C' B3C3O' 5HFE' *HJ E' *FJE$C' B$N+Q-4E' 64$ENC' B$44H ' I%! '' 5$J3C' *43NHFN+' I$- ' ?$EDQO' P-EE' 5HCF-$' 9$DDE2HE' 5HFE' BHOC

R, ')!' 7, ' ; '6H+CHE3

7)!' , ' #&' ?3 1' , '6H+3CHE3' , ')!' 7 !' 4! #(' ' NF$4D' @- 3E')!' !%&! ' 5$J3C' @- 3E')!' L!O! !#&' *FHJ$C' I3$4N3' 9 $J' ? $N3' @F$43C' M '?J F' @HQQ

R, ')!' 7,F#' *3E 34D3E

7)!' , ' #&' ?3 1' , ')!' 7 !' 4! #(' 643D34N+' D$JC' ?3$J$E' B3$3')!' L!O! !#&' *FHJ$C' @-43C' 'HQ34' @-43C' 'HQ34' @-43C')!' ,3#(! ' 9$ 34' @-43C' 9 $J' @-43C' 9 $J' G HE' *FHJ$C' ; 1FN+3' 83E4O' MHDD3E' 5$J3C' 8$&&3ED3E' 5HFE' 8H13' 'NF$4D' %E2F '5HFE' P$N3' 5HFE' ; C' P$N3' 5HC31F' P$N3' *FHR J$C' P$EN$4+' $ED34 -43' P C' 5HFE ,3 3' 5HFE' <4$E23' 5HFE' B- 34' IHJ&43 ' 2 ' IHJ&43 ' *FHJ$C' B-CC' ?FHHQ4D23' 9 $J' 9$34J$E')!' L!O! !#&' IF 1' 9$4D' 5HFE' *3J13C' 93CHE' M3H423' 9 JH ' 9 $J' G HE' , '?-JJ34' 8 ' 9$ 34' ; 1FN+3' 9 $J' '?N-D$JH43' + ' 83E4O' 6 TF34Q34' " ,#! ' P$ F$C' I4 J3' >-N$C ')!' L!O! !#&' ;D $4D' 5HFE' ?F31F34D' @F$43C' P E34'U3#, ')!' L!O! !#&' M3H423' 63J3' B$3C' ;D E' ? $N3O' 5HFE' MHDE2' , ' G HE' I $N3')!' L!O! !#&' >$JQ34' B$<&N 3' >$4+E2')!' L!O! !#&' ?$J-3' 9O$ '@HQQ' j

R, ')!' 7,F#' #&'%/)! ' , '?$ED NF

M3H423' ?H O' 5HFE' G3' BHN+' *FHJ$C' G3' BHN+' *FHJ$C' 9HHD' *FHJ$C' 9 N+3C' ?H O' M3H423' ?$034' G$E3' 8HD2CHE' ' NF$4D' ; JJ34CHE' @F$43C' ; JJ34C<E' G$ D' *$0H4' 9 $J' 83E4O' 'H&3' ;D $4D' ?$-2F34' 9 $J' I3 J$E' $3E E3' 8H\3' ' NF$4D' 8$4R 4CHE' 9 $J' IH ' 5$J3C' GH4J$E' *FHJ$C' 8H4E' 94$+3' 5$J3C' 9HHD' C$$N' 9 F34D3E' 1!#, '+ ' *FHJ$C' M43O

R, ')!' 7, ' #&' *, ' , ' 8O F3' #&' !1' 8O F3'O,)#)!' < 4! ' , ')!' 1 &' 7,F#' #&' *,

7)!' , ' #&' ?3 1' , ')!' 7 !' 4! #(' 83E4O' P$N+3CHE' E24$F$J' 8$J JHE' *FHJ$C' P$N+3CHE' ?N4H13' 8 - NFECHE' @F$43C' 6$22' 5$J3C' MH4DHE' @$ 3E$2F' 3 $ED34' ? $E' 83E4O' * Q3' #&' IF 1' PHEO13EEO

R,

R, ')!' R!1' , ')!' I ,3# ' , '%3E

5HFE' QQH ')!' L!0! !#&' 9 $J' 83E40' @4$ &H4 ')!' "! N! !#&' 83E40' ; 3 3 2F' M3H423' MHCC3 E' 643D34 N+' 64$EN C' M4$-^5")!' L!0! !#&' M3H423' 8 HE' ; D $4D' 5HE3C' 8 HE' @F$4 3C' 8 HE')!' L!0! !#&' @F$4 3C' ' NF$4D' 8$ED 30' , H4 HE' 5HC31F' %E$ NFQ- ' @F$4 3C' 5- -C' PH42$E' 9 $J' @F$1 J$E' PH42$E')!' L!0! !#&' 8$EC' ?$ED34C' PH4 J34' -C E' , 3$J3' @F$4 3C' , 3?J3' 643D34 N+' , 3$J3' 5HFE' ' 2D3E' , 3$J3' $ 3E E3' B3EE3 ' ? J1CHE' 5- -C' M$QH4 $E' ?F31F34D' @F$4 3C' 83E40' *0 34' *FH J$C' *HE2' $ $EN3' @F$4 3C' 9 43ENF' 83E40' 9 4 2F ')!' L!0! !#&' *FH J$C' 9 HD3FH-C3')!' L!0! !#&' + ' @F$4 3C' 8$4D E23' " ,#! ' ' NF$4D' 8$4D E23' 5$J3C' 3 $ED34' M3H423' @H-4 FH13' 9 $J' 3 $ED34' PH4 $ED')!' L!0! !#&' IF 1C' PHE013EE0')!' L!0! !#&' 5$J3C' C$$N' PHE0' 13EE0')!' L!0! !#&' ? 31F3E' 9 HHD2$ 3' 5HFE' 8$4 J1' 9 3C ' 5$J3C' ; D4 D23' 9 3C ' 9 $J' ; D4 D23' 9 3C ')!' L!0! !&' 5$J3C' 5HFE' 9 3C ' 5HFE' 9 3C ')!' L!0! !#&' 5HFE' -C 3E')!' '3E343 4D' 9 $J' @H-4 FH13')!' L!0! !#&' 5$J3C' @$1134' N3C J -C' %EH ')!' L!0![!#&' *FH J$C' %EH ' 2 2 ' *FH J$C' IHE HE' *FH J$C' 534 C' B$D3E' IH 3 ' 5HFE' P 3C' 5HFE' P 3C' M3H423' 9 F $+34' 5$J3C B-4 HE' 9 $J' 6H4D' B-4 HE' 9 $ 34' B$4 HE' P $0' BH D' P $4NF$E ' ? 31F3E' PHEN+ HE' *FH J$C' @F4 C H1F34' M$4DE34' ? 31F3E' 8 HH+34' *FH J$C' 8 HH+34' 9 $J' ?NHHE3C' 5HFE' ?NHHE3C' 9 $J' P -24 D23' 9 $J' %EH ' @F D' ? 31F3E' * -4 30' *FH J$C' ' HOED34' U3# , ' 43 $C' +34C' ' HQ34' 9 C' B 3ENH 3' B$D3E' IQ 3 ' 9 [$J' 6H 34' 5HE3C' M3H423' 9 F $+34' 5HFE' 9 3C')!' L!0! !#&' ?J F' P$44 H ' 9 $J' @HE243 3' G$ D' 5$E3' ' HQ34 HE')!' L!0![!#&' 83E40' 9 HHD2$ 3' E FHEO' 8$4 J$E' 83E40' 8$ J$E' 5HFE' >3' P3C-4 34' U , ' !#! %' 4 F-4' IH ' G$ D' ?$ JHEC' 5HFE' @$4E3 ' M3H423' > E2$4D' 64$EN C' 9 HHD2$ 3' 64$EN C' 9 HHD2$ 3(H4' 83E40' 9 HHD2$ 3' G$E 3' B- 34' G$ 3C' , ' CF&H4D')!' L!0! !#&' @F$4 3C' , $ 4E3' , ' CF&H4D')!' L!0! !#&' + ' @F$4 3C' 64$EN C' 6$4E$QO' '$4NJ3 0')!' L!0! !#&' *FH J$C' ?NH ' I%! ' 5HFE' 9 3 C' 5HC31F' B343EC' ; J$R E-3' MHHDF$4 ' 5HFE' 9 $4D' B34 3' @H4E3 -C' @$ H4' *FH J$C' >3 E' 5$J3C' @F$1 J$E' 5$J3C' @F$1 J$E' U3# , ')!' L!0! !#&' >$JQ34' ' B $N+ 3 ' >$4+ E2' @F$4 3C' P E34')!' , 3#(! ' H / I43C HE' 8$ ' 5HFE' P 34' , ' BH ' 8 ' 5HFE' MH D E2' , ' G HE' I $N3' ; DODE' ? J N3O' V ' 9 3C' P$ E2' 5$J3C' M4$F$J' , ' 9 3C' P$ E2' 5HCF-$' 8$4243$ 3' , ' M433E NF' 5HFE' I3 O' + EC' 83E40' -C 3E' @F$4 3C' B4HH+' 9 $J' 8$D J$ED' 9 $J' M4$CC3 ')!' L!0! !#&' ' NF$4D' 5HE3C' 5HFE' 9 $J' > HOD')!' L!0! !#&' *FH J$C' P $0' 5$J3C' >3 C' P E3 ' 9 $J' 6HH 3' PH-E ' I3 34' , HE$ 3')!' , 3#(! ' 643D34 N+' I34&N EC' 643D3 N+' <C2HHD' I34+ EC' @F$4 3C' IH F ' @F$4 3C' ' HQ34' @$4 34' I3 30' + ' ' NF$4D' 83E40' @F$4 3C' ' ON4H&' " ,#! ' @F$4 3C' M43ER 3' ' $EDH 1F' + ' IF 1' @F$4 3C' ?ODE30' ' NF$4D' ? 43$ &3 D' 3 R $ED34' @F$J1 HE' ? 43$ 3 D' ; D $4D' 9 $+3& 3 D' P 3$D' 9 $ DH')!' L!0! !#&' 5HFE' *FH J$C' 9 243CC' *FH J$C' 9 0$ ' M3H423' 9 $4D3')!' ,#,3 4%!' 83E40' >3223')!' ,#,3 4%!' + ' 4 F-4' %$03' >3223' ? J3HE' 9 $4E34' ' NF$4D' I$ 34CHE' 5HFE' B-4&H4D' *FH J5 ' ? H+3C' 9 $J' G HE' 9 $J' ' H- F' 83E40' G-E+ E' 5HFE' I - J34' 5$J3C' M43 2' 5$J3C' ? 3 $4D' M3H423' ; $2 3C' P $4CD3E' 83E *' ; 33' 83E40' 8HC J34' 5HFE' > EDC$O' @F$4 3C' 9 3 34' 5H P' 9 & JH ' *FH J$C' 9 $ CHE' I$4+34' *FH J$C' I$4+34' U3# , ' 5HFE' 643D34 N+' I$4+34

I$4+34' 83E40' QQ3 CHE' *FHJ$C' *$E834' 83E40' ? $ E HE' *FHJ$C' 3E' ?F- 34' *FHJ$C' ;D $4N' ?FH4 NHD' ;D $4D' <C $ D' 8$C+3 ' ?J F' 5HFE' >$ 4 3' ' $ 1F' I4 N3' M3H423' P$4 E' B 4D')!' L!0! !#&' 9 $J' M433E $ ' M3H423' *3$4' M3H423' >3D 3 ' *$0 H4' 643D34 N+' B34E$4D' PH4 $ED' ' NF$4D' P #3C' 643D34 N+' PH E2' @F$4 3C' ' H R $ED' I$4+34' @4$ 30' P E2 HE' ' NF$4D' 8H 34' 5HC31F' 5HFE' 9 3C ' @F4 C H1F34' MHD J HED' ' HQ34' 5HFE' ?$-ED34C')!' L!0! !#&' ? 31F3E' *-N+34' 5HFE' 8$4 CFH E3' + ' ;D $4D' @FH J 3 30' G34 E2' " ,#! ' , H4 HE' 5HC31F' %E NFQE ' , NH $C' *H+3' I%! '' 643D34 N+' 34EHE' >HN+ HHD' @&3 ?4' @?($$D3$ 9 O+3Q$ J' P$4 E' ;D $4D' G$43 ' ;D $4D' 83E40' G$43 ' 64$H J C' %E4 HHD' 5HFE' P$E 30' I%! ' 5HFE' ?$J -3' 9 $E 30' ?$ Q4 D23' ;$4 H' G4$ ' 5HFE' C HE' *FHJ$C' B4HC' 64$EN C' + ECHE' ;D $4D' >32F' 5$J 3C' ? 3 $4D' 83E40' >33' 5HFE' ;DJ-ED' >33' 5HFE' 9 EH ' ;D $4D' 6H4C 34' 5$J 3C' 8H $ED' GO34' M3H423' , 3 EF$J' @H E2 HHD' ' NF$4D' 9$ 34' 6H4Q3C' *FHJ$C' * CD3E' 8HD23C' *FHJ$C' PHEO13EEO' 5HFE' @F$4 3C' ?NF4 3Q34' 9 $J' B4HN+J$E' I%! ' %3E$3 ' @F$J1$ E3' B$0 O' I%! ' ;D $4D' B4HN+J$E' + ' 9 $J' ' NF$4D' @HC $0' # ( ) ' 5$J 3C' @4H&' I%! ' 9 $J' G33D3C'U3# , ' 56H J' G33D3D' o H J $C' I3$4N3' I%! ' *FHJ$C' I$1 HEO 4H4' 8H4$ E' $NF3 ')!' ! , ' #&' ?3 1' , ')!' 7 !' 4! #(' , ' P$ DC HE3')!' L!0! !#&' M4 && F' 2 2 ')!' L!0! !#&' 8' 5' I$4+34' -2-C -C' ;DJ-ED' GH-N3' M3H423' 643D34 N+' GH-N3' ?$J -3' 9 CHE' /%&! #' >HEDHE

R, ')!' I,3# ' * % #!' H >ENC 34

7)!' ,#,3 4%!' 83E40' *FE E$C' ? $E 30')!' ,#,3 4%!' @F$4 3C' 5$J 3C' 6H ' ? $E 30')!' ?+,#,3 ,R)' &' L!0! !#&' 8H4$N3' IH OC' I%! ' + ' ' HQ34' @ $0 HE' BH4H 3:' ??4 *FHJ$C' ? $E 30' P$CC30' ? $E 30' " ,#! ' " ' M3H423' ' 1C' " ,#! ' + ' M3H423' G4 E+' $ 34' # ( ) ' + ' 9 $J' @F$JQ34C' B$2CF$ 3' # ( ) ' + ' 5HC31F' B 4NF' " ,#! ' + ' *FHJ$C' B4$#N+34' " ,#! ' M34 $C3' 3 $ED34' 2 ' H&' ' HNFD$ 3' 9 $J' N+34C' H&' I43CNH ' 9 $J' EN3' ED34' HE' , ' ; - HE' 9 $J' C 30' V ' G-E+3E& 3 D' >HD23' M Q34' EC 3' " 2 ' 8$ ' M$4 F' G 34+3 3 >' 4 F-4' 4J C 3$D' H&' >$ER N$C 34' 83E40' EC 3' ' < 34+3 3 ' 5HFE' F34 HE' H&' P$2F- ' 5HFE' D34CHE' V ' 9$44 E2 HE' 5HFE' ED34 HE' H&' ' $DN &&3' 9 $J' B $N+ $ ' , ' @4-J1C$ ' *FHJ$C' B $N+ $ ' U3# , ' , ' @4-J1C$ ' 3 $ED34' B$EE34J$E' H&' P$ENF3C 34' ' HQ34' B 3+34C $&&' H&' I43C HE' 8-2F' 8H4EQO' B 4 30' H&' P$ENF3C 34' ' NF$4D' 9$ C<E' B$4 HE' 5HFE' BH +34' 5HFE' B-4 HE' 9 $E B33 34' H&' ?$ &H4D' 5$J 3C' B4H E' H&' > 341HH ' 5$J 3C' G$ CHE' B$E C 34' I%! ' , ' I E2' 9 $J' B$ 3R J$E' H&' >30 $ED' M3H423' B-44H ' V ' >ENC 34' 9 $J' B4H E' H&' 9$ HE HE F3 8 '' ;D $4D' B4H E' , ' 9$44 E2 HE' G$03' B$4+34' U3# , ' >H ' 9 HHD' #! ' # 34C HE3' ;D $4D' BHO34' V ' ?N$4 CQ4 N& ' ;D $4D' ' NFJ HED' M$ 3' B4$DDO ' V ' @HE CF3$D' I4 H40 ' ;D $4D' B$ 3' H&' ' HNFD$ 3' 5HFE' BH 34' I3 HE' 3' ?J DC' 5HFE' B ENF4D' , ' M4 J C$42F' 5$ E3C' B$4E3C' I% ' V ' 9 F$4 HE' 5$J 3C' B4$ENF34' , ' JQ 3C D3' 9 $J' B4HN+ 3F-4C' ?$ 30 ' G$E 3' B4H$DF-4C' , ' P$ENF3C 34' 5HFE' B3E 30' H&' P$ENF3C 34' 9 $J' B3E 30' H&' ED3E ' CF$ ' @F$4 3C' BH &' V ' BH HE' 3' ?$EDC' ' NF$4D' ?1$4 E2' B3440' , ' BH HE' 3' ?$EDC' ' NF$4D' MHH43' B$ CF$ ' , ' N$44' 9 $J' BH$4D' J$E' # E3C' 9$ HE' B3E($J E' B$EE E2' I%! ' H&' 9 E N+' *FHJ$C'

343' BHOE3' @ 34 &' 9 $44 E2 HE ' ; D $4D' B - N+ 30' P $ENF3C 34 ' 5$ J 3C' B - N+ 30' P $ENF3C 34 ' 5$ J 3C' B4H$DQ3E ' <(* P $ENQ3C 34 ' 5$ J 3C' B - 4 ' H P $ENF3C 34 ' 9 $ J ' B3$ - J HE ' 9 $44 E2 HE ' ; D J - ED' B$ J ' &H4D' , ' ' HNFD$ 3 ' * FH J $C' B3$ 3' , ' P $ENF3C 34 ' 5$ J 3C' B3$4DH3' , ' P $ENF3C 34 ' * FH J $C' B 4 3C' H&' P $ENF3C 34 ' * FH J $C' B4 34 O' P $ER NF3C 34 ' Q3 ' @4H J 1 HE'(P H4' H&'@4H J 1 HE ' ' NF$4D' @H EC' P $ER NF3C 34 ' D$ J ' @H $ J ' , ' 9 F$ 30 ' I$ - 5' @$ 34$ ' ` ' & '43 HE ' I 3 34' @$ 34$ ' H&' I 43C HE ' 5HFE' , NFH $C' @H - F - 4C ' (! 0!' , 31! ' 9 R $ J ' @FH4 30' H&'BH HE' 3' ?$EDC ' * FH J $C' @4H& ' > $EN3? 34 ' * FH J $C' @HH+3' H&' P $ENF3C 34 ' 9 $ J ' @$44' H&' B $N+Q - 4E ' 5HFE' @ - E &6' H&' B $N+Q - 4E ' 5HFE' @F 113ED$ ' H&' P $ENF3C 34 ' * FH J $C' B4 2F ' @4HCC3' ?F$ ' 8 ' 5HFE' @4H J 1 HE' H&6$4E H4 F ' ; DE5 - ED@ H H& 9 Q$4 HE ' 9 $ J ' @$44' ?F$DC H4 F ' M3H423' @H E2F$ J ' * FH J $C' @4H J 1 HE' 4 6$4E H4 F ' 5HFE' G3$4D3E' (P J H4') !' 8 H EC' 3$4' 8 $ &$ ' 5HC31F' GHN+4$O' H&' > ENC 34 ' B3E($ J E' GHN+4$O' > ENC 34 ' 5$ E3C' G HE' I 43C HE ' 9 $ J ' G - 2D$ 3' < , F ' , 31! ' " 3 ' $$$N' G HQCHE ' M EH ' B3E($ J E' GHQCHE ' I F 1' B$ 40' G3$E ' 9 $ J ' ' H134' ; NN 3C' U3# , ' * FH J $C' ; D J HEDCHE' , 'M4$CCO$4D' @$ < E' 5HFE ' ; D J HEDCHE' , ' M4CCO4D' @$ HE ' * FH J $C' ; C+4 223' , ' > ENC 34 ' G$E 3 ' ; 3 CHE' H&' I 433C$ ' F' 8 $N+3EC$ ' I$ CHE' ; $ J 3C' < &' 34 HE' 8 $ ' 5HFE' ; $4 ' H 341HH ' I 3 34' ; $4 (J H4 ' H P $ENF3C 34 ' 9 $ J ' ; H ' H&' ' HNFD$ 3 ' 5$ J 3C' ' NF$4D' ; H ' , ' ' HNFD$ 3 ' ' NF$4D' ; D $4DC' H&' ' HQO ' ; $E' ; $EC' H&' P $ENF3C 34 ' ?$ J - 3 ' 6 3 NF34 ' 9 $ J ' 6$ D E2 HE' H&' P $ENF3C 34 ' 5HFE' 6H4 ' H&' ' 3$D' 8 $ ' 8 3E40' 6 3 D E2' I %! ' H P $ENF3C 34 ' ' $ED 3' 8 3E40' 63 D3E' I %! ' 9 $ HE' 3' D$ 3 ' P $ F3 ' 6 3 NF34' , ' > 3' > 3 34 ' 9 $ J ' 5$ J 3C' 6$44 E2 HE' I %! ' , ' ' HNFD$ 3 ' I 3 34' 8 3C+3 F' 6 33 HHD' , ' ' HCC$ ' P 3C' 6H4 J QO' I %! ' H&' < 443 ' P H - E ' 5HFE' 63$43EC D3' H&' > ENC 34 ' 5HFE' 6 3 J E2' H&' B $N+Q - 4E ' 9 $ J ' 6 3 J E2' 2 ' 5HFE' 6H4 J QO' , ' P $2F - 8 ' 5$ J 3C' 6 3 NF34' H&' - 2F HE ' 5HC31F' 6 3 NF34' @ ' ' HNFD$ 3 ' ; FC' 6 3 NF34' H&'@ & HE ' 9 $ J ' 6 3 J J E2' H&' I 3ED 3 HE ' ; D $4D' M4 - EDO' B - 40 ' M3H423' M4 - EDO' H&' P $ENF3C 34 ' 5HFE' M432' , ' ; C+H ' B3N N' @$ HE ' B40$E' I $D23 ' M432CHE' H&' > ENC 34 ' ?$ J - 3 ' ' D E2C' M4 J ' CF$ ' H&' I 43C HE ' 5343 J $F' M$4E3 ' , ' ' H3& 3 D ' * FH J $C' % 4+ $ED' M $+3Q4HH+' H&' 9 $44 E2 HE ' 5HFE' M$4DE34' BH HE ' 9 $ J ' M34$4D' H G HE ' ; $E' ' NF$4D' M34$4D' H&' 8 $ 2F HE ' * H J $C' M433E3' 9 F E2 HE ' 5HFE' M433E HHD' H&' I 43C HE ' ' HQ34 ' M H ' @ & HE' 8 ' ' NF$4D' M H ' H&' > 3 2F HE' 8 $ ' * FH J $C' < D J 3$DH ' M ' 5$ J 3C' M H 34' H&' > ENC 34 ' 5$ J 3C' M$4C $E2' H&' @ F34H3 ' 5HC31F' M QCHE' 9 F3 14 2 ' 64$E+' MH - D' H&' P $ENF3C 34 ' 5HFE' MH - D' H&' P $ENF3C 34 ' M3H423' 8 $ ' ; D J - ED' 8 $ H4 F J H4 ' H&' P $ENF3C 34 ' ' HQ34 ' 6 3 NF34' 8 H - C J $E' , ' > J 3' B$E+ ' 9 $ J ' 8 $OE3C ' 5$ J 3C' @H 34' 8 $4 34' H&' B4H - 2F HE ' 9 $ J ' 8 $4 34 ' 5N E' 6H D3E' 8 ED 3' H&' P O34CNH - 2F' 8 $ ' 9 $ J ' @F$4 3C' 8 3E40' Q ' P $ENF3C 34 @$4 3C' 8 3C+3 F' I %! ' , ' IH - HE ' * FH J $C' 8 HE ' ' HQ34 ' 8 H4EQO' I %! ' H&' B $N+Q - 4E ' ' HQ34 ' 8 ED 30 ' ' H234' 8 H $ED' M 3$ ' > 3 34 ' 8 3E40' 8 H DC H4 F' , ' P $ENF3C 34 ' ' NF$4D' 8 H - 2F HE' > 341HH ' M3H423' 8 H 3' H&' P $ENF3C 34 ' M3H423' 8 H ' ' HNFD$ 3 ' I 3 34' 8 H4D34E' I %! ' ?$ J - 3 ' 8 H +34' 8 $C $ J ' H&' B - 44H ' 8 $ ' ?$ - CQ - 40' I 40N3' 8 - J R 1F430C' B4$ J $ ' 5$ J 3C' 8 H4D34E' @ 34& ' ?F$ ' 9 $ J ' 8 $ J 1CHE' H&' G - +3E& 3 D ' 9 $ J ' 8 $ ' H&' > ENC 34 ' I 3 3 $ODHN+' H&' I 43C < #' 5HFE' 8 30C' , 1!' %%') %! ' M3H423' 8 $44 H ' < 4 J C+ 4+ ' 4EH D' 8 $44 CHE' H&' 2Q - 4 F ' 5HFE' 8 $DDHN+' 9 $44 E2 HE ' B3E($ J E' 8 30 HHD

HHD H&' P$ENF3C 34' 4 F-4' 8 30' 9GHD H&'> 341HH ' D$J' 8 HD2CHE' ; 34 HE' 5HFE' 53E+ ECHE' C&=3$ $ED' @HE034C(5HC31F' 5HE3C' I%! ' @H 3F3 F' B3E($J E' 5H- ' P$ENF3C 34' ED43 '%3 3' BH HE' 5HFE' %34CF$ ' ' HNFD$ 3' 5$J 3C' %34CF$ ' H&' P$ENF3C 34' @F$4 3C' ? H44' %3EE3DO' '# 34C HF' 5HFE' %3EE3DO' , ' P$ENF3C 34' *FHR J$C' 5HFE' %EH 30C' , ' 830CF$J ' 5HFE' % 4+ J$E' , ' P$ENF3C 34' 5HFE' ?F$ ' >3 2F' H&'> 341HH ' 5HC31F' >3 2F' > 341HH ' *FH J$C' M34$4D' >3 2F' , '> 341HH ' ' NF$4D' M4 JCF$ ' >H J$ ' , '@ $0 HE' 8$ ' @F$4 3C' >$ 43EN3' H&'> 341HH ' ' HQ34 ' >H J$ ' H >H J$ &H D' ;D $4D' 5343 J $F' > HOD' H&' P$ENF3C 34' 5HFE' >HD23' H&' >ENC 34

' 5HFE' >H J$ ' H&'@ $0 HE' 8$ ' *FH J$C' >3 N3C 34' , , ' %%' / 3( ) ',#' 5HFE' > HE' H&' 9 $44 E2 HE' *FH J$C' M34$4D' >3 2F' @&34 4' H&'> 34R 1HH ' ' NF$4D' >3 2F' H&'?$EDF C' ?$J -3' >H J$ ' H&' ' HNFD$ 3' 5HFE' >H4D' H&'@$ $4DC' ;D $4D' HOD' , ' P$ENF3C 34' ?$J -3' 5HE3C' >HOD' , ' P$ENF3C 34' M3H423' >33C' H&' P$ENF3C 34' 5HFE' P$EQO' H&' >$E

' N$C 34' 64$EN C' PH44 C' 5HFE' P D2 30' , , ' ' HNFD$ 3' 64$EN C' P$0$ ' P$ $ 3-' E FHEO' P$4CD3E' , 'M$4243$ 3' 9 $J' P$CHE I%! ' , '@HN+34F$J ' *FH J$C' P$4+ $ED' 5HFE' PH4 $ED' I%! ' , ' 8$ HE' ' HQ34' P E2 H ' *FH J$C' P$CHE' , ' >ENC 34' 5$J 3C' P$CC30' ' P$2F- ' 9 $J' P034C' ; 34 HE' M3H423' , 3D3E' H&' P$ENF3C 34' 3 $ED34' , H 3 ' H&' #ED34 30' I$4+' M3H423' 9 $J' , 3 HE' H&' *$ $ ' >HD23' 5$J 3C' , 3 HE' , '@F3$D 3' 83$ F' 83E40' , 3 Q340' H&' P$ENF3C 34' 5HFE' , 3D3E' , ' P$2F- ' 9 $J' , 3 D' , ' P$ENF3C 34' I3 34' , NFH CHE' ` ' 9 $44 E2 HE' *FH J$C' , H44 C' ? $E 30' +' ?$J -3' 8H +34' , H44 C' f&' P$ENF3C 34' 9 $J' > C 34 <DD 3' '@ F34H3' @F$4 3C' < 43 ' 'B+N+Q4HH+' I3 34' <4 J 4HD' H&' @F$J Q34' 8$ ' *FH J$C' < $E' V ' P$ENF3C 34' @F$4 3C' %3 C$ ' I43CNH ' I%! ' ? HN+1H4 '5HFE' ' 3DD34' @F-4NF' *H E' , $ F$E 3' IF 1C' H&' P$ENF3C 34' M3H423' ' NF$4D' IF 1C' H&'?3D23 30' 643D34 N+' IF 1C' H&' P$ENF3C 34' ;D J -ED' I33 ' , '@F-4NF' B$E+' 5HFE' I N+' J343' , ' 9 $44 E2 HE' 5HFE' 9 CHE' I$ 3E' , 'B$E+ ' 9 $J' I$4+34' I%! ' , ' ' NN$ ' *FH J$C' @H 30' IH4 34' , '> 341HH ' M3H423' ?F$ ' I3 O' H&' # 34C HE' 83E40' ?F$J' IH DC E2 HE' I%! ' , ' < 34 HE' IF 1' I$4+' H&' I43C HE' *FH J$C' I$4+ ECHE' I%! 'V ' ' $DN &&3' B- ' +3 30' I4 N3' M3H423' I 22H ' I%! ' , ' ?7 83 3EC' 5HFE' I3EE E2 HE' I%! ' , '>H HE' 83E40' I3 43' H&' G-E+3E' 8$ ' ' NF$4D' IH 34' ,

' ?J3D 30' *FH J$C' ?J$ 30' IH 34' 9 $J' ? $E 30' ' HCNH3' , '> 34R 1HH ' 9 $J' ' HQ ECHE' , '@F$ Q-4E' @F$4 3C' ' HODC' I%! ' , ' ' HNFR D$ 3' M4$03' ' 22' H&' 6 3 D' B4H-2F HE' 9 $J' ;4$C-43' ' 3D J $0E3' H&'>$EN$C 34' < 34' *H- J E' ' H134' H&' >ENC 34' 5HC31F' ' HQ ECHE' ' I43C HE' 5$J 3C' ' $J CQH F$J' , ' P$ENF3C 34' ' NF$4D' ' -ENH4E' , ' P$ENF3C 34' 5HC31F' ' NF$4DCHE' ' E2F H#(5$J 3C' ' HQ ECHE' , ' <4 J C+ 4+' *FH J$C' ' $ CHE' > 3' 9 HH HE' , NFH $C' ' HQ ECHE' H&' 2FQ-4CF' *FH J$C' ' HQ ECHE' H&' 9 $44 E2 HE' B3E($J E' ' $ CHE' U3# , ' , 'G$4 30' ' NF$4D' ' $ ECF$ ' ' H F 3 ' H&' ' QQ 3 HE' 5HFE' 5HQ' ' $ ECHE' 5$J 3C' ? $4+O' , ' 8 HHD ' 5HFE' ?$ED34CHE' H&'@$ ' CF$ ' , 3 F34' 9 034CD$ 3' *FH J$C' B4H J 30' 9 $J' ?$ED34CHE' H&' P$ENF3C 34' M3H423' ?NFH 3C' ($J H4' H&' ' 43C NF' 9 $J' ?F$44HN+' , '?$J 3CQ-40' ' HQ34 ' ?- N &&3' V ' ' HNFD$ 3' *FH J$C' 9 $ E2' ?$ CR Q-40' , '>ENC 34' *FH J$C' ? $4+ 3' ?F- 3 H4 F' H&' I43C HE' 5HFE' ? $4 &$E ' , ' I43C HE' 5HFE' ? 3C 34' V '@FH4 30' ;D $4D' ? 3C 34' , ' @FH4 30' *FH J$C' ?F$41' P$ENF3C 34' 83E40' ?F$41 3C' H&'<4 J C+ 4+' P$ F$C' ?J F' , ' <4 J C+ 4+' ' NF$4D' ?F- 3 H4 F' H&' ' HNFD$ 3

5HFE

U K S M#> ;>P M$1 U US$

5HFE ?J F , >3 34 8$ ' NF$4D ?J F , P$ENF3C 34 5HFE
*3 H @ " # ! A I3 34 *$0 H4 *FHJ$C *-4F 4 5HFE I -JQ3 *3JR
13C , *HE23 8$ *FHJ$C *H J E2 , # 34C HE 5 J3C *$0 H4 ,
'HNFD$ 3 *4$&&H4D *4$&&H4D H <- 4 E2 H 5HFE *FHJ1CHE >$ER
N$C 34 ' NF$4D *4H 34 *$ F$J B-44H F B-44H @F$ 3C
*$0 3-4 , *H 3 F I$4+ 8 3E40 *$0 H4 'HNFD$ 3 8 3E40 *HH $
, P$ENF3C 34 ;D $4D *HH $ H P$ENF3C 3& 9 $J < F4$ED
#EC H4 F , P$2F- M3H423 $EQ-42F ?$ E-3 9$ +34
*FHJ$C 9 H4 F E2 HE M3H423 9 4 8<0 HF 5HFE 9 S+ C E
H / 8 3$ F @F$4EHN+ M3H423 9 3 D @F 1b E2 >$9 MNH 3 ' CHE
G$ $J *H 34 'HQ34 8 3E40 9 3 NF >3N+ M3H423 9 F 2 HE
*FHJ$C ; $J 3C 9 F E2 HE , @- NF3 F 8$ 9 - $J 9 3C HE
P$ F3 9 CHE , ;CF HE P$ F3 9 CHE U3# , , ;CF HE
D$J 9 F H4 F ' NF$4D 9 C ` >ENC 34 ?$J -3 9 E+C 6 T
5$J 3C 9 $, B3 3 $ 3 > 3 9 HH HE 5HC31F 9 $2C $&& , 9 $4R
4 E2 HE 5HFE 9 F 30 H 4$J 5HFE 9 F 30 (H4 H(& CF HE
?$J -3 9 $ +34 , I3ED 3 HE M3H423 9 # $J 9 HHD , P$ENF3C 34
5$J 3C 9 HHD 5$J 3C 8 QQ34 9 $E+ OE 5HFE B4$DCF$ 9 $E+ OE
9 $J @$4-C 9 CHE I%! , 9 F E2 HE 5HC31F =$4+34 , 63
C D3 'HQ34 64$EN C =$4+34 , # 34C HE3

R,)! L!1 ,)! I ,3# , >3 N3C 34

'HQ34 8 3E40 -Q34 I%! 9 $J *$ B0 = $J ,3$ 3
*FHJ$C 6H 34 OCNH-2F ?J F 'H234 P$EE34C)! L!,! !#&
;D $4D P$EE34C

R,)! I ,3# , > ENH E))! I #& I , H& ! @ ,
> ENH E

7)! L! , &! , BHC HE >-N$C @$ N4$&)! L!0! !#& 8 3E40
@F3$ 3C)!N L!0! !#& 5HFE @F3$ 3C + 53 CHE 9 $J MH4DHE
?$J -3 ;DJ -ED 8 H1+ ECHE I%! 9 $J JNH ? E2 QO " ,#!
9 $ 34 P$-4 N3 5HFECHE *FHJ$C 8$4D N+3 5HFE 8$CC3 ?FH4
@F$4 3C G3 >$3 9 $ DH ? Q FH413)! L!0! !#& M3<423 < 34
@F$4 3C %3 2F 30 *-EE$4D *FHJ$C B4H-2F HE *FHJ$C *-EE$4D
5$J 3C E24$J)! L!0! !#& *FHJ$C *-4E34 'H3)! L!0! !#&
B$C B34 D23)! L!0! !#& @F$4 3C BHH FQO)! L!0! !#& 9 $J
F H4 30)! L!0! !#& *FHJ$C B$ 30 9 4 2F B- HE %3E4 N+ 5HFE
*-EE$4D *FHJ$C M33 >3HE$4D B4H E H& I ENFQ3N+ 9 $J @4$DR
DHN+ 9 + ECHE H& ?1$ D E2 M3H423 P$ 3 ;DJHEDC , ?1$ D E2
*FHJ$C ?J F H& ?1$ D E2 M3H423 53EE E2C V ?1$ D E2 'HQ34
; 34$4D H& PH- HE P$ F3 @ $4+ H& PHJ HE 9 $J ?+3 HE H&
>HE2 ?- HE)! L!0! !#& 5HFE I3EEO 9 $J B3EE3 M3H423
9 $4Q-4 HE 1!# , 5HFE B3 P$ F3 G$0 \ - H4 3$> ? $J 134
EE E2CHE M3H423 ?F31F34D 5HFE B$EN4E ' B4$ECQO 8 $44 CHE
5HFE ?+ EE34)! L!0! !#& 9 $J 8 $4D N+3 >3# HE)! L!,![
!#& *FHJ$C >$ F$J H& B E2QH4H-2F 8 3E40 ;D -J D GHDC H F
H& B E2QH4H-2F 9 $J I$4+34 8 $E FH41N ;D $4D 4D3E
H& IPH4 HE 5HFE B$ O H& 6$ + E2F$J 9 # $J 9 $4D N& 6$ + E2FJE
@F$4 3C B HJ& 3 D , 6$ + E2F$J ?3 F ; C 2! # , 8 H4Q E2 5HFE
P$ QO , BH-4E3 *FHJ$C >$ 43EN3 H& G-ECQO L!0! !#&L ') J&
>33 H C $N+QO 5$J 3C G-EE H& GH CQO 5HFE ED43 I3$NHN+ ,
<CQH-4EQO 5HFE 8 CC4D ?FH4 ;D E2 HE M4H 3)! L!0! !#&
% *FHJ$C

US' ' U'K'S'M#> ; P' ' @$1' U

*FHJ$C' S;D $4D' < DF$J' #' , !
)!' L!,! !#&' ?,)' # !' L 'L!', ' 9 $J' ; JF-4C'
L,3() ,#' %%')!' L!0! !#&' M3H '8$3' 93C' CFQO' I$-'
P D4$$O' I3 ' , ' 8H4EN$C 3')!' ,#,3 4%!' @F$4 3C' ED3 CHE'
9H4C 3O' I3 F$J' 3' ;&H H 4$ &3' G-D 3O' 9H4C 3O' I3 F$J' M3H423'
P$4CF$' 8H 3' @K4 .' *F3H1F -?' 8$44 3C')!' !%&!' *F3H1F -C'
8$4E3C')!' ,3#(! ' IF 1' ?+1 H4 F' ` '>$N3QO' 5HC31F' M3D23'
I%! ' 64$ENC' 8-DCHE' 9 $J' 8-DCHE' 5HFE' 8-DCHE' 'HQ34'
8$4DO' 9P DJ' B4HH+C' 9 P$J' B4HH+C')!' ,3#(! ' *FHJ$C'
'B4HH+C' @F$4 3C' 8$44 C' 9 &&$J' ' NF$4DCHE' I34N $' ' NF$4DCHE'
83E4O' @F-D 4&2F' < 3ED3E' 5HFE' ' NF$4DCHE' *FHJ$C' @H- Q3N+'
8H DC H4 F' 9 %$J' BH4J$E' 9 $J' BH4J$E')!' ,3#(!
*FHJ$C' 5HFECHE' BH4J$E' >-+N' BH4J$E' 5$J3C' B-N+H ' I%! '
B3E($J E' 64$E+ E' @H-NF' I%! ' *FHJ$C' GO+3' *FH413' I%! '
' NF$4D' B 4+3

R, ')!' I '@ ' ;HEDHE

*FHJ$C' /',! 1' $? ' R #(' 7), 1' 'H $ED' C HE
"1),51(!'+ !! ' L 1 L L 1 #() O'+ !! ' 9 $J' B$D E'
<,#(' < #!' M3H423' B$4+34' / (!' 643D34 N+' B$4 H ' < %!' " &(!'
+ !! ' 9 $J' >-D$J' B$4 HE' "1),51(!'+ !! ' B3E($J E' ; CF$'
B$ 3O' " 4' #' 'HQ34' B$ 34' Y%&' " , &' + !! ' 9 $J' B3$ 34'
R, !' + !! ' 5HCF-$' *FHJ$C' B3D&H4D' R #(&,#' + !! ' M3H423'
B3EE' <C!1' +) !%&' G$E 3' B3 C' " 1#() %%' + !! ' B3E($J E'
B $N+JH43' ,%4, #' %%' 5HFE' B 3E+$J' R !1)') ' M3H423' BH-C'
F3 D' '!')3 ')' + !! ' *FHJ$C' B4H9E' R #(&,#' + !! ' 'HQ34'
B-44$' U3# , ' %#(' + !! ' 9 $J' @$4 3' ",F' < #!' 5HC31F'
@F$4 3C' R%!!' + !! ' ,$ F$E 3' @?$4+' '!')3 ')' + !! ' 5HC31F'
@H 3Q$ NF' #, !1' 5$J3C' @EEJ HE' I%,)' R ' ;D $4D' ' NF$4D'
@HJOE' ")' < #!' 9 $J' *$0 9' @H13 $ED' < #',%# 1' $##' R !%&1' '
*FHJ$C' @H413O' 6%&' " , &' + !! ' 5HFE' @H $E' #1 ,#' ,31!'
+ !! ' M3H423' @4H& HE' "),%, !F:' I%,1!' 5$J3C' @- 34 3' ",F'
< #!'? 31F3E' @-4 C' I,%! #' + !! ' 83E4O' @- 34' R #(&,#' + !! '
5HFE' ;Q3E3T34' G$ 3C' " 1#() %%' + !! ' 9 $J' G$ CHE' " ! &'
+ !! ' 5HFE' G3CFHEC' 7) ! &#!!'O!' + !! ' 9 $J' G3 3O' +),!' < #!'
83E4O' GHQQC' R%!!' + !! ' 5$J3C' U0 Z", ,%5)' < #!' 83E4O' 63 H C'
Y !!#))!' 'HQ34' M3H423' 64 N&334' ? Z&!#) L' ! '?$J -3' M$ 3'
" 1#() %%' + !! ' ;D $4D' M$ED3 'L! < #!' 9 $J' @F$4 3C' MHHD3'
,3#&1& ')' @F4 C H1F34') '? ! '+ !! ' R #, 1' M4FJ' <3&'
(!' %%' 5HFE' M4$E' M&D3E' WH4N34' 7) !1' + !!
9 $J' M433E' R!#')3 ')' + !" ' ? Z' 8$4J34' ,#' &!#'
M3H423' 643D34 N+' 8$4JC' R (&,#' + !! ' 6343D34 N+' 8$44 CHE'
",F' I)3 ')' H &' 5HFE' 814 3O' <3&(!' %%' 5HC $F' 8$4 3O'
) ! 1' 9 $J' 8$4 3O') 1' 9 $J' *FHJ$C' 83$ F'
Y3!!#' + !! ' G$E 3' 8 3O' HHD' 9 $J' 8 ' "1),51(!
+ !! ' '$ 1F' '' 8 EDJ$4CF' " M)(' < #!' 5HFE' % 4 E34C O' 8HH134'
Y3!!#))!' 9 $J' 8-2F3C' 8-2F ?' , 4!1 ! ' "3 %& #(1' 1D43 '
5$N+CHE' Y3!!#' + !! ' ?$J -3' 51N+CH1' R !1)') ' *FHJ$C' 5$4 C'
O55! ' 7) !1' + !! ' 5HFE' D23' + #' * 3*1' I)3 ')' H &' 5HFE'
EE3C' < %!' 7,F!' + !! ' 5$J3C' W$ '?,#!1' R!#')3 ')' + !! ' 9 R
$J' 5HE3C' <! &!#) %%' "3 %& #(1' *FHJ$C' %3 O' * ! #,1! ' L,F'
M3H423' %3ED$ 3' " 1#() %%' + !! ' 9 $J' % 1 E2' I)! 51&!' 5$J3C'
% CHE' R!#')3 ')' + !! ' 5HFE' %F ' *3&& #(' < #!' 9 $J' %EH
' '!')3 ')

'!')3 ')' + !! ' 9 $J' >$ 43EN3' " ! &' + !!
R%!!'+ !! '5$J3C' >OEE' R%!!'+ !! ' 3 $ED34' P$NDH-2 ' ! '
+ #' !%!#1' 9 $J' P$4NF$E' R!#')3 ')' + !! ' 3D' P$CHE'
" ,, 1') '8$J HE' P32$430' H&3' 5$4E30' P3F$430'
< #!'5HFE' P DD 3 HE' + ##!'+ !! ' M3H423' P 34' + ##!'+ !! '
*FHJ$C' PHH43C' R #(&,#' + !! ' 5$J3C' PH44CH' R, !' + !! '
9 $J' PH44CHE' R!#')3 ')'+ !! ' 8-2F' 8$J HE' PH4 J34' "31)'
< #!' 5$J3C' P-44$0' I, #) %%' 5HFE' P-C24H 3' /31 U 1' *FHJ$C'
,$1 34') ! 1' 9 $J', NFHC' WH &$4D' + !! ' ^! ,!1' HJ'
< 34' /%&! #)3 ' 5$J3C' I$ J34' ,,&' + !! ' 5$J3C' I$4+34'
Y3!!#' + !! '5$J3C' I$ 30' " 1),51(!' + !! ' ' NF$4D' I33+' I,%! #'
+ !! ' @F$43C' I3EE0' ",F' < #!' *FHJ$C' I3 43?C' '!')3 ')'
+ !! ' 83E40' IF 1C' "3&(!' L,F' ;DJ-ED' IHE &3 ' +),!' < #!'
9 $J' IHE &3 ' U3# , ' +),!' < #! ' G$ D' I4N3' ??,F(!'_ %%'
#ED34 HHD' I4N3' #(' + !! ' +#,F' %%' 5$J3C' '$1F' I)! 51&!'
5$J3C' '$JCF$ 'R! ! '< #!'5$J3C' '$0J3E' '4H 43E') 'M3H423'
' NF' <3&(!' %%' ?$J-3' ' D 30' E!F(!' + !! ' 5HFE' 'HQ34 C
E!F(!'+ !! '-ED3 '<3&(!' O' M& H423' ' -A'R!#[
')3 ')'+ !! '@F$43C' -2-C -C' ?$ $23'R! ! '< #!' I3 34'?$-F342-3'
!1 , !% #&' "3%& #(1' ' NF$4D' ?$-ED34C' R%!!' + !! ' *FHJ$C'
?$-ED34C' Y3!!#' + !! ' *% '!' 'HQ34' B3E HE' ?33 30' R !!' + !! '
5HFE' ?3 3 ' O55!'7) !1' + !! ' M3H423' ?3 ' + !' I3 !'+ !! '
' NF$4D' ?F$41' ! 'E!F'+ !! ' 9 $J'?$4+' I)! 51&!' M3H423'
?J F' ,3()'+V3 !' 9 $J'#J&43 3' ?J F' '!')3 ')'+ !! '
643D34 N+' ?1$44H '<3&(!' %%' ED43 '?1H C HHD3')'E!F'
+ !! ' 'HQ34' ?1H C HHD3' &&%!' E!F' + !! ' M3H423' ?3 $4'
7) ! &#!!&%!'+ !! ' 9 $J'?3 $4'R!#')3 ')'+ !! '*FHJ$C'? O$E'
+', 1' H &' "31)' < #!' 5HFE' ?0+3C' L!&' ,11' + !! ' 5HFE' 5HC31F'
*$EE34' E!F' " 1#() %%' + !! ' @F$43C' *3440' +),!' < #!'5HFE' *F3HR
Q$D' + ##!'+ !! ' ?$J-3' *- 'R!#')3 ')' + !! ' ?$J-3' #E E'
<, 4 &' + !! ' 643D34 N+' 9$ 34' R%!!' + !! ' 9$4 N+' 93C HE'
'!')3 ')' + !! ' *FHJ$C' 8-E 34' 9 NH ' O5V ' 7) !1' + !! '
@F$43C' / ,#' <3&(!' %%' ;D $4D' 9 $JC' <!&' < ,#' I,3 '
R%!!' + !! ' *FHJ$C' M3H423' 9 $JC' Y3!!#' + !! ' 9 $J' 9 R
$JC' %#(' + !! 'GHQCHE' 9 H-2FQ0' ?$J-3' 9 CHE
I)! 51&!' G$ D' 9 $J' 9 HE' R!#')3 ')'+ !! ' B3E E4&' 9HHD'
'< #!' *FHJ$C' 9HHD' < %!' +'7), 1' /5,1%!' M3H423' 94 2F'
/%&(!' 9 $J' 6 -2F3C' 8-2F3C' *

R, ')!' I '1 93C J EC 34' #&' < 4! !1')! !, ' #&' I '!1'!J!'3 !&
#' 93C J EC 34' 8$

5$J3C' G3' 3' + #&' 5$J3C' M4$0' I) #(' I ,11' ? !1' MH- D E2'
+ #&' @F$43C' >3 C' 6J!#&,#' + !! ' 5HFE' I4HCC34' I) #(' I ,11'
9 $J' ?$4+' I,' 153' + !! ' 5HFE' '5 !' * %%' %%' 8 1 ' 5$J3C'
'-DD3 ' *HDD' ?,)#' + !! ' /&!%5) '@F$43C' &43D' *FC3 HE') ![
) %%' *% '!' 5HFE' >3 CHJ' ; H ' , 'I J NH' >HD23' *FHE"$C' M- $E'
, 'G3$EC' =$4D' 5HC31F' @$4 34' 9HHD' , ' 4 340' I $N3' 9 $J'
M4$E' ' HC3' , ' I$4 $J3E' ? 433 ' 9 $J' 5HFECHE' , ')!' 8H4C3&3440'
'H$D' 5HFE' B3 $J0' , ' I$ $N3' =$4D' @F$43C' 9- $J' 8$ 3 ' H '
Q E2DHE' ? 433 ' 9 $J' B$+34' , ' P$4+3' ? 433 ' ;D $4D' I$44$ '
@ ' P Q$E+' ' H ' 6 ENF' D 34' , ' P Q$E+' ' H ' 9 $J' 6433J3E'
P Q$E+' ? 433 ' 5$J3C' + ECHE' 1 M344$4D' ? 433 ' @F$43C' I3
3E

3E' H @$4 C 3' ? 433 ' ;D $4D' 6HC 34' H M433+' ? 433 ' 5HFE' 8 34HE' , ' @$4 C 3' ? 433 ' *FH J $C/' 8 H ' V ' M43$ ' , 3 1H4 ' ? 433 ' 5HFE' %3 +' , ' < D' @H J 1 HE' ? 433 ' 5HFE' P 3 F 30' , ' 64 F' ? 433 ' I 3 34' *FH J 1CHE')!' '64 &3' ? 433 ' 9 $ J' 9 $ C' V ' >3 N3C 34 ?X-$43' 5HFE' 9 CHE' H M433+' ? 433

R, ')!' L !1 ' , ')!' I ,3# ' , ' P DD 3C3

' 9 $ J' 5HFE' >3E F$ ' '6- F$ J ' M3H423' B$2-3' H&' @F3 C3$' 9 R $ J' G3$NHE' , ' @F3 C3$' 9 $ J' ?NH ' G3 2F HE' 9 $ J' B H& 3 D' 9 $ J' B$ 30' H&' @F C 3 ' ? 433 ' B3E($ J E' B$ 30' H&' @$C 3' ? 433 ' *FH J $C' ' H-C3' , ')!' @ 0' ' H$D' 5HFE' 63 HE' , ' < D' ? 433 ' 9 $ J' >H 3 ' H&' @H 34' ? 433 ' I 3E HE 3' 64$EN C' B40$E ' D$ J C' H&' ?$ E' 5HFE C' ?X-$43' $ 3E E3' %E 2F ' \ &@ 34+3E 3 ' @ HC3' 5$ J 3C' ' HQ34' @$CC3 ' ' HQ34 ' B$ 34' < D' BHED' ? 433 ' 9 $ J' 8 H J $E' H&' ?F$D' 3 ' M3H423' 13D$ 3' Q4F J' ; D J -ED' ' 30EH DC' *FH J $C' @F$ C' U3# , ' , ' 6 ECQ-40' ?X-$43' ; HQ34' @4HH+' 9 $ &H4D' 5$ J 3C' ' HQ34' @$CC3 ' 5$ J 3C' ' HQ34' @$CC3 ' < D' ? 433 ' I 3 34' @ - 34Q-N+' *FH J $C' 8$ ' I 0 J 34 ' 5HFE' ?F- 34' B3E($ J E' ' H NF'(-E H4 ' ; D $4D' B-C+' R, & 1' ,0!' #') , !' %%' , ' &&%!' 7! 5%! ' 5HFE' 9 $43' I 3$C$E ' ' H ' % E2C $ED' ' H$D ' 9 $ J' 8 H J $E' ?FH43D NF')!' L !0! !#&' 5$ J 3C' L #& %' 7 %, J ')!' L !0! !#&' 5HFE' >HECD$ 3' >3 C' M3H423' G 3' 5HFE' 5H4 E' 9 $ J' ' H F340' 5$ J 3C' 8 H J 3C' 5HFE' GH0 3' *FH J $C' + ECHE' ' NF$4D' 8 FH-C3' U3# , ' 9 $ J' BHED' V ' @ $43 J HE' ?X-$43' ; 3$TH4' BHH+34' *FH J $C' < 34' , ' J 3 ' ? 433 ' @ $43 J HE' ?X-$43' 9 $4E3' ; D $4DC' H&' #1134' 8 H H $0')!' L !0! !#&' Q3' >HEDHE' , ' *D 34 D23' 9 $ J' ?NH ' G3 2F HE' , ' ?$ E' ?31- NF43' ?$ J -3' @ $0' X&' ?$ E' ?31- NF43' >$EN3 H ' 8 $43' , ' ?$ E' I $EN4$C' 9 $ J' < 34' , ' ?$ E' I $EN4$C' ' HQ34' > 3' C$$N' B 4D' 5HFE' >3CNF$ $C' I 4 EN3C' ? 433 ' ?1 $ & 3 DC' 5HFE' MHC E2' V ' 8 2F $0' 8 H-C3' C E2 HE' 5$ J 3C' B-4NF3 ' 5HC31F' M4$ HE' 5HFE' *H 3ED' 64$EN C' 5HC31F' 8 - J Q34' H&' 8 0D3' I $4+' *344$N3' < &H4D' ? 433 ' , $ F$E 3' 8 -C$ ' ! ' * , % #&' + !! ' 5$ J 3C' 8 424 3' P $EE' H&' < D' @F$13' 8 H-C3' %3E CF' *H E' 9 $ J' 8 -4C' CF1 3' , ' 8 $N+E30' 9 $ J' 8 H J $E' V ' ?F$D 3 ' M3H423' 13D$ 3' 8 H J $E' V ' ?F$D 3 ' Q4F J' ; D J HED' ' 30EH DC' V ' ?F$D 3 ' 9 $ J' -C E' , ' ?F$D 3 ' M3H423' %$ E' , ' ' $ N &&3' B$4T $' >$E3' X&' B3 FE$' M433E' ?,)#' @H 3C' X&' B3 FE$' M433E' 5HFE' B3$T 30' X&' B3 FE$' M433E' 64$EN C' 9 $4D ' $ 3E E3' %E 2F ' 5HFE' I F 1C' B3$ $E' X&' ?$N+ 3' ? 433 ' I F 1' B3D 3 9 $ J' ' HQ ECHE' 9 $ J' ?NH ' G3 2F HE ' *FH J $C' 8 EE J' @4H-NF' @F$4 3C' 8 3E40' ? 3$D J $E' *FH J $C' @F$ C' B3E($ J E' B$ ' 30' 9 $ J' B$ 30' 9 $ J' B H ' & 3 D' >3C 3' M4H 3' 5HE3C' X&' #1134' M H C 34' ? 433 ' * 1)' , ' P $40' 3 QHE3' 9 # 4' 8 3E40' B- J $4D' X&' , 3 ' ' H$D' * 1)' , ' P $40 3' QHE3' 5HFE' P 3 3' X&' #1134' 8 $4 30' ? 433 ' * 1)' X&' P $40 3 QHE3' ' HQ34' I 134' X&' ?F31F34DC' B- ' 5 J E3C' G -&&' X&' P $EH4' 8 H-C3' I H1 $4' 5$ J 3C' M4$EDO' #, ' I , (!' * ,5% ' ' HQ34' 9 C' 8 $ ' X&' *4$&$ 2$4' ?X-$43' P 3' ; ED' @F$4 3C' ?$ CQ-40' B- 34' X&' B3 FE$' M433E' *FH J $C' 8 $ ' I - J 34' 5HFE' ?F- 34' B3E($ J E' ' H NF' 5$ J 3C' 8 424 3' P $EE' 8 -2F' I $4E3#' *FH J $C' @F$EN3 H4' 9 $ J' >$ R 43EN3' @F$4 3C' 8 3E40' ? 3$D J $E' 5HFE' 8 EEE' @4H-NF' 9 $ J' B H & 3 D' 9 $ J' >-N$C' 8 $ D ' ' NQ$4D' B -E ' 9 $ J' 9 CHE' 8 3E40' @$4 E2 HE' BH 3C' H&' P ODD 3 HE' 8 H-C3' ; E& 3 D' ; D $ D B-C+

B - C+' , ' 6H4DC' M4H 3' ; D J HE HE ' G$E 3 ' M43CC 3B' G G
; E& 3 D ' 5$ J 3C' ; O+OE' H /' I $ J 34 C' M433EO' ; D J HE HE ' I3 N4' 8 H13'
6 4 F' , ' ; D J HE HE ' I $ & 3 D' P C' ' @ $(' 8 A ' ; E& D' QH J $C'
64$EN C' , HQ 3' H ; E& 3 D ' 8 3E4O' I F 1' I H OC' : ? H +2$ 3' ; D J HER
HE ' I3 34' * FH J 1CHE' , ' ; E& 3 D ' @F$4 3C' ; H ' @ ' IH4 $ED' 8 $N3 '
? J 3HE' * FH J $C' B - ' , ' 8 H 3C' ? 33 ' @$ 3ED CF' ? J $43 ' 9 $ J'
MH $E' H # 1134' B$+34' ? 433 ' 5HFE' P 3 3' H 8113 8 $4 3O' ? 433 '
* FH J $C' I $ 3E' HO' @4$ &H4D' ? 433 ' 5HFE' P $0E$4DC' @F3 C3$' 8 - 2F'
B 34C' HO' I $DD E2 HE ' M Q34 ' EC 3' = H - E2' #11H4' I H4 $ED' I $N3 '
; D $4D' > HE' B - 34' , ' 8 34 &H4D' ? 433 ' P $O' I $ 4' 3 $ED34'
P $NDH - 2$ ' , ' I $4 $ J 3E ' ? 433 ' ' HQ3 ' I 134' ? F31 F34D C' B - CF'
5$ J 3C' 9 $4D' 8 $4134 ' 64$EN C' 8 - J Q34 ' 64$EN ?' > N' P $H ' '
M3H423' B4 - D3E3 ' P NF3 CHE' > H QHED ' ; D $4D' < 3E ' ' NF$4D'
B$4E3 ' 5HFE' P $423 C' 5' 9 ' 643CF& 3 D' 8 1 1 3&' 9 J 1H 3'
? 433 ' ' '

R, ') !' I , 3# ' , '

7) !' L ! 0 ! ! #&' G$ D' > 3 3 E' @ ' > $E 8 H' @43CC O ' 9 $ J'
5HE3C' , ' > $E H' @43CC3EO ' 9 $ J ' 5HE3C' ' #$E # J ' @ 43CC3EO '
8 3E4O' 8 H 34' , ' ' $2 $ED ' ; D $4D' BH O34' ' $2 $ED ' I F 1'
P H42$E' , ' @ O F$ ' 5HFE' ' HQ34 C' V ' 643 3N+ ' 6 $E3 C' G$ 3C' '
9 HH 3CE3 HE ' 5HFE' 9 $ 34C' , ' > $ED3E3O ' 5$ J 3C' ' NF$4DC' '
@ J N$4 HE ' < ! 3 ! # #' ! #! %' 9 $ J ' % EC3O ' * FH J $C' 8 - 2F3C' , '
Q342$ 3EEO ' ' HQ34 ' 9 F33 3O ' * FH J $C' 8 ' B $& $ HE ' 9 $ D4HE'
? 31F3E' 8 ' H * B E HE ') !' L ! 0 ! ! #&' 5$ J 3C' 53E P EC' ' 8 J $ H& '
5HC31F' I4 N3(P H4 ' H * P HE J H - F' ' NF$4D' J 1F&3 ' ^ P HE J H - F'
* FH J $C' DD$ J C' 9 $ J C' , ' P HE J < - F' 9 B J4$' D B?' 9 $ J C'
, ' P HE J H - F') !' L ! 0 ! ! #&' 5HFE' B - 4ENC' B4H E3' ' P N J J H - F') !'
L ! 0 ! ! #&' ' NF$4D' 8 H 3 ' 6 3 J E2' @ ' > ED2H ' 5HFE' ' HF34 3' V '
* - HN+ ' ; D $4D' 8 $44 C' < % # %% , ' I ! 11 ! ' ? $ B J ' @F - 4NF ' V '
> $E H 3 ') !' L ! 0 ! ! #&' 5HFE' 5HE3C' @ ' M 34 - 3C - O ' ' + Z ! ! #&'
* FH J $C' 9 $ J C' ' > ENOH ' 64$EN C' 9 H 3 8 CF ') !' Z0 ! ! #&'
* FH J $C' M4 && FC' MO#C+ ' 64$EN C' P NGHEE3 ' 2 8 C+ ' 8 3$ O' P HC OE'
V ' #C+ ' 9 $ J ' 9 HHDFH - C3' ? 3N43 $E' , ' #C+ ' 5$EE3?' I4 NF$4D' , '
#C+ ' * FH J $C' ' NF$4DC' , ' #C+ ' 5HC31F' I4 N3' ? ' ' P HE J H - F'
) !' L ! 0 ! ! #&' * FH J $C' I4 N3' @ ' P HE J H - F' 5$E 3C' B - 4& J ' V ' P HER
J H - F' ' NF$4D' J 1F 3 ' , ' P HE J H - F' M3H423' 8 $

R, ') !' I ' #&' I , 3# ' , ') !' I ' , H4 NF

7) !' L ( ) ' , # , 3 4%!' ' HQ34 ' M4$E ' ' NF$4D' 8 $EF - 4O' M - 4E3O '
) !' , ') !' L ! ' , &! ') !' + ! F &') !' +) Z ') !' / ! #') !'
2 ! #' , ' , H4 NF') !' * ! 4 ! #& ! 1' , ' , J& NF , 0') !' 7) !' 4 ! # (N
5HFE' D C' * FH J $C' 3E ' 5HC31F' 3E ' 5HFE' 8 %E2' B$4E$4D'
&43D' B$4E$4D' 5HFE' B$4 3 ' 5HFE' B3ED3O ' 8 44O' BH E2F4H+3 '
* FH J $C' B 2EH D ' * FH J $C' B 2EH D') !' 5HFE' B$4Q34 ' * FHR
J $C' B4 2F 3 ' 8 H4$ H' BH E2Q4H+3 ' 9 $ J' B - 4 ' U &, ' ' NF$4D'
, H 3443' B$NHE ' 5HFE' B$4+34 ' 5$ J 3C' B - NF34' 831 &3E ' 5HFE' B$ C'
5HFE' B$C3O ' ? $ J - 3 ' B - ED34& 3 D' O P E H4' M3H423' @ C1' B - 44H C'
5HFE' B$ 3 J $E ' M$Q4 3 ' I - J J 34' B$O& 3 D ' ' 5 J E3C' B % - 4D $ J ' \ '
D E34' @F$1 J $E ' 5$ J 3C' I $23' @HN+C3D23 ' @F$4&3C' @HH134 ' 8 314O'
@F$ J Q34 E' 8 3E4O' @F$ J Q34 E' U3# , ' ' HQ34 ' @Q$ J Q34 1(' 5HFE'
M$EE' @H - C EC' 1 ! # , ' 5HFE' M433E' @4HCC3 ' 5HFE' @H13 J J4 ' 5HFE'
@ - 44 ' 5HFE' ? 3 34E' @$ J 1 E ' 5$ J 3C' @ $QQ - J ' 5HFE' @ $4+3 ' ? $4 E2'
' >' G$O

USZ' .U'K'S'M#> >P ' '&' @$1' U

G$ ' M3H423' G$O' 5HFE' G HE' 5HFE' GHJ$E' 9 $J' 834HE'
G$ D' 9 $J' G$ O' 9 $J' G3N3$- ' 5HFE' 9 F34C' GH '
CHE' @F$4 3C' ; $Ef' *FHJ$C' ;D $4DC' 9 $J' MH4DHE' ;D $4DC'
9 $J' ; F34 D23' M3H423' ; F34 D23' 5HFE' 8$J JHED' 6 C+'
'HQ34' I N+ E2' 'QQ34' I N+ E2' U3# , ' *F1J$C' 6HOCHE' 5HFE'
64$EN C' 5HFE' M$44$4D' 5$J3C' MHHD E' 9 $J' M3$40' 5HFE'
' M$T3' M3H423' M4H- ' 'HQ34' MHDD$4D' I3 34' 8$EC3 ' 5HFE' 834'
'4 E2' G$ D' 8 C' 'HQ34' 8- ' 5HFE' MHHD E' 5HFECHE' 5$NHQ'
5HFECHE' P$ F3 ' 5HO' 5HFE' 5-QO' 5$J3C' 5HFECHE' 'H234' % CHE'
9 $J' %3EE3Q4HH+3' M3H423' % CHE' 5$J3C' % E2' 83E40' %30J34'
@F$4 3C' >$JQ' 'HQ34' >$DQ4HH+3' 9 $J' >$D3 ' ?$J-3' >H N+'
?$J-3' P$4 E' 'HQ34' P$CHE' 9 $J' P$ NF3 ' ;Q3E3T34' P C'
643D34 N+' P C' M3H423' PHE30J3E ' ?$J-3' P NF3 ' 83E40' P 34'
'HQ34' P 34' ? JHE' P$4 E' 64$EN C' ,3 HE' 9 $J' ,H4J$E'
9 $J' ,3 CQJ' 9 $J' I3 34' , NFH C' 5$J3C' ,3 Q32 E' B3E'
($J E' ,H42$ 3' 5HFE' I43CNH ' < 30' 5$J3C' I$4CHEC' 'HQ34' '$ 3E'
I4 3C ' 9 $J' 9 223 ' I$4 N ECHE' ?$J-3' IH 30 ' ,$ F$E 3'
I$ J34' ?$J-3' I 22' 5HFE' I 22 E' P$ F3 ' '$N+F$J' ;DJ-ED'
'33 3' 5HFE' 9$4D3E' 'HQQ34DC' 9$+34' 5$J3C' 'HQQ34DC' 6 3E40'
5HE$C' 'HQQ34DC' 9 $J' 'HQQ34DC' 9 $J' 'HQ ECHE' 5HFE' '$0E3C'
5HC31F' ?3 3 ' 9 $J' ? J1CHE' 64$EN C' ? HE3' ?$J-3' ?H F34E'
5$J3C' ? HE3' 5HFE' ' C E2' ?$& ' 5$J3C' ?14$ ' U3# , ' 9 $J'
?F$ D34C' * JH FO' ?3 $4D' @F$4 3C' ?Q N+ 3' ' NF$4D' ?F$ ' ;DJ-ED'
?1$4CF$ ' 9 $J' ? $4+' P NF$3' ? $4+' M3H423' ? J1CHE' G$E 3'
?F4 J1 E2' 5HC31F' ? HN+C' 5$J3C' ? 3 ' ? JHE' ?3 HE' M3H423'
?H F34E' 'HQ34' ? 3QQ E2C' 9 $J' *FH4E3' Q3' *H 34' *FHJ$C'
*F3HQ$ D' 9 $J' *F3HQ$ D' 5HC31F' *H44 C' 5HFE' BH-4E3' *4 3 '
@3J3E' 9 $J' #E F$E+' ;D $4D' $4E CF' B3E($J E' $4E CF'
*FHJ$C' 9$ CHE' 5HFE' 9 3C ' ;D $4D' 9 F 3' 9 $J' 9 HHDNHN+'
*FHJ$C' 9 CHE' 83E40' 9 3 ' 5HFE' ,3 J$E' 9$ 3' 5HFE' ,3 '
' J$E' 9$ 3' (PJH4' 9 $4E34' 9 4 2F' P .G ' ?$J-3' 9 C3$' *FHJ$C'
9 30' ,$ F$E 3' 9 03 F' ;D $4D' 9 3 ' IF 1' 9 HHD2$ 3' 1!# , '
*FHJ$C' 9$ C' ?$J-3' @$4 34' =$4 E2 HE' 5HFE' =H-E2C' ? JHE'
9 +E' g' ' '

6H4')!' I ,3# ' , ' ,H4 Q +

7)!' L!0! !#&' @F$4 3C' 8OD3' 9H $C HE')!' L!0! !#&' 9F $J'
64HC ' ;DJ-ED' @HH134' 9 $J' B-N+' 9 4 2F' B 22')!' ,3#(! '
)!' L!0! !#&' *FHJ$C' I$DDHE')!' L!0! !#&' IF 1' M-4DHE' 9 $J''
M-4DHE' B4$J1 HE' M-4DHE' 5' *' M' B4H E3' 9 $J'
8H 3' 9FEDF$J' 5HFE' *FHJ$C' PH ' G3EE C' 9F $N43' M-E HE'
)!' L!0! !#&' @F$4 3C' 83$ F')!' L!0! !#&' @43J34' @43J34')!'
L!0! !#&' 5HFE' GH 1F E' 643D34 N+' 9$ 1H 3' %3113' I%! '' 5$J3C'
8HC 3' I%! ' + ' *FHJ$C' 83E40' ;C 4 D23' G-44$E' " ,#! ' 5$J3C'
8-E' 8H 30' 'HQ34' @H13J$E' , ' O CF$J' 5HFE' 9$4E3C' ;'
>' B- 34' I%! ' ;D $4D' 8H 30' I%! ')!' L!0! !#&' 9 $J'
I$+3EF$J' ?13E@34' , ' ? $4C H#')!' L!0! !#&' *FHJ$C' M4$ E234'
@$- 30' , ' ;$4CF$J' *FHJ$C' @ $4+' B43 E2F$J' , ' B4HN+D CF'
@F$4 3C' #J1F3 QO' , ' G3E H& ' M3H423' ;D $4D' %3E' I%! ' M OE'
; F34 D23' $?!3 !# #' !#! %')!' , ,3 4%!' 5HFE' P3$D3' 9 $J'
,H4J$E' + ' 6433J$E' B$4 HE' # ( ) ' 5$J3C' ; H' 8-DCHE' 5$J3C'
G4$E3' ' NF$4D' I4 3C ' M3H423' @$ F3 ' @F$4 3C' ; F34 D23' 5$J3C'
8 ' *FHJ$C' ;D $4D' *$ 3'' @H J$E' 5$C134' 8H 3C' * 113

Q4 QM#> ;>P &'

<, & M3H423 B3E EN+ + 83E40 B3D E&3 D " ,#! + 83E40 G 44$E " ,#! + 9 $J B3$-NF$J1 " ,' ! O " ,#! + 9 $J B4H E3 6H +3C " ,#! ?$J -3 8 $D 30

R,)! I ,3# , ,H4 F$J 1 HE

*-4 HE 2 2 2! # , I3 34QH4H-2F 9 $J P71HE$ I%! 8 -Q34 P$4CF @34 4 BH- Q33 M3H423 @$14HE @F$4 3C ; -C3QO CF4 I%! G$E 3 B$ 34 >$E2 30 I%! 83 > E HE I%! 5HFE P 34 I%! 3 $ED34 P$NDHE$ D I%! 5$J 3C ' N+3 ' HQ34 ' HQ34 C I%! 83E40 DD E2 HE ? JNH3 I%! 5HFE 9 $J ?J F 5HFE ?F Q334 I%! ' NF$4D * QQ C 53CC3 G$ D 9 $ C ' -CC3)! ,#,3 4%! ; D J -ED ?3 HE I340 4FHJ $C 9 + EC ' NF$4D 9 + EC *FHJ $C 9 3E H4 F M$23 I%! @F$4 3C I $C 30 $E I%! 5HFE P HEN+ HE , 6 E3CF$D3 ; D $4D M4 && E , ? H+3 Q$EO I%! ' HQ34 G3N+34 V 9 $+34 O I%! 5$J 3C 8$ +3 H / 9 3C HE @34 4 ' 8EE&H4D F E2 QH4H-2F 9 $J 9 $J CHE ' C 1 I%! ' $ 1F ' H+3QO , > 4 F E2 H4 F I%!)! ,#,3 4%! #& L!0! !#& 8 6 *H J $NF3 H 8$44 E2 HE 9 $J 9 $J C 8 H13 H ' -CF HE

R,)! 7,F# #& I ,3# , ,3 N$C 3 -1HE *OE3

*FHJ $C ED34CHE M3H423 ED34CH4& 9 $J B-4$-1 9 $J BH $J M3H423 B-4E3 U3# , 5$J 3C B-4E3 5HFE @HH&NCHE *FHJ $C @4H F$ 5HC31F @4H F$ ' NF$4D 6$44 E2 HE 5HFE 6$44 E2 HE *FHJ $C 6$44 E2 HE @F$4 3C M4 && F 9 $J 83 CHE 5HFE 83 CHE *FHJ $C P$ F34 P$ E ?H4CQ 9 $J -QHE3 ?-4 33C 9 $J @ $0 HE 9 $ 34C

R,)! I ,3# , ,H4 F- JQ34 $ED

7)! L!0! !#& 9 $J 5$J 3C G$4 30 9 $DD#H 3 I%! U% B3$NHE M4$E23 #! 83 F$J)! L!0! !#& 83E40 M 11? V @H4Q4 D23 M3H423 M QCHE , ' 33DC J H- Q @F4 C H1F34 + ECHE P$ F3 @- 30 V 6H Q3440 *H 34 P$ F3 @- 30 V @H-1 $ D @$C 3 9 $J G$ CHE ' $ 1F 6H4C 34 5HFE M430 @F4 C H1F34 8H1134 ' HQ34 5HQCHE 9 $J 5HQCHE *FHJ $C %E 2F I%! @F$4 3C F $ 3 ?7 I$- 83E40 I$4+34 I%! 5HFE ' 3$ @F4 C F34 ' HQ ECHE @34 9 $J ?J F D$J ?J F 5HFE ?$ED&H4D V3 1 H 7 9 $ 34&H4D

R,)! I ,3# , ,H E2F$J

5HFE 8$ED 3d U3# , IF 1 8$ED 30 9 $J 8$ED 30 9 $J B4HDF-4C)! L!0! !#& $+, J # R#+!)! L!0! !#& 83E40 BH J $E B$NHE 64$EN C 8$?$J -3 9 $J , 33D 5HFE P$EE E2 , 33DF$J)! L!0! !#& *FHJ $C >33CH J @-4CF$J 2 2 < *FHJ $? B Q 3 64$EN C 8$ 9 $J , 33D *FHJ $C , 33D)! ,#,3 4%! #& L!0! !#& 5HFE 34EHE I%! *FHJ $C , HE M3H423 ' HQ ECHE 5HFE ; D $4D B4HDF-4C 83E40 B4HDF-4C *FHJ $C 8$ H 3C ' Q4FJ BHH F 5HFE 8- J 3 2 53&&340 8$ 9 && &34 , 33D 5HFE

U [' 'K' M#> ;>P' ' @$1' U

5HFE' @F$4 3C' 9 0 D3' 'HQ34' 8 3E40' 9 0 D3' G ; 3C' @H+3')!'
,3#(! ' 9 D $J' ?$NF3 343 '@H+3' ;D $4D' @H+3' ' NF$4D' @H+3

R, ')!' 7, ' , '>-D H

5HFE' *FHJ$C' 8 3E40' 9 F $ ' 8-G$1F430' ?J F

' R, ')!' 3F ' , '?$ H1

5HFE' @F$4 3C' B-4 HE' BH4H-2F' *FHJ$C' B34E$4D' B$DD3 30' *FHJ$C' I$4CHEC')!' , (! ' *FHJ$C' 'O+JDC' 9 $J' ?$ED&H4D' I%! ')!' L!0! !#&' + ' ;D $4D' %OE$C HE' " ,#! ' , ' 8$4D N+' 5HFE' 'H234' %OE$C HE' , ' 8$4D N+' Q3DE32H' P$ F3 ' , ')!' >0 F' ;D $4D' GOJHN+' H ' ; 3CJ343' ;D $4D' 8-J1F430' GOJHN+' , ' ; 3CJ343')!' L!0! !#&' ;D $4D' ;D $4DC' V ' ; 3CJ343')!' L!0! !#&' 5HC31F' D4 N+' @H HE' H&'; 3CJ343')!' L!0! !#&' 5HFE' IF 1C' ;#3CJ343' 9 $J' D4 N+' @H HE' H&'; 3CJ343' 5HFE' ;D $4DC' 1!# , ' M43$' ,3CC' 5HFE' ;D $4DC' U3# , ' M43$' ,3CC' 9 $J' ?1$4 E2' H&' ' I3 HE' @F$4 3C' %OE$C HE' P$E $4 E2' , ' <$ 30' I$4+' *FHJ$C' B- +3 30' < 3E' , ' *3DCJH43' ?$& P(3' 6$ H C' H&'; 3CJ343' >H $ ' 6344$' , ' 8$4D N+' >HD23' 9 $J' 3 $ED34' I4H C' , ' ; 3CJ343')!' L!0! !#&' 5HFE' 5-C N3' 2F & 3 D')!' L!0! !#&' P' G' *$0 H4' , ' PH43 HE' @H4Q3 ' 8 3E 0' 5-C N3' H&' ?$ED&H4D' 8$ ')!' L!0! !#&' 9' ?' P$4 E' ?F$ Q-40 ')!' L!0! !#&' ;' *'' ?3 $4D' , ' 93J' 5' @' G' ?3 $4D' , ' 93J' 5HFE' 9$ &H4D' V ' 93J' 5HFE' 8 3ECF$ ' 9$ &H4D' , ' 93J' 5HE$ F$E' , N+CHE' , ' ! ')!' L!0! !#&' R0 ! 1' ?$ ' , ' 93J' ' NF$4D' 9 0NF34 30' ?J F' , ' >H 3' 9 $J' 3+3' 9$ ' H&' ,3 H E' M3H423' BH 3E' , '@H HE' G$E 3' ?13$+J$E' H&' ;DC $C HE' *FHJ$C' , N+CHE' H&' 'O3' B$E+' ?$J-3' 9H4 F E2 HE' , ' 9 F NF-4NF' 4NF Q$ D' 9H4 F E2 HE' H&' 9 F NF-4NF' 'HQ34' G$4 E' $-2F HE' H&' 9 F NF-4NF')!' L!0! !#&' 8 3E40' PH44$ ' H&' 9 F NF-4NF')!' L!0! !#&' 5HFE' PH44$ ' , ' 9 F NF-4NF')!' L!0! !#&' M3H423' '' GH E $4D' H&' 9 F NF-4NF' M3 23' @H4C34' 1!# , ' V ' 9 F R NF-4NF' M3H423' @H4C34' U3# , ' , ' 9 F NF-4NF' 9 $J' 9 0NF34 30' B4HH+3C' H&' 9 F NF-4NF')!' L!0! !#&' 9 $J' %3E' , ' 9 F NF-4NF' B4H-2F HE' GHD' H&' 9 F NF-4NF' 9 $J' IHH 3' , ' *344 N+' 8$ ' ?$J-3' =$ 3' B3EOHE' , ' CF' 5HFE' B4HH+3C' , ' B4H-2F$ ' EN3E' 'H234' @H4Q3' , ' DD34 30')!' L!0! !#&' 9 $J' @-44 3' H&' DD34 30' 9 $J' 8H $4D' H&' 8 EC HN+')!' L!0! !#&' P$ F3 ' G$ 3C' , ' 8 EC HN+' 8 3E40' B$0 30' @ 3' ? ONF' 8$ ' ;D $4D' @ 3' ? ONF' 8$ ')!' L!0! !#&' 'HQ34' #1 HE' H&' PH43 H-')!' L!0! !#&' 8-2F' %34' H&' ,H4 HE' G$E 3 9 CHE' G$ CHE' H&' ,H4 HE' I3 34' B4H-2F HE' ?430' H&' *-EC $ ' 5HFE' *$0 3-4' H&B- E2CD$ 3')!' L!0! !#&' ?' I' ? -QQC' H&' G4$0 HE' ' NF$4D' P$4 2H D' ,HE3 30' 1!# , ' , ' G4$0 HE' ' NF$4D' P$4 2H D' ,HED30' U3# , ' , ' G4$0 HE' 5HFE' 9 CHE' , ' G4$0 HE' 9 $J' 9 CHE' H&' G4$0 HE' @43C 3 ' I 2H' H&' G4$0 HE' @F$4 3C' 9$443E' 'G4$(NJ')!' L () ' ,#,3 4%!' <, &' 8 ' ' NF$4D' 53E+ EC' M3H423' 5HE$ F$E' ?NH ' 5HFE' *FHJ$C' 8H13' *FHJ$C' 83E40' 8H13' ;D $4D' 8HC 34' 9 $JC' ED43 ' ' @H4Q3 '?$J-3' P-4' H&'B$44 E2 HE' *FHJ$C' >HE2-3 3' H&'<C 3C 40' U3# , ' 9 $J' PHC OE' 6F!#'U3# , ' H&' 9HHDFH-C3' ' NF$4D' @H4Q3' V ' DD34 30' M3H423' 6H43C 34' ` ' B4H4&30' I%! ' ?13EN34' 9 D3 ' I%!

UL' K'S' M#> ;>P ' r ' @$1 U U

I%! ''>' @' I' ;' 8' < 3E' 9 3 E2 HE' I%! '
;' 8' < 3E' V '@H-ED' I%! ')!' " O ' L!', &! ' #&'
7,F#' I%! 'H&' 9 3E HN+' 643D34 N+' PH43'C >$4 E '@ ! N

R, ')!' I ' #&' I,3# ' , ')!' I ' , 'B4 C H

7)!' , 'L!', &! ' /%&! !#' #&' I, ,#' I,3#' % N ')!' 7 !'
4! #(' @F$4 3C' I EE30' + '@F$4 3C' 9 3 F343 ' *FH J $C' G$E 3 ' 5HFE'
8$0 FH4E3'5$J 3C' 6H 34' 9 $J' 64 11'M3H423' 8 FH-C3' Q4FJ'
8 FH-C3' 5$J 3C' M3H423' 5HFE' B$44H ' *FH J $C' @$J1PE' M$Q4 3'
MH DE30' 5HFE' ?$ $23' IF 1' I4H F34H3' 5HFE' @$ 3' ; $E' B$ 3'
9 $J' 9 3$43' ' NF$4D' B4 2F ' + ' 8 3E 0' I4H F34H3' >3 ' J 3C'
9 $J' EJ$E' ;D $4D' B4 N3' B3E($J E' B N+ 30' , NFH $C' 'HNF3'
5HFE' M$4D E34' 'HQ34' 53E+ EC' @F$4 3C' W D H ' 9$ +34' 6($EN C'
?$ $23' G$E 3' ? $E HE' @F$4 3C' I$0E3' 8 3E40' 9 3E J $E' ,3 J $E'
*FH J $C' 8HH134' B DD 3' 8 -2F' 9 $J' G$ECHE' 5HFE' ; $EC' '-E3 '
M3H423' I4H F34H3' 9 $J' @ $ HE' M3H423' B3E2H#2F' 5HC31F' >$ '
P NF$3' 8 E HE' @$C 3' 5$J 3C' ,H44H $0' 64$E D O (' 9 $J' 8 3E40'
@ $0& 3 D' 5HFE' MH4DHE' IF 1' 5HFE' P 3C' ;D $4D' I4H F34H3' 5HFE'
643D34 N+' I EE30' 8 -2F' G-EN$E' B$ 3' 5HFE' $-2F$E' ' NF$4D'
8$4 'G$ C' 5HFE' >H-EDHE' P D$J ' M3H423' M QQC' ? 31F3$' @$ 3'
8 3E40' G$ C' @F$4 3C' $-2F$E' ;D $4D' ?$J 1CHE' C$$N' @HH+3' 5343R
J $F' <CQH4E3' ' NF$4D' B4 N+D$ 3' 9 $4D' 5$J 3C' ; $#' B$ 3' G$E 3'
@$ 3' *FH J $C' *OED$ ' 5$J 3C' I$ J34' 9 $J' 'D $4DC' 5HC31F'
8$0 FH4E3' M3H423' 9 4 2F ' 5HFE' ?N$ED43 ' 8$4&H4D' Q4FJ'
M4$0' 8$4&H4D' B$ 34CQO' *FH J $C' % E2 H&' B$0 0' 5$J 3C' >3$E'
5HFE' P $EE E2&H4D

R, ')!' " , ,3()' , 'B4 D23 $ 34

9 $J' 53&&340C' 3E' I%! ' 'HQ34' 5H &&3' @H F-4C ' 5HFE'
8H 3 '@HH+' ' NF$4D' @4HCC3' 5HFE' 3E' M 3C' 5$J 3C' M4322' I%! '
E FHEO' M$1134' 2 ' 5HFE' 8$ ' M$Q4 3' ? J3' I-H&3' 5HFE'
*HH2HHD' 5HFE' *F3 34

R, ')!' I,3# ' , '?HJ34C3 '

5HFE' B$+34')!' ,3#(! ' ?3$ 0' B4 D23' 'HQ34' @H EC' B40$E '
5$J 3C' B3E($J E' @H 3C' 5$J 3C' ? 4$ HE' @H 3C' 5HFE' ; #2 $ED' 64$EN C'
@F$4 3C' 5HFECHE' @34+' 5HFE' >33' >33' 5HFE' 8$ +3C' P - 3C'
@34+' EN3E' *43 $E HE' >$E2 H4 FO' 5HFE' , NFH 3 C' 8 3E40'
I$ J34' @34+' 9 $J' ?13+3' F3' ,3#(! '(M3H423' ?13+3' 8 -2F'
?13+3' I%! ' ?-J E34' ?J F' I%! ' 5$J 3C' ? $0E34' 5HFE' *$QH '
*FH J $C' B$J1& 3 D' # 34J$ 3' 9 $J' B$ 30' 9 F 3F3$D' I% ' + '
8 3E40' ? 4$NF30' " ,#! ' *FH J $C' PH4 J34' %3&C<#' B$4 FH HJ 3 '
?J F' 5$J 3C' B 3 ' 9 $J' B40$E ' *FHJ$?' I$ HE' 9 $J'
9$ 3E')!' L!0! !#&' 8' 9' B$4E$4D' 5$J 3C' B3 F3 ' 9 $J'
B4H E' M3H423' 643D34 N+' B-44H-2FC' ;D $4D' 64$-DC' @H C HE')!'
L!0! !#&' *FH J $C' @HE30' B N+E3 '@HE30' 5HFE' 53$E' @HE3(' I$-'
@HH134' ?$J -3' @4$DDHN+')!' L!0! !#&' ;D $4D' G 2F HE' 8 #' G$9 '
M3H423' ?3 OE' G$ 3')!' L!0! !#&' 5HFE' ;$C ' *FH J $C' 8 3E40' ;4EC '
)!' 0! !#&' 5$NHQ' '-CC3 ' 5HC31F' 8 NQ EC' 5HC31F' 8 0$ ' 9 ?$J'
' P' ' (&3F+ EC

53E+ EC' 9 $J' I3 4D' 53 $4D')!' L ! !#&' 9 $J' >3 4' 64$EN C'
B04' PH42$E' ? 31F3E' , 3$ 3' 5HFE' PHH43' I$23 ' 5HFE' G3 DE30'
I$4CHEC' I3$4C3' *FH J $C' 8 3E40' 8 3 3' I F 11C' 9 $J' I - J 30'
9 $J' I - 4 3 3E ')!' L !0! !#&' 8 3E 0' ' H234C')!' L !0! !#&' ' H234'
? J F' ' NF$4D' ? 4$NF30')!' , 3) ' 5$ J 3C' *$ QH ' 5$ J 3C'
*$ QH ' ' HQ34 ' *H EC3ED')!' L !0! !#&' 5HFE' 9 3C ' 5HFE' 9 N+F$ J '
)!' L !0! !#&' I 4H HC' *43 $ 9 E30' 9 N+F$ J ' 5HFE' *FH J $C' *43 3 0$E'
I%! ' 5HFE' @4 D $ED' 9 $ J' B43 C3' %34C 3 J $E' 9 $ J' B4- HE'
*F1 J $C' B4H$D J 3$D' I F 1' B4H$D J 3$D' 5$ J 3C' @F$113 ' ' HQ34'
6$4 F E2' B3$-NF$ J 1' 9 $ J' 53&&340C' 3E' I%! ' , ' B4 D2 $ 34'
E FHE0' M$1134' 2 ' , ' B4 D2 $ 34' B3E($ J E' I H13' I%! ' , '
, 3 F34' ? H 30' ; D $4D' I $23' I%! ' B$ D4 1' 9 $ J' ? 4$D E2' , '
@F3DTHO' *FH J $C' ?0 J 3C' H&' B4 D2 $ 34' *FH J $C' 8 - DD 3' 3 E3' , '
9 4 E2 HE' 8 3E40' 9 $ CHE' B$4E$4D' I ' , ' = $ HE' 9 $ J' B$4 H '
I%! ' ' 9 3C HEC- 134 J $43' ?$ J - 3' > - ED' 640' ' Q4 D23' &43D'
8 $4&H4D' I%! ' , ' >HN+ E2' ? 34D' 53E+ EC' I%! ' , ' >HN+ E2'
*FH J $C' * - HE' %E0& HE' @ ' #1F ' 8 3E40' ? J HEC' , ' Q4 D23'
G$ D' *43 J 3 ' I%! ' , ' ' HDE30' ? H+3' G$ D' 9 $ J C' I%! ' , '
B 3$DHE' , $ F$E 3' 9 HHDFH- C3' Y! ' , ' 9 H4 3' B3E($ J E' ?H J 34C'
8 0D3' ?$ J HE' 9 F$ 30' 5$ J 3C' 43 $ED' @ $0& 3 D' 43 $ED' @F$4 3C'
?F311$4D' < D& 3 D' ?$ J - 3' > - ED' 640' H&' Q4 D23' 9 $ J' 53&&340C'
3E' I%! ' , ' B4 D2 $ 34' 9 $ J' 3E' Y ' , ' B$ D4 1'
9 HH J 34' ' NF$4D' @ - Q ' 2 ' , ' B4 D2 $ 34' ; D $4D' I $23' I%! '
, ' B$ D4 1' B3E($ J E' I H13' I%! ' , ' ? H 30' P $ F3 ' I 4 J H43' , '
B4 D2 $ 34' 5HFE' *43 H4' B4 D2 $ 34' 9 $ J' *43 H4' +3 (! , #'
, ' B4 D2 $ 34' 9 $ J' 9 HHD $ED' , ' B4 D2 $ 34' ' HQ34' , H44 C' , '
@$EE E2 HE' *FH J $C' 8 - DD3' 3 E3' , ' 9 4 E2 HE' ' HQ34' B$+34' , '
9 4 E2 HE' 8 3E40' 9 $ CHE' B$4E$4D' V ' = $ HE' I%! ' 5$ J 3C' >3243 '
8 3CC3' H&' ' H Q344H ' I%! ' 9 $ J' 8 3E40' 8 $4&H4D' , ' 9 4 E2 HE'
&43D' 8 $4&H4D' , ' >HN+ E2' 6 ! ' ? 34D' 53E+ EC' , ' >HN+ E2'
I ' 8 3E40' ?0 J HEC' H&' Q4 D23' M3H423' ?0 J HEC' U3# , ' , '
@F3DD$4' 5$ J 3C' *034C' *034C' , ' 9 4 E2 HE' G$ D' *43 J 3 ' H&'
' HDE30' ? H+3' I ' G$ D' 9 $ J C' H&' B 3$DHE' I%! ' , $ F$E 3'
9 HHDFH- C3' H&' 9 H4 3' I ' *FH J $C' * - HE' %E0& HE' ^ #1F ' + '
' 5HFE' ? J 0 F' " , #! ' I F 1' BH 34' 8 3E40' B4 2F ' 5$ J 3C' B CD 3'
M$Q4 3' MH DE30' 5HFE' 8 $43' 5HFE' !' U3#F ' 9 $ J' 5$CHE'
I $4+34' 5$ J 3C' ?1$44H ' ' 3 343ED' 5HFE' , HQ 3' ?F 1 HE' @F$4 3C'
3E' I ' 8 3E40' BHED' I%! ' ' HQ34' @H EC' B40$E ' ; D $4D' B$+34'
M3H423' B - HN+ I F 1' B4H$D J 3$D *FH J $C' B4H$D J 3$D' *FH J $C' 9 $ 34'
B - CF' ?3$ 0' B4 D23' 9 $ J' B4- HE' 5$ J 3C' @F$113 ' 5$ J 3C' B3E($ J E'
@H 3C' 5$ J 3C' ? 4$ HE' @H 3C' 9 $ J' B $+3' @H EC' 5HFE' @4 D $ED'
5HFE' ; E2 $ED' *FH J FC' PH4 J 34' %3 CHE' 9 $ J' B43 C3' %34C 3R
J $E' 5HFE' >33' >33' EN3E ' *43 $E HE' >$E2 H4 Q0' 5HFE' 8 $ +3C'
P - 3C' I ' @F$4 3C' 8 $ +3C' P - 3C' 5HFE' , N H 3 C' B - 4NF$'
I 343E' B$4 FH H J 3 ' ? J F' 9 $ J' ?13+3')!' , 3#(! ' M3H423'
?13+3' 8 - 2F' ?13+3' I%! ' 5HFE' *FH J $C' *43 $ 0$E' I ' @F$4 3C'
B3 ($ J E' * - N+34' *FH J $C' B$ J 1& 3 D' # 34 J $43' 9 $ J' B$ 30'
9 F 3F3$D' I%! ' ' NF$4D' 5HFE' P 3$D3' 5HFE' PHH43' I $23 ' 9 $ J'
8 - Q34' ?F311$4D' 5$ J 3C' E FHE0' 9 N+F$ J ' 9 $ J' 64$EN C'
%E$ NFQ- #' 5$ J 3C' 9 F$ 30' G$ 3' 9 N+F$ J ' 64$EN C' G$ 3' 9 N+F$ J '
8 $440' 6H +3C' ; D23 ' M3H423' ' H - C' I ' *FH J $C' 6H4 3X - 3' 8 H J 34'
I 3 34' 8 H$43' + ' 5HFE' ? - $4' 8 11 C 30' " , #! ' 5HFE' B$T3 '
GH 3 HE

U`KSLM#> ;>P ʻ ʻ @$1ʻ U

GH 3 HEʻ ' NF$4Dʻ ? 4$NF30ʻ 8$440ʻ 6H +3Cʻ ;D23 ʻ < 423 P$ FHHDʻ ^3H423ʻ *FHJ$Cʻ 8$4J34ʻ ?F311$4Dʻ *FHJ$Cʻ 'HF34ʻ 5- 4Qʻ I%!

R,ʻ)!ʻ7, ʻ #&ʻ I,3# ʻ,ʻ)!ʻ7, ʻ,ʻ?H- F$J1 HE

7)!ʻ ,ʻL!',&! ʻ/%&! !#ʻ #&ʻ I, ,#ʻ I,3#'%ʻ`ʻ)!ʻ7, ʻ #&ʻ I,3# ʻ,ʻ)!ʻ7,F# ?H- F$J1 HEʻ)!ʻ7 !ʻ4!#(ʻ 4F-4ʻ F34 30ʻ *ʻ 5H Jʻ ? H430ʻ I3E 3$T3ʻ *ʻ Q3ʻ 'H#?ʻ 8H Eʻ M3H423ʻ 34 30ʻ ' NF$4Dʻ ;D4 D23ʻ 9 $Jʻ ;D $4Dʻ 5H &&3ʻ?3ʻ (_F3Eʻ > E H ʻ PHE $2-ʻ BHH Fʻ ;D $4Dʻ 6H ʻ 9 $Jʻ 6 TF-2Fʻ ^F$4 3Cʻ 8 24H 3ʻ 8$JJHEDʻ 4F-4ʻ F34 30ʻ 8$JJH1Dʻ I%! ʻ P$4 Eʻ P$DD CHEʻ*FHJ$Cʻ P3$4Cʻ I%! ʻ 'HQ34ʻ 9 2F E$$-ʻ 2 ʻ 643D34 N+ʻ 8 ʻ5HFEʻ 8-E ʻ5HFEʻ5H &&3ʻ?$J-3ʻ %3Eʻ I%! ʻ5$J3Cʻ P$N+ʻ I3 34ʻ '$E 34ʻI 5 #ʻ L E ʻ*FHJ$Cʻ ' DD E2ʻ*FHJ$Cʻ?H& E3ʻ PHHDOʻ 9 $Jʻ 9$4Dʻ I 5 #ʻ L E ʻ 9 $Jʻ 5$J3Cʻ 83ʻ 63- 43ʻ ? 31F3Eʻ5-DDʻ5$J3Cʻ BH ʻ 9 $Jʻ<+3ʻ P$4 Eʻ 1 &&1,3ʻ?3# , ʻ $Jʻ>$J1$4Dʻ M3H423ʻ 3 $ED34ʻ 6- 34 HEʻ I3 34ʻ B43 HEʻ5HFEʻ *-N+34ʻ @F$4 3Cʻ G$Oʻ 5HC31Fʻ 8$J HEʻ2 2 ʻ5HFEʻ?$D 34ʻ PHHDOʻ C+3 ʻ I$&&H4Dʻ 8H FCʻ /& %ʻ 9 $Jʻ 83E40ʻ 9FH4 HHDʻ I 5 #ʻ L E ʻ+ ʻ;D $4Dʻ5$J3Cʻ6HH 3ʻ #() ʻ/& %ʻ?$J-3ʻG$ 30ʻ> 1ʻ 4$1ʻ IF 1ʻ @$4 343ʻ6$ ʻ ' NF$4Dʻ G$ CHEʻ I4 NF$4Dʻ M3H423ʻ? 33Dʻ 2 ʻ5HFEʻ% E2ʻ @F$4 3Cʻ B$+34ʻ@F$4 3Cʻ P$43 ʻ P$ F3 ʻ 83X40ʻ ?NH ʻ /& %ʻ I3 34ʻ G N+CHEʻ 5$J3Cʻ 93Dʻ PHE $2-3ʻ [-44H 3$ʻ !#! %ʻ 4NF Q$ Dʻ P ʻ>$NF $Eʻ@I,%,#!%Aʻ @F$4 3Cʻ G-ʻ @$E3ʻ @I, [#&!ʻL E Aʻ5$J3Cʻ6 CF34ʻ@I,%,#!%Aʻ 'HQ34ʻ@ - 34Q#N+ JH&ʻ9 R $Jʻ>OEE3ʻ 83E40ʻ I$4+3ʻ 'HQ34ʻ6H4D34ʻ@I, # #&!ʻL %%Aʻ 83E40ʻ 830 HHDʻ5HC31Fʻ? $N3ʻ5HC31Fʻ>H E34ʻ5HFEʻ W(E H ʻ)!ʻ?+,#,3 4%!ʻ I3 34ʻBHO 3ʻG3B $X- 43ʻ9 $Jʻ 83 3 ^@H HE3_ʻM3H423ʻ83ED34CHEʻ ?$J-3ʻ ? 34ʻ *$0 H4ʻ 5$J3Cʻ ED34CHEʻ @F$4 3Cʻ 6H ʻ 5HFEʻ 8H 3ʻ ;D $4Dʻ 8H4E3ʻ 8- HEʻ5HC31Fʻ@F$JQ34 $0E3ʻ@F$JQ34 $0E3ʻ *FHJ$Cʻ ? 31E30ʻ @F-D 3 2Fʻ ;D $4Dʻ 'HC3ʻ B43 HEʻ I%! ʻ 8HH40ʻ P $4Dʻ 5HCF-$ʻ 'H-C3ʻ M3H423ʻ 8$0ʻ ;D $4DCʻ 9 $Jʻ 9 CHEʻ 5$J3Cʻ BO4Eʻ *FHJ$CʻB4$DQOʻ ;D $4Dʻ>HJ34ʻ 5HC31Fʻ P$OH ʻ5HFEʻM &&$4Dʻ /& %ʻ M3H423ʻ %3J1ʻ @I,%,#!%Aʻ 5HFEʻ >$E2 30ʻ I%! ʻ + ʻ5HFEʻ P >3HDʻ #() ʻ !#! %ʻ ?$J-3ʻB3EE3CCʻ 5HFEʻ '-CF H4 Fʻ%33 3ʻʻ 5HFEʻ%3 H ʻ*FHJ$Cʻ M4 && Fʻ *FHJ$Cʻ>$ 3Cʻ?F$1NH ʻ I%!

R,ʻ)!ʻ I,3# ʻ,ʻ?H- F$J1 HEʻ #&ʻ C 3ʻH&ʻ r 2F

7)!ʻR %ʻ,ʻ,H4J$E HEʻ+ ʻM3H423ʻ IH3HN+ʻ5 ,#! ʻM3H423ʻ* Hʻ B4 N3ʻ ;D $4Dʻ 8- C3ʻ @F$4 3Cʻ 8- C3ʻ 4F-4ʻ \-$ 30ʻ? ʻ 9 $Jʻ G N+CHEʻ " ,#! ʻ@F$4 3Cʻ B43 ʻ5$J3CʻB43 ʻ@F$4 3Cʻ 83E40ʻ I$- 3 ʻ + ʻ64$EN Cʻ@H 34ʻ #() ʻ5$J3Cʻ 9F$ 30ʻ?4$0 F3ʻM$4D E34ʻ*FHJ$Cʻ M ʻ P$4CFJ$Eʻ 5HFEʻ ;D $4Dʻ I$DDHEʻ + ʻ;D $4Dʻ IHH4ʻ " ,#! ʻ + ʻ5$J3Cʻ 9HH &3ʻ " ,#! ʻ+ ʻ@F$4 3Cʻ IF 1Cʻ J2Pʻ 83E40ʻ 930ʻ $EDʻ IH 3 ʻ 5HFEʻ I- E30ʻM3H423ʻB-N+ʻ ;D $4DʻM Q34 ʻ6H-E$Eʻ 8H22ʻ *FHJ$Cʻ G$ Cʻ + ʻ @F$4 3Cʻ B-44$4Dʻ " ,#! ʻ)!ʻLZ,! !#&ʻ 9 $Jʻ G$ Cʻ)!ʻL!,! !#&ʻ @F4 C H1F34ʻ;$4 ʻ?$J-3ʻ; H ʻ5HFEʻ ?$-ED34Cʻ ED43 ʻ?$-ED34Cʻ)!ʻL!0! !#& &0 1&%%0 @ ʻ@F$4 3Cʻ I4$ ʻ 9$ 34ʻ PH44 N3ʻ *FHJ$Cʻ ?13EN34ʻ)!ʻ L!0! !#&ʻ *QH #$Cʻ B3N+ 30ʻ 5HFEʻ B3N+ 30ʻ ?$J-3ʻ ?ʻ B$4Q3ʻ ;D $4Dʻ 8 N+Cʻ 5HFEʻ B-4C30ʻ FJ H4ʻ $Jʻ ;D $4Dʻ*HJ E3ʻ 5HFEʻ ?F3DD3Eʻ 5HC31F

9 3 D ʻ ; D $4Dʻ 9 3 D ʻ @F$4 3Cʻ P H44 CCOʻ ' HQ34 C ʻ , $ F$E 3 ʻ BH D3Eʻ ʻ
? J F ʻ * FH J $Cʻ ?O J HEDC ʻ 5HFEʻ ?O J HEDC ʻ - 2 - C - Cʻ B4 E3 ʻ) !ʻ L ! O ! [
! #&ʻ - 2 - C - Cʻ 5$ J 3Cʻ B4 E3 ʻ ' HQ34 ʻ > E2 HEʻ ' N3 ʻ C$$Nʻ 9 F34C ʻ
' NF$4Dʻ 53EE ECʻ 1!# , ʻ ' NF$4Dʻ + ! ʻU3# , ʻ 5HFEʻ P $CHE

ʻ R , ʻ) !ʻ I ʻ #&ʻ I , 3# ʻ , ʻ) !ʻ I ʻ , ʻ > NF& 3 D

9 $ J ʻ B 4D ʻ @F$4 3Cʻ B E2F$ J ʻ 9 CHEʻ > CF J $E ʻ 5ʻ I ʻ
, - $ ʻ * FH J $Cʻ ' H 3O ʻ M3H423ʻ GHDCHE ʻ 8 3E4Oʻ 8 ʻ 8 3

R , ʻ) !ʻ I , 3# ʻ , ʻ ? $&&H4D

' NF$4Dʻ M$ - E ʻ E FHEOʻ 9 $4Dʻ B3E($ J Eʻ 6ECF ʻ 8 3Oʻ HHD ʻ
I F 1ʻ 9 $ J C 3O ʻ ?$ J - 3 ʻ = H - E2 ʻ 64$EN Cʻ 6 ENF ʻ 8 3E4Oʻ 8 - E ʻ ; D Eʻ
B - HN+ ʻ ?$ J - 3 ʻ G$ 3C ʻ 9 $ J ʻ THE ʻ 5HFEʻ = H4+ ʻ ?$ J - 3 ʻ %3E4 N+ ʻ
4NF Q$ Dʻ %3E4 N+ ʻ I F 1ʻ 9 $ J C ʻ 9 $ 34ʻ 9 $ J C ʻ) !ʻ L ( ) ʻ
, #, 3 4%!ʻ 8 %ʻ * $ QH ʻ $#(! 1 ! ʻ) !ʻ L ( ) ʻ , #, 3 4%!ʻ C 1' , 3# ʻ
? ʻ EN3E ʻ P 3$&H4D ʻ + ʻ * FH J $Cʻ C HEʻ @ &&H4Dʻ @HEC $Q 3ʻ " , #! ʻ
, ʻ * $ ʻ + ʻ @F$4 3Cʻ 9 H C 3Oʻ " , #! ʻ , ʻ 9 Q C 3O ʻ ' $ 1Fʻ DD3 3Oʻ
, ʻ B$4 $C HE ʻ 9 $ J ʻ B3 3Oʻ P 33+3ʻ V ʻ * F3ʻ B4HH J C ʻ 64$EN Cʻ ; Dʻ , ʻ
?3 2F&H4D ʻ) !ʻ , #, 3 4%!ʻ #&ʻ L ! O ! ! #&ʻ 4 F - 4ʻ @F3 OEDʻ * $ QH ʻ
I %! ʻ , ʻ E23C 4 3 ʻ) !ʻ L ! O ! ! #&ʻ @F$4 3Cʻ ?$ $23ʻ >$EDH4ʻ I %! ʻ , ʻ
@H HE ʻ) !ʻ L ! O ! ! #&ʻ ; D $4Dʻ 9 F QOʻ I %! ' ʻ ʻ @43C 3 ʻ ? 31F3Eʻ
? OE&3Eʻ 534 Cʻ V ʻ G$4 $C HE3 ʻ 5$ J 3Cʻ < DF$ J ʻ < DF$ J ʻ H ʻ B3 $ J H43 ʻ
9 $ J ʻ 9 E2& 3 Dʻ = $ 3Cʻ , ʻ I $4+& 3 DC ʻ 9 $ J ʻ P HH43ʻ V ʻ 9 ONFDHE ʻ
' $ 1Fʻ BH - 4E3ʻ V ʻ 8 D34C HE3 ʻ ' NF$4Dʻ @ $4+3ʻ 8 ʻ V ʻ ? $ E2 HE ʻ
5HFEʻ C Q - 4Oʻ 2 ʻ B$4 $C HE3 ʻ 5HFEʻ 5H - 3ʻ ʻ ? HE3 ʻ * FH J $Cʻ
I $E ʻ , ʻ 9 $ HE ʻ ; D $4Dʻ P HH43ʻ V ʻ 8 $O3Cʻ 8 H - C3 ʻ 9 $ J ʻ > HN+34ʻ
, ʻ * E2 HE ʻ 9 $ J ʻ 8 $EQ - 4Oʻ H&ʻ P H43 HE ʻ 9 $ J ʻ 8 3E4Oʻ @H13 ʻ
U , ʻ > $E3 ʻ ' HQ34 ʻ 9 4H 3C 3Oʻ I %! ʻ ; D $4Dʻ B$D 3O ʻ M3H423ʻ
?$ QOʻ I 3E&H Dʻ 2 2 ʻ 5HFEʻ C HE ʻ 5HFEʻ I 344Oʻ V ʻ * 4OC - ʻ 9 $ J ʻ
M QQHEC ʻ ; D $4Dʻ ECHE ʻ ?$ J - 3 ʻ DD CHE ʻ 5HFEʻ DD CHE ʻ 9 $ J ʻ
I 4HQO ʻ 5HFEʻ B$ 3 J $Eʻ V ʻ %EO134C 3Oʻ 8 $ ʻ 5$ J 3Cʻ B$ 3 J $Eʻ V ʻ %EO ʻ
134C 3Oʻ 8 $ ʻ 8 3E4Oʻ G3 3Cʻ B4H - 2F HEʻ V ʻ B4H - 2F HEʻ 8 $ ʻ 5HFEʻ
BH - 4E3ʻ , ʻ 63E HE ʻ ' $ 1Fʻ B$2H ʻ I ʻ , ʻ 9 H C $E HE ʻ 5HFEʻ P H ʻ
E3 - ʻ @4HN+3 ʻ , ʻ 5HFECHEʻ 8 $ ʻ 8 3E4Oʻ G$ 3E1H4 ʻ , ʻ > HE21H4 ʻ 9 R
$ J ʻ G$ 3E1H4 ʻ , ʻ > HE21H4 ʻ G$E 3 ʻ 9 CHEʻ G$ CHEʻ , ʻ B4$EDʻ 8 $ ʻ
@F$4 3Cʻ 6 TF34Q34 ʻ V ʻ ? EE34 HEʻ I $4+ ʻ 5HFEʻ ; D3ECH4ʻ 8 3$ FNH 3ʻ
V ʻ > HE2 HEʻ 8 $ ʻ 8 3E4Oʻ 9 $ J ʻ 8 H ʻ I %! ʻ , ʻ B DD - 1F ʻ ' H $EDʻ
P$ E $4 E2ʻ , ʻ 9 F J H43 ʻ) !ʻ , #, 3 4%!ʻ 9 $ J ʻ G - D 3Oʻ ' OD34ʻ , ʻ
; NN 3CF$ ʻ 9 $ 34ʻ ?E3ODʻ , ʻ %33 3ʻ 8 $ ʻ I - 4E3Oʻ ? Q H3ʻ , ʻ G4$O HEʻ
Eʻ 8 $ 3C ʻ I 3 34ʻ B4H - 2F HEʻ ? 43Oʻ , ʻ * - EC $ ʻ 64$EN Cʻ 9 3D2 HHDʻ , ʻ
P$34 ʻ , NFH $Cʻ I 4 N3ʻ 9 HHDʻ @ ʻ B4H EF C ʻ * ʻ Mʻ > H J $ ʻ
@F$4 3Cʻ B E2F$ J ʻ * FH J $Cʻ ' H 3O ʻ M3H423ʻ GHDCHE ʻ B - 4E3Cʻ * 43 H4ʻ
6 HO34ʻ I %! ʻ 5HFEʻ 8 EN+ 3Oʻ I %! ʻ ' NF$4Dʻ 8 EN+ 3O ʻ ?$ J - 3 ʻ ?1H& ʻ
&H4 F ʻ ; D $4Dʻ BHED ʻ 9 ʻ 8 ʻ BHED ʻ 5HFEʻ I H 34 ʻ 64$EN Cʻ ?F$4 ʻ
4$ ʻ 5$ J 3Cʻ I $ J 34 ʻ ' NF$4Dʻ M433E3 ʻ ; D $4Dʻ ?N - D$ J H43 ʻ) !ʻ " % 1ʻ
#&ʻ / %&! ! #ʻ , ʻ) !ʻ 7 ! ʻ 4! #(ʻ 9 $ J ʻ > 3 2F ʻ ? - $4 ʻ P $(3ED 3ʻ
I %! ʻ ?$ J - 3 ʻ ? E&3E ʻ 9 $ J ʻ * HE2 - 3 ʻ * FH J $Cʻ 8 $4 CFH4E ʻ 9 $ J ʻ
; D $4Dʻ @H D 3 ʻ I %! ʻ ' HQ34 ʻ E 3T$4+ʻ I %! ʻ ! , (! ʻ , H4 J $Eʻ
I %!

U/KS`M#> ;>P ' ' @$1 U U !

R, ')!' ", ,3()' , '?-DQ-40

9 $J' D$JC' 9 $J' @H 3' D$JC' ' NF$4D' M$ECQH4H-2F' G-1HE 'G$ D' 8$EQ-40'5HFE' ? +3C'5HFE' 9 $HECHE

R, ')!' L!1' , ')!' I,3# ' , '?-&&H +

7)!' L!0! !#&' 8-2F' 5$J3C' 'HC3' , ' 8$D 3 2F' 5HCF-$ ' N+3 C' 'H 3O' , '>$0F$J '5HC31F' @ $4+3' 4NF34' , '?31$34'5HFE' IF3$4' , ';$4' ? HEF$J ' I%! '' *FHJ$C' B4H E'H 8HJ E2C HE3' (3E40' B3EN3' B3EN3' G$ D' > HOD'64$EN C' 'HQ ECHE' ' NF$4D' 6$44' 9 $J' GH CHE' >HJQ3' F ' I%! ' ' NF$4D' G$O' I%! ' E FHEO' @H 3 ' 1!# , ' I%! ' -2-C -C' @HH134' I%! '5HFE' ,$EN3' MHHNF' 9 $J' B-JC 3$D' P$N+' 83E40' < 3E' I%! ' 9 $J' 9F 3' 9 $J' B4H E3' I%! '>$-EN3 H ' 'HQ34'B4H E3' I%! ' 9HHD FH41' @H 3 ' I%! 'M3H423' B$ 3C' 'HQ34'6433J$E' ,$ F$E 3'?NH '83E40' 9 CHE' ?$ JHE' I%! ' @F$4 3C' BH4 HE' I%! ' ?$J-3' =$ 3C' B3EO J' @$40' @F$4 3C' ; 3C' + ' 8OD3' I$4+34' " ,#! ' 9 $J' P$OD' I%!) ' I$ 4 N+' P$EEHN+'M3H423' ?134 E2' 83E40' B-N+Q3440' 6$- +E34' @ 34 ' ;D $4D' @HQQH D' I%! ' 9 $J' 8$ $4D' I%!

R, ')!' I,3# ' , '?-4430

?$J-3'B4HH+3'5HFE' B $+3' 9 $J'B $+3'5HFE' B J E ' @F$4 3C' @F$ & 3 D'5HFE' M4$N3' 5HFE' 8$4J$E'5$J3C' 8$ODHE' IF 1'5HE3C' 5HFE' %33E' M 3C' >HE2' 5HFE' ,H44 CF' 5HFE' IF B 1CH 4' 5HC31F' IF 1CHE' 9 $J' '$O'5HFE' 9 $J'?-B 34 $ED'64$EN C'? J JHEC' *FHJ$C' *-4E34' 5$J3C' *-4E34' 83E40' 9 3C HE' 9 $J' G$ C' *FHJ$C' 9 $J' 6$4J34' *FHJ$C' B4 3' ? J1CHE'5$J3C' B $N+ ' *FHJ$C' '-CC3 '@F$4 3C' 3E' =H-E2' * HJ$C' B$C H 9 '5HFE' 6 CF34' 5HFE' 8-J1F430' B3E($J E' ?N$J3 ' *FHJ$a' 6 HN+ J '5$J3C' 3E' ?F- 34' ?$J-3'B$O& 3 D' 1!# , 'G$E 3'K++ Z !'U3# , '5$J3C' 9 $ E30' 5HFE' 8-J1F430' 'HQ34'B$ 34'5HFE' 8 D23' @ ' N&3' >$E3'B4 HE' 5HFE' @-4 E2' , 'B34JHEDC30' '' ?' %' 8 ' !14 , , !' *% '!' 83E40' 5$J3C' ?N4 3E' 5$J3C' B4 D234' 9 $J' ,3 J$E' 9 $J' 8HHD' 83JJ$EC' 9 $J' G$ C' 43D' @ & 3 ' B$4 30' M3H423' B3C' , 'B43 $EDC' G$ D' 9 $JC'M3H423' ?H$13&' 5HFE' 8 34CDHE' IF 1' ?$ECH J ' 2 , ' , '5HFE' I$ E' 9 C @HH+' 9$ C' ' *' ?$J1$03' $$E E3' PH44 C' 5HFE' 8$JJ3 'G$ D' %34'83E40' 9 + EC'M3H 23' CFE3CC'P$ F3 '9FR E2' 'HQ34' 9 C' ;O 3C'5HFE' 8H E2C H4 F '5$J3C'B4H$DF-4C '5HFE'' M 3 ' P$ F3 ' @F$ 3' 3 $ED34' MH4DHE' 9 $J' 8HD23C'5HFE' B4 3E' 83E40' ? 3J '5HFE' GHDCHE'5HFE' ?F3 3 '5HFE' '$ 3EF ' ;D $4D' 8HD23C'5HFE' G3$NHE'5HFE' B4H$D 30' 9 CHE'M3H423' 8OD3' 9H $C HE' 'HQ34'?$-ED34C'5HFE' B $+3E30' *FHJ$C' 8HHD' 9 $J' 8$ 2F' 5$J3C' 8H4E3' *FHJ$C' IH C' 5HC31F' 9 CHE' 5HFE' '$11 ' M3H423' ?NFH 30'5HFE' ' NF$4DC' *FHJ$C' IHOED34'5' ' * E E2' 5HFE' 8$J J$E' 'H234' >33' C$$N' , NFH CHE' 'HQ34' 9 E 34' ;Q3E3T34' P$ $ED' M3H423' ?N4 3EC' 5$J3C' '- 3' G3J3R 4 -C' 8-DCHE' 5HFE' 8$ NF$4D' ;D $4D' @4H 30'5HFE' P$ F3 ' 5$J3C' ,H44 C'5HFE' D3E' @ $4+3' Q4$F$J' BH44$D$ 3' 4 F-4' B$R 30'5' B' ?J F'5HFE' @F$4 3C' @HEC 3'*' '' BHOC' 9 $J' ' NF$4DCHE' *FHJ$C' @F$4 3C' 5HFE' >3$NF' B3EE3 ' 9 $J'

' , ' ' PH&&$

UY U'K'S/M#> ;>P ' ' @$1' U

PH&&$ '5HFE' I3 34'?H 3$-'5HFE' 9 $JC' U,'8$44H'I 5 #'
9 CHE'5$J3C' M$EDH1F')!' Z M d#&' ;D $4D'5$J3C' 9'
>' M 1E' 9 $J' M 1E' ;D $4D' I3E OE' 9 $J' *-4 HE'
P HE $ ' B-42HOE3'5HFE' 8' B4H $' M3H423' 83E40' >$J3E '
5$J3C' ;D $4DC' 9 $J' * E+ 34' 9 $J' 9 3QQ' @F$1J$E' B3E($J E'
9F 3HN+'5HFE' *-4E34' 5HC31F' @ & HE' ;D $4D' 4JC 4HE2' ?3OR
JH-4' >$413E ' 5HC31F' 83E40' B$4NF$4D' 5HFE' % 4+ $ED' 643D34 N+'
8HD2CHE' ED43 ' B40J34' B3 NF34' 5$J3C' G-EN$E' 5HFE' *FH1CHE'
643D34 N+' B4 D234' * FHJ$?' 'H# 3D23' 9 $J' 3E$Q 3C' 5HE$ F$E'
@F$1J$E' 8$440' 9 3C HE' 'HQ34' @ $4+' @F$4 3C' *H-4D4 E 34' 5HFE'
6H$+3C'5HC31F' M$ 30' 9 $J' 9 $JC' 5HFE' J3C' 9 $J' ;D2$4'
9 $J' *4 HE' 9 $J' % E2' 'HQ34' 9 $J' B$4NF$4D' 9 $J'
9 CHE' @F$4 3C' @H4 FH E' 5HCF-$' ? $E234' I 5 #' 8HD23C'5$J3C'
8H 3 ' *FHJ$C' @F$1J$E' 'HQ34' 9 4 2F ' 9 $J' ?$ED34C' I$ 34R
CHE' ' NF$4D' 6 H HHD' ?E3 CHE' C 'H '3 2$ 3' *FHJ$C' @F$44 E2 HE'
, ' '3 2$ 3' @F$4 3C' @ 3J3E' 2! ',#' , ' '3 2$ 3' 9 $J' G$ C'
9 $J' 8HHD' 83J J$EC' 83E40' 5$J3C' ?N4 O3E' 5$J3C' B4 D234'
9 $J' ,3 J$E' ' NF$4D' ? 3C 34' @$F ' @ ' 9 3C Q4HH+' I $N3'
MHD$ J E' >33' ? 3343 9 HH HE 9 $J'M3H423' 8 HE'5H &&3'
*FHJ$C' @F$ HE34' B CC3' @F$ HE34' *FHJ$C' '$ DHE' 9 $4D' *FHJ$C'
I-N+ 3' 53&&340C' *FHJ$C' 3E' P NF$3'64$EN C' MH4DHE' ,H$F' ? 33'
V 'B34JHEDC30' M3H423' 9 $J' *-4E34' , ')!' 1 !' M3H423' B$0 O'
, ')!' 1 !' ' NF$4D' M3H423' 9 HHD4-&&' 'H F34F F3' 9 $J' ?H134'
, ')!' 1 !' @F$4 3C' @$4 34' , ')!' 1 !'5$J3C' G- J J3 H ' , ')!' 1 !'
5HC31F' *-4E 30' , ' I3N+F$J ' 5HFE' B43 ' , '? 43$ F$J ' @F$4 3C'
,H D23' , ')!' 1 !' 4NF Q$ D' BJ $ED' ` 'B34JHEDC30' ? 433 '
M3H423' IH4 34' , ' B34JHEDC30' 9 $J' 8-2F3C' 8-2F3C' * '
;D $4D' I4HD234' I%! '? !1'?1$4+C'B3E($J E' F!1'U3# , 'L!0![
!#&' I3 34' -Q34 E3' 5HC31F' ?30JH-4' B CNH3' 83E40' 5$J3C' B$4R
NF$4D' 9 $J' @$J$ ' @F$4 3C' -2-C -C' ? 3-$4 ' + ' ' NF$4D'
643D34 N+' " ,#! ' @F$4 3C' ?F3QQ3$43' 5HFE' M3H423' , NFH CHE' , '
9 $ 34 30' QQ30

R, ')!' 7, ' #&' *, ' , '8$C E2' % 4! ')! !,

7)!' , ' #&' ?3 1' , ')!' 7,F#' #&' *, ' , '8$C E2C' , ')!'
7 !' 4! #(

R, ')!' #' !#' 7,F#' #&' * 1)'V ' 'O3

7)!' , ' #&' ?3 1' , ' 'O3' , ')!' 7 !' 4! #(' + ' 9 $J'
CFQ-4EF$J' " ,#! ' M3H423' -2-C -C' >JEQ' 2 2 ' 9 $J' IF R
1C' >$JQ' 9 $J' I ' >$JQ' ' NF$4D' 9 33DHE' B- 34' 9 33DHE'
G$ 3C' ;D E' ,$ F$E 3' G$ 9 3?' 5HFE' 8$DDHN+' >$4DE34' ' NF$4D'
@-4 3C' IHJ&43 ' *FHJ$C' @HH134' >$E2&H4D' 5343J $F' ?J F' *FHR
J$C' 8$44 CCHE' 9 $J' '$JCD3E' ? $E3C' B4HN+3 ' @F$JQ34 $OE3'
*FHJ$C' I ' *FHJ$C' ?J F' I ' ,$ F$E 3' 64HN 34' 9 $J' 9 $ CHE'
834Q34'B$443 ' @-4 3C' ;D $4D' B$443 ' @-4 3C' '32 E$ D' @-4 3C'
@F$4 3C' I NF34'G$ D' P$EC34'G$E 3'M

R, ')!' L!1' V ')!' I ,3# 'V '?-CC3

@F$4 3C' P$4CF' D$JC' 5HC31F' $E' 9 $J' 433' M3H423'
B$C ' 8$440' B $+34' 'HQ34' @HEOE2F$J ' @F$4 3C' ?N4$N3' G N+ EC
' U3# ,

< _Y <9 ? 6 : 6 '' '&' #)

?3# , ' M3H423' MHD&430' GH E3C ')!' ?L!0! !#&' ;D $4D' ; 34$ D'
)!' L!0! !#&' 'HQ34' 63EE3 ' M3H423' M OEE3' 64$ENC' 5$J3C'
,-233' C$$N7,3 HE' 9 2E30' M3H423' 9 2E30' 9 $J' 9 2E30'
?3# , ' G-4 $E' D3' ;D $4D' B3$4D' 9 $J' 6 4 34' 'HQ34' M30 4'
M3H423' M4$E F$J' ?3# , ' ? 31F3E' >H D3 ')!' L!0! !#&' I)Z !1'
8$4 CHE' >-+3' *FHJ$C' 6 HHD' (H $4D' ; 1F EC HE3' @F4 C H1F34'
%3 ' B3E($J E' @HH134' >$E2&H4D' 5HFE' >$E2&H4D' B3E($J E'
PH44 C' >$ 34' I$4CHEC' 8$440' 344$ ' I -J34' 344$ ' 9 $J'
3444$ '?3# , ' 5HFE' 9 3QQ' 9 HH 2$4' *FHJ$C' 9 HHD' ,3F3J $F'
9 JQ 3' ;D $4D' 9$ 34J$E' 'HQ34' 3E' I)' MHHD$0
I%! ' *FHJ$C' B' IH 3' I%! ' 5HFE' P$4CF$ ' I%! ' 5HFE'
?NHQ3 ' I%! ' 5$J3C' 8 - NF EC' I%! ' *FHJ$C' *43Q3N+' I%! ' 9 $J'
D 34' >$E24 D23' 5HFE' ?J F' I%! ' @F$4 3C' MH4DHE' ;D $4D'
$ 34J$E' 6 TF-2F' I%! ' ' NF$4D' *$E134' @F$4 3C
?N4$C3' G N+3EC' @F$4 3C' P$4CF' D$JC' P$(H4' 5HC31F' 3E' 9 $J'
% 11 E' >$ 43EN3' I33 ' M3H423' ' NF$4D' I3NF3 ' M3H423' 8$44 E2 HE'
+ ' 5$J3C' P$4 E' > HOD' " ,#! ')!' L!0! !#&' 'HQ34' 9$ 1H 3'
5$J3C' 'HQ CHE' *FHJ$C' BHD 30' M3H423' M OEE' 5$J3C' ?F-D'
B4H$D HHD' >OE3' G3 DE30' ? 3DJ$E' ' NF$4D' 8 3$ C D3' M3H423'
B$C ' *FHJ$C' B T$4D' IH 34' P$NX-33E' ?31 J-C' *FHJ$C' 3E'
8$440' B $+34' 9 $J' 433')!' L!0! !#&' 'HQ34' 63EE3 ' 5HFE'
>$ 43EN3')!' L ()' ,#,3 4%!' !# ' I4- !Z' , +/&' ', ,#%'
' %%!&' 8 %' , '?-4430' ;D $4D' B H-E ' 5HFE' ?F3 30' 5HFE' 9 $J'
@HJ J3(43 ' M3H423' ;DJ-ED' I $ ' G3EE ' B3E($J E' 6H ' 8 3E40'
9 FE+ H4 F' ? J1CHE' I%! ' C ' ' 8 H4CF$J ' *FHJ$C' 4EH D' G$ C'
5HFE' ?F$413' I%! ' *FHJ$C' $ 3E E3' I%! ' 5HFE' 9 3QC 34' 9 HHD'
9 $J' 9 4 2F ' 'HQ34' 9 JH' B$4NJ3' ?04' *FHJ$C' B HJ3& 3 D'
" ,#! ' 9 $J' *3EE$E ' @F$4 3C' 8 H &H4D' B$44 E2 HE' 14 N3' 'HQ34'
I3DDH4' 5HC31F' G HE' *FHJ$C' MH HQ3D' + ' 9 $J' GHJ 3'
() ')!' L!0! !#&' 5$J3C' ? -$4' P-44$0' ED34CHE' I%! ' 5HFE'
@F$J 34' G$ 3C' M Q34' * ' E 2H' *FHJ$C' 5HFE' 9 F 3J$E'
@F$4 3C' >$E2&H4D' 5HFE' POEE' 64$ENC' 9 HHDF$JC' e$D N' >3 E' , '
,3 &CFQH-4E3' 'HQ34' #1134 HE' + ' @F$4 3C' PHE $2-3' >$JQ3'
" ,#! ' 9 $C 3' ' ,'?3# , ' 8$440' @H 3' B4 D234' 'HQ34'; CHE'
L!' , 'V '? $-2F$J' I 5 #' 9 $J' ? 31F3E' 6- 34' L 'E ' 'HQ34'
M3$4' , '>3 3C' , $ F$E 3' 8$ ' @F$4 3C' 8$44 CHE' &! ? ' ; ($F' B$4'
3 ' J 130' ,3 N+' 9 $J' 8$4 CHE' 6H + E2 HE' 5HFE' % E2' , '
B $ NF E2 HE' 9 $J '@H-4 FH413' P$QQH ' M $J' P$423CCHE'
?H F34 HE' B4$E F $ 3' I3N+F$J' P N+ 3 $ 3' ,%,#!%' ED43 '
I + E2 HE' , '@$ C& 3 D' *FHJ$C' I$4 E2 HE' *FHJ$C' ' NF$4DCHE' V '
>3 3C' + ' ;D $4D' B-4 3ECF$ '?-2D3E' # () ' , NFH $C' 9 $ D'
9 $J' ?30JH-4' 5HFE' 9 3QQ' 9 HH 2$4' , '>3 3C' *FHJ$C' GHJ E N'
9 F 3J$E' 8$440' 9 E HE' ,3F3J $F' 9 JQ 3' 5HFE' P$4 3E' @4 11C'
M3H423' 6$44F ' ' NF$4D' I4 J3' H 9 $4Q 3 HE

R, ')!' I ' #&' I,3# 'V ')!' I ' , '@H 3E 40

7)!' , '/%&! !#' #&' I, ,# I, %, ')!' I ', 'I,0!# '
, ')!' 7 !'4! #(' 8 3E40' @$D $ $D34' D$JC' @ '/ ! ')!' L!0! !#&'
*FHJ$C' @1+34' D$JC' *FHJ$C' + EC' H ?H ' 'HQ34' 34 ' 'D_34'
44H CJ F' '2 ' !# ' D+ EC' 'HQ34' B-EE30' 5HFE' B-EE30'
5$J3C' B3N+' ;D $4D' BH-4E' '2 ' 8 3E40' B- 34 H4 F' *FHJ$C'
B$EQ E2' ' NF$4D' BHH F' ' NF$4D' BHH F')!' ,3#(! ' 5HE$ F$E' B4$0
*FHJ$C

U Ź U' K' S' M#> ;>P ' .' @$1' U

*FHJ$C' B$NF3' 9 $J' B4HH+C' 5$Q3 'B$4 HE' 5HFE' B$ ' 5HFE'
B4HJ&3D' 9 $J' CF \E' B$4 <E' 5HFE' B4$D&Q4D' 5HE$ F$E' B4$O' , '
? H+3' 5$J3C' B4$O' *FHJ$C' B4H E' 83E4O' B4H E' 5HFE' B ' PHC3C'
B$N+FH-C3' 5HFE' @ 33 34' 5HFE' @$4 34' ?$J-3' @$4 34' 5HC31F' @$ 34'
?H ' 5HFE' @$44') ! ' 5HFE' @$44' ?A ' ! ' 9 $J' @$4 34'
)% #' 9 $J' @$4 34' *FHJ$C' @H13' *FHJ$C' @H13')!' ,3#(! '
*FHJ$C' @$4 34' *FHJ$C' @HH134' 5HC31F' @H %EC 5HC $F' @$CF' 5HC31F'
@$CF' 8$44O' @F3 F$J' 9 $J' GH-2 $C' ' NF$4D' G3 3C' *FHJ$C'
83E4O' GH E E2' *FHJ$C' G$ HE' M3H423' ; D' @F$4 3C' ;O43' 5HFE'
;22 E2 HE' 5HFE' ?H- F$J' ; $EC' 5HC F' ;H4D' 5HC31F' 64$ENC'
9 $J' M4 && E' B3E($J E' MHDD$4D' 5HFE' ME CHE' ;D $4D' MHHD$ '
*FHJ$C' M4 J3C' ' NF$4D' MHHD$ ' ;D $4D' M- CHE' 9 $J' 8$ '
9 $J' 8$ +3C' @F$4 3C' 8$44C' 5HFE' 8H N+' 5HFE' 8$EDC' 9 $J'
8H $4D' Q4$F$J' 834Q34 ' B3E($J E' 8CC ' 5HC31F' 8H 3' 5HFE'
8H 3' ?31F3E' 8$JJ34 HE')!' ,3#(! ' ' NF$4D' 8$EDC' 5HFE'
834Q34 ' 9 $J' 834Q34 ' M3H423' 8$ ' ;D $4D' E23' ' NF$4D'
B 3ENH ' 5HFECHE' 5HC31F' 5H&D$E' 5HC3& ' 5HFECHE' I3 34' GH 3O'
5$N+CHE' *FHJ$C' 53ECHE' @F$4 3C' 5H4D$E' 5HC31F' % C3O' 9 $J'
' > 3' M3H423' >$E ' 9 $J' >$ HE' 9 $J' >$ HE')!' ,3#(! '
@F$4 3C'> O' 83E4O'>3$' 64$ENC'> 3 HHD' M3H423'> 22 EC' *FHJ$C'
PH44C' ' NF$4D' P$44 H ' *FHJ$C' ?NF-J$E' PH44C' *FHJ$C' PH44C'
,$ F$E 3' P344 D3 9 ' 83E4O' P3 4 D3 ' M3H423' 83E4O' P3 H4' 2 '
M3H423' P ' $4D' 5HFE' P ' $4D' *FHJ$C' 8H H ' P344 D3 ' 9 $J'
P$CC34' *FHJ$C' P34N34' *FHJ$C' ,3$ 3' ; F$ ' 9 $J' ,3 CHJ3'
9 $J' ,3 $4+' *FHJ$C' <C 3E' MNH423' <CJHED' 64$ENC' I$44H '
5343J $F' I$44CF' 6H 3CF ' P$4+' IN$4J$& ' ;D $4D' *FHJ$C' I3$4'
J$E' ?$J-3' I$4C' I ! ' 5HC31F' IF 1C' ;D $4D' IF 1C' *FHJ$C'
I31134' " # ! ' *FHJ$C' I4$ ' JHC' I$N+ HHD' 643D34 N+' G$ D'
I34+ EC' Y! ' 9 $J' I4 J3' 83E4O' & 1C' 9 $J' 8 ' I3$4C'
Q ($F' 8 ' I3$4C' 5HFE' I4$ ' @ 3H1F$C' '$N && ' *FHJ$C' 'H F34F$J'
9 $J' 'O 3O 5HFE *$O H4 'O 3O' ' NF$4D' %3 ' 'H F34F$J' 9 $J'
'3$D34' 5HFE' '$ 1FC' 5HC31F' '$J' & G ' 5HFE' 'H-2F HE' 9 $J'
'H F34F$J' @F$4 3C' 'H $CHE' Q3' 'H F34F$J' 'HQ34' ? JCHE' I%! '
5HC31F' ?HD3E' 9 $J' ?3 (3$F' 9 O+3E' *FHJ$C' ?F$41' *FHJ$C'
? E2CQO' H&6H 3CF ' M3H423' ? H ' 3 E M 3 H 4 2 3' ? $4 E' 5HFE'
?F$+3C13$4' 9 $J' ?3$ ' 'HQ34' ?3$ ' 5HFE' ?-JJ34C' 9 $J'
>3$134' ?13 ' *FHJ$C' ? E2CQO' ,'! ' 9 $J' ? 31F3ECHE' *FHJ$C'
? 3 3EC' 5HC31F' *4H 2F HE' 5$J3C' *4H HE' 5DFE' * C ' *FHJ$C'
B$ ' *4H-2F HE' 5$J3C' *4H-2F HE' I%! ' ,$ F$E 3' *4H-2F HE'
*FHJ$C' *$EE' 5HFE' #ED34 HHD' ?$J-3' $3' 5HFE' 9 HHDNHN+'
9 $J' 9 CHE' 5HC31F' 9Q B2' ' 64D3CFD' 5HFE' 9 O 3O' 5$J3C'
93$43' G$ D' ?F$+3C13$4' 9$ 34C' 9 $J' 9O$ ' 5$J3C' 9F 3J'
5HC31F' 9 N+3C' ;D $&D' 9 CHE' ? $E3' 9 CHE' *FHJ$C' 9 JH '
?$J-3' 9 4 2F' , ' 6H 3CF ' 9 $J' 9F E2' ' ?H ' @F$4 3C'
9 HHDNHN+' *FHJ$C' 5$J3C' 9 JH ' @F4C H1F34' 9 HHDFH-C3' 5HC31F'
9 $JCHE' 5$J3C' 9$#' 5HFE' 9F 3' 9$ 34' 6$4X-F$4' 8HH+' I%!

R, ')!' I ,3# ' , ' 9$4 N+

5HFE' IF 1C' , ' ;DC HE3' 64$ENC' >O 3 HE' 8H OH$+3' , ' ? -D 3O'
@$C 3' + ' 5HFE' PH4D$-E' ` ' 9$ HE' "'# ! ' B34E$4D' M4$E 3'
, ' 9 3 CQH-4E' 5HC31F' *H EC3ED' , ' 9 3 CQQ-J' M3H423' B$NF-C3'
?$J-3' 'O $ED' 5HFE' 834Q34' M$ HE' G$E 3' >3DC$J' 9 $J
' @F$4 3C

UcKS`M#> ;>P ' ' @$1' U UV

@F$4 3C' HE'5HFE' *H 34C' >$ 43EN3' 64$EN C' > HOD'5HFE' 9$ +34' 5HC31F' 9$ +34' 5$J3C' P$CHE' *F3H1 -C' % NF$4DC' 5$J3C' *$0 H4' 83E40' ?J F' 5HFE' 93 NF J$E' 9 F$ 3 0' 5HFE' @H13' ?J $ J 34' 8 ' @ 3 J 3E' E2 3QO' + ' ;D $4D' *FH J $CHE

R, ')!' I, ', ' , '!1 ! '

7)!' ,#,3 4%!' *FH J $C' 83E40' 6H 30' 9 30'@H-4 ')!' L!0! !#&' @F$4 3C' 9 EE E2 HE' , ' ? $E&H4D' '3N H40' 83E40' 9 EE E2 HE' V ' ? $E&H4D'@H-4 ')!' L!0! !#&' 83E40'5$J3C' 8$C E2C'H& 43 30' '3N H40')!' L!0! !#&' @F$4 3C' *-4E34' H&;$C F$J' '3N H40' G$E 3' eNF40' V ' 43 30' % E2C' I3 34' I4$ E2 HE' 2 ' V 'B3 D 30' 5$J3C' 64034' H&' B3 D 30' + ' ;D $4D' B H-E' " ,#! ' V '?HDD E2 HE' EN3E ' 9 HHD' 9 F33 34' H&' ,3 EF$J' @H-4 ')!' L!0! !#&' 5HFE' 34EHE' H&'?F4$ 30' '3N H40' ' NF$4D' 9$ CHE' ,U' C 30' G3EF$J' @HH+3C' V ' C 30' 5HFE' '-CC3 '@HH+3' H&' C 30' 5HFE' , NFH' H&' B3 D 30' 83E40' [- HE' ' I3EC$ ' 83E40' *FH J $C' 9 EE$ ' H&' < JQ34C 30' 9 $J' I$4+34' I%! ' 834Q34' I$4+34' I%! ' 'HQ34 '>$EDH4' I%! '643D34 N+' G-EN$E' M QO' I%! 'M3H423' ?J F' V 'MH D NH 'P$ F3 '@' *FH J 1CHE' D34' J EC 34' I%! ' P 3C' @HO 3' H&' B HN+ 30' I%! ' ;D $4D' @H 34' H&' B HN+ 30' 83E40' *H EC3ED' '8HE E2 HE' @34 .' @' 5$J3C' H&' ; 3E H$D' I%! ' ;' 5' ?F 4 30' H&'; $ E2 H$ ' ;D $4D' 9' 9 4 2F' H&' ?F 1C HE' HE' ? H-4' & G ' 9 $J' ; $EC' H&'?F 1C HE' HE' ? H-4' I%! ' 643D34 N+' 64$EN C' 6 EDHE' H&'?F 1C HE' HE' ? H-4' + ' M3H423' IF 1C' " ,#! 'H&'93C HE'M3H423' IF 1C' 93C J$' *FH J $C' *$0 H4' 34EHE' H&' 8$EQ-40' *FH J $C' 83E40' @HH+3C' H&' B3E 30' 9 $J' 83J J E2' H&' '3DD NF' 5HFE' 8H $4D' M$ HE' 8 $DCH4' 5HFE' 'HQ3CHE' G4H NF' 9 $J' 'HQ3CHE' B4H J C24H 3' 5HFE' P3440' V '@H& HE' 8$N+3 ' 5HFE' D$J C' H&'B4H J C24H 3')!' L!0! !#&' 5HFE' ,3 F34 HE' 8$4 $4D' I%! ' M3H423' @4H&' 34EHE' V ' B4H J C24H 3' ' 9 $J' 83E40' ' N+3 C' H&' G4H NF' +3 (!,#' 3 $ED34' >-D34C' I%! '5HFE' 9 $J C' P$4 E

R, ')!' L!1', ')!' I,3# 'V ' Z

M3H423' *FH J $C' I%! ' , 'B CFH1C HE' >H 324H 3' 9$ D4HE' , ' ;$C 4 D23' *FH J $C' ?J F' H&' I$4+' *H E' *FH J $C' @$EE E2' X&' I$4+' *H E' 9 $J' 'H $ED' X&' '$J CQ-40' 5HFE' ' 1' H&' '$J CQ-40' 5$J3C' '-CC3 'X&' '$J CQ-40' 5HFE' B4H E' X&' '$J CQ-40' CF3 I%! ' , ' DQH-4E' ? 31F3E' ,3$ 3' 1!# , ' , ' DQH-4E' ? 31F3E' ,3$ 3(E J 4' H&' DQH-4E' 64$EN C' 9 3QQ' ,3$ 'X&' DQH-4E ' 5HC31F' 93E H4 F' X&' DQH-4E' B4HH J3' 9 C' X&' DQH-4E' 9 $J' 9 HHDR J $E' , ' DQH-4E' M3H423' B4H E' X&' 3Q-40' 9 $J' %3 J J' X&' 3Q-40' 3$ 34' I%! ' , ' 3Q-40' *FH J $C' I EE 234' X&'B3N+' F$J 1 HE' 5HFE 9 3E H4 F' X&B3N+F$J 1 HE' 234EHE' B4H E' B4H$D' 8 E HE' 9 $J' '-DD 3' B4H E' X&'B4H$D' 8 E HE' G$ D' < 3E' I%! ' X&'B4H$D' 8 E HE' 9 $J' ?H J 34C3' X&' ; NH ' *FH J $C' B$ 34C HN+' P344 J $E' X&'?$ E' P$40' P$4 QH4H-2F' 9 $J' @ $4 N' P344 J $E' X&' ?$ E' P$40' P$4 QH4H-2F' 9 $J' 6H$NF' 8 34' X&'?$ E' P$40' P$4 R QH4H-2F' 5HFE' 9 F34C' I%! ' X&' P$E HE' M3H423' P$0' X&'?$ E' P$40' P$4 QH4H-2F' 83E40' 9 HHD J $E' , '?$ E' P$40' P$4 QH4H-2F' 5^5 E' @$EE E2' , ' <2QH-4E3' ?$ E' M3H423' 'HQ34 ' @$EE E2' , ' <2QH-4E3' ?$ E' M3H423' G$ C' @$EE E2' X&' <2QH-4E' ?$ E' M3H423 ' @H4E3 -C' @$EE E2' X&' <2QH-4E' ?$ E' M3<423' *FH J $C' @$EE E2' <2QH-4E' ?$ E' M3H423' P$EE E2' I%! ' X&' <2QH-4E' ?$ E' M3H423' 53CC3

' <' 8 34

8 +4 ?$ 34E$+3 I$4+ *FHE$$aM FD :?$ E P$40 P$4 QH4H-2F
5HFE @F$ 3E , ?$E P$40 P$4 QH4H-2F @F$4 3C P$0 , ?$E
P$40 P$4 QH4H-2F *FHE$$C MH 9 D34$0 V ?$E P$40 P$4 QH4H-2F
*FHJ$C P30 34 I%! , ?$E P$40 P$4 QH4H-2F G$ D I 34N3
P$-4 N3 , ?$E I3 34 P$4 QH4H-2F G$ O I%! , ?$E
I3 34 P$4 QH4H-2F 8-2F 3E H&?$E I3 34 P$4 QH4H-2F
5HFE 9 $JC , ?$E I3 34 P$4 QH4H-2F 5HFE 9 3C $ V ?$E
I3 34 P$4 QH4H-2F M3H423 4EH D d , ?$E I3 34 P$4 R
QH4H-2F G$ D I4 N3 H ?$E I3 34 P$4 QH4H-2F ,3F3J $F 5HFE
'33D ?$E I3 34 P$4 QH4H-2F 5HFE 9 HHD J$E H&?$E I3 34 P$4 R
QH4H-2F @ C Q1F34 G$0 H ?$ I3 34 P$4 QH4H-2F 5HFE @4HH+ V
?$E I3 34 P$4 QH4H-2F 5HFE 8$ NHJQ ?$E I3 34 P$4 QH4H-2F
8H13 3 8$0 $4D B4 DD 9 E 34QH-4E3 B$CC3 M3H423 ,3$ 3 V
9 E 34QH-4E3 B$CC3 5HFE B4H E V 9 E 34QH-4E B$CC3 *FHJ$C
9F 3 , P D3EF$ 5HFE 9F 3 V P EF$ 9 $J ,3 V
?$E I3 34 P$4 QH4H-2F 'HQ34 G HE ?$E I3 34 P$4 QH4H-2F
5HFE 9 $4D I%! C ' V M43$ B3D E *FHJ$C E23 83E40
5 B$4 HE I%! 9 $J <$+3C B-E 5$J3C 9 $J @4H DO
9 $J >3 C G$ 3C I%! 9 $J B3C 30 G-EC&H4D 9 $J
83 5HFE IF 11C 5HFE P34 E B4H 34 I%! 9 $J ?$-ED34C
)! ,#,3 4%! 83E40 8H $4D *FHJ$C >-N3 @F$4 3C M430 @H 3C
I%! 83E40 9 2F N+)! (V> 9 &$J B-N+ $ED 5HC31F
*FHJ$C *FHJ$C G3 3 83E40 8-Q34)! ,3#(! ;#($F B-CF
*FHJ$C E23 83E40 5 B$4 HE Y! *FHJ$C B4H E3 5$J3C
9 $J @4H DO 9 $J >3 C G$ 3C I%! 9 $J BC 30
G-EC&H4D 6$ 34 9 $J 6H 3 9 $J 83 3 5HFE P34 E
I4H 34 I%! 5HFE IF 11C 9 $J ?$-ED34C 9 $J B-N+ 34
C 30 *FHJ$C F34 HE ' NF$4D M$4 N+ B$ F3 5$J3C B4$D&H4D
@F$4 3C B4$D&H4D 9 $J B$ F-4C B4$D&H4D 9 $J '-DD 3
B4H E *FHJ$C B- HN+ I%! 83E40 IH 34 B-4 5HFE 5$J3C
I1]%! U3# , 5HFE >3 CQO @HD4 E2 HE < 34 @$ 30 @HD4 E2 HE
'HQ34 @HD4 E2 HE *FHJ$C ?43 HE @HD4 E2 HE I%! *FHJ$C
@H 3E 40 M 3C G$-Q3EO I%! ;D $4D MHDD$4D I%! 8H4$ H
,3CHE MHDD$4D M3H423 CF3 MHDD$4D 5$J3C M4HDQO I%!
P NF$3 8$43 I%! *FHJ$C 53&&34 3C 83E40 P DD3 HE I%!
83E40 I-44 34 U3# , I%! *FHJ$C 8OD3 ' 1 30 I%! 5HFE
?$ 34 I%! E FHEO P34 E '33 3 ? H430 5HFE 8$4D E2 ?F311$4D
5HFE CF&H4DQO 7 ! ') &U3 , \! 9$ 34 *43ENF$4D I%!
*FHJ$C 3 5HFE 9$0 3 3 I%! + 3 $ED34 @F$4 3C
P$ 3 " ,#! + 83E40 B-44$4D ,3$ 3 " ,#!)! L!0! !#&
'HQ34 CF3 ,FE F34 HE ;D $4D B$0E HE 83E40 B$0E -E
I%! 'HQ34 B$D3E *FHJ$C BO F3C3$ @F$4 3C B4$D&H4D M3H423
B-CF 5HFE B-CF ?$J-3 BO F3C3$ 5HFE >HE2 5HFE 5HE3C *FHJ$C
83E40 93 IF 11C U3# , 5HFE G$ C 5HFE G$ C U3# , 5HFE
'$ 3EF 83E40 M$ &H4D M QQC >-DH *FHJ$C M4 JC HE B-N+
E$;C N<-4 64$ENC *FHJ$C ;234 HE *FHJ$C 9$ + EC 6H4C 34
9 $J 6H 3)! ,3#(! *FHJ$C 6H I%! 83E40 83 30
' NF$4D 83 30 ;D $4D 8 E J$E C$$N 93QQ 8H4 HN+ 9 $J
8-2F3C 'HQ34 8$3 B $2D3E 8$3 5DFE B $2D3E 8$3 5HFE
83E40 5$NHQ ;D $4D -2C ?$J-3 > DO$4D 6 $ENC 3 $ED34
?OD3EF$J >HN+3 M3H423 -2-C -C PHE 2HJ340 I%! 83E40
H4 F P343 3F34 5HFE 8-E234&H4D B3E4-DDH3+3 @H4E3 -C
I I%! 5HFE I3$4C3 @F$4 3C >3 C IF 11C 5HFE P34 E 5$J3C
'-CC3 *FHJ$C 8OD3 ' 1 30 5HFE ;D $4D ED43 ? $4+30
5HFE

ʿ _ 9 ? 6 : 6 ʿ '& ʿ #)D

5H J ʿ ? $0E3 ʿ 5HFE ? $D3 ʿ $4D >H& FH-C3 ? $ 34 ʿ *FH J $C B-CF ?$-ED34C ʿ 5HFE * H3 *F4 E2 ʿ 5$J 3C 9 0 D *FH J $? 9 0ED F$J ʿ I%!P) ʿ) ! ,#,3 4%! #& L!0! !#& 643D34 N+ I 30D3 ʿBH- 34 3 M3H423 -2-C -C B 3D34 J $E I%!

R, ʿ) ! I ,3# ʿ , ʿ Y1 ,HY% #

5HFE B-4E , ʿ <4 HE ʿ 5HFE @4HCQO H % 4+Q0 FH43 ʿ 9 $J ʿ 5$J 3C# ʿ >HE2 J $4 HE ʿ 5HC31F 5$J 3CHE @4-N+3E FH41 S$N+ 3 B 11E , ʿ >HE2 J $4 HE ʿ 5HFE 9 $ HE @4-N+3E FH41 ʿ *FH J $C B $ED 1!# , ʿ , B E2$ 3 ʿ *FH J $C Y% J &U3# , ʿ , ʿ%EHN+ ʿ ' NF$4D * E+ 34] /BH HE ʿ *FH J $C M QCHE I%! ʿ , ʿ* 44 ʿ 5HFE ' H $EDCHE ! ʿ @ ʿ?F$ ʿ P$ F3 ʿ B3 F$J ʿ , ʿ *H N3 ʿ *FH J $C + ECHE H / 8 -#HN+ 8H ʿ 5$J 3C *FH4EQ$4H ʿ 9 $4D I%! ʿ , ʿ>H F3 ʿ BH E3CC DD CHE 2 A % E2 C 3$Q-4E ʿ L!0! !#& P$4+F$J ʿ *FH J $C 6$ E2D3 D , M43$ ʿ ? 4 N+ $ED

ʿR, ʿ) ! I ,3# ʿ " , ,3() ʿ , ʿ@$4 J J F3E

5HFE BH 3E ʿ 9 $J ʿ ; $EC ʿ) ! L!0! !#& *FH J $C 5HE3C ʿ) ! L!0! !#& G$ D 4NF34 9 $J C ʿ @F$4 3C G 22 3 9 $J C

R, ʿ) ! I ,3# ʿ , ʿ@$4 J $4 F3E

8H 3 ʿ G$ 3C , ʿ@HE O ʿ 5HFE 8$ $4D , ʿB $3E2 F$E ʿ G$ D *FH J $C , ʿ I3E 43J $ 4 ʿ *FH J $C *FH J $C , ʿ *43& 2$4E3 ʿ *FH J $C B3 $E M OEE I%! ʿ ?$ E ʿ CFJ $3

R, ʿ) ! I ,3# ʿ , ʿG3EQ 2F

*FH J $C P-4F$ ʿ M4 && F , ʿ N HE 8H-C3 ʿ *FH J $C M4 && FC , ʿ 9 43 F$J ʿ 5HFE 6H- +3C , ʿ ; O 8H-C3 ʿ ? JHE =H4+3) ! ,3#(! ʿ , ʿ ; 4 F 2 ʿ M4 && F 53&&43O PH44 C , ʿ 9 43 F$J ʿ 5HFE 9 OEE3 , ʿ M$4 FJ 3 H ʿ) ! L!0! !#& 5HFE ; C , ʿ83<D434 ; $E ʿ) ! L!0! !#& 5HFE ʿ 5HE3C > $E2 J ʿ > HOD 5HFE ?$ CQ-(O M$ &$3E$E ʿ @F$4 3C M4 && F 9 OEE3 > J $ 8$ ʿ *FH J $C ' HQ34 C 8$ QDOD43 ʿ *FH J $C ;D $4DC @OCC- H2 ʿ ' NF$4D P$-4 N3 BHEEH ʿ I%! ʿ] /B40E0 $F3 ʿ ' HQ34 ʿ P$-4 N3 BHEE34 P$-4 N3 , ʿ B40E02 $ 3 ʿ ?$J -3 ʿ ? 33 3 I%! ʿ &> $E4F$ D4 ʿ 9 $J ʿ ; D J -ED 9 $J C I%! ʿ > F4 J HE ʿ 5HFE G$E 3 ʿ I%! ʿ , ʿ> $E23D E ʿ 5HFE @4H HE IF 1C I%! ʿ , ʿ I4 DDQ # ʿ 9 $ 34 5HE3C I%! ʿ , ʿ > $EC E ʿ G$ D 8$J 34 , ʿ > H4$E

R, ʿ) ! I ,3# ʿ , ʿRL

7) ! L!0! !#& *FH J $C ; $EC I%! ʿ ;D $4D 5HE3C ;D $4DC ʿ 5HFE B$443 ʿ6H22 ʿ 9 CHE -,#!1 ʿ) ! L!0! !#& %),0 1M MH4C ʿ PH- C3D$ 3 I%! ʿ 643D34 N+ @F$4 3C IF 1C ʿ) ! L!0! !#& C$$N 9 $J C

ʿ R, ʿ) ! I ,3# ʿ , ʿ P34 HE3 F

M4 && FC 8H 3 C H @$J $E C$ ʿ 5HFE 5HE3C H *0E033 -E ʿ 9 $J 9 0EE < 3E I%! ʿ , ʿ > $E0 J H DD O ʿ 9 $J ʿ 5I-2F3 I%! ʿ , ʿ P$ OD ʿ 5$J 3C *FH J $C *$J Q34 $ E , ʿB40E ʿ 5HFE 9 $J C 3O , ʿ@ J 3NH3DH2

R,

!　　=' _ ' V' 9 ? 6 ' : 6　'' '& ' #) '

R, ')!' I ,3# ' , ' P HE 2H J 340

5HC31F' 5HE3C' P $NFOE 3 F ' 5HFE' >3 C' ĉP $NFOE 3 F ' 8 -2F' G$ 3C' , ' P $NFOE 3 F(5HFE' 6H- +3C' , ' P $NFOE 3 F ' P N$F' 5HE3C' , ' P $NFOE 3 F ' 5HFE' 5HE3C' U3# , ' , ' P $NFOE 3 F ')!' L !0! !#&' *FH J $C' >3 C' 8 -2F3C' H I 3E32H3C')!' L !0! !#&' 5HFE' 8 -2F3C' L! ' , ' , ' I , 0 ! ' G$ D' I 4 NF$4D' H @3EE $4 F ' ; D $4D' ' H $EDC' H '> OE2 34E ')!' L !0! !#&' G$E 3 ' ' 9 $ J C' C ' ' > $E&$ 4 ' P$ F3 ' ; $E' >3 C' L #(% 1')!' L !0! !#&' 5HFE' > HOD' L! ' , ' > $EE&O ' 9 $ J' 5HE3C' <% # ' ; D $4D' < 3E' I 4ON3' G3 343- ' U3# , ' B4OE2 $C')!' L !0! !#&' M4 && F' 8 H 3 ' L! ' , ' > $E2$D&$E ')!' L !0! !#&' >3 C' ' H $EDC' @$C 3' @$34 E HE ' 5HFE' 9 $ J C' " #!%!#' G$ D' ; $EC' $?!# ' 4 J 4' M$4DE34 ' 5HFE' 5HE3C' ##3#& ' G$E 3 ' 9 $ J C 4 E J 3 ' 8 -2F3C' <%F &) ')!' L !0! !#&' G$ D' 8 -2F3C' , ' G $E&O E ' G$ D' *FH J $C' V ' M$4 F20 0 ' E3E&$ 4 ' ; D $4D' 6H- FC' ' > $E&O E ' 8 -2F' B QQO' , ' > $E&O E ' 8 -2F' ' HQ34 C' ?3423HE' V ' > $E&O E ' 5HFE' ; $EC' , ' I 3E2 4E ')!' L !0! !#&' 5HFE' 5HE3C' H > $E2 -EH2 ' 5HFE' *FH J $C' H M3E F20 OE E ' &$ 4 ')!' L !0! !#&' 5HFE' ' NF$4DC' , ' > $E DD-4 ' 5HFE' 53F-' , ' P 3 &HD ' 5HFE' ; $EC' M$4 F' , ' P 3 &H4D ' P $-4 N3' B QQO' , ' > $E&O E ')!' L !0! !#&' ' NF$4D' 0#2F' @ ' > $E& F$E23 ' ' NF$4D' * QQH ' , ' > $E&O E ')!' L !0! !#&' ' H $ED' 9 $ J C' , ' P 3 &HD ' *FH J $C' B QQO' > $E&O E ' *FH J $C' ; $EC' V ' I 3 CD- ' *FH J $C' ' HQ34 C' V ' P $ E3 ' *FH J $C' 5HE3C' V ' =C O J NH OE ' 9 $ J' 8 - J &&43OC' V ' > $E&O E ' 9 $ J' 8H1+ EC' V ' P 3 &HD ' 64$EN C' ?F-+34' , ' > $ED C H ' 5HFE' BHD3EF-4C ' , ' B-42 D1 (' *FH J $C' 9 F & 3 D' , ' > EC E &&4$ D ')!' L !0! !#&' 5HFE' ' -CC3 ' ^ > $ED4 E H ' *FH J $C' 9 F & 3 D')!' ,3#(! ' > EC E &&4$ D ' 9 $ J' 64$EN C' I 3 J 4FH3C ' G$ D' ; $EC' , ' > $ER C$ E &&4$ D ' G$ D' 5HE3C' <% 1!' O !') #' ; D $4D' ; $EC' , ' > $ J ' &3NF$E ' ; D $4D' ; $EC' > $E&3NF$E ')!' L !0! !#&' 3() 9 OEE' 5HE3C' H*' > EC E &K$ D ' 5HFE' ; $EC' H&> $E&3NF$E ' 5HFE' B ' I 4ON3' , ' > EC E & &$ D ' *FH J $C' 5HE3C' < 1!' <% # !') #' 9 $ J' ; $EC' H > EC E &64$ D *FH&& $C ; D B-ED' P $4CF' U3# , ' H > $E D H3C ' *FH J $C' 830 $4D' > $E D H3C ' 9 $ J' I 4ON3' M 33E' <% # &%, !1' *FH J $C' 534 C' H > $E D H3C ' ' NF$4D' 534 C' +3 (! ,#' > $E D H3C ' *FH J $C' ; $EC' P $3EH ' ' NF$4D' < 3E' M $ED- $C ')!' L !0! !#&' 5HFE' 8 34Q34 ' H M EF&43E ' *FH J $C' >3 C' P $3C J $ 4 ' ; $E' ' 33C' V ' > $E D H3C ' ; $E' % EC3O' , ' P H$ ' *FH J $C' BH 3E' , ' *ODDOE ' *FH J $C' MH 3E' , ' B4HH J @ & (5HFE' I 4ON3' 4 I $E D4$ E ')!' L !0! !#&' ' +' B4HH J 3' H B 4 FDD- ' ; $E' 9 HHC J $4E' H* BHD$ HNF ' @F$4 3C' *FH J $C' 9 HHC J $E' V ' > $E D H3C ' G$ D' ; $EC' +3 (! ,#' H > $E D H3C ' P $-4 N3' > HOD' I %! ' P HE 2H J 340 ' ' HQ34 ' 5HFE' 8 $44 CHE' X @$ 4FH 3 ' = $ J' G$ 3C' X ' FOD 3 J HE ' G$ D' 5HE3C' H ?- HE ' 5HFE' 5HE3C' ^ 8 3EDH J 3E ' ' HQ34 ' < 34' , U' 8 3EDH J 3E ' + ' @F$4 3C' *FH J $C' 5NE3C' V ' B4H$D $0 ' ' NF$4D' ; $E' < 3E' I %! ' H > $E34 ' ' NF$4D' J Q 34' I %! ' H @F-4NFC H+3 ' G$E 3 ' , F ' I %! ' , ' P HE 2H J 340 ')!' L !0! !#&' @3N ' G$ 3C' V ' P E&H- ' 5HFE' 8 - J 1F43OC' H BHDF E ' @F$4 3C' 5HE3C 2 M$4 F J ' 5HFE' ' HQ ECHE' 5HE3C' B4 FD 4 ' P $-4 N3' > HOD' 5HE3C B4 QD 4 ' *FH J $C' P H42$E' ' ' F 3 Q$E+ ' *FH J $C' 9 $ J' *FH E3C' . B4 FD 4 ' 5HFE' 9 ED34 ' >OHE' 9 ED34' , ' $OEH4 ' I 4ON3' B-N+ 30 ' 9 & $ J 3C' , ' I 3EE$E ')!' ' 3 343 D' ; $E' ; $EC' ^2 I 3EE$E ' G$ D' 8 $ J 34 > $E&O E ' *FH J $C' BH 3E' , ' *ODDOE ' 5HFE' G$ 3C' H&' P $3C J $ 4 ' *FH J $C' ; $EC' , ' > $E D H3C

> $E D H3C' +3 (!,#' *FH J $C' ; $EC' , '> $E D H3C' *FH J $C' <H-2 ' , '> $E D H3C' 5HFE' 4 F-4' 8 34Q34 ' , 'M EF&43E' ' N>$4D' 534 C' U3# , ' , '> $E D H3C' +3 (!,#' *FH J $C' 534 C' '> $E D $3C' G$ D' 534 C' H > $E D H3C' 8-2F' 5HE3C' '> $E D H3C' ' 8$4 $O' ' H 3E' 5HE3C' , '> $E D H3C' *FH J $C' >3 C' , ' P$3C J$ 4' *FH J $C' ;DR J-ED' P$4CF' U3# , ' H/> $E D H3C' ' NF$4D' < 3E' > $E D 33C' *FH J $C' I 4ON3' , ')!' M433E' > $E D H3C' 9 $ $' I 4(N3' , ' > $E D H3C' 5HFE' I 4ON3' , ' I$E 4$ E' ; $E' ' 33C' , '> $E D H3C' ; $E' 9 HHC J $E' , 'BHD$ HNF' U3# , ' 8-2F' G$ C' , 'M$ & +E' 5HC31F' G$ 3C' P$NFOE 3 F' 5HFE' I F 1' ; C' H P$NF(E 3 E' 8-J 1F43O' 5HE3C' ; $EC' , ' P$NFOE 3 F' 5HFE' 6H- +3C' , ' P$NFOE 3 F' 5HFE' 8-2F3C' @ J N$4E3DD NF$&' 5HC31F' 5HC31F' , ' P$NFOE 3 F' 5HFE' 5HE3C' , 'B$NF3 DDHE' 9 $J' I-2F' , 'P$ OD' P$ F3 ' G$ 3C' 9 $J C' , ' @ E4F$ $D' 9 $J' 9 $J C' , ' I3E 43&' 643D34 N+' B4$EDC 4H J' H ,3 H E' 643D34 N+' 5HC31F' 6H HE@&34 ' ,3 H E' 9 $J' 64$EN3' H ,OHDD&4$ F' @F$4 3C' 5HE3C' B $N+' 8$ ' 9 $J' 5HE3C' , ')!' ' HN+' 9 $J' 5HE3C' ,3 H E' *FH J $C' 53EE (2C' , ' *OE043 F-E' 9 $J' >- HE34' , 'GH 4 '8$ 'L!0! !#&' 8H4$N3 P-E4H' ' C ' ' , ' %3440')!' L!0! !#&' ; $E' IH 3 ' @ ' PHX2F 43' 8 31&O' DH 1F-C' * ,' , ' , ' Q34F$ 3C1')!' L!0! !#&' -' # * ZJ' @ ' > $E J 343 2' ; $E' ? 31F3EC' U3# , ' H1' ,3 H E' ;D $4D' P H42$E' ? 31F3EC' H1 ,3 H E' 9 $J' ? O J $E' ,3 H E' *FH J $C' G43 ')!' ,3#(! ' , ' ,3 H E' ;D $4D' ; $EC' , '> J &3NF$E' ;D $&D' ; $EC')!' ,3#(! ' H1> $E&3NF$E' 5HFE' ; $EC' @ '#$E&3NF$E' G$ D' ; $EC' \1'> EC E &4$ D' 9 $J' ; $EC' > EC E & D')!' L!0! !#&' 8-2F' 9 OEE' 5HE3C' H1> EC E &4$ D' G$ D' 5<E3C' $E&<NF$E *FH J $C' 5HE3C' H1'> OC3' > $E&3NF$E' 5HFE' B ' I 4OC3' , ')!' > EC E ' &4$ D' *FH J $C' B3N+' , '*,,%' *FH J $?' BH 3E' 8 3ED43F3E' 9 $J' @ 3' I %! ' , ' I HH ' 5HFE' 5HE3C' , ' @ HC? HHD' @F$4 3C' *FH J $C' @H4OEDHE' >- J H43' I %! ' M- C& 3 D' 5$J 3C' ' HQ34 C' G34 3E

R, ')!' I ,3# ' , ' I3 J Q4H+3

7)!' L ()' ,#,3 4%!' 9 $J' <, &' %3EC E2 HE')!' ,#,3 4%!' ' HQ34 ' 6- +3' M43 3')!' ,#,3 4%!' 9 $J' 8 3E4O' ;D $4D3C')!' ,#,3 4%!' 9 $J' 8 3E4O' =3 34 HE')!' ,#,3 4%!' M3H423' I 4ON3' @$J 1Q3 '+ ' 5HFE' < 3E' L ! '+ ' 9 $J' < 3E' " ,#! ' + ' ' NF$4D' B- +3 3O' I F 11C' I F 11C' " ,#! ' + ' ' HQ34 ' 5HE3C' $4D' %3 J 3OC' # () ' + ' 8 3E4O' P$ F $C' # () ' 5HFE' 8 3EC 3 2F' 3E' H1' @43CC3 O' >$-EN3 H ' B$-2F' 3E' 1@43CCD O' 5HFE' I F 1C' D$J C' H5>ODC 31' 8H-C3' 5HFE' D$J C' >ODC 31' 8H-C3' 3 $ED34' D$J C' , ' 8H O $ED' ' HQ34 ' 5$J 3C' + $ED' , 'BH- C HE' 9 $J' O 3 $O' , '8$ 34&H4D 3C ')!' L!0! !#&' G$ D' B 4D' 3E' I %! 'V ' B-4 HE' M3H423BH 3E' > OE02 $ 4' 5$J 3C' BH 3E' > OE02 $ 4' ;CC3 ' BH 3E' , '> OE02 $ 4' 5HC31F' 6HC 34' 4F$J' , '*43NH<E' 5HFE' 6HC 34' B$4F$J' , '*43NHHE' 5HFE' *FH J $C' B3OEHE' 21*43 34E' ' N3' B3OEHE' , '*43 34E' 8-2F' 9 3QQ' BH 3E' H1' @$J 4HC' @F$4 3C' 9 F33 34' *H EC3ED' 9 3QQ' BH 3E' @$J 4HC' *F1 J $C' BH 3E' , , ' 8$ ' *FH J $C' BH 3E' @$4D 2$E' 9 $J' BH 3E' H1 P HE' 8H-C3' ' NF$4D' BH 3E' , 'P$EH4' < 3E' 9 # $J' < 3E' B4 2C H+3' V 'B $QE' 1$E ')!' L!0! !#&' -2-C -C' B4 2C H+3' I %! ' @ 'B $3E1$E ' M3H423' BH E2' I3 J Q4H+3' *FH J $C' B$ E3' H1> EHE' 5HFE' B[_ 8 o' H1' B- Q34' 5HFE' BH 3E' 2 ' , '@$34 J $4 F3E' >3 C' @F D' V ' '1' ,3 HE

,3 HEʻ @F$4 3Cʻ 6HO34ʻ @ $Eʻ , ʻM4H 3ʻ 5HFEʻ @4-EEʻ , ʻ , $4Q3 ʻ
5$J3Cʻ P$4+ʻ @F Dʻ , ʻB 23 Oʻ ?!ʻ !,! &ʻM3H423ʻ 9$ + ECʻ @- Cʻ
Y! ʻʻ , ʻ ʻ -DQ$ HEʻ 9 $Jʻ @H-C ECʻ , ʻ ʻFHC1HH ʻ)!ʻ L!0! !#&ʻ
/ ʻ)&! ʻ,#ʻ ʻ NF$4Dʻ G$ 3Cʻ I%! ʻʻ @ ʻ?$ E ʻ G$ DCʻ G$ Dʻ 4 F-4ʻ
?$-ED34Cʻ G$ 3Cʻ H *3E 4 3ʻ *FHJ$Cʻ G$ 3Cʻ H *43 $NFʻ ; $Eʻ G$ 3Cʻ
@$4D 2$Eʻ M3H423ʻ G3 HE$ Dʻ ?HDC HEʻ 5HFEʻ G-EEʻ 9 3C ʻ PHH4ʻ
9 $JʻG$ 3Cʻ , ʻ8$ 34&H4D 3C ʻ *FHJ$Cʻ P$ F $Cʻ G$ 3Cʻ B4HHJ ʻ
F ʻ *FHJ$CʻG$ 3Cʻ ?$ E GH2J$3 CʻG$ DʻG$ 3Cʻ @$4E$NF3E 3Eʻ
)!ʻL!0! !#&ʻ *FHJ$Cʻ G$ HEʻ I ʻ@ ʻ+Z#ʻ CC3 Cʻ *FHJ$Cʻ 83E40ʻ
G$ 3Cʻ P - HN+ʻ 83E40ʻG$ 3Cʻ 6$E ?$OCHEʻ ʻ H234ʻ ; $ HEʻ H&ʻ I$4+ʻ
M $Cʻ 9 $Jʻ ; $ECʻ 8$ 34&H4D 3C ʻ5$J3Cʻ ; $ECʻH&ʻ8$ 34&H4D 3C ʻ
*FHJ$Cʻ ; $ HEʻ H&ʻ8$ 34&H4D 3C ʻ 9 $Jʻ ; D $4D3Cʻ H&ʻ *3EQOʻ >3 Cʻ
; $ECʻ , ʻ@$4D 2$Eʻ B3E($J Eʻ ; $ECʻ f&ʻ , 3 34Eʻ)!ʻ L!0! !#&ʻ 5HFEʻ
; $ECʻ @&34 ʻH&ʻ> $EQH DOʻ G$ Dʻ ; $FCʻ &*43&2$4E3ʻ 5HFEʻ 63E HEʻ H&ʻ
6 CF2-$4Dʻ)!ʻL Z,! !#&ʻ ʻ NF$4Dʻ@F$4 3Cʻ 63E J @ $ ʻ, ʻ6 CF2-$4Dʻ
9 ? Jʻ6H4 -E3ʻ V ʻ>3 C HEʻ @$C 3ʻ P # & 33ʻ M4 && FCʻ , ʻ> $E2H ʻ
J$Eʻ ; $Eʻ M3H423ʻ , ʻ%$CN4 9 <ʻ 8 J $CʻM4$& HEʻ , ʻ8$ 34&H4D 3C ʻ
ʻ NF$4Dʻ MH 34ʻ ʻ *3EQOʻ Q3ʻ MH 34ʻ ʻM $EDH $Eʻ 8H-C3ʻ)!ʻ
L!0! !#&ʻ G$ Dʻ M4 && FCʻ I%! ʻ` ʻ83 34#ʻ G$ Dʻ M4 && FCʻ U3# , ʻ, ʻ
B34 F $Eʻ M3H423ʻ 9 $Jʻ M4 && FCʻ! ʻB34 F $Eʻ 9 $Jʻ M OEE3ʻ , ʻ
% N3&& Fʻ *FHJ$Cʻ M OEE3ʻ , ʻ@H-4 ʻ5HF-ʻ 8 ʻ 8$44 3Cʻ , ʻ I4 C+ Oʻ
9 $Jʻ 8 22HEʻ H&ʻ?1 H ʻ5$J3Cʻ 8 22<#ʻ 8$ 34&H4D 3C ʻ M3H423ʻ
8$44 3Cʻ 2 ʻ , ʻ8$ 34&H4D 3C ʻ M E34 ʻ5$J3Cʻ 8$44 3Cʻ H&ʻ> $E34Eʻ
$Cʻ ?$J -3ʻ 8$44 3Cʻ , ʻ *43 $NHHEʻ 5HFEʻ 8$4D E2ʻ 8$44 3Cʻ , ʻ * 3 $ʻ
NHHEʻ)!ʻ L!0! !#&ʻ *FHJ$Cʻ 9 $Jʻ %E3 F3 ʻ8$44 3Cʻ I%! ʻʻ , ʻ?$ Eʻ
*FHJ$C Cʻ 5HFEʻ 8H 3 ʻ 2 ʻ ` ʻ *H2&O#EOʻ *FHJ$Cʻ 8H 3 ʻ , ʻ
M $3C1$E ʻ)!ʻ L!0! !#&ʻ M3H423ʻ 8$44 3Cʻ I%! ʻʻ , ʻ , H HEʻ)!ʻ L!0![
!#&ʻ 5HFEʻ 8-E 34ʻ 8-J 1F430Cʻ I%! ʻʻ V ʻ>$E43EEOʻ)!ʻ L!0! !#&ʻ
5HFEʻ 8H NHJQ3ʻ I%! ʻʻ , ʻ@HNF3C HEʻ L!0! !#&ʻ5$J3Cʻ ʻHQ34 CHEʻ
8H NHJQ3ʻ I%! ʻ , ʻ@HNF3C HEʻ)!ʻL!0! !#&ʻ G$ Dʻ 8$44 3Cʻ I%! ʻ , ʻ
83E OCʻ *FHJ$Cʻ 8$J 3ʻ , ʻ6 CF2-$4Dʻ ; 4&H34ʻ 8$J HEʻ H&ʻ *3EQOʻ
)!ʻL!0! !#&ʻ G$ Dʻ 8$44 3Cʻ I%! ʻ` ʻ I E D342$C ʻ 83E40ʻ 9 $JCʻ
8H 3 ʻ H&ʻ I3E$ NONFʻ 5$J3Cʻ 5$J3Cʻ ! ʻ 8$ 34&H4D 3C ʻ 9 $Jʻ
5$J3Cʻ H&ʻ *43 3 2$4ʻ PH42$Eʻ 5HE3Cʻ % 3ED 2ʻ G$ Dʻ 5$J3Cʻ H&ʻ
M3 Oʻ $ 4ʻ *FHJ$Cʻ 5$J3Cʻ , ʻ ʻQODO2$ 3Eʻ64$EN Cʻ5HFEʻH&ʻ@$34 3Eʻ
9 $Jʻ5HFEʻ , ʻ 83ED43ʻ 83E40ʻ5HFEʻ ʻ>HNF 4& Eʻ PH42$Eʻ ʻ N3ʻ
5$J3Cʻ , ʻ8$ 34&H4D 3C ʻ 9 $Jʻ ?,3!Zʻ V ʻ83$ F& 3 Dʻ 9$ 34ʻG$ Dʻ
5HE3Cʻ 2 ʻ , ʻ8$ 34&H4D 3C ʻ)!ʻ L!0! !#&ʻ 5HFEʻ 5HE3Cʻ I%! ʻ , ʻ
> $E 4E$NFʻ)!ʻ L!0! !#&ʻ 5HFEʻ 5HE3Cʻ I%! ʻ , ʻBHCF3C HEʻ)!ʻ L!0![
!#&ʻ 9 $Jʻ 5HE3Cʻ I%! ʻ 8-QQ34? HEʻ)!ʻL!0! !#&ʻ5$J3Cʻ 9 $Jʻ
5$J3Cʻ I%! ʻ , ʻG E$Cʻ M3H423ʻ 5$J3Cʻ ʻ8$ 34&H4D 3C ʻ5HFEʻ %3OCʻ
H&ʻ *3EQOʻ 5HFEʻ >3 Cʻ H&ʻ 83E $Eʻ *FHJ$Cʻ >3 Cʻ , ʻ @ OE 3 ʻ
9 $Jʻ 83E40ʻ >3 Cʻ , ʻ@ OE 3 ʻ < 3Eʻ >3 Cʻ H&ʻ 8$ 34&H4D 3C ʻ
5$J3Cʻ >3 Cʻ H&ʻ 8$ 34&H4D 3C ʻ *FHJ$Cʻ > HODʻ H&ʻ 8$ 34&H4D 3C ʻ
*FHJ$Cʻ > HODʻ ʻ% 4F-3ʻ *FHJ$Cʻ > HODʻ @H3DJH43ʻ ; D $4Dʻ
>H4Dʻ H&ʻ I3JQ4H+3ʻ @F$4 3Cʻ < 3Eʻ ʻ>H4Dʻ H&ʻ I3JQ4H+3ʻ ; 043ʻ @HH 3ʻ
>H4Dʻ H&ʻ I3JQ4H+3ʻ 5HFEʻ >3$NFʻ V ʻ I3JQ4H+3ʻ Q4$F$Jʻ >3$NFʻ , ʻ
@H4C HEʻ 83E40ʻ >3$NFʻ H&ʻ @14C H-ʻ 83E ʻ>3$NFʻ H&ʻ P &H4Dʻ 5HFEʻ
> HODʻ , ʻ6 CF2-$4Dʻ)!ʻ L!0! !#&ʻ5$J3?ʻG$ Dʻ I F 1Cʻ > HODʻ I%! ʻʻ
V ʻ I N4HNFHEʻ)!ʻ L!0! !#&ʻ B3E($J Eʻ >3 Cʻ I%! ʻ , ʻGO&& 40Eʻ)!ʻ
L!0! !#&ʻ 5HFEʻ >3 3 ʻ I%! ʻ , ʻ@$J4H?ʻ)!ʻ L!0! !#&ʻ 64$EN Cʻ >3$NFʻ
I%! ʻ , ʻ?$ Eʻ I3 4H ʻ 9 $Jʻ 8- &H?ʻ >$E2F$4E3ʻ , ʻ<4 $EDC HEʻ
)!ʻ L!0! !#&ʻ 9 $Jʻ > HODʻ V ʻ , $ Q3 ʻ *FH HCʻ P304 N+ʻ H&ʻ B-CFʻ
ʻ NF$4D

'_ '9?6':6 '' '&' #)' ' !!

' NF$4D' P$ F $C' , ' >HNF J 30 34' 5HFE' P 3$43C' , ' ; $C E2 HE' 5HFE'
P 43FH-C3' , ' B4H EC $D3' 5HFE' P H4 J 34' , ' * 43FH 3 ' 5HFE' P H4R
2$E' P H4 J 34' , ' I 3E CO2$E ' 5HFE' P H42$E' 2 ' , ' 8$ 34&H4D 3C '
@F$4 3C' P$ F $C' , ' >$J 1F30' @H-4 ' ' NF$4D' P$ F $C' ' 8$OC&HE3'
)!' L!0! !#&' P H44 C' I%! ' H ' >$E2-4$')!' L!0! !#&' 7),0):'
P H42$E' I%! ' , ' @$4D 2$E')!' L!0! !#&' 5HFE' >H4' P $EC3 '
, ' I 3 J Q4H+3' * FH J $C' P $EC3 ' , ' I 3 J Q4H+3')!' L!0 !#&' * FH J $C'
' $4 E' I%! ' , ' 9 FOQ-CF' * FH J $C' P$ F $C' 0' 8$ 34&H4D 3C '
8-2F' < 3E' < 3E' , ' <E HE')!' L!0! !#&' * FH J $C' < 3E' I%! ' , '
I 3 J Q4H+3' 5HFE' 8 3E40' I F 11C' , ' 9 $J C HE' 5HFE' I F &11?' 3E'
> HOD' I F 11C' , ' G$ 3' @$C 3' 9 $J' @F$4 3C' I F 11C' , ' ?$ E'
B4 D3C' 8 ' 9 $J' I F 11C' , ' M4HED43' ?1$4+C' P$4 E' 8 3 1C' , '
>$E2 $443E' 5HFE' >3 C' I F 11C' , ' @4 2 J $4HE' M3H423' I (11C' , '
, $4Q3 F' 5HFE' >H4' I F 11C' , ' 8$ 34&H4D 3C ' M3H423' 5H4D$E'
BH 3E' I 4 N3' , ' I 23HEC' 6H4D' 9 $J' I $440' , ' I H4 N 3 ' 9 $J'
; D $4D' I $440' , ' I H4 N 3 ' G$ D' ' -E $0' I $0& 34' @ ' * $&3' 5 -$'
9 F $+34' I $0E 34' , ' I 3 J Q4H+3' I F 1' I F 1C' , ' 8$ 34(&Q4D 3C '
5HFE' I F 1C' , ' 8$ 34&H4D 3C ' , $ F$E 3' I F 1C' ' 8$ 34&H4D 3C '
?$J -3' 8 HHD' I F 1C' , ' 8$ 34&H4D 3C ' 5$J 3C' I F3 1?' , ' ? 31F3EC'
M433E' 5HFE' 8 $4NH-4' I H 3 ' , ' 8 HH+' 5$J 3C' I 4N134' ' ; 243 J HE '
9 $J' 8 3E40' 9 3HQ 0' I $440' , ' , HO$DD' * 43&$ 9 4' 9 $J' 8 3E40'
9 3HQ 0' C 00UU3# , ' , ' , HO$DD' * 43&$ 4' I F 1' I $4N3' ' P 3$D'
5HFE' I F 1C' , ' >$E43 F$E' 5HFE' I 4 E2 3' ' * FH4E HE ' 5HFE' I $ E'
, ' P &H4D' 5HE$ F$E' 8$ H4 F' I 33' , ' @H C' 9 $ 34' ' N3' 8 H 3 '
I H 3 ' , ' P $3C2 OEE3')!' L!0! !#&' ; D $4D' I N HE' I%! ' , ' CNQ3D'
)!' L!0! !#&' @F$4 3C' I F 11C' I%! ' I #,# , ' ?$ E' G$ 8 D C'
L!0! !#&' M3H423' I F 1C' I%! ' , ' P 1$ ')!' L!0! !#&' 5HFE' I -2F'
I%! ' , ' , 3 1H4 ' 9 $J' ; $EC' I E 34' , ' I 3 J Q4H+3' 5$J 3C'
I F 1C' > HOD' I F 1C' , ' I 3E 01$4+' I F 1' I H 3 ' , ' 8 $4 J $C HE'
@F$4 3C' I 4-C ' , ' 8$ 34&H4D 3C ' 5HFE' I F 11C' , ' I 3E$ 04F E0'
M3H423' @ $0 HE' ' HNF' , ' @ $43C HE' M3H423' ' HNF' , ' B- 34' 8 '
P $4+' ' HNF' , ' I $C+3C HE' BH 3E' ' HQ34' ' HQ34 CHE' , ' 8 1D23C HE'
5$NHQ' ' NF$4DC' , ' * 3EQ0' 9 $J' ' NF$4DC' H / * 3EQ0' 5HFE' ' 33C' , '
8$ HD' 8 3E40' ' 33C' , ' 8$ 34&H4D 3C ' G$ D' ' 33C' , ' 8$ 34&H4DR
3C ' 9 $J' ' NF$4DCHE' , ' ?$ E' G$ DC' ; D $4D' ' 33C' , ' I $E 0'
D3440' ' NF$4D' ' 33C' , ' 6H +3C HE3')!' L!0! !#&' 5$J 3C' ' 33C' I%! '
, ' 8$ 34&H4D 3C ')!' L!0! !#&' 9 $J' ' 33C' I%! ' , ' 8$ 34&H4DR
3C ')!' L!0! !#&' ' NF$4D' ' NF$4DCHE' 2 2 ' * !'!# , ' , ' ?$ E'
G$ DC' 9 $J' 8 3E40' ?NH-4& 3 D' , ' ' HQ3C HE' 8$ ' 5HFE' ; D $4D'
I F 11C' ?$-ED34C' , ' M $E4F D ' E FHE0' EE3C' ? H+3C' V ' ?$ E'
BH H 1FC' 5HFE' ? H+3C' ? H+3C' , ' @-&&3 J ' * FH J $C' ? H+3C' , ' 8 3$E'
@$C 3' @F$4 3C' ? $EE' , ' P 344 HE' 8 H-C3' 9 $J' B4HN+' ? $EE' , '
P 344 HE' 8 H-C3' 5$J 3C' ?NH 34N4H&' V ' 8$ 34&H4D 3C ')!' L!0! !#&'
5$J 3C' ?- J J 34C' I%! ' , ' ?$ E' I 3 4H ')!' L!0! !#&' 9 $J' ?3$ HE'
I%! ' , ' >$J 13 34' 9 $J' ; D $4D3C' * -N+34' ' ?3$ 0F$J ' 5HFE'
< 3E' ; D $4D3C' * -N+34' , ' ?3$ 0F$J ' * FH J $C' ; D $4D3C' * -N+3 ' , '
8 HH+' 5$J 3C' * FH J $C' , ' >$J 1F30' I $4+' ' NF$4D' * 0E E2' , '
, 3 ' 8 H-C3' * FH J $C' * FH J $C' V ' I 3 J Q4H+3' * FH J $C' * FH J $C' '
B3 J HH4' 8 H-C3' M 0EE3' M ' $-2F$E' V ' 5H4D$EC HE' M 3H 3' I 4 N3'
9 $ + EC' H B4H$D $0' 5HFE' 9 $J C' H * 43$4NF$D' P HEDC' 9 $J C'
V ' @ J' M HOE3')!' L!0! !#&' 5HFE' 9 $J C' I%! ' I #,# ' ?$ E'
G$ DC' 9 $J' 9 $J C' V ' > $ED 2323' 9 $J' 9 $J C' V ' 8 CF'
2-$4D' 5HFE' 9 0' , ' 8$ 34&H4D 3C ')!' L!0! &' 9 $J' FCHE
I%!

I%!) ' , ' 5H4D$EC HE' 9 $J' 8 3E40' B$443 ' 5H4D$E' 9 CHE' , ' 5H4' D$EC HE') !' L !0! !#&' 5HFE' 9 $J C' @K4K' ` ' P $4 H3C') !' L !0! !#&' 5HFE' 9 $J C' I%! ' , ' ?$ E ' G$0 DC ')M' L !0! !#&' 5$J 3C' 9 $J C' I%! ' , ' 8$ 34&H4D 3C ' <4 $EDH' 8$44 C' 9 $J C' , ' O' * H 34') !' , ' #&' I , ,#' I ,3#V %' @ ') ;' 7 , F#' #&' " , ,3 ( )' , ' I 3 J R Q4H+3' , ') !' 7 !' 4! #(' #&') !' , ' #&' I , ,#' I ,3#' %' , ') !' " , ,3 ( )' , ' * 3EQO' , ') !' 7 !') ! %(

R , ') !' I ,3# ' ' $DEH4

7) !' L ( ) ' ,#,3 4%!' * FH J $C' 64$E+ $ED' >3 C') !' ,#,3 4%!' * FH J $C' 8$4 30' ' HDE30' 8 3E40' 3 ') !' ,3#(! ' ; D $4D' B - 4 HE' 2 2 ' ?$ J - 3' B3$ $E' , ' * OE03 J ' ?$ J - 3' B3$ $E' ' M $CNH J Q' 5$J 3C' B33-Q33' I%! ' ; D J - ED' 9 $ P EC' @F33C3' 5HFE' GHDCHE' 8 - 2F' IH 38' ; $EC' * F4EE$C' B $EC' 8 Q4$ H' 5$J 3C' 5HC $F' 5$J 3C' I%! ' 5HFE' 53E+ EC' @&34&3' ?$$ J 3' %E 2F ' >3 C' >3 C G$ D' P - 44$O' I%! ' * FH J $C' ; D J - ED' P $4CF' 9 $J' I 33 ' ' HQ34' B3 ' * FH J $C' BH - 4+3' ' N+3 C' ; D $4D' G$ D' * FH J $C' 5HFE' 9 30' J $E' ; $E' 9 $J C' * FH J $C' 9 $J C' I+! ' I F E3$C' 9 $J C' + ' 5HFE' M$4Q3 ' 9 $ CF$J' " ,#! ' 8 3E40' 3E') !' ,3#(! ' 643D34 N+' @H4E3 $

R , ') !' 7 , F# V Z ' ' $DEH4

+ ' 8$4&H4D' 5HE3C' B40D23C' " ,#M ' M3H423' @H4E3 $ ' >3 C' 9 $ 34' 9 + EC') !' ,3#(! ') !' L !0! !#&' ?,)#' P 343 3 F34' 2 2 ' 9 $J' ?$4C& 3 D' ' HC 34' @HN+Q - J

R , ') !' +) !' ; D FQ - 42F

7) !' L ( ) ' ,#,3 4%!' 5HFE' ?NH ' ! ,# ,#% ' ' %%!&' < , &' 5HFE' ?NH ') !' ,#,3 4%!' 5HFE' ? - $4' @$ J Q - C $ $N3') !' ,#,3 4%!' 5$J 3C' ? - $4 ' ? 4' 5HFE' ? - $4' 6 H4Q 3 C ' I C 2H' ' $4H NO' 9 R $J' I - 4 3C' 8 - J 3' @$J 1Q3 ' H&' P $ NF J H$ ' " ,#! ' < !3 !# #' !#! %' M3H423' ' HQ34' EC 3' I FD J' B$44 E2 HE' EC 3' + ' I ,% !' ,31! ' 64$E@?' NF CHE' ! ') # ' >3 F' I #' ' HQ34' NF ' CHE' L4 %' E 0 ' M3H423' NF CHE' ! # A' >3 F' ?$ J - 3' ED34R CHE' ! ') # ' >HEDHE' 5HFE' * 33' 3E' ` ' ; 44H ' ' HQ34' 3E') !' ,3#(! ' , ' >$- 4 C HE' 5HFE' P $N+ E HCF' B$ &H - 4') !' ,3#(! ' , ' I 4 2' 9 $J' 8 3E40' B4H E' @ ' ' $ FHQ$E+' 5$J 3C' @F3$13' L , %' E 0 ' ' HQ34' G - ED$C' , ' J C HE' @& & EE' I F 1' G - ED$C' I 5 #' 8 3E40' G - ED$C' L , %' E 0 ' M Q34' < 2# 3' M$4DE34' , ' P $(H4 ' Q$E+C' 5HFE' @F$4 3C' 8 H13' M CQH4E3') !' ,3#(! ' , ' I 3E $ED' #&' P H HE' ' HQ34' 8 $ 2' 2 1 %%! ' ><NF4 <' ? 3 $4' B$0 30' 8 $43' , ' 8$ED$ HHD' ; D $4D' 8 H4C J $E' H&' * 4 E O' @H 323' @$J Q4 D23' 8 3E40' 5$4D E3') !' ,3#(! ' , ' 8 $4 HHD' 5HFE' >3$4 J H - F' , ' *% ' ! ' 8& #43 ( ) ') !' L !0! !#&' G ' * FH J $C' >H2$E' H&' P - 4FH - C3' G0+3C' #, F' >H2$E 33' - 2 - C - C' P $ $ED' ! ' , ') !' + (#! ' 3 R $ED34' P NF3 ') !' ,3#(! ' I $4CHEC' M433E' 9 $J' I H J 34' H , ' *% ' ! ' 8& #43 ( ) ' ED43 ' * $ C3' ! ' , ') !' + (#! '

R , ') !' +) !' ,

7) !' ,1 ' E ,4%!' M3H423' F1' * 33DDD3') !' ,1 ' E ,4%!' ?,) #' V3 1' B43D Q$E3' !' ,3 4%!' 8 3E40' G$ D'

8 %' H&' B-NF$E')!' L ()' ,#,3 4%!' 3 $ED34')!
L ()' ,#,3 4%!' *FHJ$C' 8 %' , ' 8$DD E2 HE')!' L ()' ,#,3 [
4%!' 64$EN C' 8 %' 9 34$OCC' #&' P$4NF')!' L ()' ,#,3 4%!' 5HFE'
8 %' , ' <4J3 3')!' L ()' ,#,3 4%!' @F$4 3C' <, &' ?@EN5D4')!'
L ()' ,#,3 4%!' @F$4 3C' <, &' B $E 043')!' L ()' , !)%!'
4NF Q$ D' <, &' GH-2 $C')!' L ()' ,#,3 4%!' @HC1$ 4 N+' 8HJ3'
', ,#%'' %%!&' <, &' GH-2 $C')!' L ()' ,#,3 4%!' 5$J3C' P$ $ED'
', ,#%' ' %%!&' <, &' C1',3#' P$ $ED')!' L ()' ,#,3 4%!'
64$EN C' @F$4 34 C' 9 3J OCC' ', ,#%' ' %%!&' <, &' ; NFH')!' L ()'
,#,3 4%!' ;D $4D' 8$O' ', ,#%'' %%!&' <, &' ;D $4D' 8$O')!' L ()'
,#,3 4%!' @F$4 3C' GH-2 $C' !#! %')!' ,#,3 4%!' 9D $J' PH4'
D$-E' P$ #ED' P$ED34C HE' < !3 !# #' I ,%,#!%')!' ,#,3 4%!' 9, #'
P$ $ED' I 5 #')!' ,#,3 4%!' E FHEO' P$ CJD' L EQ' + ' 9 $J'
I-4 3C' 8-J3' @$J1Q3' , ' I-4 3C' #&' P$4NF JHE' " ,#! ' + '
5HFE' I4 E2 3' ? NF3 ' " ,#! ' + ' 5$J3C' M4$E' ?- 3' ^ B$ 2HE3'
" ,#! ' + ' ?$J-3' ? 4 E2' H&' ' 3E HE' #&' M H4$ ' " ,#! ' + '
5HFE' B-NF$E' 831Q-4E3' H&' ?J3$ HE' " ! ' + ' 5HFE' P$(H4S $E+C'
H&' >33C' " ,#! ' + ' M3H423' 9 $443ED34' H&' >HN 3ED' " ,#! ' + '
5HFE' 8$ ' G-E2 $C' " ,#! ' + ' 9 $J' M4$E' %3 42&B $N+Q 4E'
7 ' + ' 3 $ED34' @F$4 3C' P$ $ED' M QCHE' @ & HE' 8$ '
+ ' G$ D' P E3' , ' P E3' M$4D3E' I " ' + ' @F$4 3C' 6H4Q3C' , '
, 3 ' #&' ;D E2 $CC 3' + ' M3H423' B$ 3' 8$J HE' ' ' $JQ 3 HE'
>$ ' + ' G$ D' ;4C+ E3' , ' G4OQ-42Q' !#! %' + ' P$4 E' 8-E 34'
H&' E HECF ' I ' U, ' !#! %' + ' 5HFE' B-NF$E' G$ D'
ED34CHE' , ' ' HNF3C 34' 3 $ED34' $E' ` ' P-4N 3-2Q' ' NF34'
ED34CHE' H&' 9F CHJ3' , 3 HE' 5HFE' ED34CHE' M $DC HHD' 5HFE'
ED34CHE' ! ') # ' >HEDHE' M3H423' B$ 3' H&' 534 C' HHD3' M3H423'
B$ 3')!' ,3#(! ' , ' 534 C HHD3' @F$4 3C' B$[3' , ' 534 C HHD3'
5$J3C' I4 E2 3' B$ 3' H&' 534 C HHD3' ' NF34' B$ 3' H&' 534 C HHD3'
5HFE' B$ 3' , ' 534 C HHD3' M3H423' B-NF$E' V ' %38H3' 5HFE' BH4 F'
N+' , ' @4HH+C HE' 5$J3C' B$ &H-4' ' 9F 3 2F$J3' 5HFE' BHE$4' H&'
% JJ342F$J3' 5$J3C' BHE$4' ! ') # ' >HEDHE' 9D $J' BHE$4'
" # ! ' ;D EQ-42F' ED43 ' BHE$4' " # ! ' ;D EQ-42F' 5$J3C' B3 '
, ' , E3 $4' M3H423' B3 ' U !' ,3#(! ' 2&' , E3 $4' G $ D' P-E4H'
B EE E2' H&' ?H& $ ' G$ D' B4H E' H&' I$4+' @$4 0 3' B3 ' ! ' , ')!'
+ (#! ' 9 $J' B $ 4' H&' B $ 4' ' HQ34' B4H E' H&' 9Q ?< J3' , 3 HE'
4NF Q$ D' @F4 C 3' H&' B$Q34 HE' 5$J3C' -NF3E 3H+' @F3_J3' H&' 9 HHD'
NHN+D$ 3' 5$J3C' @$4E32 3' H&' , 3 ' ;D4HJ' 5$J3C' @$4E32 3')!'
,3#(! ' 9 $J' G N+CHE' H&' 9F 3N4HCC' 5HFE' G N+CHE' H&' I33 $ C'
5HFE' G N+CHE')!' ,3#(! ' M3H423' G DNCHE' , ' B3 NF3C 34' #&'
? HE3&H D' 3 $ED34' G-D23HE' H&' ?7 83 3E C' I$ 4 N+' G-D23HE' H&'
B344OQ$E+' M3H423' GHDC' V ' B$4EC D3' ' HQ34' D$J' G-ED$C' H&'
9F 34 2' 83E4O' 8HJ3' G4-JJHED' , ' B $ 4' G4-JJHED' 5$J3C'
;4C+ E3' H&' ?F 3 & 3 D' D$J' 6$ 4FH J3' H&' @F$113 ' M3H423' 6$ 4FH J3'
H&' M433E+EH 3' *FHJ$C' 5HFE' 6H4DON3' H&' O' HE' 5HFE' 6H4DON3')!'
,3#(! ' 5$J3C' 64$E+' H&' B4 2F 4 2' 5HFE' 6H 34' ' ' 8$ ODH E' 5HFE'
6H4Q3C')!' ,3#(! ' , ' , 3 ' #&' ;D E2 $CC 3' P %3ET 3' M4 3 3' V '
8- HEF$ ' 5$J3C' M4$E' H&' B-4EF$ ' 5$J3C' M43 2' , ' ; NN 3C' 5HFE'
6H4J$E' 8HJ3' H&' 9 3DD34Q-J' 9 $J' 6H4J$E' 8HJ3' H&' B[3'
#&' I$ HE' 9 $J' 8$O' H&' G-EC3' @$C 3' ' HQ34' 8$O' H&' ?1H '
8$O')!' ,3#(! ' 5HC31F' 8-J3' < !3 Z# # ' L EN'
5$J3C' 8$ 3' /&0, ' !' 5$J3C' 8$ 2' V ' B3J34COD3' 5$J3C' 8$ 2')!'
' \' ,3#(!

,3#(! ‘ 9 $J‘ 9$4 E2‘ B $N+Q-4E‘ I ,%,#!%‘ 5$J3C‘ 8HJ3‘
B4HHJFH-C3‘5HFE‘ 8HJ3‘ 8HJ3‘ H B$CC3ED3$E‘5HFE‘ 8HJ3‘ 8HJ3‘
, ‘>HE2&H4J$N-C‘ 5$J3C‘ 8HJ3‘ , ‘@H D3E+EH C‘64$EN C‘ 8HJ3
)!‘ ,3#(! ‘ 5$J3C‘ 8HJ3‘ , ‘@$44H C D3‘)!‘ L!0! !#&‘ M3H423‘
8HJ3‘ H M-EC2433E‘)!‘ L!JN! !#&‘ Q4$J‘ 8HJ3‘ , ‘ 9 ECF 3 ‘5$J3C‘
8-E 34‘ , ‘*F-4C HE‘ 5HFE‘ 8-E 34‘ , ‘? HE3CF 3 ‘ *FHJ$C‘ 8HHD‘ , ‘
8$4D$N43C‘ 5HFE‘ 8HHD‘ , ‘? HE34 D23‘ /& %‘ I3 34‘ 8$ +3 ‘ , ‘
G$ 2$DH‘ 9 $J‘ 8HJ3‘ , ‘6$ 4$ ‘ 9 $J‘ 8HHD‘ , ‘?-EE0‘C D3‘
*FHJ$C‘ B-NF$E‘ 831Q-4E3‘)!‘ ,3#(! ‘ , ‘?J3$ HE‘ *FHJ$C‘ 8 3ER
D34CHE‘ I 43CC‘ 8$ 2‘ 9 3C ‘ ‘3C HE‘ P$ EC‘ M3H423‘ 53&&430C
, ‘?-E N+‘)!‘ L!0! !#&‘ 9 $J‘ ?H ‘ >-ED 3‘ , ‘ ?1 $ ‘)!‘
L!0! !#&‘ ;D E‘ ?$EDOC‘ >-ECD$ E3‘ , ‘>-JCD$ E3‘ B $ED34E3‘ #&‘
(E342 3‘ M3H423‘ >H2$E‘ , ‘B-4EFH-C3C‘ M3H423‘ >H2$E‘ , ‘;D4HJ‘
G$ D‘ >H2$E‘ , ‘6$ 4E3ON$C 3‘ G$ D‘ >H ‘ , ‘ 9 F CHJ3$ C‘ @H E‘
P$N+$O‘ ‘B 2FH-C3‘ ;D $4D‘ P$(H4 Q$E+C‘)!‘ ,3#(! ‘ , ‘>33C‘
?3 $4‘ P$(H4 Q$E+C‘ <,#&,#‘ G$ D‘ P$(H4 Q$E+C‘ <,#&,#‘ @F$4 3C‘
P$(H4 Q$E+C‘ , ‘;NN 3C‘ ,3 HE‘ 9 $J‘ P*E 043‘ , ‘*3J1 3F$ ‘
5HFE‘ 5HC31F‘ P$N‘ B4$+3‘ 6 CF N+‘ #&‘* 33DF ‘5HFE‘ P$N‘ B4$ 43‘
2 ‘>HEDHE‘* ‘ ‘ 3 ‘ ? J14 J‘ 3 $ED34‘ P-E4H‘ , ‘
@4$ 2 HNF$4 ‘ 3 $ED34‘ P-E4H‘)!‘ ,3#(! ‘ 5$J3C‘ >-+3‘ , ‘>$DO‘
3 ‘ 5HFE‘ P$CHE‘ , ‘?- &3D‘ *FHJ$C‘ $E‘ , ‘8$4 $ ‘ G$ D‘
P E3‘)!‘ ,3#(! ‘ , ‘ P E3‘ M4$DDHE‘ I 5 #‘ *FHJ$C‘ P$ $ED‘
L E ‘ ‘HQ34‘ , CQ3 ‘ , ‘ P34C E2 HE‘ ‘HQ34‘ , CQ3 ‘ , ‘>$JQD3E‘
9 $J‘ <2 3‘ , ‘@F3C 34C‘5$J3C‘ I4 E2 3‘ H 6H4 HHD 33‘ I 5 #‘
I4 E2 3‘)!‘ ,3#(! ‘ 9 $J‘ I$ 4 N+‘ ! ‘ ,‘)!‘+ (#! ‘
‘HQ34‘ I$ 4 N+‘ @ ‘*43$JQ‘ 5$J3C‘ ‘HNF 3D‘ , ‘ E 34 3 F‘ 5$J3C‘
‘HO‘ , 3E FH4E‘ 643D34 N+‘ >3 C‘ ‘HO‘ ! ‘ ,‘)!‘+ (#! ‘ ‘HQ34‘
‘HQ34 CHE‘ M $C2H ‘ I 43ED342-3C ‘ ‘HQ34 CHE‘)!‘ ,3#(!
‘3E HE‘ , ‘@F3C 34Q$E+‘ G$ D‘ ‘3E HE‘ , ‘M43OC HE 33C
‘ @F$4 3C‘ ‘ DD 3‘X G40Q-42F‘ 5HFE‘ ‘HQ34 CHE‘ , ‘? 34 3 C
‘HQ34 CHE‘)!‘ ,3#(! ‘ $*‘ 5$J3C‘ ‘-CC3‘ , ‘@$C 3$ ‘ G /‘ 5$J3C‘
‘-CC3‘)!‘ ,3#(! ‘ 8-2F‘ ?NH ‘ , ‘8$4D3E‘ 83E40‘ 64$EN C‘ ?NH ‘)!‘
,3#(! ‘ 9 $J‘ 8-2F‘ ?NH ‘ 64$EN C‘ ?NH ‘ 5HFE‘ ?1H C HHD3‘ , ‘
?1H C HHD3‘ 5HFE‘ ?1H C HHD3‘)!‘ ,3#(! ‘ M3H423‘ M4$E‘ ?- N‘
, ‘ I43C HE24$E23‘)!‘ ,3#(! ‘ 5$J3C‘ ?HJ J34 3‘ , ‘ 4FH-C3‘
?$J-3‘? E HE‘ , ‘? E HE‘ 9 $J‘ 4NFQ$ D‘ ?J$ ‘ , ‘< 34J$ EC‘
?HJ J34 3‘ 2&‘; 3$ ‘ 83E40‘ ?30JH-4‘ %34‘ , ‘8$ED&H4D‘
5$J3C‘ ?F34&&‘ , ‘B$C 34 D23‘ *FHJ$C‘ ?NH ‘ , ‘;$C‘ PH44 C HE‘ 5HFE‘
?J F‘ @-E E2F$J3‘ , ‘@$14 E2 HE‘ 83E40‘ *4H 34‘ , ‘ PH4 HE‘ 8$ ‘
*FHJ$C‘ *4H 34‘ ! ‘ ,‘)!‘+ (#! ‘ 5$J3C‘ *4H 34‘ , ‘@$ 3CF 3 ‘
5HFE‘ *$ ‘ , ‘ I 4E‘ M3H423‘ *$ ‘ , ‘>$E24 2‘ M3H423‘ *-4EQ- ‘ , ‘
QQ30‘ ?7 B$ F$EC‘ 5$J3C‘ *FHJCHE‘ , ‘;$JC $ ‘5$J3C‘ *FHJCHE‘)!‘
,3#(! ‘ *HD‘ H(&G4024$EN3‘ =H-E2‘ *4H 34‘ H ‘@4- N+C& 3 D
*FHJ$C‘ *4H 34‘)!‘ ,3#(! ‘ ! ‘ ,‘)!‘+ (#! ‘ 5HFE‘ *$ C3‘
/&0,‘ !‘ ED43 ‘ *$ C3‘ ! ‘ ,‘)!‘+ (#! ‘ 5HFE‘ 9 CHE‘ , ‘
* 33DFH-C3‘ 5HFE‘ 9 +3‘ , ‘6H- D3E‘ 5$J3C‘ 9$ CHE‘ , ‘>$-2F HE‘
I3 34‘ 93 4‘ , ‘%$4E3C‘ M3H423‘ 93 4‘)!‘ ,3#(! ‘ 5HFE‘ 9 CHE‘ , ‘
@-J 3D23‘ 5HFE‘ 9 CHE‘)!‘ ,3#(! ‘ < !3 !# #‘ I ,%,#!%‘ 5HFE‘
9$443ED34‘ 5$J3C‘ 8-J1F430‘ 9 HHD‘ ‘ ,-E $EDC‘)!‘ +)! ‘ , ‘
B34 N+CF 43‘)!‘+)! ‘+341 3 !‘ , ‘B34 N+CF 43‘)!‘ I) !‘ (1 ‘
!‘ , ‘)!‘ L, %‘ "3 ()‘ H ‘>$ED34

UL' K' S ' M#> ; > P ' ' @$1' U !

R , ') !' +) !' , ' ' H Q-42F

< , &' 5HFE' ?NH ' < , &' 8' 6' @' %34') !' @ #`))' 9 $J' 8 -2F' ; H ' ', ,#% ' ' %%!&' C 1' ,3#' P 2-ED') !' ,#,3 [4%!' 5$J 3C' ?7 @ $ 4') !' ,#,3 4%!' @F$4 3C' GH-2 $C' 1! ' ,#&' +,#' , ') !' % !' < , &' GH-2 $C' , ' GH-2 $C') !' ,#,3 4%!' M3H423' GH-2 $C' I 5 #' #') !' L , %' E 0 ') !' ,#,3 4%!' M3H423' ; H ' I 5 #' #') !' L , %' E 0 ') !' ,#,3 4%!' E FHEO' P$ $ D' I 5 #' #')Z' L , %' E 0 ' U , ' !#! %' 5HFE' G$ 40J 1 3' % !% ' , ') !' 7F!# ' 1! ' ,#&' L ! (!#' , 'R , , ' + ' 9 $J' 64$EN C' ; H ' '? HQC' 9 3 C' " ,#! ' + ' 9 $J' 8 3E40' GHE' , ' " ,#! ' + / 9 $J' ?NH ' , ' EN4 - J ' " ,#! ' + ' 5HFE' I 4 E2 3' @ ' ? NF ' " ,#! ') !' L ( ) ' ,#,3 4%!' + ' M3H423' 9 $443ED34' , ' ; HNF3ED ' " ,#! ' ?4 5HFE' 5$J 3C' ?NH 'GH-2 $C' H ?14 E2 HHD' I$4 3' " ,#! ' + ' 5HFE' P$(H4 Q$E+C' V ' >33C ' " ,#! ' + ' ; D J -ED' E 4HQEC' , ' ' - F34&H4D ' " ,#! ' + ' 9 $ 34' ?NH ' , ' QQH C&H4D ' " ,#!< + ' 9 $J' G N+CHE' V ' ?OD3EF$J ' " ,#! ' + ' 3 $ED34' %3 F' V ' G-EH $4' # ( ) ' 1') %%' , '?NH $ED' + ' I FH J $C' P $+DH-2$ ' B4 CQ$E3' , ' P $+34C H E' I " ' + ' @F$4 3C' %34' 'M$ 3CF$ ' # ( ) ' + ' G$ D' ; 4C+ E3' , 'G40Q-42F' #&' 8 H J 3C' # ( ) ' + ' 8' G' 8 $ J HE' , ' , H4 F' B34 N+' #&' B - 2$E0 ' " ,#! ' 5$J 3C' EC 3' , 'M4$E23 ' 5$J 3C' ED34CHE' 9 HE' >HD23 ' ED43 ' 4EH ' , ' P 4 2F$ ' ' HQ34 ' EC 3' , ' ' 3DNH 3 ' 5HFE' EC 3' V ' P$ 1H&& 3') ! L ! 0! !#&' * FH J $C' MH4DHE * H440 ED34CHE' * - CF 3 $ ' # 1 ! ' , '?7 5HFE C' 8 5 1' ,5 %' I) 3 ') ' I H4 HQ3 H' M3H423' B$ 3' , ' 534 C HHD3 ' M3H423' B$ 3') !' ,3#(! ' , '534 C HHD3 ' 5HFE' BH4 F ' N+3' , '@4<H+C H E' M3H423' B3 ' V ' 8 -E F ' B3E($J E' B3 ') !' ,3#(! ' , ' 8 -E F ' 9 D 4' B3 ' ! ' , ') !' + (#! ' B3E($J E' B3 ') 1' !%&!1 ' +,#' 5HC31F' B3 ' +3 (! ,#' $#' ; D EQ-42F ' B3) 1' !%&!1 ' +,#' ' HQ34 ' B3 ' / &0, ' ! ' B3E($J E' B3 ') 1' !%&!1 ' +,#' 5HFE' B $N+ HN+' , ' >33F$-2F ' 9 $J' B $N+ HN+') !' ,3#(! ' , ' ; 33F$-2F ' * FH J $C' B4-N3' , ' >$E2 33 ' G$ D' B4H E' , ' ' $ &$ ' 9 $J' B3 ' , ' P 3EC $ C' M3H423' B3 ') !' ,3#(! ' ' P 3EC $ C' * FH J $C' B3$ 3' V ' 8 $4 C2$4 F ' G$ D' P -E4H' B EE E2' V '?H& $ ' M3H423' 8 HH J 3' P -E4H' B EE E2') !' ,3#(! ' , '?H4$$ ' ED43 ' "#' ,#' * , ,#! ' P D 3 J ' 9 $J' B $N+' H ,3 F34 9 3 C' ED43 ' I $ HE' B3 ' H ,3 'B $ EC 3' 5HFE' BHOD' H B4H$D J 3$DH C' 4NF Q$ D' BHOD') !' ,3#(! ' 'B4H$D J 3$DH C' " ,) ! " ! !' / &0, ' ! ' D$J' B4$N+' BHOD' @F3440 433C ' 5HFE' B4$N+' B HOD H J 234 @F3E0 ' 433C ' ; D $4D' BHOD' P 34 HEF$ 'G$ D' B$ $E OE3' G3 J $ EFH J ' ' HQ34 ' B$ $E OE3') !' ,3#(! ' , 'G3 J $ EFH J ' M3H423' @H 3' B$ E ' Q4 D23' , ' M$ 3EC D3' 8 H-C3 ' 5$J 3C' BE NH' R!! ! ' %3 CH ' M3H423' B4-N3') 1' !%&!1 ' +,#' ' HQ34 ' ' DD3 ' @$443' ' @$ 34C3 ' 4NF Q$ D' @HNF4$E3' , ' CF+ 4+ ' 9 $J' @F CFH J' @F CFH J' V ' @F CFH J ' 5$J 3C' @ 32FH4E' , ' 8 $ +Q-4E ' M3H423' @ 32QH4E' , ' 9 33EC ' 9 $J' @-44 3' , ' > E F ' 9 $J' @ $4+' '>$-2F$-2F ' < !3 !# #' I ,%,#!% B3E($J E' @F$4 3 HHD' , ') !' !# & ! ' L ! (!#' V ' 3 &1 ' 2 0&' @$ FN$4 ' +,#' V ') !' % !' ,#,3 4%!' G$ D' @$ FN$4 ' V ' H $0 ' 6#!' , ') !' + !# , 1' , ') !' I ,%%! (!' , '?31 ' ! ' 5$J 3C' @$4 3' V ' 9 Q $ ' ! ' #' P 3 4HC3 ' 5HFE' @F CFH J 3' V '? 4NF3C ' 5$J 3C' GH-2 $C' @ ' @$ 34C3 ' 4NF Q$ D' GH-2 $C' DD34C HE3 ' ' , ' !#! %' %J J ' GH-2 $C' * J 13ED3$E ' GH-2 $C') !' ,3#(! 'H@ * J 13ED3$E ' 2 , ' , ' 5$J 3C' GH-2 $C' *) 1 ' #' , ' %3 CH ' @F4 C H1F34' GH-2 $C') 1 !%&!1

UY[U`KS`M#> ; P @$1 U

!%&!1 +,# 3 $ED34 ,)! + (#! @F4 C H1F34
GH-2 $C) 1 !%&!1 +,# 4NF Q$ D G HE , 8 -E $ 4NF Q$ D
G N+CHE , 9 3C 34FH-C3QO43C ED43 G N+CHE)! ,3#(! ,
9 3C 34FH-C3QO43C ED43 G N+CHE , H-E 9 $ 34 G N+CHE ,
, 3 F34 @F$ C / & % 5$ J 3C GQ 2 $C M3H423 G N+CHE 1! ' ,#& +,#
,)! % ! ' HQ34 G N+CHE , 8 -F $ 9 $ J M43$ 3C G$ DCHE
, 8 H4C3 $ 8 $440 G$ DCHF @ < D B3 C33C 5$ J 3C M 3C1 3
)! ,3#(! H(& < D B3 C33C 9 $ J G$ CHE H M4$D3E
9 $ J G$ CHE 3 H J 234 ^ M4$D3E 5HFE G-E H1 H 9 F
J HH4F$ 5$ J 3C 8 HH134 ;&3 9 ?N J @4HD 3DCF$ C 9 $ 34 G N+CHE
U3# , ! ,)! + (#! 3Q$ D G-E H1 , > DD 3Q$E+
G-E H1)! ,3#(! , G DD 3Q$E+ 9 $ J ; H , 8 $
HHD ' HQ34 %344 ; H)! ,3#(! , 8 $4 HHD 5$ J 3C ; H ,
9 H &3 3 9 $ 34 ; H)! ,3#(! , 9 H &3 33 5HFE ; H ,
9 F F$-2F 5HFE ; H , B E+C 5$ J 3C ; 4C+ E3 H ?F 3 & 3 D M3H423
?NH ; H H& >$44 C H E ' HQ34 ; H , ' 3DF3-2F U ,
!#! % 8 3E40 ; H H& ' HC3Q$H+ 9 $ J 6$ 4 X& >$E2 33 D$ J
6$ 4FH J 3 H& @F$13 M31423 ' $ 3H 34)! ,3#(! , @$4 H 4 3
5HFE 64$ 34 + ! F & 9 HHD3E M4<$423 MH4DHE , 8 HE 8
4NF Q$ D M QCHE , >$DFH(13(4DF Q$ D M QCHE)! ,3#(! ,
>$DFH13 5HFE M QCHE U3# , ! ,)! + (#! 5$ J 3C M4 3 3
B4$E FH J I$4+ 9 $ J M4 3 3) 1 !%&!1 +,# 5$ J 3C M4 3 3
B4$E FH J B4$3C ' HQ34 M4 3 3 O1 !%&!1 +,# 2 , ' , 5$ J 3C 8 H J 3
, @H D3E+EH C 64$EN C 8 H J 3)! ,3#(! , @H D3E+EH C
9 $ J 8 H13 H& 8 H13FH-C3 9 $ J 8 H13)! ,3#(! , 8 H13FH-C3
' HQ34 8 3ED34CHE QQH 4 (3 5$ J 3C 8 H4CQ-42F 6 4 F G$ D
8 H J 3 , < 34 ' H Q-42F G$ D 8 $ Q-4 HE , P - 4FH-C3 $
' HQ34 8 $2$4 H& ; D EQ 342Q 5HFE @$C 3 8 H1+ EC 4NF Q$ D
534DHE BHE(3D $4D * FH J $C 534DN $ &3 H3 J 234 BHE(3D $4D
5$ J 3C 5HFEC HE H& $ 9 $ J 534 E3 , , 3 HE 5$ J 3C 5$4D E3
, * FH4 CFH13 M3H423 5H4D$E ! # %3 CH 9 $ J * EE3C
! ,)! + (#! 5HFE 4 DE2 , 3 Q 3 ED43 ?3 HE %$44 ,
% 113 $ 9 $ J %344 V @Q$ H 9 $ J %3 4 , ' $EE 3C H E
3 $ED34 %$0 , @F$4 3C& 3 D 9 - $ J ; H >HN+F$4 , BH4 F
N+Q4$3 $E ; H >HN+F$4 N H$E234 BH4 F N+Q4$3 ED43
>$E2 ! # ?3 + 4+ G$ D >H ` 9 F CH J 3 $ C 9 $ J
P GHE$ D , <4 J 3C HE 3 $ED34 P NGHE$ D)! ,3#(! ,
<4 J C HE , NH P E3 , 5I$DH%D3 , 3H P E3)! ,3#(! ,
6$ DHEC D3 , NH P E3 , 9 Q 3F 5HFE P -44$0 H& #1 $
ED43 P -44$0)! ,3#(! V #1 $ 9 $ J P 3 E , <4 J C HE
' HQ34 P 3 E)! ,3#(! V <4 J C HE ' HQ34 P 34N34 * , ,#!
, B $ EC#3 BHOD P 34 H& @ $1F$ J @H J J HE P 34 ,
? 3 $4 & 3 D 9 $ J < 34 ^ G E $QO43 9 $ J < 2 3 H& @F3C 34C
' U , 4NF Q$ D < 34 & B-CF ED43 < 34 H& >$E24$E 9 $ J
< 34)! ,3#(! H& >$E24$ 5HFE ED43 <4 J C HE H& M 3EQ-4E
F$ 5HFE < 34 ! # 8 $ N+ M3H423 < 34 !)! !
) 1 !%&!1 +,# ' HQ34 < 34 B 8 +3 $ ' HQ34 < 34 H& >HN+C D3
5$ J 3C < 34 , 8 HC3 $E 5$ J 3C I 4 EN3)! , (! , ? NF
' HQ34 I 4 E2 3 H& @ & HE 5$ J 3C I 4 E2 3 H& * H4 HHD 33 5$ J 3C I 4 E2 3
)! ,3#(! H& * H4 HHD 33 3 $ED34 I 4 E2 3 H& 9 F 3Q$E+ 5HFE
I $ HE V @4$ E2 M3H423 I H * HD4 2 M3H423 I H)! ,3#(!
, * HD4 2 M3H423 I H H& GHDD ' HQ34 I 3$4CHE , 8 $4D3E133
5HFE I -4 C , 9 F 3FH-C3)! !0! !#& 5HFE I $ HE # 1 ! ,
Z >$C $D3

>$C $D3')!' L!0! !#&' 5HFE' I$ HE' O1' !%&!1' +,#' M3H423' I4 E2 3'
+!',#&'+,#', '5$J3C' I4 E2 3', '*H4 HHD 33' M3H423' IH C' ! ' #'
8$ N+' I3 34' I3EEONHH+' H ,3 F$ ' I3EEONHH+')! , (!
,3 F$ ' 9 $J' I4 E2 3' +,#' , ')!'% !' 9 $J' I4 E2 3' 2!53 !'
I%! ' , '+!11 ,#' 5HFE' ' - F34&H4D' , ' ; D234C HE' 5HFE' ' - F34&HH4D' '
%EH CH- F' @F$4 3C' ' DD3 'H P -C3 33' 5HFE' '$3' H /' 8$ 34Q 4EF3$D'
'HQ34' ' - F34&-4D' ! ' #' 53DQ-42F' 5HFE' '3E N+'% !' +!!&1'
#' #' 53DQ-42F' @F$4 3C' ' - F34&-4D' !%&!1' +, ' V ')!'% !' 5HFE'
' - F34&H4D' 2&P HCCQ-4E&H4D' 'HQ34 CHE' ` '@$ 4$$& H J ' 5HFE
' NF$4DCHE' , '% 4+ $EDC' ' NF$4DCHE')!' ,3#(! ' , '% 4+R
$EDC' 8-2F' ?NH ' , ' 8$4D3E' 83E4O' 64$EN C' ?NH ')!' ,3#(! ' , '
8$4D3E' 9 $J' 8-2F' ?NH ' ?3NHED' +,#' , ' 8-2F' ?3< '@ ' 8$4D3E'
M3H423' 9 $J' ?NH ' 7) &' +,#' , ' 8-2F' ?NH ' H&' 8$4D3E' 9 $J'
?NH 'H '$3Q-4E' ?NH ')!' ,3#(! ' X '$3QE4E' 9$ 34' ?NH
9 F 3F$-2F' 9$ 34' ?NH 'H 9$-NFH13' *FH J $C' P$N' 8 $E' ?NH '
)!' ,3#(! ' H&' 9$-NFH13' 5HFE' @H4C3' ?NH ' H&>OE HE' 5HFE' @H4C3'
?NH ')!' ,3#(! ' , '?OE HE' 9$ 34' ?NH ')!' ,3#(! ' V ' QQH CR
&H4D' 9$ 34' ?NH 'H P3440$ ' 9 $J' ?NH ')!' ,3#(! 'H& P3440$ '
*FH J $C' ?NH ' 'I33 ' 4NF Q$ D' ?NH ' 8H N 3-2F' 'HQ34 ' 8$ D$E3'
?NH ' 9 HHD3E ' 5HFE' ? J CHE' B $ EC 3' 5HFE' ? J CHE')!' ,3#(! '
, 'B $ EC 3' 9 $J' ? QQ$ D' , ' I EE$N 3' ? QQ$ D' L !' ,3#(!
I EE$N 3' *FH J $C' ? $ 34 8 HC3NH 3' 5HFE' ? $ 34' @-ET 3C HE'
9 $J' ?J$ ' , '@$ CF$ F ' 3 $ED34' ?NH ' 6$ $' @F$4 3C'
B$ &H-4' ?NH ' , ' 9 HH ' 5HFE' ?NH ' , ' ' NN$ H E' 5HFE' ?NH ' , '
M$ $' 5HFE' ? J F' ! ' ,')!' + (#! ' 5HFE' MH $E' ? 3 $4' V ' 8$4'
J 3C HE' G$ D' ?13EN3' ! ' #' P3 4HC3' P$4+' ?14H' ' ' DD3 '
I 5 #' I4 E2 3' ? HDD$4' L , %' E 0 ' 5$J 3C' +5JV' ,3#(!1' +,#' V '
)!'% !' 5HFE' ?14H' , '@ $1F$J' @H J JHE' @F$4 3C' ?NH ' V ' P DD 3'
C 3$D' M D3HE' ?NH ' , ' < 34' 9 3 C' 9 $J' ?NH ' , ' *3 H Q$E+'
?NH ')!' ,3#(! ' , ' *3 H Q$E+' 5$J 3C' ?NH ' , ' ; $C & 3 D'
*FH J $C' ? J 1CHE' B $ EC 3' @F$4 3C' ? J 1CHE' B $ EC 3' ED43 '
?NH ' , ' ; 4 N+Q$E+' 9 $J' *-4EQ- ' , ' I$ $N3' *FH J $C' *-4EQ- '
)!' ,3#(! ' , ' I$ $N3' 'HQ34' 83E4O' *- HF' @ ' ; 3C H-E' 5HFE'
*- HF' H 4 F-4CF 3 ' 3 $ED34' *FH J CHE' , ' 34 O' 83E4O' 5$J 3C'
*FH J CHE')!' ,3#(! ' V ' 34 O' *FH JC@C' *HD' H G4O24$ 3' *FH J $C'
*HD' /&0,' ! ' 5HFE' *HD' ! ' ,')!' + (#! ' 5$J 3C' *FH J CHE' V '
P344 N+' *FH J $C' *FH J $C' *-4EQ- ' V ' 8H E$J ' 'HQ34' *-4EQ- '
, ' M$ $ $E' 5HFE' 9 $ D 3' V ' 83ED34COD3' D$J' 9 $ +34' , ' P - 4'
FH-C3 $ ' D$J' 9 $ +34')!' ,3#(! ' P - 4QH-C3 $ ' 5$J 3C' 9 CHE'
, ' < 34Q-4E' D$J' 9 F 3' V ' 63EC' 'HQ34' 9 F 3')!' ,3#(! ' , '
63EC' *FH J $C' 9 $J CHE' H&P $ HE' M3H423' 9 $J CHE')!' ,3#(! '
, 'P$ HE' 9 $J' 9 $ CHE' , 'B-4EF3$D' 9 $ CHE')!' ,3#(!
, 'B-4EF3$D' *FH J $C' 9 CHE' , ' C$E& 3 D' M3H423' 9 $-NFH13' ! [
') #' #' >3 F' I$ 4 N+' 9 CHE' ! ' #' %3 CH' ED43 ' 9 $-NFH13'
, ' , DD4 3' 9 $J' 9 $J CHE' , ' >$43 Q-4E' 5HFE' 9 $4434 D34'
,3#(!1' +,#' , ')!'% !' + ' I' 9 $443ED34' , ' >HNF3ED' " ,#! '
)!' +)! ' , ')!' I ,3# 'H 'H Q-42F' , ')!' 7 !' 4! #(')!' * ,0,1'
, '53DQ-42F' ,)!' 7 !' 4! #(')!' R,3 ' " O%!1' 53DQ-42F')!'
7 !' 4! #(')!' 7 ! 13 ! ' , ' 53DQ-42F' , ')! ' 7 !' 4! #(')!'
23 !' 'B-NN 3-NF C' I) 4! % #' , ')!' 7 !' ! #(')!' 23%' V '
'H Q-42F C' I) 4! % #' , ')!' 7 !' 4! #(')!' ' V%!11' , '
* 33DD$ 3 C' R ' , ' , ')!' 7 !' 4! #(')!' V3!11' ' ; H F $E C'
R ' &

R ' , ' , ')!' 7 !' 4! #(')!' R %' , ' P E H C' R ' , ' , ')!' 7 !' 4! #(')!' 8 %' , ' G-D 30 C' R ' , ' , ')!' 7 !' 4! #(')!' <, &' GH-2 $C' R ' , ' , ')!' 7 !')*#& ?!' <, &' ?HJ34 3C' R ' , ' , ')!' 7 !' 4! #(1

R, ')!' +) !' , '?3 + 4+

7)!' ,#,3 4%!' 64$EN C' , $ 1 3 4 , '<, &' , $1 34' ', [,#%' ' %%!&' 7)!' 1 ! ' -G= , $1 34' 643D34 N+' ; H ' P-44$0' % EE ' JHED' ', ,#%' ' %%!&' C 1' ,3#' P 3 2-ED' + ' 5HFE' I 4 E2 3' , '? ' NF3 ' " ,#! ' 5$J3C' I 4 E2 3')!' ,3#(! ' ` '? NF3 ' 5HFE' ?NH ' , ' M$ $' 8 -2F' ?NH ')!' ,3#(! ' 'M$ $' 5$J3C' 5HFEC HE3' , ' $' #&' 8$E2 E2CF$ ' 5$J3C' I 4 E2 3' , ' *H4 HHD 33' 5$J3C' I 4 E2 3')!' ,3#(! ' H&' *H4 HHD 33' 3 $ED34' I 4 E2 3' 9 FO Q$E+ ' M3H423' I H ' ' C+ EFH13' I H ')!' ! (! ' ' C+ EFH13' 8 -2F' ?NH ' , ' 8$4D3E' 8 3E40' ?NH ')!' ,3#(! ' H&' 8$4D3E' 5HFE' @H4C3' ?NH ' , ' ?0E HE' 5HFE' @' ?NH ')!' ,3#(! ' , '?0E HE' 5$J3C' P-44$0' , ' I F 1F$-2F' 5HFE' P-44$0')!' ,3#(! ' , ' I F 1F$-2F' M Q34' EE3C' ? H ' *FHJ$C' P $N P $E' H&?FH4 FH13' *FHJ$C' P$N' P ' ' $E')!' ,3#(! ' , '?FH4 FH13' 9 $J' ; H ' >HN+F$4 ' H&BH4 F N+' Q4$3' $E' ; H ' >HN+F$4 ')!' ,3#(! ' , ' BH4 F N+Q4$3' 5$J3C' B$ $E 0E3' , ' 8 H 33' M3H423' I& ' Z ' *HD4 2' M3H423' I H ')!' ,3#(! ' , ' *HD4 2' 5HFE' ' - F34&H4D' ; D234C HE3 ' 5HFE' I 4 J 2 3' , '@ & HE' #&' 8$ E E2' ' HQ34 ' I 4 E2 3' , '6$ 4E 33' 5HFE' BHOD' , ' B4H$D4$3$DH C' 4NF Q$ D' BHOD')!' ,3#(! ' , ' B4H$D J 3$DH C' 5$J3C' 6H43C' , '@H J 3C 3' #&' < 34' ; 4+FH13' 5$J3C' 6H43C')!' ,3#(! ' , '@H J 3C HE3' #&' < 34+ &+FH13' 5$J3C' I H ' , ' I H Q-4E' *FHJ$C' ? $ 34 ' , ' 8 HCNH 3' 9 $J' @F CFH J3' @F CFH J3' , '@F C' FH J3' 9 $J' 9 $ +34' @ ' B3 $ED' 5$J3C' P 34N34' , ' ?NH CQ$E+' ' HQ34 ' P 34N34')!' ,3#(! ' H '?NH CQ$E+' @)%,#!%' 5$J3C' ' -CC3 ' , ' CFOC 33 ')!' L!0! !#&' *FHJ$C' MH4DHE' *H440' ED34CHE' , ' *-CF ' $ ' 8 3E40' <2 3' , ' 8 $ HHD J 0 3C' 8 3E40' @F$4 3C' ' - F 34&H4D' , ' ' 3D&D4D2433E' ; Q3E3T34' B3$ 3' , ' ; 4 N+' 8 H-C3' ' HQ34 ' 8 3ER D34CHE' , '@F$13 FH13' 5HFE' 8 3ED34CHE')!' ,3#(! ' , '@F$13 FH13' + ' 5HFE' 8 $0' , '? J F& 3 D' #&' 8 $0C HE3' " ,#! ' @F$4 3C' ED43 ' ?NH ' 6 $4' , ' P DD 3C 3$D' *FHJ$C' 9 $J CHE' P $ HE' #&' B4$ D' 2$4F ' M3H423' 9 $J CHE')!' ,3#(! ' , ' ,J ,#' #&' B4$ D2$4F ')!' L!0! !#&' 3 $ED34' %34' , ' P D23FH13' I 5 #' 5$J3C' %34' , ' @HCC$4CF ' 2 , ' , ' ED43 ' ED34CHE' , '?F$ ' < !3 !# #' I ,%,#!%' 5HFE' G-E' , '?F$ 1$4+' 4NF Q$ D' ?NH ' , ' 8 H 3NF-4NF')!' +)! ' 2!53 !' , ')!' I ,3# ' H&'?3 + 4+' , ')!' 7 !' 4! #(')!' +)! '+341 [3 !' , ')!' I ,3# ' '?3 + 4+' P3' 7 !' 4! #(')!' !%&!1' (1 !' H&'?3 + 4+' , ')!' 7 !' 4! #(')!' 2 3 !' , ' B-NN 3-NFA!' I) 4! % #' , ')!' 7 !' 4! (')!' 2 3 !' ' H Q-42F C I) 4! % #' , ')!' 7 !' 4! #(

R, ')!' +) !' ' I 33Q 3C

@F$4 3C' ? -$4 ' 8 %' *4$X-$ 4 ' 64$EN C' 9 3 J 0CC' @F$4 34 C' GH-2R $C' 8 %' , ' 9 3 J 0CC' #&' P $4NF' 5$J3C' <NFHENF$4' R, 4!1' <, &' 6H4Q3C')!' L ()' ,#,3 4%!' 64$EN C' @F$4 34 C' ', ,#%' ' %%!&' <, &' ; NFH' 3 $ED34' P-44$0' <, &' ; Q$E+')!' ,#,3 4%!' ? !1' 9 H &3' P-44$0' V '@4 E2 3 3' 6#!' , ')!' +!# , 1' , ')!' I ,%%!(!' ,

' ?31 '!

V_ @9?6':6 '' '&' #)'

?31 '!')!' ,#,3)%!'5HFE' 8$0' 6H4Q3C' 6#!' , ')!'+!# , 1' , ')!' I,%%!(!' , '?31 '!')!' ,#,3 4%!' < !3 !# #' I,%,#!%' 5$J3C' 6H4Q3C' 8-E 34' H *H JHHD' + '5$J3C' M4$E' ?- 3' B$ 2HE3 ' " ,#! ' + ' 5$J3C' PHE 2HJ340' , '? $EFH13' " ,#! '+ ' *FHJ$C' M QCHE' @$4R J NF$3' , '?+ 4 E2' " ,#! ' + '5HFE' 8$0' , '?J F& 3 D' #&' 8$0C' H E' " ,#! ' + '5HFE' P-44$0' ,$C J O F' , ' IHCCH' " ,#! ' + ' /9 $J' I-4 3C' 8-J3' @$J1Q3 'H P$4NF JHE ' " ,#! '+ '64$EN C' 9$+34' G4-J JHED' , ' F),J#/!#' " ,#! ' ? 4 3 $ED34' %3 F' , 'G-EH $4' ' ' D$J' %3EE3DO' , ' 'HJ$EEH' 5$J3C' B-4E3 ' , ' B$4EC' *FHJ$C' 8H4CQ-42F' H / 8H4CQ-42F' *FHJ$C' * 33D 3' '\-$4 " 34' 5HFE' G N+CHE' , '% Q-NFH' #&' 8$4 433' 5HFE' @-E E $J' V ' >$ ECF$ '5HFE' P 7\ -33E' , 'B4$ & 3 D' 9 $J' P-44$0' '83ED34' $ED' 'HQ34' , - 34' @$J1Q3 ' , '%$ T3' 83E40' 3 NF' , ' ; # HN+' 9 $J' $E' H M 3E' 5HFE' ;4C+ E3' , H!#% ' ED43 ' P7GH $ ' H >H2$E' 3 $ED34' @$J1Q3 ' , '8$0' >HD23' >$ 43EN3' * 33D 3' , ' < 34' 5HFE' >$ CHE' H @$4EJ-4' 'HQ34 'B4H E' H ,3 F$ ' M D3HE' ?NH ' , '6 E2 $ED')!' L!0! !#&' *' M' *H4 ' ED34CHE' , ' *-CF 3 $ ' 5HFE' +3E' , '@$ $EDC' 5HFE' %34' , '%34& 3 D' 5$J3C' MH4DHE' , ' 8$ J043' 3 $ED34' MH D 3' , ' > E HE' I$4+C' 9 $J' NF CHE' , '",J!%1' &<' I 5 #' 5$J3C' 8$0 $ 3' @)!' 8&1 '$#& '+) 5' P$N$4 E30' D$J' %$0' " # ! ' #' ;D EQ-42F ' P-E2H' @$J1Q3 ' V ' 8$ O$4DC' P-E2H' @$J1Q3 ' ! ') #' #' M $C2H ' 4NF Q$ D' PHE R 2HJ340' % !' V ')!' ;$C' ED $' I, 5 # 1' I 0%' +! 0 '!' 'EQ34' PHE R 2HJ340' " # 1 ! ' '< F' *FHJ$C' =H-E2' ^ 'HC3 $' 9 $J' >HNF' , ' '$NF$E' 'HQ34' 9 3 CF' , 'PHCC&3E1$E' 5$J3C' 3 NF')!' ,3#(! ' , ' ; HN+' 5$J3C' +3E')!' ,3#(! ' V '@$ $EDC' 3 $ED34' M R 3C1 3' , '?-EEOC D3' G$ D' G N+CHE')!' ,3#(! ' , '% Q-NFH' #&' 8$4 433' *FHJ$C' $E' " # ! ' ;D EQ-42F' I-4 3C' 8-J3 @$J1Q3 ' , 'P$4NF JHE 'M3H423' M4$E' ?- 3' , 'B$ 2HE3

P$N' E HCF' , '>$JENF')!' L!0! !#&' 5HFE' B343C&H4D' H& P $3Q 3 ' F ' I 5 #' 5$J3C' %34' , ')!' ,#,3)%!' ;$C' ED $' I, 5 # 1' +! 0 '!' ED43 ' 9 F 3' V 'G4-J3 T 34' 5HFE' 9 E 3')!' ,3#(! ' , ' G4-J3 T 34' I 5 #' 5$J3C' P7GH $ ' V ')!' < !' 3 &1' 5$J3C' 9 H &3' P-44$0')!' ,3#(! 'H @4 E2 3 3' 5$J3C' PHE 2HJ340' ? $ER FH13' B4H E')!' ,3#(! ' V ' ,3 $ ' 9 $J' >$ CHE')! ,3#(! ' , '@$ 4EJ-4' 9 $J' ? 3-$4' , 'M 3EH4J C HE' ED43 ' B$ $E OE3' , ' 9 HHDFH-C3' M3H423' 6H4Q3C' " # ! ' #' ;D EQ-42F' < !3 !# #' I,%,#!%' @F$4 3C' P-44$0' 8$0' V ')!' I,%&1 ! 'L!(!#' , 'R,,' 3 &1' ?$J-3' 8$0' ! ') #' #' 8$ 43' I 5 #' 9 $J' @HNF4$E3' ED34CHE' V ')!' L, %' / O! ' 9 $J' 6H4Q3C' P$N+3ET 3' V ' IH4 JH43' 9 $J' P NF3 ' V ' I$4CHEC' M433E' 5HFE' ; H' V ' I33Q 3C' 5$J3C' 8$0' P$N+3ET 3' '+ 'G$ D' ED34CHE' , 'PH43D-E' *FHJ$C' ' NF$4DCHE' 6'! ' 3 $ED34' M QCHE' @$4J NF$3' ?+ 4 E2' 9 $J' NF CHE')!' ,3#(! ' , 'G4-J JH43' 5$J3C' B-4E3 ')!' ,3#(! ' , 'B$4EC' 9 $J' 6H4Q3C' /&0,' !' M3H423' %3EE3DO')!' ,3#(! ' 'HJ$EEH' 5HFE' P M< $E' 9 E+? HE' 'HQ34' PN\-33E')!' ,3#(! ' , ' B4$ & 3 D' 5$J3C' *0 34' @ ' 6$ 4 30FH13' 5$J3C' 9 3 CF' , ' ;$4 CF$-2F' 5HFE' $E' 9 HDD4H1' V 'M$4 $ D&HH

'$E+ E3' , '?1 $ F$-2F' P NF3 ')!' ,3#(! ' , ' I$4CHEC M433E' ; H')!' ,3#(! ' , ' I33Q 3C')!' +)! '2!53 !' ,)!' I,3# ' #&') 1' +341 3 !' , ')!' 7 !' 4! #(')!' * ,0,1' , ' I33Q 3C' , ')!' 7 !' 4! #(' ' /

UMʻ UčKʻ?čM#> ;>P ʻ ʻ @$1ʻ U

R, ʻ)!ʻ+) !ʻ, ʻ>E4+

7)!ʻ ,1ʻE,4%!ʻ 9 $Jʻ V3 1ʻ, ʻGH-2 $Cʻ #&ʻ @ OD3CD$ 3ʻ)!ʻ L ()ʻ ,#,3 4%!ʻ <, &ʻ PHE $2-3ʻ 9 $Jʻ M4$F$ Eʻ)!ʻ L ()ʻ ,#,3 4%!ʻ 'HQ34ʻ<, &ʻ B3 F$ 3Eʻ #&ʻ ? 3E HEʻ)!ʻ L ()ʻ ,#,3 [4%!ʻ 4NF Q$ Dʻ <, &ʻ GH-2 $Cʻ, ʻGH-2 $Cʻ)!ʻ L ()ʻ ,#,3 4%!ʻ+ ʻ 9 $Jʻ 3 $ED34ʻ @ ʻ 4D4 3ʻ #() ʻ)!ʻ L ()ʻ ,#,3 4%!ʻ + ʻ M3H423ʻ 9 $443ED34ʻ ` ʻB4H EN$C 3ʻ " ,#! = ʻ)!ʻ L ()ʻ ,#,3 4%!ʻ + ʻ5$J 3Cʻ 'ʻ Mʻ M4$F$J 3ʻ , 3 F34QO ʻ " ,#! ʻ)!ʻ ,#,3 [4%!ʻ + ʻ 3 $ED34ʻ E2 Cʻ @HNF4$E3ʻ X ʻP-4D C HEʻ)!ʻ ,#,3 4%!ʻ GH-2 $Cʻ MH4D$Eʻ 8$ Q-4 HEʻ, ʻ I N-4ʻ)!ʻ ,#,3 4%!ʻ @F$4 3Cʻ -2-C -Cʻ P-44$Oʻ)!ʻ ,#,3 4%!ʻ 9 $Jʻ ; 1F EC HE3ʻ)!ʻ ,#,3 [4%!ʻ L! ʻ /& %ʻ @F$4 3Cʻ 6 3J E2ʻ, ʻ B 22$4ʻ)!ʻ ,#,3 4%!ʻ PH-E C -$4ʻ ; 1F EC HE3ʻ)!ʻ ,#,3 4%!ʻ @F$4 3Cʻ GH-2 $Cʻ * ʻ)!ʻ ,#,3 4%!ʻ #&ʻL!0! !#&ʻ5$J 3Cʻ GH-2 $Cʻ)!ʻ ,#,3 4%!ʻ I 5 #ʻ M3H423ʻ GH-2 $Cʻ L E ʻ)!ʻ ,#,3 4%!ʻG$ Dʻ 'HQ34 CHEʻ 9 $J CHEʻ ; $4ʻ, ʻB$ 24$Oʻ 6#!ʻ, ʻ)!ʻ+!# , 1ʻ, ʻ)!ʻ I,%!(!ʻ, ʻ?31 '!ʻ)!ʻ ,#,3 4%!ʻ M3H423ʻ @4$EC H Eʻ 6#!ʻ, ʻ)!ʻ +!# , 1ʻ, ʻ)!ʻ I,%!(!ʻ, ʻ ?31 '!ʻ)!ʻ ,#,3 4%!ʻ7 3 $ED34ʻ 4 E2ʻ, ʻ ,3 HEʻ 6#!ʻ, ʻ)!ʻ +!# , 1ʻ, ʻ)!ʻ I,%!(!ʻ, ʻ?31 '!ʻ)!ʻ ,#,3 4%!ʻ 5HFEʻ 6- 34 HEʻ 6#!ʻ , ʻ)!ʻ +!# , 1ʻ, ʻ)!ʻ I,%!(!ʻ, ʻ?31 '!ʻ + ʻ 9 $Jʻ 5 $ 3ʻ, ʻ @$ D34 HHDʻ " ,#! ʻ + ʻ *FH J $Cʻ M QCHEʻ @$4 J NF$3ʻ, ʻ?+ 4 E2ʻ " ,#! ʻ + ʻ 5HFEʻ 8H13ʻ, ʻ@4$ 2F$ ʻ " ,#! ʻ + ʻ P NF$3ʻ ?F$ ʻ ? 3 $4ʻX M433EHN+ʻ " ,#! ʻ+ ʻ5$J 3Cʻ PHE 2H J 34Oʻ @-EE E2F$J 3ʻ , ʻ@H4C3F ʻ #&ʻ % 4+ H EFH J3ʻ " ,#! ʻ + ʻ@F$4 3Cʻ 'HCCʻ B$ ʻ E$2H $Eʻ " ,#! ʻ+ ʻ 9 $Jʻ 8$J HEʻ X I43C HEʻ #&ʻ 6 E2$ H-Eʻ " ,#! ʻ + ʻ5HFEʻ P$ 3ʻ, ʻIH HN+ʻ " ,#! ʻ + ʻ5$J 3Cʻ ? 3 $4ʻ G3EF$Jʻ, ʻ@H E3CCʻ #&ʻ 9 3C CF 3ʻ " ,#! ʻ + ʻM Q34ʻ ? 4 E2ʻ, ʻ P$EC& 3 Dʻ " ,#! ʻ + ʻ 5$J 3Cʻ PHE 2H J 34Oʻ, ʻ? $EFH13ʻ " ,#! ʻ + ʻ 9 $Jʻ '$3ʻ, ʻ 4Q-N+ 3ʻ " ,#! ʻ + ʻ @F$4 3Cʻ P $NDHE$ Dʻ >HN+F$4ʻ, ʻ>33ʻ #&ʻ @$4E $ Fʻ " ,#! ʻ + ʻ 4NF Q$ Dʻ @$J 1Q3 ʻ, ʻ ?-NNH Fʻ " ,#! ʻ + ʻ 8 3E4Oʻ ? 3-$4ʻ, ʻ $E HEʻ " ,#! ʻ + ʻ @F$4 3Cʻ PHE H 3-ʻB-423CCʻ >$J Qʻ X ʻB3$-1H4 ʻ " ,#! ʻ + ʻ 64$EN Cʻ 9 $ +34ʻ G4- J J HEDʻ X&ʻ 8$ FH J D3Eʻ " ,#! ʻ+ ʻ*FH J $Cʻ @HNF4$E3ʻ # () ʻ 3 $ED34ʻ CHEʻ, ʻB F3$Dʻ M3H423ʻ C HEʻ, ʻ> EQ$E+ʻ !, (!ʻ 'HQ34 CHEʻ +J $Eʻ, ʻ 'HCCʻ #&ʻ B4HH J 3 HEʻ IF 1ʻ B$4R 4 E2 HEʻ EC 3ʻ ! ') #ʻ #ʻ> 341HH ʻ5HFEʻ B-4ECʻ X 9 3Cʻ P NFEʻ >$-43EN3ʻ B4H Eʻ, ʻ ;D J HEC HE3ʻ 5HFEʻ B4H Eʻ , ʻ -NF HNF$Eʻ 'HQ34ʻ@$44 N+ʻB-NFEEʻX cPH-Eʻ 34EHEʻ #&ʻG4- J 13 34ʻ ED43 ʻ B-NFEEʻ +!',#&ʻ+,#ʻ, ʻ)!ʻ % !ʻ G$ Dʻ @$44 N+ʻ B-NF$E$Eʻ, ʻ PH-Eʻ 34EHEʻ #&ʻ G4- J 13 34ʻ 'HQ34ʻ Mʻ B$ # 3ʻ X @- 34$ 34Cʻ5$J 3Cʻ B$ 4Dʻ, ʻ -NF E HNFʻ U, ʻ 9 $Jʻ B34 4$Jʻ, ʻ , CQ3 ʻ 5$J 3Cʻ B4H Eʻ +,#ʻ, ʻ)!ʻ &!'! 1!&ʻ 5$J 3Cʻ B4H Eʻ, ʻ ;D J HEC HE3ʻ I$ 4 N+ʻ B$ 4Dʻ, ʻ -NF E3$4Eʻ M3H423ʻ B$ 3ʻ, ʻ534 C HHDʻ M3H423ʻ B$ 3ʻ)!ʻ ,3#(! ʻ, ʻ534 C HHDʻ 5HFEʻ B4H E E2ʻ, ʻB3E F$ ʻ 'HQ34ʻ B4H Eʻ, ʻG- J Q4$ F ʻ 'HQ34ʻ B$-NFH1ʻ !1 & #(ʻ ʻ% EE 3 ʻ 5$J 3Cʻ B4H Eʻ, ʻ<4NF$4Dʻ 5$J 3Cʻ B4OCHEʻ, ʻ?F34 & I$- DCʻ 8 -2Fʻ BH2 3ʻ, ʻ @$ D34Q$E+ʻ $Eʻ B34 4$Jʻ I, #&! ʻ L E ʻ 5$E 3Cʻ B4-N3ʻ, ʻ B4HH J F ʻ 5$J 3Cʻ 5HFEʻ @$DD3 ʻ, ʻM4$E23ʻ 5$J 3Cʻ @4HCCʻ *, ,#! ʻ , ʻ#DD E2C HEʻ 4NF Q$ Dʻ @$J 1Q3 ʻ X ʻB O FC HHDʻ 5$J 3Cʻ @HNF4$Eʻ , ʻ% 4+& 3 Dʻ 3 $ED34ʻ @$J 1Q3 ʻ, ʻIHCC ʻ 3 $ED34ʻ @$J 1Q3 ʻ, ʻ B3D $Oʻ 5$J 3Cʻ @$J 1Q3 ʻ, ʻ I3 34CF ʻ 3 $ED34ʻ @F$EN3 H4ʻ, ʻ ?F 3 DF ʻ 9$ 34ʻ 643D34 N+ʻ @$J 1Q3 ʻ, ʻ?F$ & 3 Dʻ #&ʻ C $Oʻ 5HFE ʻ 8$J HE

8$J HE' @H ' , 'M$4 -4+' 5HFE' @4$ 2'@ 'GO+3F3$D ' G / 9 $J'
@ $4+' , ' 9 3C 34' P H&&$ ' P $-4 N3' @$4 J NF$3' , ' ; $C 3ED' P NF$3'
@$4 J NF$3') !' ,3#(! ' , ' ; $C 3ED' @F$4 3C' 8 3
FH J ' ! ' ,') !' + (#! ' 9 $ J' M4$O' @-EE E2F$ J') !' , F (! '
, 3 FH J ' 5HFE' @$ J 1Q3 '@H X-FH-E' % 34 J HE ' @4$ 2
, ' ?F$E+4$ J - 4' ; $C' @$ FN$4 ' , ' H $O' $ED' 8$ 4CF$ ' 5 3C '
@H$ C' , 'GO+3F3$D' @H E' @$ J 1Q3 ' ! ') #' #' M $C2H ' (83E4O'
* FH J $C' @H 3Q4HH+3' , '@4$ &H4D' GH-2 $C' 5$ J 3C' 8$ D$E3' @HNF4$E'
) !' ,3#(! ' , ' % 4+& 3 D' G$ D' @$ FN$4 ' ! ') !' + (#! '
3 $ED34' @-EE E2F$ J 3' ! ' ,') !' + (#! ' 5HFE' ? J F' @-EE E2 '
F$ J 3' V '@$14 E2 HE' ! ' ,') !' + (#! ' 9 $ J' M QCHE' @4$ 2' , '
G4- J N H2' #&' E2 C HE' PHE&2H J 3(O' @- J $P F$ E3'
,3#(! ' , ' % 4+ HEFH J 3' 5HFE' M3H423' @$ J 1Q3 ' @ 5 #' #') !'
" 1)' / ' D$ J' @-QQ 3' , 'M $C2H 'M$Q4 3' 8$ J HE' G-ED$C'
, 'G-DD E2C HE' 5HFE' 8$ J HE' G-ED$C') !' , (! ' 'G DD E2 '
C HE' P H OE3- ' G$ 4O J 1 3' , ' @ 3 $ED' 8 - J 1F43O' G3EF1 J' @ '
B 4 F' HHD' 5HFE' G N+CHE' , '% Q-NFH' #&' 8$4 33' / & , ' ! 'G$ D'
G N+CHE') !' ,3#(! ' , ' % Q-NFH' #&' 8$4 433' G$ D' G D+CHE' , '
I 34C 3 $EDC' G$ D' G HE') !' ,3#(! ' V ' I 34C 3 $EDC' D' [HQ 3'
, 'M$4 &3440' 3 $ED34' GHQ 3') !' ,3#(! ' ` 'M$4 &3440' ?$ J -3'
5$ J 3C' GH-2 $C' , ' I HFE-E+CF3$D' M3H423' GH-2 $C' , 'B DC ' ! , '
!#! %' 5$ J 3C' G-4F$ J' , ' >$42H' 5$ J 3C' G3EE C H E' ^(' P EN+4H& '
3 $ED34' G3EE C H-E') !' ,3#(! ' , ' P -N+4H& ' @H E' G-E H1' , '
* H NHCC' 5$ J 3C' G4OCD$ ' , '534 C HE' 5HFE' GH-2 $C' V '#E F$E+'
9 $ J' G3EE C HE' H M- DFH-C3' @H E' G- DH1' G J $&D' X&B$ $ C'
U , ' 3 $ED34' B4-N3' G3EE C < J' , ') !' L , %' >ENCF 43' % '
9 $ J' G N+' , ' 9 3C 34' >- J HNF' P $ F3 ' G N+') !' ,3#(! ' , '
9 3C 34' >- J HN+' 9 $ J' G3EFH J') !' , (! ' 'B 4 F HHD'
5$ J 3C' 5HFEC HE3' G-EN$E' 8$4 FH13' 5HFE' G3EE C H-E' #
M $C2H ' 3 $ED34' 2 F J%&5' / &O , ' ! ' ' HQ34 'GH-2 $C' H&? 4$ F3ED4O'
5HFE' @$ J 1Q3 'GH-2 $C' M $C2H '9 $ J' G$EEX&G-E HNF34
! ') #' #' M $C2H ' 9 $ J' G HE' H MH $EF ' * FH J $C' +3C' , '
6 3 DF3$D' ED43 ') !' ,3#(! ' V '6 3 DF3$D' 8 3E4O' G-E H1
, '@4$ 2F HE' 5HFE' 6' ; 1F EC HE3' P HE&3 $ED '5$ J 3C' ; E2'
?F$ & 3 D' ! ') # ' 5$ J 3C' > EDC$O' ; E2' , '@$ D3 N4- ' 5$ J 3C'
6$ 4 3' , ' 6$4 J 3' 5$ J 3C' 6$ 4 3') !' ,3#(! ' , '6$4 J 3' 5HFE' 6H4CO F'
, ' * 4H HCC' @HC J H' 6$ NHE34' V ' 8$4 HHDFD ' FH J $C' 6 @< 34' , '
B4H E 3C D3' ' HQ34 ' 6 E $O' , ' ; $C 34F '% 4+ J $E' 8 3E $O' , 'M 3E '
FH 3' 5$ J 3C' 6 E $O') !' ,3#(! ' , ' M 3EFH 3' 8 -2F' 6342-CHE'
! 'M $C2H ' 5$ J 3C' 6O&&3' @ 'KE F& 3 D' ' H J 4' 6$ 4 3' V 'B $ 4'
- J J HN+' 5HFE' 6- 8$4 HE' V '% J 3F$3 ' ' HQ34 ' 6H4CO F' / &O , ' ! '
9 $ J' 6H43C 'H * 433CQ$E+C' 3 $ED34' M4$F$ J 3' H&@$1 O' * F< J $C'
MH4DHE' , ' 8$4134& 3 D' ' HQ34 'M4 J E3' , ' 9 F 3F ' 5$ J 3C' M4$O'
, ' -NF E23 NF' * FH J $C' M$4D E34' * Z ,#! ' V ' , 3 J 1F $4' 5$ J 3C'
M4$E234' , ' >$ 2F' , 3 F34& 3 D' 5HFE' M4$E234') !' ,3#(! ' , ' >$ 2F'
, 3 F34&H D' I $ 4 N+' M4F J 3' X& ; J 3+ EC '5 5 E' V ' ?NH C H E'
5$ J 3C' M NF4 C' V ' M B&QH ' 5HFE' M4$&3$ J 3' * , ,#! ' V ' 9 3C '
% HNFC D3' 5HFE' M4F J') !' ,3#(! ' V ' 9 3C '% HNFC D3' ' HQ34 '
M4$O' , '@$4E OE3' 5HFE' 8$ J HE' M4$O') !' V (! ' V '@$4E OE3'
* FH J $C' M QCHE' , ' ; $C & 3 D' 3 $ED34' ME $E' 9 'M433EF ' 5$ J 3C'
M4$O' H P Q4$3' 5HFE' M$ H $O' 8 -E 34CF ' 3 $ED34' M #3C1 3'
G(&?-EEOC D3' >HD23' 5$ J 3C' M J H-4' H B4HH J 3 HE' * FH J $C' M D $ J 3'
! ' M $C2H ' 3 $ED34' M$4D3E' ! ') ' M $C2H ' 5HFE'
'?' M433ECF 3 DC

M433ECF 3 DC' , '%34C3' 5HFE' M4FJ3' , '@4$ 2$ HE' #&' 9 3C Q-4E'
M3H423' M 3C1 3' , 'B 22$4' B$4+' 'HQ34' M4$O' , 'M$4 HHD' 5HFE'
M QCHE' '? HN+Q4 22?(5$J3C' M4$F$J3' +,#' , ')!' &!'! 1!&' 3 R
$ED34' M4$F$J3' , ' J3+ EC' 83N H4' M4$E' /'' ,3# #' #' M $C2H '
9 $J' M4$F$J' !' #' M $C2H ' 'HQ34' M 3C1 3' !') #'
>HEDHE' 5HFE' 9 $J' MH4D$E')!' ,3#(! ' , '8$4134& 3 D' 5$J3C'
8$4 3' , ''4H E 33' 5HFE' 8$J HE' , '6$4FH J3' !#! %' 5HFE'
8$J HE' , 'G$T3 ' 4NF Q$D' 5$J3C' 8$J HE')!' ,3#(! ' , '
G$T3 ' 5HFE' 8$J HE ' -DH E' 5$J3C' 8H1+ 4+' H G$Q3 F'
*FHJ$C' 8H1+ 4+')!' U ')(! ' , 'G$Q3 F' 5HFE' 8$J HE' , '9 3C'
'H234 HE' 5HFE 8$J- HE')!' ,3#(! 'H 9 3C' 'H234 HE' 9 $J'
8HT 34' , ' , 3 $E ' 5$J3C' @' 8HT 34')!' ,3#(! ' , ' , 3 '
$EDC' ? 31F3E' 8H C1$' @ ' ' 5HF$EC' % 4+' 5HFE' 8$4 3' , '
M$4 F-J H3+' 'HQ34' 8$ D$E3' @ ' ENF E24$O' ED43 ' 8$J HE'
, '?1 32 8' 'HQ34' @$J1Q3;' 8$J HE' , ' P Q-4E' 'HQ34'
8$J HE' /& ' !'Y#!' ' Z' #' 5 %' I%! 1' , '+!11 ,#' G 5$J3C'
8H 3CHE' H&' 8 3ED' 9 $J' 8H 3CHE' 5-E H4' !' #' ;D ER
Q-42F' 5HFE' 8$J HE' V 'B$4+F3$D' 5$J3C' 8$J HE' , 'M433E& 3 D'
I$4 N+' 8$J HE')!' F#(! ' M433E& 3 D' I ,%,#!%' 'HQ34' 8$J R
HE' , '9 CF$ ' 'HQ34' 8$J HE' , ' <Q C HE' *FHJ$C' 8$4 3' , '
9 3C FH4E' 'HQ34' 8$J HE' , 'G$ C34&' 5$J3C' 8 3ED34CHE' , ' , 3 F34'
& 3 DO+3' 5$J3C' 8- NF CHE' ' 9 HHDC D3' 5HFE' 8H44HN+C' , '* 3NF3'
$E' 5HFE' 8$J HE' !' ,')!' + (#! ' 5$J3C' 9 F CF3D' 8$ + EC'
/&0,' !' 5HFE' M3H423' 8$J HE' !') #' #' M $C2H ' 9 $J'
=H-E2' 8344 3C')!' ,3#(! ' , '8$4Q-4E' 5$J3C' 8$J HE' , '8H J'
F3$D' 4NF Q$D' 8H 3CHE' 6' 8OED&H4D' *FHJ$C' 83 3 ' !' #'
>E4+' < !3 !# #' I ,%,#!%' 5$J3C' 8$4 3' , '@$C 3C3J1 3
E2 C'H 343F C' '$1F' E FHEO' 4HEC D3' @ ' *$EEHNFC D3' ;DJ -ED'
4HEC D3')!' ,3#(! ' V ' *$EEHN C D3' < !3 !# #' I ,%,#!%' M3H423'
4 E2' V ')!' L , %' $ 1)' / ?O! ' 'HQ34' 5H O' , '?3 3EC H-E'
5HFE' 4 E3' !' ,')!' + (#! '5HFE' 5$4D E3' V ' 8$ C D3' /&0,' !'
ED43 '5$N+' , '#DD E2C HE' * FH4EC' 5$N+CHE' V '#DC HE' G '/5$J3C'
5$&&4$O' , ' *$DJ- 4 '5$J ' 5$N+CHE' 'B$4DO+3C' 5$J3C' 5$N+CHE' , '
'3D 33C' 5$J3C' 5$N+CHE')!' ,3 (! ' , 'B$4DO+3C' 'HQ34' 5$J 3CHE'
!' #' ;D EQ-42F' 9 $J' % 113E' V 'B-CQO' M Q34' %3EE3DO'
, ' P3$DH ' 'HQ34' >HN+F$4' , '@$C 3F '5$J3C' ? EN $ 4' >HN+F$4'
)!' ,3#(! ' , '@$C 3F ' P NF$3' > EE E2' , ' <22CN$C 3' !' ,'
)!' + (#! ' 9 $J' ; H' >HN+F$4' , '@ 32FH4E' $E' ; H' >HN+R
F$4')!' ,3#(! ' , '@ 32FH4E' 5HFE' > DD 3' , ' 9 3C J$ EC' , H4J$E'
>HN+F$4' , ' *$4Q4$ ' !' ,')!' + (#! ' 8 '*FHJ$C' >H2$E' , '
, 3 J$ EC' 5$J3C' >H2$E')!' ,3#(! ' , ' , 3 J$ EC' 9 $J' >HN+R
F$4' , ' P HE' , H4J$E' P$NDHE$ D' >HN+F$4' !& !' ,3#(! '
" ,)!' V '+ '@F$4 3C' P$NDHE$ D' >HN+F$4' , ' >33' #&' @$4E $ F'
" ,#! ' 3 $ED34' P$NDHE$ D' >HN+F$4')!' ,3#(! '" ,)!' , '+ '
@F$4 3C' P$NDHE$ D' >HN+F$4' , '>33' #&' I 0)'" ,#! ' 9 $J'
>$JQ' , '8$ON$44' #')!' I ,3# ' , ' >$EN$C 34' 5HFE' P$ 3 ')!'
,3#(! ' , 'IH HN+' G$ D' P$4CF$' , ' , 3 C $ED' 5HFE' P 33+' , '
;H4 CC3 ' 5HFE' M4HCC3' P- 4F3$D' , 'B43D CFH J' 9 $J' P $4' , '
PO $ ' 8-2F' PHC4$$ ' -NF O&$4D 3' 5HFE' PHCJ$E' , '@4HCC&H4D'
M3H423' P $4' V '64$E+E3 D' G ' NF$4D' P $4'H ' 9 3 FH-C3' *FHR
J$C' P$4CF$ ' , '?$EDO&H4D' 5HFE' P$4CF$ ' ' 9 3C 34' @$ D34F3$D'
'HQ34' P $4' H&' 9 3C X-$4 34' 9 $J' 3 $ED34' P$ 3
)!' ,3#(! ' , '@$ D34 HHD' 5HFE' P$ F34' , ' P3 + 3' ;4EHN+' 9 $J

$ -44$0ʻ , ʻ *H-NF$D4ʻ 9 $Jʻ P-43ʻ , ʻ@$D 3 ʻ53F$ʻ P$EC&3Dʻ
, ʻ PDJ#/ʻG$E3ʻ PHE2HJ340ʻ 8$J HEʻ P$Nʻ ,3 ʻ ʻ%$1HN+ʻ
5HFEʻ P$4CF$ ʻ , ʻ B-4EFH-C3ʻ 5HFEʻ P$4CF$ ʻ , ʻ@F$13 Jʻ 5HFEʻ
P 34ʻ , ʻ 8$ F ʻ 3 $ED34ʻ P $4ʻ , ʻG$ E$4ʻ #&ʻ ;4EHN&Nʻ 83E&0ʻ
HE3 Fʻ @ ʻ@$4C$4Cʻ 'HQ34ʻ PHE3 Fʻ)!ʻ , (! ʻ , ʻ@$4C$4Cʻ
5$J3Cʻ P $4ʻ , ʻ P F3-2Fʻ5$J3Cʻ P $4ʻ /&,,' !ʻ U, ʻ !#! %ʻ
9 $Jʻ P $ʻ , ʻM3E$ HEʻ U, ʻ5$J3Cʻ P$ 3 ʻ@ ʻB$ 3CH Eʻ
5$J3Cʻ P3+$Jʻ , ʻ@$4EQ4H3ʻ 9 $Jʻ P Cʻ ! ') #ʻ #ʻ M$C2H ʻ
83E40ʻ P$ 3 ʻ ! ') #ʻ #ʻ >3 Fʻ 8-2Fʻ B$3Cʻ P$ 3 ʻ /&0,' !ʻ
G$ Dʻ P$Nʻ 8$& 3ʻ , ʻ I$4+F3$Dʻ 'HQ34ʻ P$Nʻ 8$& 3ʻ)!ʻ ,3#(! ʻ , ʻ
I$4+ʻF3$Dʻ 8-J1F430ʻ ; E2ʻ P$Nʻ >$3ʻ , ʻ@$ F+ Eʻ5$ E3Cʻ P$Nʻ ,$4ʻ
, ʻ M433E&3Dʻ 5$J3Cʻ P$Nʻ >3$Eʻ , ʻ P3D4H ʻ *FHJ$Cʻ P7@$ ʻ , ʻ
@4$ 2F3$Dʻ @F$43Cʻ P$N+ E HCFʻ , ʻ@4HCCQ$C+3 ʻ M3H423ʻ P$N+ E HCFʻ
)!ʻ ,3#(! ʻ , ʻ @4HCCQ$C+3 ʻ 5HFEʻ P7% 4D0ʻ @ ʻ B4+ HHDʻ 5HFEʻ
M432H40ʻ P7% 4D0ʻ)!ʻ ,3#(! ʻ H/B4+ HHDʻ 5$ 3Cʻ P7; 3ET3ʻ , ʻ
@4$ 2ʻ I$4+ʻ '32 E$Dʻ P$NDHE$Dʻ , ʻ?$& I$ʻ5HFEʻ PND$Jʻ , ʻ;$C 34ʻ
FH-C3ʻ ' NF$4Dʻ P$N+3ET3ʻ , ʻGH 1F E2 HEʻ 5HFEʻ <4Dʻ P$N+3ET3ʻ)!ʻ
,3#(! ʻ , ʻGH 1F E2 HEʻ 5HFEʻ P$NX-33Eʻ , ʻB4$ &3Dʻ 'HQ34ʻ P$Nʻ
X-33Eʻ)!ʻ ,3#(! ʻ , ʻB4$ &3Dʻ 3 $ED34ʻ P$N2432H4 ʻ@HDC43$J ʻ
G-EN$Eʻ P$Nʻ ,3 ʻ /&0,' !ʻ5$J3Cʻ 3 $ED34ʻ ?3 $4ʻ P$N+3ET3ʻ , ʻ
?3$&H4 Fʻ 3 $ED34ʻ P$N2432H4ʻ)!ʻ ,3#(! ʻ , ʻ%34EHN+ʻ _ʻGʻ
P$Nʻ >$2$Eʻ *) 1' #ʻ #ʻ ;DEQ-42Fʻ <!3!# #ʻ I,%,#!%ʻ 5$J3Cʻ
P ,$4ʻ , ʻM433E&3Dʻ 2 ʻB3E($J Eʻ P$Nʻ ,$4ʻ V ʻM433E&3Dʻ5$J3Cʻ
P @$ ʻ , ʻG$DH 3ʻG$E3ʻ8$J HEʻ P7,3 ʻ)!ʻ ,3#(! ʻV ʻ '$1ʻ
HN+ʻ 9 $Jʻ P7>3$Eʻ)!ʻ ,3#(! ʻ , ʻ P3D4H ʻ5HFEʻ P$N+3ET3ʻ , ʻ
;DD3 HHDʻ 4NF Q$Dʻ , CQ3ʻV ʻ P$-DC 3ʻM3X 23ʻ PH4C3ʻ , CQ3ʻ , ʻ
@$4EF ʻ5HFEʻ %EH ʻ ,$1 34ʻ , ʻ>3 F$E ʻ5$J3Cʻ<C $Dʻ , ʻB43DF$ ʻ
U, ʻ !#! %ʻ @F$43Cʻ I03ʻ , ʻM$4 CF3443ʻ 5HFEʻ IF 1Cʻ V ʻ?HQʻ
N4HCCʻ ! ʻ ,ʻ)!ʻ+ (#! ʻ?$J-Dʻ I$ 34CHEʻ V ʻ> EDC$0 $EDCʻ5$J3Cʻ
I$ 34CHEʻ , ʻ @$44$$NH-1ʻ I$4N+ʻ I $0&$4ʻ ʻ G$ J$4EHN+ʻ 5$J3Cʻ
I$ 34CHEʻ , ʻM433Eʻ @F$43Cʻ IF 1Cʻ I5 #ʻ #ʻ)!ʻ7) &ʻ , ʻ) 1ʻ
,0,# L!(!#ʻ , ʻ2 (,,#1ʻ5HFEʻ 'HQ34 CHEʻ , ʻ>$-NFH1ʻ5HFEʻ '$3ʻ
*, ,#! ʻ , ʻ#DD E2C HEʻ 83E40ʻ ' NF3ʻ @ ʻ@4$(HEʻ5HFEʻ '3Dʻ , ʻ
% HNFCD3ʻ 9 $Jʻ '3Dʻ)!ʻ ,3#(! ʻ , ʻ % HNFCD3ʻ 'HQ34ʻ
'- F34&H4Dʻ , ʻ> 3ʻ 8$4CF$ ʻ ! ʻ ,ʻ %!ʻ+ (#! ʻ5HFEʻ '-CC3 ʻ
, ʻ ;$C&3Dʻ5HFEʻ 'H $ʻ , ʻ 9F CF$ 2$3ʻ5$J3Cʻ '-CC3 ʻV ʻ Q4$ ʻ
I$4N+ʻ '$E+ Eʻ , ʻ P$ CQ$E+ʻ M3H423ʻ 'HCCʻ /&0,' !ʻ5HFEʻ '3Dʻ , ʻ
@$C 3F ʻ5HFEʻ '3Dʻ)!ʻ ,3#(! ʻ , ʻ@$C 3F ʻ 9 $Jʻ 'HQ34 CHEʻ
)!ʻ ,3#(! ʻH ʻ>$-NFH1ʻ *FHJ$Cʻ ' NF$4DCHEʻ ,ʻ)!ʻ+ (#!
M3H423ʻ 'H $EDʻ , ʻ8H J&$-DF3$DʻM4$F$Jʻ?134Cʻ /&0,' !ʻM3H423ʻ
?NH ʻL / ʻL, %ʻ E 0 ʻ G-EN$Eʻ ?3 $4ʻ ! ʻ #ʻ ;DEQ-42Fʻ
5$J3Cʻ? 4 E2ʻ %34ʻ?$J-3ʻ? 33ʻ0 ʻ 9$02$3CF$ ʻ 9 $Jʻ?3JR
13ʻV ʻ ,3 F34CF3DCʻ 9 $Jʻ?3J13ʻ)!ʻ ,3#(! ʻ X/ ,N F34CF3 Cʻ
5HFEʻ? 33ʻ , ʻ ENFEHN+ʻ5$J3Cʻ? 33ʻ)!ʻ ,3#(! ʻV ʻ ENFEHN+ʻB$C ʻ
?3 $4ʻ*, ,#! ʻX B4H E33ʻ ED43 ʻ?NH ʻX&ʻ%3EJ-4ʻ 9 $Jʻ
?3J13ʻ , ʻ 83$DCʻ , ʻM $CC&H4Dʻ 4NF Q$Dʻ?134Cʻ V ʻ; D34C 3ʻ 3 R
$ED34ʻ ?134Cʻ)!ʻ ,3#(! ʻ , ʻ ; D34C 3ʻ *FHJ$Cʻ G-&D$Cʻ ?134Cʻ
+!',#&ʻ+,#ʻ , ʻ 4NF Q$Dʻ?134Cʻ , ʻ; D34C 3ʻ ,$ F$E3ʻ ?3 3ECHEʻ , ʻ
B4$D HHDʻ5HFEʻ ? 4 E2ʻ , ʻ ; D34CF$ ʻ @F$43Cʻ ? 4 E2ʻ V ʻ@H$ Cʻ
P$4+ʻ ?14H ʻX&ʻ M$4E+ 4+ʻ5HFEʻ? 2Hʻ X&ʻ@$4J03ʻ 4NF Q$Dʻ? 4 B2ʻ
X&ʻ 8$J1D3Eʻ 9 $Jʻ ? 4 E2ʻ , ʻG4-J13 34ʻ M3H423ʻ?NH ʻX&ʻI$ ʻ
DH 3ʻ 9 $Jʻ ?4- F34Cʻ , ʻ 9$+34D0+3ʻ *FHJ$Cʻ ?HJ34 3ʻ , ʻ
M433E&3Dʻ 9 $Jʻ ?HJ34 3ʻ , ʻ 9 ED$3Cʻ5$J3Cʻ?J Fʻ X& 5H4D$E
F

?,ʼ U"KS"M#> ;>P4ʼ ʼ @$1ʼ U

F ʼ P$ F3 ʼ ? 33ʼ EE$ P mʼ 5 3Cʼ ? 3 $4ʼ , ʼ@$4& Eʼ ' HQ34ʼ
? 3 $4ʼ)!ʼ ,3#(! ʼ@ ʼ Fʼ , ʼB $ 4 J -N+F ʼ5$ J 3C
? $Eʼ -G= , 34C HEʼ ! ʼ ,ʼ)!ʼ+ (ʼ5HFEʼ ?F$ ʼ? 3 $4ʼ @ ʼB$4Eʼ
N - Fʼ5$ J 3Cʼ ?NH ʼ , ʼBN FH-C3ʼG$ Dʼ ? Jʼ , ʼ@- 34 J $ ECʼ D$ Jʼ
? Jʼ)!ʼ ,3#(1Kʼ! ʼMH 34$$(E ʼ ' N+ʼP $ 3 ʼ? 3 $4ʼ, ʼ>3 F$ Jʼ
P HC3Cʼ ? 3 3Eʼ ʼI H J $D Nʼ P HC3Cʼ? 3 3Eʼ)!ʼ ,3#(! ʼ , ʼI H J $D 3ʼ
5HFEʼ ? 3 3ECHEʼ * 1 ! ʼL , %ʼ >E4+CF 43ʼ % ʼ 8 3E40ʼ ? $ Eʼ
ʼ # (! ʼ@ ʼ)!ʼ M$44HEʼ $ #ʼ I , 5 # ʼ #ʼ >HEDHEʼM$ Eʼ ? 4-ʼ
Q34C ʼ' 3DD3Eʼ* F3 J CCʼ)!ʼ , (Z ʼ" ,)! ʼ, ʼP $4+ʼ?14H
, ʼM$ J + 4+ʼ ' HQ34ʼ ?H 9 & 4 3ʼ)!ʼ ,3#(! ʼ , ʼ9 ED$ 3Cʼ ' HQ34ʼ
? 3 $4ʼ , ʼ? 3 $4 F$ ʼ5HFEʼ?14H ʼ ,#,3 4%!ʼ; $Cʼ ED $ʼ I , 5 # 1ʼ
P $4+ʼ?14H ʼ ʼM$ J + 4+ʼ9 $ Jʼ P H4$Oʼ ? 4 E2ʼ
, ʼ 4DHN+ʼ@F$D3Cʼ ? 4%E2ʼ ! J) ʼ #ʼM $C2H ʼI 5 #ʼ 8 H-C HEʼ
? 3 $4ʼL , %ʼE 0 ʼ9 $ Jʼ ,ʼ ? 3 $4ʼ , ʼ>HNFE$2$44ʼ 4NF R
Q$ Dʼ 9 $ Jʼ ?1 34Cʼ 7) &ʼ +,#ʼ , ʼ 4NF Q$ Dʼ ?1 34Cʼ ʼ ; D34C 3ʼ
ED43 ʼ? J Fʼ I $- DFH$C3ʼ ?1 E 2ʼ ! ʼ #ʼ ; D EQ-42F
5ʼ GH-2 $Cʼ ? HD$4ʼ 9 $ 34ʼ ? 3 9 $4ʼ , ʼ 8 $2F ʼG/ʼ5$ J 3Cʼ
* 3 J 3E ʼ , ʼB43D3EF ʼ5$ J 3Cʼ * 3EE3E ʼ , ʼI HH ʼ ' HQ34ʼ * FH J CHEʼ
, ʼ ?NH44 3FH Jʼ 5HFEʼ * H44 J "ʼ , ʼ ?OD3 ʼ 8 -2Fʼ * 3EE3E ʼ ! [
') #ʼ #ʼ M $C2H ʼ ' D , Nʼ * FH J C Jʼ , ʼM$ J 1F ʼ ' HQ34ʼ * FH J R
CHEʼ)!ʼ ,3#(! 1ʼ , ʼM& E1F ʼ ' HQ34ʼ * 3EE3E ʼ)!ʼ ,3#(! ʼ , ʼ
9 3 1$4+ʼ @F$4 3Cʼ * HDDʼ ! ') #ʼ #ʼ M $C2H ʼ 5HFEʼ * FH J CHEʼ
ʼ , H4 F HHDC D3ʼM$C 3N4ʼ ʼ)!ʼ L , %ʼ " # ʼ , ʼ ?NH $EDʼ 5HFEʼ
* 3EE3E ʼ , ʼ?ʼ ' H 8 3 ʼ 5 DFEʼ *4$ D $4ʼ , ʼ 6$ 4F ʼ 5$ J 3Cʼ 5HC31Fʼ
8 H13ʼ 343ʼ X B $N+ HHDʼG$E 3ʼ 343ʼ , ʼ? HE3QO43Cʼ 5HFEʼ 9 $443Eʼ
D34ʼ ,#% ʼ" ,)! ʼ , ʼ)!ʼ L ()ʼ ,#,3 4%!ʼ + ʼ M3H423ʼ 9 $443ED34ʼ
' HQ34ʼ 9 $ +34ʼ 8 D 9 -C34 ʼ M$ Eʼ 9 $ +34ʼ)!ʼ ,3#(! ʼ , ʼ
8 FH-C34 22ʼ5$ J 3Cʼ 9 CHEʼ &G 34CF 3 Cʼ 9 $ 34ʼ 9 CHEʼ)!ʼ ,3#[
(! ʼ , ʼ< 34CF 3 Cʼ 5HFEʼ $Eʼ 9 HDD4H1ʼ , ʼG$ J $4EHN+ʼ M3H423ʼ
9 HHDʼ M 3C1 Eʼ 3 $FD34ʼ 9H^<Dʼ:&3ʼ ,3#(! ʼX&M 3C1 Eʼ * FH J $Cʼ
9 F 3ʼ , 3-+ʼ5HFEʼ 9 F 3ʼ)! ,F#(! ʼ 2&, 3-+ʼ ED43 ʼ 9 CHEʼ , ʼ
* FH4E HEʼ ' HQ34ʼ 9 CHEʼ)!ʼ ,3#(! ʼ * FH4E HEʼ* FH J $Cʼ 9 $ CHEʼ
H&ʼ@H4 J C HEʼ 9 $ Jʼ 9 F 3ʼ GO%3F3$D(ʼ5$ J 3Cʼ 9 F 3ʼ)!ʼ ,3#(! ʼ
, ʼGO+3F3$Dʼ * F3HDH43ʼ 9 $+HEDʼ 6 ʼ@ D34ʼ I $4+ʼ 5$ J 3Cʼ 9 F 3ʼ , ʼ
* 33D 3F$ ʼ 9 $ Jʼ 9 CHEʼ ʼBH E C3QH2ʼ ' HQ34ʼ 9 $ $N3ʼ H&ʼ
%3 Oʼ M3H423ʼ 9 $DD3 ʼ ʼB$ HNFE 3ʼ ! ʼ ,ʼ)!ʼ+ (#! ʼ $ Jʼ
9 $DD3 ʼH&ʼ; $C 34ʼ PH&6$ ʼ ! ʼ ,ʼ)!ʼ+ (#! ʼ5HFEʼ 9 CHEʼH&ʼ9 3C ʼ
C D3 HHDʼ5NFEʼ 9 CHEʼ)Mʼ , ʼ 9 3C C D3 HHDʼ5$ J 3Cʼ 9 $DD3 ʼ
? 1E3& 3 Dʼ5$ J 3Cʼ 9 $ +34ʼ H&ʼG$ 40ʼ / &0, ' ! ʼ5HFEʼ 9 F 3ʼ H&ʼ6$ 4ʼ
& 3 +ʼ 5$ J 3Cʼ =H-E2ʼ , ʼM433E& 3 Dʼ 9 $ Jʼ =H-E2ʼ)!ʼ ,3#(! ʼ , ʼ
M433E& 3 Dʼ5$ J 3Cʼ=H- Pʼ , ʼ@$ D34C DHʼ 9 $ Jʼ =H-E2ʼ)!ʼ ,3#(! ʼ
H&ʼ@$ D34C D3ʼ ' HQ34ʼ 9 J $N3ʼ ! ʼ ʼM $C2H ʼ)!ʼ+)! ʼ2 !53 !ʼ
, ʼ)!ʼ I ,3# ʼ , ʼ>E4+ʼ , ʼ)!ʼ 7 !ʼ 4! #(ʼ)!ʼ +)! ʼI %! ʼ , ʼ
)!ʼ 1 &ʼ I ,3# ʼ , ʼ)!ʼ 7 !ʼ 4! #(ʼ)!ʼ * ,0,1ʼ H&ʼ>E4+ʼ , ʼ)!ʼ
7 !ʼ 4! #(ʼ !ʼ 2! #ʼ , ʼ 3 %&ʼ >E4+ʼ5H4ʼ)!ʼ 7 !ʼ 4! #(ʼ)!ʼ
* ,0,1ʼ, ʼ % 1(,Fʼ , ʼ ʼ7 ! #(ʼ)!ʼ2 ! #ʼH&ʼM- Dʼ H&ʼM $C2H ʼ
, ʼ)!ʼ 7 !ʼ 4! #(ʼ)!ʼ * ,0,1ʼ @ ʼ ' - F342 3Eʼ , ʼ)!ʼ 7 !ʼ 4! #(ʼ
)!ʼ !%&!1ʼ " % !ʼ , ʼ ' - F342 3Eʼ(&34ʼ)!ʼ 7 !ʼ 4! #(ʼ)!ʼ !%&!1ʼ " O !ʼ
1&ʼ8$ J HEʼ(& ʼ)!ʼ 7 !ʼ4! #(ʼ)!ʼ 7,11 ʼ7 ! 13 ! ʼH&ʼ8$ J HEʼ?4 ʼ
)!ʼ 7 ʼ4! #(ʼ)!ʼ " % !ʼ , ʼ)!ʼ" ()ʼ` ʼ" ,1,# ʼ, ʼ? 4$ F$ 3Eʼ , ʼ
)!ʼ 7 !ʼ 4! #(ʼ)!ʼ * !'!5 , ʼ1&ʼ8 - NF CHE Cʼ ,15 %ʼ #ʼ M $C2H ʼ
, ʼ)!ʼ 7 ʼ4! #(ʼ)!ʼ2 ! ',#ʼ I ,#0!#! ʼ , ʼ)!ʼ 7 &!1ʼ #ʼ M $C2H ʼ
, ʼ)!ʼ 7 ʼ4! #(ʼ)!ʼ * ,0,1ʼ)!ʼ " ʼ1&ʼ@$ HEʼ , ʼ)!ʼ 7 !
Vʼ ʼ_ 4! #(

UL K ScM#> ;>P @$1 U -

)&#`)! " % ! ,)! "3 ()' , " ,# , ,# ,
)! " % ! ,)! " ,# MH4Q$ C ,)! 7 !)! ( )! "@ OM
`)! 7, , " ,# , GH-2 $C ,)! 7 ! 4! #( )! " % ! ,
)! " ,# H @$4E $ F ,)! 7 ! 4! #( )! * ,0,1 ,)! 7,F#
, " ,# , 4D4 3 ,)! 7 ! 4! #( )! " % ! @ ! "3 ()
, " ,# , ? HE3FH-C3 ,)! 7 ! 4! #( )! " ,# ")! ,
)! "3 () , " ,# , B $E 043 ,)! 7 ! 4! #( )! " ,#
" % ! ,)! " ,# G$ C34& ,)! 7 ! 4! #( )! " ,# " % !V
)! " ,# >3C J F2H ,)! 7 ! 4! #( )! " ,# " % ! ,)!
" ,# @$ J Q-C $E2(0_4)! 7 ! 4! #( )! " ,# " ! ,)! " [
,# ?FH C(4)! 7 ! 4! #( )! " ,# " O! ,)! " ,# ,
8$J HE ,)! 7 ! 4! #( )! " ,# " % ! ,)! " ,# H ? $E3
,)! 7 ! 4! #( )! " ,# " % ! ,)! " ,# , " ((J ,)!
7 ! 4! #(

R,)! +) ! , G-J&4 3C

7)! ,#,3 4%! ED43 @HNF4$E3 5HFEC HE3 + *FH J $C % 4+R 1$ 4 N+ , I] ,1!)# " ,#! + ' HQ34 #ZJ167] " ,#! + M3H423 643D34 N+ 5HFEC HE 9 3C 34F$ " ,#! 3 $ED34 P-4 P $N+3ET 3 , G3 E " ,#! C '! /& % + I- E30 P$ NH J I " 8 3E40 3 $ED34 GH-2 $C 9 F 3 HH 3E 9 R $J ' HQ34 %3 F GH-2 $C , #1134 % 4+ HE 3 $ED34 M4 34CHE)! ,3#(! H >$22 5HFE 8344 3C , ??!3 !# # !#! % P$ F3 ?F$413 , 8HDD$J 9 $J @HEC $Q 3 P$ 3 , , FCD$ 3 5HFE G$ 40 J 1 3 P-44$O P-&&$O F $ 3 @F$4 3C M43ER 3 ? -$4 P 3E 3$ F H @ HC3Q-4E 5$ J 3C ? -$4 P 3E 3$ F)! ,3#[(!)! !, I$ 4 N+ P 34 , G$ C E HE < !3 !# # I ,%,#!% 5HFE I $C 30 G 4H J , PH-E EE$E ' HQ34 @- $4 (I342-CCHE , @4$ 2 D$44HNF 5HFE ' HQ34 4 E2 BHECF$ M3H423 P$ 3 H B4HH J FH J < !3 !# # I ,%,#!% 9 $J M4$F$ J H PHCC+EH 9 3 HHD P$ 3 , B$4EN 3-NF MHDH 1F 4 8-E 34 4-ED3 , B$42$42 I 3 34 5HFEC HE , @$4EC$ HNF @F$4 3C 5$ J 3C 5HFEC HE , @H F L E ?$ J -3 G3EFH J =H-E2 , M- OF 9 $ P-44$O H @$C 3 J $ EC e_ 5HFE ' H234CHE 9 $ J 1F4$0 8 3E40 6342-CCHE , \ 44H $ED 4NF Q$ D MH4DHE , 8$ 3$ FC M Q34 MH4DHE ,3#(!)! !, 5$ J 3C 8 H13 ? 3 $4 , ? D F , *FH J $C 8$4 , @$C 3 J + PHE 2H J 340 8$4 , (!)! !, 5$ J 3C @HEE3 H& @HEF3$ F 5$ J 3C @HEE3 ,3#(!)! !, 3 $ED34 M$44- F34C 9 $4 J $EQ 3 5HFE @$44- F34C H / G3EQ 3 5HFE ;D2$4 G N+CHE H ; CF 3CF 3 DC 5$ J 3C @F$4 3C P $N4$3 H 8 H J $ EC *FH J $C @H44 3 ? 33 C HE 9 $ J 6H4Q3CH @$ $ED34 G$ D 9 3 CF ?E$ D 9 $ J ; H , 4+ HE 9 $ 34 ?NH ' $3Q-4E 5$ J 3C 8 H22$E H 9 $ 34R C D3 M3H423 8 H22$E ,3#(!)! !, M3H423 @F$4 34C , J C& 3 D @F$4 3C @F$4 34C ,3#(!)! !, M Q34 @H H , -3F3E3F$ E 9 $ J *FH J $C @$44- F34C GH4 J HE 5HFE P-44$O 8 $43 8 *FH J $C B3$ 3 , @4 3 3 *FH J $C B3 2(& @4-4 30 ' NF$4D B3 ,3#(!)! !, M3H423 M4F J , ?F$ 8 3E40 3 N+ ^ / ; HN+ 5$ J 3C 3 NF ,3#(!)! !, 5$ J 3C M4 34CHE , G$ 2H E34 M4 34CHE ,3#(!)! !, ? J F , ,3 F34 E2 C HF M3H423 9 F 2F4 , 8$ D$O 8)! L!0! !#& *FH J $C M QCHE V M 3E N4HCF 3 $ED34 M43 2 H * 8$ 243 2 9 $ J 64$C34 H M 3H J $ D *4 C 4 4$ >H F34 ' HC3F$?$ J -3 P H&&$ -NF3HF3CCE$E3 * *FH J $C

*FH J $C 9 FO 3 < 34 ? 4HX-F$$ 9 $ J =H-E234 , @4$ 2 3
$EDC 9 $ J =H-E234 , (!) ! !, *FH J $C 5$4D E3 M4$E HE
>$ 43EN3 * 33D 3 < 34 5HFE ? $E , 9 F 3C HE3F 5$ J 3C
B3$ 3 , G$ E2 HE 5HFE B3$ 3 (H E230) ! !, *FH J $C M4$F$ J
, B $$ HHD I HH ` B - 8H $ CHE , M43EE$E
5HFE @$44- F34C B43N+HEF 9 $ J 5HFEC HE3 , M4$ E23
G$ D 8 -E 34 BHC3F E 5HFE B3 *H4Q3N+F 5HFE ? J F ,
M 3E($$E 5HFE 9 2F J $E V @43 2F$-2F *FH J $C 9 2F J $E
,3#(!) ! !, 9 $ J B3 ; $ J J 34CN$ 3C ' HQ34 ' NF$4DCHE
V 8 2F $3 5HFE ' H234CHE H& M 4 FF3$D 5HFE 4 E2 , P DD 3
Q 3 H E 5HFE 4 E2 ,3#(!) ! !, ' NF$4D @4- N+CF$E+ ,
B4HH J F 5$ J 3C >$-4 3 V P 2$E HE 5HFE B$4Q34 , *344$ E
9 $ J ,3#(!) ! !, 4NF Q$ D 9 $ $N3 H& @HE4 N+ 5H E
@4 NF HE H& ?+3HNF 5HFE 8 $E D$0 V G$ J 5HFE 8 $ D$0 ,3#(!
) ! !, 9 $ J @$44- F34C H& , - EN J 5$ J 3C 9 $ +34 V @ $
&-4D HE ' HQ34 *F43CF 3 V B$4EQ$44HNF ' HQ34 *F43CF 3 ,3#(!
) ! !, 5 J E3C I $ 34CHE b2Q3DFH J 9 $ J 9 4 2F H 7? J $
FH J Q-4E 5HFE 4 ( ) 6F#(! ! !V ' HQ34 % 4+ V @4$ 2 4 $E
5HFE B3 4 E2 , 9 F 3F 9 $ 34 ? 3 $4 , M4$ EC 9 $ J
=H-E2 8344 3C V ?1H 3C 4NF Q$ D P -44$0 , @433NF$E M3H423
I H *HD4 D23 P $C 34 HE #43 ,) ! + (#! ' HQ34 %3EE3DO
H& @4$ 2CF 3 DC 3 $ED34 I H-D&HH 8 $T 3Q$E+ 5$ J 3C ? HE
9 2F J $E @ @HE4$EN3 3 $ED34 5HFE ?NH , %EHN+F 9 R
$ J PHE 3C ,3 F34 HHD 51FE 4 E2 V ,3 Q 3 5$ J 3C ? $E ,
P @F30EC HE L!0! !#& 9 P$ D 3$, >22E 5HFE @H1 $ED
, P EE02$1 ' HQ34 9 F 2F$ J H& >HNF1$ 4 N+ 3 $ED34 8 $4 30
P $ 3 H& I H4 4$N+ 5HFE P H4 E H& @$4T 3 D 5HFE P H4 E ,3#(!
) ! !, 9 $ J ,3 $ P $ 3 , % E3CC 5$ J 3C P 7 1 E3 >3EO
, G$ C E HE M3H423 GH-2 $C B D P B4$ 4 3 , N43
F3$D @H HE3 @F4 C H1F34 P $ 3 H& M4$ E30 GH-2$ D
G$ T3 H& M 3E J 8 3E40 @HEC 3 P $ 3 P EF3$D *FH J $C
6342-CCHE , @H44 3 $ *FH J $C 5HFEC HE , #ED34 HHD @F$4 3C
? 3 $4 H& 8 F3$D 5HFE P H44&3HE @ 8 3 $EDF 5HFE >OHE H&
% 4+ J NF$3 9 $ J *FH J CHE , 9 HHDFH-C3 5HFE P @$ED 3
H& #1134 @4$ 2C 9 $ J MH4DHE , @$C 3F 64$EN C P $ 3 V
M4 Q HE 9 $ J @H1 $ED , @H C HE ' HQ34 @$4 O 3 H& >$E2DO+3
9 $ J ' H234CHE @ M 3CQ 30 ?$ J -3 ' H234CHE V BH43 $ED 5HFE
%3EE3DO , $E HE 5$ J 3C P % EE3 H& P 7@-QQ E2 HE
P 7% EE3 ,3#(!) ! !, 8 - J Q 3 >$ J Q H& @HH J C 9 $ J P -44$0
, a&! ` L!0! !#& 5HFE =H4C H#E V @4$ 23E3 30 P H& $
>HNF-44 5HFE ED34CHE 6$4 Q E2 J CF < !3 !# # I ,%, !%- !1
8 $4 30 V @$C 3C3 J 1 3 5HFE @F$4 3C 8 $44 3C , M43C+ E3 @F$4 3C
?F$413 % 4+1$ 4 N+ V @ HC3Q-4E $N> 5HFE @ $4+ H& ?13DDHN+
@$4 O 3 @4$ 23E1- HN5 " ' -CC3 B43N+HEC D3
8 HCC$N+ H& M 3E2$Q34 5$ J 3C 8 34HE G E3H 5HFE 6H CO F ,
64H HCC >$-D34D$ 3 P $ $ED ; NN 3C 3 $ED34 ' H234CHE ? Q
Q$ DQ 3 ' HQ34 8 -E 34 H& B-4E&HH ED43 I 4 E2 3 B-4EQ$E+
5$ J 3C B$4QH-4 , I 34N3QOF$ + ' HQ34 I $ 34CHE , B4HN+ 3F 4C
, NFH M4F J H& 534Q-42F M HE 6342-CCHE H& C 3

6H4) ! +) ! 9 2 H-E

7) ! " ( ) ,# 4%! ' $EDH 1F C 1' ,3# M$4 3C) ! ,#,3 4%!
P HE 2H J 34 3 M ? 3 $4 H& M 3E2043) ! ,#,3 4%!
; D $4D

ULKS M#> ;>P ʻ ʻ @$1 U U

;D $4Dʻ ' NF$4Dʻ ? 3 $4ʻH @$4E3QHOʻ)!ʻ ,#,3 4%!ʻ 5$N13Cʻ 8 3E Oʻ
%3 Fʻ ? 3 $4ʻH GH HN+ʻ + ʻ ED43 ʻ 2E3 ʻ >HNFE$ ʻ B5C41 Oʻ
+ ʻ 9 $Jʻ P$ 3 ʻ , ʻ PHE43 Fʻ " ,#! ʻ + ʻ 5$J3Cʻ G$ 40J1 3ʻ
8$Oʻ , ʻ I$4+ʻ I $N3ʻ " ,#! ʻ + ʻ 3 $ED34ʻ P - 4ʻ P$N+3ET 3ʻ V ʻ
G3 Eʻ " ,#! ʻ + ʻ 9 $Jʻ 'H 3ʻ G-EQ$4ʻH ĉPHNF4-J ʻ " ,#! ʻ
+ ʻG$ Dʻ 8-E 34ʻB $ 4ʻ , ʻB $ 4X-F$Eʻ " ,#! ʻ + ʻ5HFEʻ 8$J HEʻ
G$ 40J1 3ʻ , ʻ@H-C $EDʻ " ,#! ʻ + ʻ 5$J3Cʻ 'ʻ Mʻ M4FJʻ
, ʻ ,3 F34QOʻ " ,#! ʻ5HFEʻ D$ 4ʻ b*M3EHN+ʻ 5HFEʻ D$ 4ʻ ! ʻ #ʻ
? 4$E4$34ʻ I$ 4 N+ʻ $ECʻ 2E3 ʻH/?NF3-NF$E3ʻ 6H4Q3Cʻ 8-E 34ʻB $ 4ʻ
, ʻ G-EC+30ʻ ;D $4Dʻ BHODʻ , ʻ P34 HEF$ ʻ $J ʻ ?14H ʻ BHODʻ
,3#(! ʻ)! !, ʻ 5HFEʻ B-NFEEʻ , ʻ 4DHN+ʻ G$ Dʻ B $ Eʻ , ʻ% 4+ʻ
NF4 C ʻ 9 $Jʻ B $ 4ʻ , ʻ B $ 4ʻ 5$J3Cʻ B $ 4ʻ , ʻ I3EE E2F$J3ʻ 5HFEʻ
@$ FN$4ʻV ʻM3EHN+ʻ 'HQ34ʻ@$ FN$4ʻ ,3#(! ʻ)! ! ʻ 5HFEʻ @4HH+Cʻ
, ʻ @ ENFECʻ , ʻ % 4+NH J ʻ 'HQ34ʻ @HH134ʻ , ʻ *H4FH#C3ʻ 5$J3Cʻ
*FH J 1CHEʻ M CQHEʻ @4$ 2ʻ , ʻB4$ Dʻ 3 $ED34ʻ P , 33ʻ@ 4Dʻ ʻ@$ ʻ ʻ.
DHECʻ ,H4 Fʻ G$ 40J1 3ʻ , ʻ@- 43HN+Cʻ 5$J3Cʻ MH4DHEʻ H ʻ@- 3EE$Eʻ
M3H423ʻ 83E4Oʻ P GHE$ ʻ5HFEC HEʻ , ʻM 3C1 3ʻ 5$J3Cʻ 5HFEC HEʻ V ʻ
M 3E -4+ʻ 9 $Jʻ IF 1ʻ E23ʻ X *FH413ʻ ? $&&H4DCF 43ʻ 9 $Jʻ E23ʻ
,3#(! ʻ)! !, ʻ 'HQ34ʻ 8EEOʻ , ʻ@- Q$3ʻ 3 $ED34ʻ5 Eʻ 8$-EEOʻ
,3#(! ʻ)! !, ʻ 9 $Jʻ@F$4 3Cʻ 8$J HEʻH @4$ 2 $ ʻ 8-2F8$ FH44ʻ
, ʻ @$C 3 22ʻ 5HFEʻ 8$ FH4Eʻ , ʻ G4-J J <44$ ʻ $ECʻ (?$ FH4Eʻ ʻ
@F$E2ʻ 'HQ34ʻ 8$22$4ʻ ! ʻ*H4FH-C3+ 3ʻ 5HFEʻ >38H ʻ % EN$ Dʻ , ʻ
B$ 2H Eʻ 9 $Jʻ P$ 3 ʻ , ʻ PHE43 F"ʻ 8$J HEʻ P$ 3
, ʻ@- 2$4 3ʻ I$ 4 N+ʻ P$ $EDʻ , ʻ 643#2Fʻ L!0! !#&ʻ 5HFEʻ M$4 NCʻ
P$ $EDʻ @ ʻ 6$ 42 4 Fʻ 3 $ED34ʻ P -44$Oʻ V ʻB4H- HE ʻ 9 $Jʻ
P -44$Oʻ IH J $ C3ʻ5$J3Cʻ @$44 N+ʻ PHH43ʻ @<4C3 $ʻ ʻ 5HFEʻ @$44 N+ʻ
PHH43ʻ ,3#(! ʻ)! !, ʻ M3H423ʻ P -44$Oʻ^(@@ -2C HEʻ 5$E 3Cʻ P -44$Oʻ
,3#(! ʻ)! !, ʻ 5HFEʻ P$N+ 3ʻ V ʻB$42$ Oʻ 9 $Jʻ PNP $Eʻ ` ʻIH ʻ
Q$3ʻ 5HFEʻ ,3#(! ʻ)! !, ʻ5$J3Cʻ P 2$Eʻ X *$EE N $22 3
*FH J $Cʻ P 7P N+ E2ʻ V ʻ P H- CFʻ 3 $ED34ʻ P 7, 33ʻ I ,%%!ʻ, ʻ , ʻ
I31 , 1ʻ ʻ ? 4$E4$34ʻ ?$J -3ʻ P @- HNFʻ V ʻ @F 1134JH43ʻ 83E4Oʻ
P 7@HEE3 ʻ # 44$ ʻ ED43 ʻ P 7GHE$ ʻ ʻ 5$ 3Cʻ P 7GHE$
,3#(! ʻ)! !, ʻ 5HFEʻ ED43 ʻ P GHE-$ ʻ V ʻ B$ C$44HN+ʻ 9 $Jʻ
P 7GHE$ ʻ 1 ʻM$4 F $EDʻ M3H423ʻ P 8$&& 3ʻ ʻ@H J $&3 (ʻ9 $Jʻ
MH4DHEʻ P 78$&& 3ʻ ,3#(! ʻ)! !, ʻ5$J3Cʻ 3 $ED34ʻ ? 3 $4ʻ P$NR
+3ET 3ʻ 1 M $CC34 HEʻ $ 5?3$&H4 Fʻ 5HFEʻ 9 $Jʻ I ʻ P - 4ʻ P$N+3ET 3ʻ
,3#(! ʻ 1 G3 Eʻ 5HFEʻ P 7*$22$4ʻ 1 4D 3 ʻ @F$4 3?7 P7*$22$4ʻ
, ʻ)!ʻ Q$EOʻ >HEDHEʻ 5HFEʻ I4 E2 3ʻ V ʻ@4$ 2DH ʻ P NF3 ʻ 'H $EDʻ
" # ! ʻ #ʻ M $C2H ʻ ? $ 4ʻ 8$ FH4Eʻ ? 3 $4ʻ, ʻIFOC2 8(P$4+ʻ ?14H ʻ
? 3 $4ʻ, ʻ% DCD$ 3ʻ 8-2FʻG-Eʻ ? 3 $4ʻ, ʻIHED3 2F 3ʻ5$E 3Cʻ ? 3 $4ʻ
, ʻ@$ 4ECJH43ʻ 5HFEʻ ? 3 $4ʻ , ʻ N4Oʻ 9 $Jʻ ? 3 $4ʻ V3#(ʻ
)! !, ʻ 9 $Jʻ ?14H ʻ, ʻB$ J$EEHN+ʻ ! ʻ #ʻ ? 4$E4$34ʻ !#! %ʻ
HFEʻ 3 $ED34ʻ 2E3 ʻ 9 $ $N3ʻ 10>HNQ4O$E ʻ)!ʻ+)! 2 !53 !ʻ #&ʻ
+341 3 !ʻ , ʻ 9 2 H ECF 43ʻ)!ʻ ') ! ʻ !1 &!#ʻ (1 !1ʻ , ʻ)!ʻ
L , %ʻ "3 ()1ʻ V ʻ 9 2 H Eʻ 9F FH4Eʻ #&ʻ ? 4$E4$34 ʻ #&ʻ)!ʻ I) #1ʻ
4! % #1ʻ , ʻ)!ʻ V3 1ʻ V ʻB- 3ʻ #&ʻ8 %1ʻ 1 M$ H $Oʻ #&ʻ ? $ 4ʻ& %ʻ
, ʻ)!ʻ 7 !ʻ 4! #(

7)!ʻ + ! 1 ʻ /% 4+N-DQ4 2F

7)!ʻ L ()ʻ ,#,3 4%!ʻ 5HFEʻ C 1ʻ,3#ʻ ;3E J -43ʻ !ʻ L ()ʻ
,#,3 4%!ʻ '$EDH 1Fʻ C 1ʻ,3#ʻM$4 NCʻ)!ʻ ,#,3 4%!ʻ PHE 2HJ34 3ʻ
M4$E 3ʻ5HFEʻ? 3 $4ʻ1 M 3E2043Cʻ)!ʻ ,#,3 4%!ʻ ;D $4Dʻ ' NF$4D
? 3 $4

?3 $4 ')!' , 3 4 ' (3E40'%3 F' ?3 $4 ')!' ,#,3 %%''
#&' L!0! !#&' < !3 !# #' I,%,#!%')!' ,#,3 4%!
643D34 N+' PND$J' @$ QN$ ' @4$ 23E2 $E')!' L ()' ,#,3 4%!'
+ '5$E 3C' 'HQ34' M3H423' M4$Q$J', ',3 F34Q0'" ,#! '+ '?$J-3'
8EE0'H PHNQ4-J' % 4+D$ 3'" ,#! '+ ' 'HQ34' Q34N4H J QO'
, 'B 4+3EQH2' 1#&' " ,#! '+ ' @F$4 3C' 8$ +3', '
&44$E3'" ,#! '+ ' I$ 4 N+' 834HE' P$ 3 ', '?14 E2+3 ' " ,#! '
+ '5HFE' MH4DHE' ;$4 C HE'" ,#! ' 9 $J' P 34', %, /'!'
" ,#! ' 6#!', ')!' +! ' , 1', ')!' I,%%!(!' , '?31 '!' + ' 5$J 3C'
PHE 2H J 340'H ?$EFH13'" ,)'?4'G$ D' P$ 3 'H @$4DHE3CC'
" ,#! '+ ' 3 $ED34' P- 4' P$N+3ET 3', 'G3 E' #&' @$CC3EN$440'
" ,#! ' + ' 5$J 3C' ?F$ ', ' IH J$D 3'" ,#! ' 83E40' 2 HEQO'
2 HEQO' , ' 'H NF3 '<F 6 #' I,%,#!%' I$ 4 N+' $EC' 2E3 ' , '
?F3-NF$E'5HFE' 3 $ED34' f&P$N+ C H-E 9 $J' 3 $ED34' HP 234'
(&P$N+ C H E'G$ D' 1D34CHE' '?$ E'M34 J$ EC'G$ D' ED34CHE'
, 'PH4D-E' " # ! ' ' I EQE42F' 5$J 3C.' ED34CHE' , '> EN -D3E'
5HFE' ED34CHE' ! ' ,')!'+ (#! '5$J 3C' B$4Q34' B$4 $3' 9 $J'
B$4Q34' H E234' , ' B$4 $3' 5$J 3C' B$4QH-4' , ' G-E J - 4' 9 $J'
B$4QH-4' ,3#(! ' , 'GHE J E 4' $E' B3 ' , ' 8 H HE' 5HFE' B3 '
, 'M4 Q $3' 9 $J' B3 ' , (! ' ` 'M4 Q $3' 5HFE' B3 ', 'G-E(H1'
5$J 3C' B 22$4' P$40FH J '5$J 3C' B 4E 3' M 3EC E HE' 5HFE' B 4 '
F C 3' @ 'B$4F$44< ' G$ D' B $ 4', 'B $N+N4$ 2' 3 $ED34' B $ 4', '
-NF3E43HNF' , (! '@ ' -NF3E43HNF' 9 $ 34' BHOD'
% EF$4 3' 9 $J' @$ J?' H&'*H44' H4'5$J 3C' @$J 1Q3 'H&' 9 $ HE'
I$4+' 5$J 3C 9 $ HE' @$J 1Q3 ' ,3#(! ' , ' 9 $ HE' I$4+' I$ N+'
@$J 1Q3 ', ' \-33ECF ' 9 $J' @$J 1Q3 ' ,3#(! ' , ' \-33ECF '
4NF Q$ D' @$44- F34C' , ' @4$ 2' G$ D' @ $4+' , ' ? H2$40' G$ D'
P >3 $E' @ $4+' ,3#(! ' , '? H2$40' 3 $ED34' %3EE3DO' @ $4+' '
%EHN+24$0' 2 , ' , '5HFE' @ $4+' *) 1 ' #' ,')!' R, '!1' 5HFE' @4H J '
J3 E') !' , ' ,3 F34' B$ D34' 9 $J' @H1 $ED' , '@H 3C HE' D$J'
@H44 3' , ' G-E4HD' *FH J $C' MH44 3' @ ' ? 33 C HE' 5HFE' @HC E3' , '
M 3ECHE' ED43 '@H 3' H&' <NF 433' GH-2 $C' 8$J HE' @4$ +' , '
4Q 2 $ED' 5HFE' 8$J J'@4$ +' 4Q 2 $ED ' 5$J 3C' @4$ 2
H&' G3$EC HE' @4$ 2' ,3#(! ' ' G3$EC HE' 5HFE' @4$ 2'
P E F 4D' 5HFE' @4$ 2' ,3#(! ' , ' P E F 4D' *FH J $C' @4 NF HE'
, ' -NF3EC+3HNF' 5HFE' @4 NF HE' H&' I4$ 4CN$4C3' 9 $J' @4H-D3E' , '
M$ 32 '5HFE@- HE' H&' -NQ J QH$0' 5HFE' @-EE E2F$J' H&' G-NF4$3'
9 $ 34' G N+CHE' ! ' ,')!' + (#! ' GHE$ D' H&' G$E3 $ 3
I$4+' 83E 0' 8' G-D23HE' 9 HHDF3$D' 'HQ34' , -23E 'G-EQ$4'
, ' P$NF34 J H43' 5HFE' G-E H1' ' G-E H1' #&' ?H- F N+' 'HQ34'
@- $4' 6342-CCHE' , 'M4$ 2D$44HNF' #&' <44H $ED' 83E40' 6342-CCHE' , '
B$4E $22$4 ' I,%,#!%' 5$J 3C' 6342-CCHE' , ')!' R 1!' ,#&' L!(!#', '
R, , ' ;D $4D' 6 3 NF34' , ' @H4CHN&N' ;D $4D' @F$4 3C' 6 3 NF34')!'
,3#(! ' @H4CHN+' @F$4 3C' I F 1' 6 3 NF34' , ' ,3 F34' B$4' R ' ,'
0, !' #&' '' #' 41!#'!' @ ' 83E ' 8$44 CHE' ! ') #' #' > 341HH '
< !' L!# ! ' 9 $J' 6H4Q3C' H&' @$ 3ED$4' 5HFE' 6H4Q3C' 8#1 (#' #')!'
@H DC 43$J' L!(!#' , 'R, , ' 3 &1' ? 3 $4' P -44$0' 6- 34 HE' H&'
6- 34 HE' M3H423' 6- 34 HE' H E234('H&' 6-#$4 HE' 3 $ED34' MH4DHE'
'@$J 1Q3 HE' 3 $ED34' M H 4 D H E ' 4243EE$E' 5$J 3C' MH4DHE' , '
@- 3EE$E' #&' B$ N$440' 5$J 3C' P -44$0' MH4DHE' H&' B$ J $2F 3'
*FH J $C' ,J/ ,#' ,3#(! ' H&' B$ J $2F 3' 5$J 3C' G$ D' 9 3QC 34' MH4R
DHE' , '@$J 1D-DT 3 ' 9 $J' MH4DHE' H&' ;4E J 0ET 3' 'HQ34' MH4DHE'
H&' -NF3EDH O:' 'HQ34' MH4DHE' , ' B4HNPHN+' 'HQ34' MH4DHE' ,
' >$42 $E2 33

? K? M#> ;>P ʻ ʻ @$1ʻ U US

>$42 $E2 33ʻ 9 $Jʻ B$4+ Oʻ 43 $EDʻ MH4DHEʻ ^a 42 $E2 33
5HFEʻ M4 34CHEʻ , ʻ6H4 J 3C HEʻ 5$E 3Cʻ M4 34CHEʻ ,3 (!Cʻ H 6 NE$ 3C HEʻ
9 $Jʻ M4 34CHEʻ , ʻM$44HNFʻ)!ʻ L!0! !#&ʻ 9 $Jʻ M4$F$Jʻ L!' , ʻ
, ʻ 4 F-43ʻ #&ʻ % 4+$ED43 ʻ 5$J 3Cʻ 8$ ʻ /&), ''&! ʻ 5HF$ʻ ,
-NF3E& H 34ʻ 5$J 3Cʻ 8$ D$Oʻ !%&!1ʻ +,#ʻ , ʻ)!ʻ % !ʻ G$ Dʻ 8$ D$Oʻ
^ O@F$1 J$E HEʻ G$ Dʻ 8$ D$Oʻ +!' ,#&ʻ +,#ʻ , ʻ)!ʻ H3ʻ G$ Dʻ 8$ D$Oʻ
, ʻ @F$1 J$E HEʻ)!ʻ L!0! !#&ʻ 5$J 3Cʻ 8$J HEʻ , ʻ *H 4Cʻ G$ Dʻ
8EEOʻ , ʻB $ 4E E 3ʻ 5HFEʻ 8EEOʻ , ʻ< 34ʻ >22E ʻ I 5 #ʻ
8EEOʻ , ʻ)!ʻ 8 ())ʻ L!(!#ʻ , ʻR, , ʻ 'HQ34ʻ 8EEOʻ /&0, ' !ʻ
9$ 34ʻ ? H$Eʻ >$ 4 3ʻ 8EEOʻ ! ') #ʻ #ʻ > 341HH ʻ 'HQ34ʻ 8EEOʻ
, ʻ '-CNH3ʻ 'HQ34ʻ 8EEOʻ ,3#(! ʻ @ ʻ '-CNH3ʻ 83E4Oʻ 8$44 CHEʻ
! ') #ʻ #ʻ > 341HH ʻ< !ʻ L!# ! ʻ ,ʻ 0, !ʻ #&ʻ ''#/)1!#' !ʻ H @F$4 3Cʻ
I F 1ʻ 6 3 NF34ʻ , ʻ , 3 F34ʻ B$4ʻ R ʻ 5$J 3Cʻ 834Q34 ?HEʻ , ʻM$4N4H2Hʻ
834HEʻ , ʻG4-J NH 4$Eʻ 9 $Jʻ =HXE2ʻ 8344 3Cʻ (ʻ H 3Cʻ
' NF$4Dʻ 8H $ʻ , ʻ P$Q 3ʻ 5HFEʻ 8H22$Eʻ , ʻ ? 4$1&$C+H ʻ *FH J$Cʻ
8-2F$Eʻ , ʻ 4DCʻ 5HFEʻ 8OED J$Eʻ H ʻP HEʻ 9 $Jʻ o& 1Cʻ E23ʻ
*FH413ʻ 9 $Jʻ E23ʻ % !ʻ I 5 #ʻ #ʻ)!+! 0!#) LZ(!#ʻ , ʻ 311 1ʻ
)!ʻ L!0! !#&ʻ M3H423ʻ E23ʻ *FH 13ʻ 9 P$Jʻ 4D$EDʻ ʻB$4Q30ʻ
9 $Jʻ 4 E2ʻ H M4 Q HEʻ 9 $Jʻ 4 E2ʻ ʻM4 Q HEʻ 5HFE
5$J 3CHEʻ !1 & #(ʻ #ʻ G4-J J HEDʻ I $N3ʻ ;D EQ-42Fʻ M3H423ʻ @F$4 3Cʻ
5HE3Cʻ H B4HH+ $EDCʻ I 3 34ʻ 5HFEC HEʻ H @$4EC$ HNFʻ @F$4 3Cʻ 5HFEC HEʻ
, ʻ @H F ʻ 9 $Jʻ M4$N 3ʻ 5HFEC HE3ʻ " # ! ʻ #ʻ 6 H43EN3ʻ G$ Dʻ
%3EE3DOʻ @ ʻ %EHN+E$ E2ʻ 5$J 3Cʻ %3EE3DOʻ ,3#(! ʻ , ʻ%EHN+E$Fʻ
E2ʻ 5HFEʻ %3EE3DOʻ P HEʻ I$4+ʻ 3 $ED34ʻ %344ʻ H ?N4H22 3F ʻ
!J , / ʻ ,3#(! ʻH P HEʻ I$4+ʻ 'HQ34ʻ %F+ @$CC30 $EDCʻ
5HFEʻ % 4+1$ 4 N+ʻ H BH24 3ʻ *FH J$Cʻ % 4+1$ 4 N+ʻ , ʻBH24 3
)!ʻ L!0! !#&ʻ 2, ' , ʻ G$ Dʻ >$J 3Eʻ ʻ ;4EN4H2H ʻ 5HFEʻ >$J 3Eʻ
,3#(! ʻ , ʻ ;4EN4H2Hʻ 9 $Jʻ B$ 3ʻ %3EE3DOʻ >$ 4 3ʻ , ʻ 9 HHDF$ ʻ
'HQ34ʻ >3EH ʻH IH4 J$40ʻ >3E1 ʻ ,3#(! ʻ IH4 J$40ʻ 5$J 3Cʻ
>3EH ʻ , ʻG$ C+$ 4 Fʻ G$ Dʻ P$ $EDʻ , ʻB$4N$1 3ʻ G$ Dʻ 3 $ED34ʻ
P$ $EDʻ ,3#(! ʻ , ʻ B$4N$1 3ʻ D$Jʻ P$ $EDʻ ` ʻ G-ED43EE$Eʻ
*FH J$Cʻ P$ $EDʻ ,3#(! ʻ , ʻ G-ED43EE$Eʻ 9 F$Jʻ P$ $EDʻ
-NF $E3ʻ)!ʻ L!0! !#&ʻ 5HFEʻ M$4 3Cʻ P$ $EDʻ @ ʻ 6$ 42 4 Fʻ)!ʻ
L!0! !#&ʻ 5$J 3Cʻ P$ $EDʻ ,3#(! ʻ , ʻ 6$ 42 4 Fʻ 9 $Jʻ P$ 3#ʻ
,3#(! ʻH @$4DHE3CCʻ 9 $Jʻ @HEC $Q 3ʻ P$ 3 ʻ @ ʻ , FCD$ 3ʻ #&ʻ
; 34 E2F$J ʻ P$4 J$D-+3ʻ @HEC $Q 3ʻ P$ 3 ʻ , ʻ *34432 3?ʻ @F4 C HR
1F34ʻ P$ 3 ʻ , ʻ <4NF$4D HEʻ 9 3 HHDʻ P$ 3Dʻ (ʻB$J N 3-2Fʻ
5HFEʻ 8344 3Cʻ P$ 3 ʻ , ʻP-ENF3Cʻ 9 3 HHDʻ P$ 3 ʻ ! ') #ʻ
#ʻ > 341HH ʻ 3 $ED34ʻ 8$4 30ʻ P$ 3 ʻ IH4 4$N ʻ 9 $Jʻ
P$ 3 ʻ , ʻ @$44-NF$Eʻ 4NF Q$ Dʻ P$ 3 ʻ , ʻ *F43$ 3ʻ *FH J$Cʻ
P$ 3 ʻ , ʻG4-J 1$4+ʻ 83E4Oʻ @HEC $Q 3ʻ P$ 3 ʻ ʻ P EF3$Dʻ
5HFEʻ @ 34+ʻ P$ 3 ʻ @ ʻ P DD 3F 3ʻ 'HQ34ʻ P$W 9 3 ʻ , ʻ B43$2Fʻ
64$EN Cʻ P$ 3 ʻ ,3#(! ʻ , ʻ B43$2Fʻ 9 $Jʻ ,3 $ʻ P$ 3 ʻ
, ʻ MH D 3 3$ʻ < !3 !# #ʻ 5HFEʻ P$ 38ʻ @ ʻ)!ʻ L, % E 0 ʻ
G$ Dʻ P 3 3ʻ + !F &ʻ I %! ʻ , ʻ % 4+N-DQ4 2F ʻ 3 $ED34ʻ ;$4 3ʻ
P 3E 3$ Fʻ /&0, ' !ʻ 5$J 3Cʻ ? -$4ʻ P 3E 3$ Fʻ ,3#(! ʻ ʻ@ HC3Q-4Eʻ
5$J 3Cʻ PH&&$ʻ , ʻ G4-J F 4Eʻ 5$J 3Cʻ PHE 2H J 34Oʻ ,3#(! ʻ , ʻ
? $EFH13ʻ 5$J 3Cʻ @$44 N+ʻ PHH43ʻ ʻ@H4C3 $ ʻ 5HFEʻ @$44 N+ʻ PHH43ʻ
,3#(! ʻ , ʻ@H4C3 $ ʻ 5HFEʻ P-43ʻ , ʻ%-E $ Dʻ 5$J 3Cʻ <NF 34 HEOʻ
>HN+F$4ʻ P-43ʻ H /> E2C HEʻ 5HFEʻ >H D3Eʻ P - 4ʻ H ʻ@HN+ N+ʻ 5HFEʻ
P - 4F3$Dʻ , ʻ >H2$Eʻ 5HFEʻ P - 4F3$Dʻ ,3#(! ʻ , ʻ >H2$Eʻ 3 $ED34ʻ
P-44$Oʻ , ʻ B4H-2F HEʻ P-44$Oʻ ʻM 3EN$ 4Dʻ I 3 34ʻ P-44$Oʻ ` ʻ
*4HX-F$ Eʻ ?$J -3ʻ P-41FOʻ (ʻ % 4+Q4 D3ʻ 9 $Jʻ P - 1FOʻ ,3#(! ʻ
ʻ #ʻ :

, ʿ % 4+Q4 D3 ʿ 5HFE ʿ P ND$ J ʿ , ʿ P $4 F 4E ʿ < !3 !# # ʿ I ,%,#!% 9 $ J ʿ P ND$ J ʿ ! ʿ ʿ ! ʿ !J !#) ʿ L !(!# ʿ , ʿ R, , ʿ 3 R $ED34 ʿ P @$4 E30 ʿ X B$4 HNNH ʿ 5HFE ʿ I & J #! ʿ ,3#(! ʿ B$4 HNNH ʿ 5HFE ʿ P @- HN+ ʿ ʿ B$4FH $(ʿ 5$ J 3C ʿ P -44$0 ʿ P 7@- HNF ʿ , ʿ 4D $ ʿ G$ D ʿ P 7M- HN+ ʿ , (! ʿ ʿ 4D $ ʿ 5HFE ʿ ' $ J C$0 ʿ P @- HN+ ʿ , ʿ -NF3E2HH ʿ P $ F3 ʿ , H4 J $E ʿ P 7GHE$ D ʿ H & ʿ %EHN+43HNF ʿ ED43 ʿ P 7GH $& ʿ ʿ >H2$E ʿ 5$ J 3C ʿ P GH $ ʿ ,3#(! ʿ , ʿ >H2$E ʿ 5HFE ʿ ED43 ʿ P 7GH $ ʿ < !3 !# # ʿ #) ! ʿ 7 ,!%) ʿ L !(!# ʿ , ʿ < #' ! 1 ʿ 5HFE ʿ 9 $ J ʿ I ʿ P H 4 ʿ P %HE 3 3 ʿ , (! ʿ , ʿ G3 E ʿ #& ʿ @$CC3 ʿ N$440 ʿ 5HFE ʿ P 7% 3 ʿ ʿ B42 0 ʿ ' HQ34 ʿ P 7%E 2F ʿ , ʿ B$4 HNF$E ʿ ' HQ34 ʿ P @E 2F ʿ) ! ʿ , (!C ʿ B$4 HNF$E ʿ G$ D ʿ P >3EE$E ʿ , ʿ 8 $4+C ʿ 9 $ J ʿ 8 EE0 ʿ P >3 $E ʿ ,3#(! ʿ , ʿ P $4+C ʿ 5$ J 3C ʿ P 7P NF$E ʿ , ʿ @H4Q 3 < ʿ ' HQ34 ʿ P N P $E ʿ , ʿ 8 H J ʿ I $ 4 N+ ʿ >$ 4 3 ʿ P P # $E ʿ @ ʿ ?$4 F EEH3+ ʿ 5$ J 3C ʿ P P $E ʿ , ʿ >$ J HNF ʿ B4ON3 ʿ P 7P -4DH ʿ ,U ʿ ,3 F34 H-E ʿ P P -4DH ʿ , ʿ >H -C ʿ 5HFE ʿ ,$1 3 ʿ , ʿ P H#$EN3 ʿ 5$ J 3C ʿ ,$1 34 ʿ (!5 ʿ , ʿ P H $EN3 ʿ 5HFE ʿ ,$1 34 ʿ U3# , ʿ , ʿ G- D$42 ʿ 9 $ J ʿ ,$1 34 ʿ , ʿ @4H2H ʿ 5$ J 3C ʿ ,$0C J F ʿ , ʿ 9 F 3F ʿ 9 $ J ʿ , 3E ʿ ʿ 5 3E$4 J ʿ I 3 34 ʿ 9 3DD34Q-4E ʿ <2 0 ʿ , ʿ ' - F 3E ʿ ' NF$4D ʿ 3 $ED34 ʿ <C $ D ʿ , ʿ -NF3EN4- 3 ʿ ' NF$4D ʿ <C $ D ʿ ,3#(! ʿ ` ʿ -NF EN4- 3 ʿ ED43 ʿ I 4 E2 3 ʿ , ʿ BH42-3 ʿ M3H423 ʿ I 3 9 ʿ < !3 Z# ʿ #) ! ʿ L , % E 0 ʿ 2 , ' , ʿ 5HFE ʿ ' $ J C$0 ʿ , ʿ G4-E2$EC ʿ 5HFE ʿ ' 3 D ʿ , ʿ % 4+3EE$E ʿ 9 $ J ʿ ' 3EEO ʿ ! ʿ , ʿ) ! ʿ + (#! ʿ & ʿ +, ' , ʿ , ʿ <!(' ʿ 2 3 !1 ʿ , ʿ +' , % #& ʿ) ! ʿ L !0! !#& ʿ ?$ J -3 ʿ ' NF$4DCHE ʿ , ʿ I 3EE E2F$ J ʿ 5HFE ʿ ' 32 E$ D ʿ ' DD3 ʿ , ʿ % EF$4 30 ʿ 9 $ J ʿ ' HC3 ʿ ' HQ C J ʿ ʿ @ 34 J C HE ʿ #& ʿ J H4ENCC ʿ M3H423 ʿ @ $4+3 ʿ ' HCC ʿ ' ʿ @- 24-& ʿ ; Q3E3T34 ʿ ?F$ ʿ , ʿ G4- J 4$CF ʿ U , ʿ !#! % P $ F3 ʿ ?F$413 ʿ ` ʿ 8 HDD$ J ʿ ' HQ34 ʿ ?+ 4 E2 ʿ , ʿ ,3 F34 ʿ % F$EE DO ʿ 5HFE ʿ ? EN $ 4 ʿ H & ʿ ' 3DN$C 3 ʿ ? J F ʿ H & ʿ >$ED 5HFE ʿ ; D3E ʿ ?1$ D E2 ʿ V ʿ 8 H J ʿ ; D $4D ʿ ? 3 $4 ʿ !%&!1 ʿ +,# ʿ , ʿ) ! ʿ ,#,3 4%! ʿ ; D $4D ʿ ' NF$4D ʿ ? 3 $4 ʿ 9 $ J ʿ ? 3 $4 ʿ H & ʿ ?F$4EQ3 0 ʿ 5$ J 3C ʿ ? 3 $4 ʿ H & ʿ @$ 4EC J H43 ʿ 8 H4$ H ʿ ? 3 $4 ʿ H & ʿ @H J HDD$E ʿ I 5 # #) ! ʿ L ! ʿ " (&! ʿ 9 D $ J ʿ ? H F J ʿ ! ʿ @$423E ʿ 5$ J 3C ʿ ? $E ʿ H & ʿ B4$3 ʿ ' HQ34 ʿ ? $E ʿ ,3#(! ʿ , ʿ B4$3 ʿ ?$ J -3 ʿ * FH J CHE ʿ H & ʿ 6H443C ʿ ' HQ34 ʿ * F43CF 3 ʿ , ʿ B$4EQ$44HNF ʿ ' HQ J ʿ * Q43CF 3 ʿ H E 4 ʿ B$4E ʿ Q$44HN+ ʿ ED43 ʿ 9 $ CHE ʿ H & ʿ B4 D23N$C 3 ʿ 9 $ CHE ʿ ,3#(! ʿ , ʿ B4 D23N$C 3 ʿ G$ D ʿ 9 3 CF ʿ @H E ʿ 3 $ED34 ʿ 9 3 CF ʿ H & ʿ ?N$44 ʿ 5$ J 3C ʿ 9 3 CF ʿ ,3#(! ʿ , ʿ M ' ʿ ' HQ34 ʿ 9 F 2F$ J ʿ , ʿ >HNF1$ 4 N+ ʿ G$ D ʿ 9 F 2F$ J ʿ H & ʿ @H4E 33 ʿ 8 3E40 ʿ 9 2F ʿ , ʿ >$42E3$E ʿ 9 $ J ʿ 9 2F J $E ʿ V ʿ B43N+$EC D ʿ) ! ʿ * ,0,1 ʿ & ʿ " % !1 ʿ , ʿ ! ') ʿ , ʿ) ! ʿ L , % "3 ()1 ʿ V ʿ '3&4 () ʿ #& E !F ʿ %%,F ʿ , ʿ) ! ʿ 7 ! ʿ) ! ʿ * ,0,1 ʿ #& " % !1 ʿ , ʿ ! ') ʿ V ʿ) ! ʿ " , ,3()1 ʿ , ʿ " ,# ʿ , ʿ P $ 3 H E ʿ @$C 3 ʿ GH-2 $C ʿ M$ 3FH-C3 ʿ H & 6 33 ʿ #& @433 H E F ʿ) ! ʿ 7 ! ʿ) ! ʿ 7 ! 13 ! ʿ V ʿ ! ') ʿ , ʿ) ! ʿ L , % "3 ()1 ʿ , ʿ % 4+N-DR Q4 2F ʿ #& ,3 ʿ M$ H $0 4 ʿ) ! ʿ 7 !

R , ʿ) ! ʿ +) ! ʿ V ʿ / 3

7) ! ʿ L () ʿ ,#,3 4%! ʿ 4NF D ʿ P HE 2H J 340 ʿ 8 % , ʿ ; 2 E2 HE ʿ) ! ʿ L () ʿ ,#,3 4%! ʿ 4NF Q$ D ʿ %3EE3DO ʿ 8 % @$CC & C ʿ) ! ʿ L () ʿ ,#,3 4%! ʿ) ! ʿ 8 % V ʿ M $C2H ʿ) ! ʿ ,#,3 4%! ʿ 5$ J 3C ʿ BHO 3 ʿ C 1[' ,3# ʿ %3 Q-4E3 ʿ !%&!1 ʿ +,# ` ʿ) ! ʿ L () ʿ ,#,3 4%! ʿ) ! ʿ 8 % , ʿ M $C2H ʿ + ʿ 9 $ J ʿ @-EE E2F$ J 3 ʿ 6$ 4 3 ʿ V ʿ ' HQ34 $ED ʿ + ʿ P NF$3 ʿ ?F$ ʿ ? 3 $4 ʿ , ʿ M433EH3Q ʿ L ʿ 5$ J 3C ʿ P HE 2H J 34 3 ʿ @-E ʿ ʿ E E2F$ J 3

E E2 $J3' , '@H4C3F ' + ' 83 ' G$&OJ1 3' 8$J HE' , 'B42EO'
+ '5$J3C' 6342-CCHE' , '% +3 *$E' + 'G$ D' 8-E 34' B $ 4' -G$B $ 4'
X-F$E' + ' 9 $J' P# 34' , 'M 3E 33' 5$J3C' ?F$9' , 'BH J$D 3'
! 4' *FHJ$C' P$+DH-2$' B4 CQ$E3' B4 CQ$E3' (? 4< $4 3C' J Q '
B3$-1H4 '+ '5$J3C' BHC 3 ' , ' -NF E 3N+' + '5HFE' ED43 4' @$ F'
N$4' V '@$4 3 HE' + ' 9 $J' P$ 3 ' V ' P 43 FO' 3 $ED34'
$CHE' , 'M $CCEHN+' @ $-D' 3 $ED34' , 'B$ $J1 3' 3 $ED34'
4D' , '@H4C3& 33 ' 9 $J' P$ 3 ' 3 $ED34' ` ' ?H- FQ$4'
4NF Q$ D' 3 $ED34' H 'BHODC HE3' 'HQ34' ED34CHE' @4$ 23EC'
5$J3C' C HE' >HEDHE' 8 'M$ E' C HE'OHP 234' >HEDHE' 8 '
5HFE' ED34CHE' , ' PHCC C D3' 5HFE' ED34CHE' ' PHCC C D3
5HC31F' B-4E3' , ' M$D2 4 F' 4NF Q$ D' B-NFEE' V '@$ 4 E3Q$E+'
ED43 ' B $E3' B $E3& 3 D' 9 $J' B $ 4' 'B $ 4' 5ND J' @F$4 3C'
B $ 4' ,3#(! ' , 'B $ 4' 9 $J' B $ 4' +!',#&'+,#' 9 $J' B $ 4' V '
B $ 4' 9 $J' B $E3' H M4HE2$4' 5$J3C' B - N F $ E $ E @ $ 4 E 3 '
Q$E+' @F$4 3C' ?EHD24$CC' B-NF$E$E' ,3#(! ' , '@-E E2F$J3F3$D'
I$ 4 N+' BHO 3' /&0,' !')!' L ( ) ' ,#,3 4%!' G$ D' BHO 3' P H4$CC'
<, &' ?31 '!' I%! ' I$ 4 N+' BHO 3' !%&!1' +,#' , ')!' " ( ) ' ,#,3 4%!'
G$ D' BHO 3' <, &' ?31 '!' I%! ' 5HFE' BHO 3' , '?F3 9$ HE' G$ D'
?EHD24$CC' B-NF$E$E' , '@-EE E2F$J' 83$D' 5$J3C' ? 3 3E$HH' B$4EC'
, '% 4+F ' 5HFE' BH 3' , '@$JQC $E' 5HFE' I H-2 $C' BHC 3 ' , '
M4 $E' 3 $ED34' B$4 HE' , 'B$ $4NF' 8-2F' B4H 13' 'B4H$D'
C HE3' 8-2F' B4H E3' ,3#(! ' , 'B4H$DC H-3' 9 $J' 8$O' BHOD' , '
*H E3ED' 5$J3C' B$ $E E3' , '@$C 3' 8 ' 6H4Q3C' 8-E 34' B $ 4'
, 'G-EC+O' 5HFE' B4HH+C' V '%EHN+3 $4 ' 9 %$E$' B4H 9 E' M433# '
HN+J$EC' 9 $J' B$44' , 'G4- #C' FD43 'B4H E' ('8 ' ED43 '
B4H E' , ' 8 FH-C3' *FHJ$C' B4H E' ` ' 9$ 3 F$$2Fb' < !3 !# #'
!#! %' 'HQ34' B$ &H-4' H 'B$ Q 4E 3' G ' *FHJ$C' B4 CQ$E3' 9 $J'
@-EE E2F$J' , ' ; E 34+ E3' 9 $J' @-EE E2F$J' ,3#(! ' , ' ; E 34'
+ E3' 'HQ34' @$J1Q3 ' X&' -NFJ$EEH3+' ?$J-3' @HH134' '6$ &H4D'
' NF$4D' @$J1Q3 ' , '@4$ 2 3' 5$J3C' @$J1Q3 ' ,3#(! ' , '@4$ 2 3'
'' @$ FN$4D' , '@$4Q 3C HE' 9 $J' @$J1QJ' H&' 83 F34' I $N3'
'HQ34' @4$-&H4D' , ' ,3 & 3 D' 4NF Q$ D' @' B' @4$-&H4D' , '
4DJ $E' 5$J3C' @4$ &H4D' ,3#(! ' V ' DJ $E' 5HFE' @$ FN$4' , '
M43EHNF' 5HFE' @-EE E2F$J3' , '@$DD3 ' ' @-E E2F$J3' ,3#(!
, '@$DD3 ' 9 $J' @$ D 3 ' H&' P DD 3 HE' 9 $J' @$ D 3 ' ,3#(! '
, ' P DD 3 HE' 9 $J' @-EE E2F$J3' V '>$E CF$ ' 'HQ34' @-EE E2R
F$J3' X&' -NF3EF$E4 3' 5' '' 8' @4$ &-4D' ,3#(! '
, ' @4$-&-4D $ED' 9 $J' @HH134' ,3#(! ' V ' 6$ &H4D' 4 F-4'
@$J1Q3 ' + ' 'HQ34' @$J1Q3 ' ,3#(! ' , '?F344 E2 HE' G$ D'
@$J1Q3 ' ! ' #' 4 E3' 9 $J' 8H CHE' @4$ &H4D' H&' @4$ '
&-4D $ED' 5HFE' @$ 4E 3' X&' B4H$D 33' 5$J3C' @- FQ34' X&' G$ 3$2 3C'
9 $J' M' @$J1Q3 ' X&' 6 $ 4& 3 D' ; $C' @$ FN$4' X&' -NF3E'
D4$ E' M3H423' 5$J3C' @$J1Q3 ' X&' G33CQ$-+C' 5HFE' @4$ &-4D' , '
-NF3E$J3C' 9 $J' @4$ &-4D' X&' GHHEC D3' ' NF$4D' @$J1Q3 ' X&'
-NF3E 3NF' ' P' @JCE E2F$J' ,3#(! ' V '@H4C3' 8 '
)!' ,#,3 4%!' 643D34 N+' PND$J' @$ FN$4' X&' @4$ 23E2 $E' 5$J3C'
P-43' @$J1Q3 ' X&' >HNF3ED' 9 $J' E FO' @$J1Q3 ' ,3#(! ' V '
6$ 4& 3 D' 5HFE' ?J F' @-EE E2F$J3' X&' @ 4 E2 HE' ED43 '@$J1R
Q3 ' X&' CO$4D' M3H423' GH-2 $C' X&' BHD E2F3$D' G / 9 $J'
GHE$ DCHE' X&' O4 ' 5$J3C' G-E H1' X&' EE$EF ' 5HFE' 5(HE$ DCHE' , '
-NF$ 4E' 5HFE' G3$EC' X&' I3$NHN+Q$E+' 'HQ34' G-E H1' X&' B$ 24$'
9 $J' G$ DCHE' H&' G4-J 30' *FHJ$C' G$ DCHE' ,3#(! ' , ' G4-J 30

G4- J 30ʻ 5HFEʻ G-E H1ʻ , ʻ B <N+ HNFʻ 5HFEʻ Mʻ 6E4X-F$4ʻ , ʻ
M J ECN4H& ʻ 9 $Jʻ 6- $4 <Eʻ , ʻ?F3 DHEʻ 5$J 3Cʻ 6342-CHEʻ I%! ʻ
, ʻ+!11 ,#ʻ ? -$4ʻ P -44$Oʻ 6-#$4 HEʻ ʻ6- $4 HEʻ M3H423ʻ 6- $ HEʻ
,3#(! ʻ, ʻ J/) , ʻ 5HFEʻ 6342<CCHEʻ H ʻ*4HNF4$ 2E3ʻ 5$J 3Cʻ 6$ 4 3ʻ
, ʻ8H J Cʻ @F$4 3Cʻ 6 42-CCHEʻ ,3#(! ʻ, ʻ% +344$Eʻ 9 $Jʻ 6H DCʻ
, ʻ ?+ E 3 $EDCʻ ʻ7 ʻ P7G34 J 3 ʻ 6342-CF ʻ , ʻ B- J HN+C HE3ʻ
5HFEʻ 6342-CHEʻ ʻ 9 F 3 33ʻ 9 $Jʻ 6H4Q3Cʻ , ʻ@$ 3ED$4ʻ 5HFEʻ
@$J 1Q3 ʻ 6 $4 HEʻ , ʻ 8 3 3Cʻ P$ F3 ʻ 6H4 3CX-3ʻ , ʻ ? 3 3E HEʻ
*FH J $Cʻ 5HFEʻ 6H4DON3ʻ , ʻ O HEʻ ED43 ʻ M3 J J 3ʻ , ʻ>$E2 $EDCʻ
5$J 3Cʻ M3 J J 3ʻ ,3#(! ʻ , ʻ 6$E2 $EDCʻ *FH J $Cʻ M QCHEʻ , ʻ I$4+ʻ
5HFEʻ M NF4 Cʻ, ʻ I $Eʻ ʻ 6$4X-F$4ʻ M4$Oʻ , ʻM 3E 2ʻ 9 $Jʻ
MH4DHEʻ, ʻP Q4 2ʻ M $C2H ʻ ʻP HEE 2433E$Eʻ5HFEʻ 8$J HE
?$ED4- J ʻ5HFEʻ 8$J HEʻ H&?HED4- J ʻ ED43 ʻ 8 -E 34ʻ H
BHEE 3 H Eʻ 9 $Jʻ 8OC H1ʻ , ʻB $N+N4$ 2ʻ 3 $ED34ʻ 8$J HEʻ , ʻ
M4$E23ʻ ʻHQ34ʻ 8 -E 34ʻ, ʻ8 -E 34C HE3ʻ ʻHQ34ʻ 8 -E 34ʻ, ʻ% 4+ $J ʻ
M3H423ʻ 8 -E 34ʻ ,3#(! ʻ , ʻ % 4+ $EDʻ 8H $ CHEʻ , ʻ@4$ 2
D$44HN+ʻ G 5$J 3Cʻ 8$J HEʻ @H4 $4ʻ 5HFEʻ 6344 34ʻ 6 $J HEʻ @ ʻ
9 3C 1H4 ʻ 3 $ED34ʻ 9 3Cʻ 8$J HEʻ , ʻ I E J HH43ʻ 4NF Q$ Dʻ 8$R
J HEʻ , ʻ B $N+C HEʻ 3 $ED34ʻ 8$J HEʻ ! ʻ #ʻ P$-NF E3ʻ
5HFEʻ B $ 4ʻ 8OED J $Eʻ , ʻ?14 E2C D3ʻ 9 $Jʻ %3 CHʻ , ʻG$E+3 Fʻ
9 $Jʻ %3 CHʻ ,3#(! ʻ@ ʻG$- 3 Fʻ 5HFEʻ %3EE3DOʻ, ʻ#ED34 HHDʻ
G$ Dʻ %3EE3DOʻ -G-% 4+ J NF$Dʻ Gʻ G$ HEʻ %3EE3DOʻ H @4$ 2ʻ
*FH J $Cʻ 64$EN Cʻ %3EE3DOʻ , ʻG-E-43ʻ \ - E Eʻ %3EE3DOʻ V ʻG4- J ʻ
J 3 $Eʻ I4 J 4HC3ʻ 9 $Jʻ %3EE3DOʻ ,3#(! ʻ , ʻG4- J J 3 $Eʻ 4NF R
Q$ Dʻ %3 CHʻ , ʻ?$-NF4 3ʻ 3 $ED34ʻ %344ʻ , ʻ ʻHQ34 $EDʻ ʻHQ34ʻ
%344ʻ , ʻ -NF E2433ʻ B4ON3ʻ %344ʻ ,3#(! ʻ , ʻ -NF E2433ʻ 8 -2Fʻ
6342-CHEʻ %3EE3DOʻ , ʻ B3E#$Eʻ 5HFEʻ %3EE3DOʻ + ʻ G$ Dʻ
> J HEDʻ , ʻ G$ Q $ 4ʻ 9 $Jʻ >322$ʻ , ʻ B$4 HN+F$4 ʻ 4NF Q$ Dʻ
>$ 4 3ʻ , ʻ 8 FH-C3ʻ 6$ 9 4 3ʻ ,3#(! ʻ , ʻ 8 FH-C3ʻ 5HFE
>H 3ʻ , ʻ *F4331 HHDʻ 3 $ED34ʻ P HE 2H J 34 3ʻ , ʻ M &3Eʻ 5$J 3C
P 34ʻ , ʻ >H$ECʻ 8 -2Fʻ P 34ʻ , ʻ P D HE3ʻ 9 $Jʻ P -43ʻ , ʻ
@$ D 3 ʻ 5HFEʻ P$N43D 3ʻ H(&ʻ I 34N3 HEʻ 9 $Jʻ P HE 2H J 34 3ʻ V ʻ
EE N+ HD23ʻ 9 $Jʻ P 34ʻ , ʻ P HE+N$C 3ʻ @F$4 3Cʻ ?H J 34 3ʻ
PN C H4ʻ , ʻ%3EEH ʻ @F$4 3Cʻ ?H J 34 3ʻ P$N$ C 34ʻ ,3#(! ʻ , ʻ
%3EEH ʻ 3 $ED34ʻ P -4DHN+ʻ ʻ 9 P 3C D3ʻ 5$J 3Cʻ 6342-CHEʻ P -4R
DHN+ʻ ,3#(! ʻ , ʻ 9 F 3C D3ʻ I$ 4 N+ʻ P ,3 2Fʻ , ʻ B$4ECʻ 5HFEʻ
P 9 F 34ʻ, ʻGH4E$ ʻG$ Dʻ P 8$&& 3ʻ , ʻ< 34 HEʻ 5$J 3Cʻ P NF3 ʻ, ʻ
G$4 F E2ʻ 5ʻ @$44 N+ʻ P <H43ʻ H&@H4C3 $ ʻ 9 $Jʻ P 7* -4+ʻ , ʻ
I H X-F- 34ʻ <,,J,ʻ ,3#(! ʻH @H4C3 $ ʻ ʻHQ34ʻ P HE 2H J 34 3ʻ
H @4$ 2FH-C3ʻ @ʻ Mʻ Bʻ P HE 3$ Fʻ @ HC3Q-4E
P 8$&& 3ʻ ,3#(! ʻ V ʻ< 34 HEʻ 9 $Jʻ P$NDJʻ, ʻB$4QH-4ʻ 5HFEʻ
P7%3443 ʻ , ʻ 8 FH-C3ʻ 8 -2Fʻ P H4 HEʻ , ʻ M433EQ$N+ʻ ?$J -3ʻ
P @H4 J N+ʻ 9 $Jʻ ,3 ʻ X ʻB$4E 3 ʻ 9 $Jʻ , 3Eʻ ,
ʻ %- +Q4 D3ʻ5$J 3CʻG-1 H1ʻ, ʻP 5 $ 4C HEʻ5$J 3Cʻ M3H423ʻ ,3 ʻ ,3#(! ʻ
X B$4E 3 ʻ ʻʻ ʻ <C $ Dʻ -NF3EN4- 3ʻ ʻ NF$4Dʻ <C $ Dʻ
,3#(! ʻ , ʻ -NF3EN4- 3ʻ 9 $Jʻ <44ʻ , ʻ>$J Q4H-2Q HEʻ 5HFEʻ
I$4+34ʻ , ʻ CC HCCʻ ʻHQ34ʻ I$ 4 N+ʻ , ʻ*43$4E3ʻ 5HFEʻ ?F3DD3Eʻ I$ 4 N+ʻ
ʻ X/ *43$4E3ʻ 9 $Jʻ I$ 4 N+ʻ + ʻ 5$J 3Cʻ I$ 4 N+ʻ , ʻG4- J QH 3ʻ
ʻHQ34ʻ I$ 4 N+ʻ X/ 9 $4Dʻ G$ Dʻ I4H $ ʻ X&ʻ >H@Q4 D23ʻ ʻHQ34ʻ ʻ3 Dʻ
X&ʻ D$J HEʻ 5HFEʻ ʻ$E+ E3ʻ X&ʻ G4#4$DH ʻ 6ʻ @$ D 3 ʻ ʻ NF 3ʻ
, ʻ% 4+ HEF ʻ 83E4Oʻ ʻ NF 3ʻ X&ʻ B-CFQ 3ʻ 5$J 3Cʻ ʻ$ C HEʻ X&ʻ 8 ʻ X&ʻ
% J$ Cʻ @$1 $ Eʻ 8H13ʻ ʻ3 Dʻ ʻ , ʻ 9 $Jʻ 83E4Oʻ ʻ$ C HEʻ X&ʻ 9 $4ʻ
N+F ʻ *FH J $Cʻ ʻ3 Dʻ X&ʻ ? $N+ $ F ʻ *FH J $Cʻ ʻ3 Dʻ X&ʻ B$ 24$

UcKScM#> ;>P ' ' @$1' U U

M3H423' E+3 ', ' 9F 3 '5$J3C' '$E+3E' ,3#(! ' '9F 3F '
M3H423' 'HQ34 CHE' G-EN$ET 3J34' + '< !3 !# #' !#! %'/'
M4FJ' ? 4 E2' 9 HHDC D3' 5HFE' ?J F' H&' ? ED4 523 EH 4' 5HFE'
?NH ', '8$ +F '5' ?NH ' ,3#(! ', '8$ +F ' *FHJ$C' ? H$E'
H I E F3 *0' 'HQ34' ? 433', '8H ' 3 $ED34' ?NH ' *4 E 0'
;Q3E3T34' ?J F' H I NHE' P$ F3 '? 3 $4' @$ 4 E3' ?13 4C
H @$J1F ' '' *' %3EE3DO' [G$ ($44HN+' M' P P N+3E'
*H44$EN3' , '% C$ E 4 EE $E' 5HFE' *3E$E', '@43HNF' 5HFE' *3 J$ '
,3#(! ' , '@43HN ' 8-2F' *3EE$E' !1 & #(' ' 6$ 4 3' ' NF$4D'
*4H 34' ^(* $1 $ED' 83E40' ' 9F 3' H&'%$ JCQ '5$J3C' 9 CHE'
, '@F$11 3 HE' 5$J3C' 9 CHE' , '8$ 0' 8$J HE' 5HFE' 9 $JC'
? 0' 5HFE' 9 3QQ' ['*H 34 $4 DC' 'HQ34' 9$ $N3' '%H 0' 5'
@' 9 CHE' , ' I H X-F$ 4E' 5HFE' 'HQQ' 'B $N+QE J' 9 $J'
$ $N3' ! ' ,')!' + (#! ')!' * ,0,1', '/ ')!' !%&!1' " %% !', '
04')!' ,3#(!1' " %O!' , ' 04')!' 2! #' , ' 3 %&', ' 04')!'
I ,#0!#!', ')!' 7 &!1', '/ ')!' 1 !', ')!' ! ') #' I& #'
, '/ ')!' 7 ! 13 !', ')!' "3 ()', '/ ')!' * ,0,1', ' 4 E3'
)!' !%&!1' " %% !', ' 4 E3')!' ,3#(!1' ",&%% !', ' 4 E3')!' I ,#[
0!#!', ')!' 7 &!1' [4 E3')!' !%&!1' " %% !', 'P$OQH 3')!' !%&!1'
" %% !', 'MH4 $E')!' !%&!1' " %% !', '% J$-4C')!' !%&!1' %%% !', '
,3 HE')!' !%&!1' " %% !', 'I43C N+')!' !%&!1' " %O!' '% J$4R
EHN+')!' ,3#(!1' " %% !', '% J$4EHN+')!' +)! K' 2!53 !')!'
+)! '+341 3 !')!' 2! #', ' 3 %&' H&' 4 E3' @F4 C H1F34' ?NH ', '
B $N+FH-C3' @F$4 3C' @-EE E2F$J' ?NH ', 'GO+3C' 'HQ34' ? EN $ 4'
H&'?7 IF $EC' 8$J HE' P$ 3 'H&'@- 2$4 3

R, ')!' +) !' H&'G- JQ$4 HE

5HFE' 6433 $ED' H&' 9 3C 34' P$ EC' *FHJ$C' ;DJHED' M3 C' H&' M3 '
C HE3' 3 $ED34' ?F$41' H&'% J3F3 '5HFE' ;342-CCHE' ?F$41' , '<4'
NF$4D HE' 3 $ED34' G-E H1' /&0,' !' 'H&3<4' B$F& J4' P$C 34' L, %'
E 0 ' 9$ 34' G N+CHE' ! ' ,')!' + (#! ' *FHJ$C' B-NF$E$E'
! ') # ' <!)' 5HFE' @$J1Q3 ' GH-2 $C' ! ' % 1(,CA' 5HFE'
P 34' ; E2' ! ' % 1(,F' 5$J3C' 'HQ34' G3EE C H-E' ! ') # '
% 1(,F' 3 $ED34' G3EE C H-E' ,3#(! ' , ' P -N+N4H& ' 'HQ34'
? 3 $4' H&' ? 3 $4 F$ ' 3 $ED34' @$J1Q3 'H&' B3D $0' 5$J3C' GHE$ D'
!1 & #(' ' 9F 3F ' 83E40' P HE 3 F' '@$4C $ 4C' 'HQ34' G3EE C'
H E' ! ') # ' ' % 1(,F' 5$J3C' 8 HC 34' ,3#(! ' , ' ,3 $EDC'
9 $J' M4$F$J' ! ' #' M $C2H '5$J3C' @H X-FH-E' OH E234' H&'
>-CC' 5HFE' *$ ' /&0,' ! ' 3 $ED34' ?13 4C' ,3#(! ' ' ; D34C 3'
3 $ED34' M4$F$J3' ?13 4C' , '@- 343-NF' ED43 'B-NFEE' =- 3'
, 'G$4 3 F' 5HC31F' G HE' /&0,' ! ' 'HQ34' 6 ED $0' , ' ; $C 34' 8 '
)!' ,#,3 4%!' M3H423' GH-2 $C' L, %' E 0 ')!' ,#,3 4%!' P H-E'
? -$4' ; 1F EC HE3' 5HFE' 5$J3C' ;4C+ E3' !1 & #(' '@ $ F N+' M QCHE'
? H ' H&' B$ HNF' @$C 3' 5HFE' P *EE3C' , ' -NF E&4H3 ' 'HQ34'
G HE' , '>3 3E24H 3' 'HQ34' G-EN$ECHE' P %3ET 3' H&' @- D34 $E'
9$ 34' B$ $E OE3' , '?F 4 $' VU, '5HFE' <44' H&' G- $ -4' 5HFE'
B-NFEE' H&' @$4Q3 F' *FHJ$C' G-EN$E' , '* 3NF$4' 5$J3C' \4$0' V '
9 3C 34' B3DNH ')!' L ()' **H HE K 0 eH4D' ; 1F EC HE3' 9 $J'
; C' ! ' ; D EQ-42F' 5$J3C' G-EN$E' , ' -NF ED$ o' 'H 4'
P- 4F3$D' , '9$ 34F3$D')!' +)! '2!53 !')!' +)! '+3 &3 !'
; D $4D' @H EC' , 'G$ 4$- 4' 9 $J' M4$0' G$ 40J 1 3' ' 9 3C 34'
M$4 CFH43' G$ D' G$ 40J 1 3' H&' 9 HHDF3$D')!' ,1
' W' M4FJ3

U Ź U`KS ʻM#> ;>P ʻ ʻ @$1ʻ U

M4FJ3ʻ ', ,#% ʻ' %%!&ʻ (#1ʻ V ʻM4FJ3ʻ)!ʻL ()ʻ ,#,3 4%!ʻ 5HFEʻ @$J1Q3 ʻ', ,#% ʻ' %%!&ʻ<, &ʻ5HFEʻ @$J1Q3 ʻ)!ʻ ,#,3 4%!ʻ 9 $Jʻ 6- $4 HEʻ ; 1F EC HE3"ʻ 0!ʻ ,#,3 4%!ʻ C '!ʻ /& %ʻ @F$4 3Cʻ ; 1F EC HE3ʻ 6 3J E2ʻ V ʻ M-JQ34E$ Dʻ)!ʻ ,#,3 4%!ʻ @F$4 3Cʻ GH-2 $Cʻ +,#ʻ, ʻ)!ʻ % !ʻL ()ʻ ,#,3 4%!ʻ<, &ʻGH-2 $Cʻ H GH-2 $Cʻ ?4 5$J3Cʻ @^5X-FH Fʻ V ʻ<,11ʻ" ,#! ʻ ?04 4NF Q$ Dʻ @$J1Q3 ʻ, ʻ ?-NNH F ʻ" ,#! ʻ ED43 ʻ B- $($Eʻ, ʻ 4D3ENHEE3 ʻ 5HFEʻ B-R NFEEʻ V ʻ 4DHNF ʻ5HFEʻ @$& $1Q3 ʻ@E X H-Eʻ, ʻM$4CN$DD3E ʻ 5$J3Cʻ 8$J HEʻ, ʻ B$JC ʻ 5$J3Cʻ)!ʻ ,3#(! ʻ, ʻ B$4EC ʻ 5HFE 'H-3ʻ ?JH 3 ʻ V ʻ BHE - ʻ I 5 # L E ʻ 3 $ED34ʻ ?JH 3 ʻ F3#(! ʻ, ʻ BHEF ʻ 5$J3Cʻ M $CC&34Dʻ @ ʻ GH-2$ DC HE3ʻ 4NF Q$ Dʻ B-NFEEʻ, ʻ -NF E H4 3ʻ5HFEʻ C HEʻ, ʻ 9 3C 34 H Eʻ5HFEʻ @$J1R Q3 ʻ, ʻ? HE3& 3 Dʻ5$J3Cʻ G3EE C H Eʻ, ʻG3EE C H Eʻ5$J3Cʻ G3EE Cʻ H-Eʻ ,3#(! ʻ, ʻ G3EE C H Eʻ 5HFEʻ GHE$ Dʻ, ʻ >O 3C HE3ʻ 'HQ34ʻ B-NFEEʻ G-E H1ʻ, ʻ G4-JF3$Dʻ 3 $ED34ʻ G-E H1ʻ, ʻ %311HNFʻ 9 $Jʻ @-EE E2F$J3ʻ @-EE E2F$J3ʻ M4$F$Jʻ V ʻ M$4 JHH4ʻ 5HFEʻ M4$Oʻ, ʻ ;$C 34ʻ B3DNH ʻ< !3 !# #ʻ I,%,#!%ʻ ED43 ʻM3 Cʻ V ʻG-Jʻ Q-N+ʻ ;D $4Dʻ M3 Cʻ, ʻ 4DJH43ʻ 'HQ34ʻ P 7MH E3ʻ, ʻ P$ ECʻ 9 R $Jʻ 8HC 34ʻX ,3 $EDCʻ@H Eʻ@$J1Q3 ʻX I3$ H Eʻ5HFEʻ @$J1Q3 ʻ @H X-FH-Eʻ /&0,' !ʻ 9$ 34ʻ G-EN$Eʻ, ʻ BHD23D23ʻ M3H423ʻ ?F$ ʻ , ʻ B$ HNFʻ 5HFEʻ >$E2ʻ, ʻ B4HHJF ʻ 5HFEʻ P-44$Oʻ M$4 CFH43ʻ, ʻ M$4 CFH43ʻ ED43 ʻ 8-E 34ʻ ?1431ʻ @4$ &H4Dʻ, ʻ @H DHEF ʻ5HFEʻ P % ED $Oʻ, ʻ@HEDH44$ ʻ 9 $Jʻ G-EEʻ@ ʻG-E HNF34ʻ 9 $Jʻ @H ʻ FH-Eʻ? 4 E2ʻ, ʻ>$ ʻ5HFEʻ 8H9 <3+Cʻ * NF3 3E ʻ5HFEʻ B-NFEEʻ ,3#(! ʻ, ʻ 4DH3Fʻ 83E4Oʻ M4$Oʻ X(&ʻ< 2$E2ʻ 5$J3Cʻ @$J13 ʻ, ʻ I3 34CFB ʻ5HFEʻ @4HCCʻ B-NFEE -NF E HCF$Eʻ M3H423ʻ B-NF$E$Eʻ , ʻ 4D3Eʻ 'HQ34ʻ M JE E2F$ 3ʻ BHE E3ʻ, ʻ 4DHNFʻ ED43 ʻ @H $Eʻ, ʻ,3 F34ʻ @4HO ʻ5HFEʻ BHODM433 CF 3 DCʻ, ʻG4-Jʻ 4NF Q$ Dʻ GH-2 $Cʻ @ ʻ P$ ECʻ 9 $Jʻ M4$Oʻ G$ 40J1 3ʻ, ʻ 9 HHDF3$Dʻ G$ Dʻ G$ 40J1 3ʻ ! ʻ M $C2H ʻ)!ʻ * ,0,1ʻ, ʻG-JQ$4 HEʻ)!ʻ !%&!1ʻ " %% !ʻ, ʻG-JQ$4 HE

R, ʻ)!ʻ+) !ʻV ʻB- 3

7)!ʻL ()ʻ ,#,3 4%!ʻ C1',3#ʻ %3Q-J3ʻ<, &ʻ5$J3Cʻ ? -$4ʻ, ʻ 'HC3JH-E ʻ 'HQ34ʻ 6342-CHEʻ, ʻ'$'Fʻ I,%,#!%ʻ 4NF Q$ Dʻ PHH43ʻ , ʻ% DHE$Eʻ G$ Dʻ ED34CHEʻ, ʻPH43D-Eʻ ?$J-3ʻ P @H4J N+ʻ, ʻ % N$ $Eʻ5$J3Cʻ 8$J HEʻ, ʻ%$J3Cʻ% 4+J$Eʻ 6 E 30ʻ, ʻ B$ $E $Oʻ 5HFEʻ @$J1Q3 ʻ, ʻ? HE3& 3 Dʻ + ʻ G$ Dʻ 8-E 34ʻ B$ 4ʻ, ʻ B$4JH43ʻ " ,#! ʻ)!ʻL ()ʻ ,#,3 4%!ʻ<, &ʻG-D 30ʻ? 3 $4 ʻ 83E4Oʻ 34Cʻ ? -$4ʻ, ʻ 4DJ$3 CFʻ)!ʻ ,#,# 4%!ʻ I,%,#!%ʻ !, (!ʻ> HE3ʻG$ CHEʻ V ʻ I3EJ$NF4 3ʻ 9 $Jʻ 34Cʻ? -$4ʻV ʻ%#JH4 3ʻL ()ʻ ,#,3 4%!ʻ + ʻ 9 $Jʻ '$3ʻ, ʻ?7@$ F34 E3Cʻ" ,#! ʻ'HQ34ʻ *FH4Eʻ, ʻ CNH2

R, ʻ)!ʻ+)# !ʻV ʻ'3E&43

4NF Q$ Dʻ 8 %ʻ V ʻ ;2 E H-Eʻ M3H423ʻ $ %ʻ, ʻM $C2H ʻ@F$4 3Cʻ ? -$4ʻ<, &ʻB $E 043ʻ'HQ34ʻ PHE 2HJ34 3ʻ 8$J HEʻ<, &ʻB3 F$ 3Eʻ #&ʻ ? 3E HEʻ 4NF Q$ Dʻ<, &ʻGH-2 $Cʻ)!ʻ ,#,3 4%!ʻ5$J3Cʻ BHO 3ʻ ', ,#% ʻ' %%!&ʻ<, &ʻ C1',3#ʻ%3Q-4-3ʻ)!ʻ ,#,3 4%!ʻ @F$4 3Cʻ @$ FN$4 ʻNHJJHEeOʻ %%!&ʻ<, &ʻ C1',3#ʻ M433EHN+ʻ)!ʻ ,#,3 4%!ʻ I,%,#!%ʻ 'HQ34ʻ 8$J HEʻ)!ʻ ,#,3 4%!ʻ CO"1ʻ 8$J HEʻ + ʻ 'HQ34ʻ @4$ &-4Dʻ X #1134ʻ IH H+ʻ" ,#! ʻ + ʻ 9 $Jʻ P +3E ʻ " ,#!

" ,#! ' + ' P NF$3' ?F$ ' ? 3 $4' , ' M433EHN+' #&' B $N+F$)'
" ,#! ' R ' + '5HFE' P$ 3 'H I H H+' " ,#! ' + ' 4NF Q$ D'
@$ J 1Q3 ' , '?-NNH F' " ,#! ' 9 $ J' P$ 3 ' 3 $ED34' '?H- F'
B$4' BHOD' 3 $ED34' ! ') #' #' >HEDHE' @ $-D' 3 $ED34' , '
B$ HNF J O 3' ED43 ' BEE OE3' , ' B 4+3ECF$ ' M3H423' B4H E' , '
>$E2C D3' 9 $ J' B4HD 3' H /' , H4 $ C HE' ' HQ34 ' B4H b' 8$ J HE'
4NF Q$ D' B-NFEE' , ' 8 E2 HE' ' HQ3 ' @-EE E2F$ J 3' BHE E3' , '
4DHNF' ED43 ' B4H E' , ' > E HHD' 9 $ J' B$E' ' G4- J C'
4NF Q$ D' @$ J 1Q3 ' , ' B O FC HHD' 9 $ J' @4$ 2' ' % 4+ HE'
9 $ J' @-EE E2F$ J 3' , '@4$ 23EDC' 9 $ J' @HXF4$E' @ ' >$DO $ED'
, 3 ' @$4E 3' ! ') #' #' M $C2H ' @F$4 3C' @-EE E2F$ J' H '@$ 4E'
N-44$E' P -E2H' @$ J 1Q3 ' , ' 8$2 HEF ' 5$ J 3C' @$ J 1Q3 ' ,
6342-C 3' 5HFE' @-EE E2F$ J' H /' G- HNF' / &0, ' ! ' ED43 ' GHE$ DR
CHE' @$ J 1Q3 ' , ' 8 H-C3F ' I 3 34' @HNF4$E' , ' @ 113EC' 9 $ J'
@4$ &H4D' , ' @$4 CQ-4E' < !3 !# #' !#! % G-EN$E' G$44HNF' , '
MH-4HN+' I 5 #' G-EN$E' G$44HNF' ,3#(! ' V ' MH-4HN+' 5HFE'
@$ J 1Q3 ' GX-2 $C' ! ' #' M $C2H ' 8 3E40' G-E H1' , ' 4 F-4 3'
5$ J 3C' G-E H1' ,3#(! ' , ' 4 F-4 3' 5$ J 3C' ; D J C HE' , ' BHCC& 3 D'
9 $ J' P$ NH J' 6 3 J E2' , ' B$44HNF$E' ' HQ34 ' 6- HE' , ' 8$4 & 3 D'
' HQ34 ' 6- HE' ,3#(! ' , ' 8$4 & 3 D' 9 $ J' 6- HE' , '?143- C HE'
' HQ34 ' 6$4X-F$4' , ' , 3 $4+' 8 3E40' 6- < #' , 'A $4+' 9 $ J' 6- HE'
#3 ' 3 ! ' #' I $ C 30' 5HFE' M4F J' @ ' @4$ 2$ HE' 3 $ED34'
M4F J' , '@$13 O' I $ 4 N+' M4F J' H /' > J 3+ EC' 9 $ J' @-EE E2R
F$ J 3' @-EE E2F$ J 3' M4F J' , 'M$4 J H43' 5$ J 3C' 8$ J HE' @ ' 8 H J '
F3$D' 9 $ J' @F$4 3C' 8$ J HE' , '@4$ 2 $ ' >-D< N' 8 H-C H-E' , '
5HFEC HE3' M3H423' 8 H-C H-E' ,3#(! ' ' '5HFEC HE3' 5HFE' 8 H 3' , '
?F$ F ' I ,%,#!% 5$ J 3C' 8$4 30' , ' @$C 3C3 J 1 3' 5HFE' 8$ J HE'
, ' M433EQ$E+' P$ F3 ' % HNF' , ' 643 $ED' 5$ J 3C' % QQ 3' , '
9 F 3&H4D' 5HFE' 9 $ $N3' % E2' ' P Q$E+' 9 $ J' >H ED3C' , '
4 F-4 3' + '@F$4 3C' B-423CC' >$ J Q3' , 'B3$-1D& ' " ,#! ' 9 $ 34'
>H2$E' , ' 6 E2$ HE' 5HFE' P$ 3 ' >H2$E' ,3#(! ' ! ' E2$ HE'
5HFE' P$ 3 ' < P 234' , ' I H HN' 9 $ J' P -43' ` '@$ D 3 ' 3 R
$ED34' P HE 2H J 34 3' , ' ; EHNF' 9 $ J' P HE 2H J 34 3' , ' E N+'
>HD23' 9 $ J' P$ 3 ' , 'B43D $ED' 5$ J 3C' P$ 3 ' ,3#(! ' , '
B43D $ED' 5HFE' P H44 CHE' ! ' ,') !' + (#! ' 9 $ J' P$ 3 ' , '
G42 3 ' 9 $ J' P$4 E' , ' G$ 3 $ED ' 5HFE' P $0' , ' B4H$D& 3 D'
) !' L !0! !#&' 2 , ' , 'M3H423' P >$ NF 3' H P 3$4EC' 9 $ J' P GH '
$ ' , 'M$4 F $ED' 9 $ J' P 7GH $ ' , '@$44- F' GHE$ D' P E 043'
! ' #' % 1(, F' G$ D' P 8$&& 3' ' ; $C HHD ' ' HQ34 ' P 8$& 3'
,3#(! ' , ' ; $C HHD' 3 $ED34' P 7M432H4' @ ' %3 J HN+' 9 $ J'
P $N& 3' , ' >$E2FH-C3' ' HQ34 ' Z' !' ,3#(! ' , ' >$E2FH-C3' @ $-D'
, 3 CHE' ! ') #' #' >HEDHE' 9 $ J' , $1 34' , ' B $N+C HE' P R
NF$3' ' HQ34 ' ? 3 $4' , NFH CHE' 2&' @$ J HN+' ' HQ34 ' < 44' , ' ' $ R
C HE' 5$ J 3C' @H4Q3 ' I H4 34& 3 D' , ' I H4 34& 3 D' 9 $ J' I $ 4 N+' , '
' H-2F HHD' $E' I H HN+' , '6$ C D3' 3 $ED34' I 3$(CHE' ! '
,') !' + (#! ' 4NF Q$ D' ?13 4C' , ' ; D34C 3' 3 $ED34' ?13 4C
,3#(! ' , ' ; D34C 3' *FH J $C' G-ED$C' ?13 4C' $ J' 4NF Q$ D'
?13 4C' , '% $ $E' 3 $ED34' ?13 4C' , '@- N43-2F' M4F J' ?13 4C
/ &0, ' ! ' 5$ J 3C' ? J F' , '+,7/ J / ' I 5 # #' 8 H-C HE' ? 3 $4'
E 0 ' I $ 4 N+' P$ 3 ' ? 3 $4' ! ') #' ' < ,#&,#' L' , '
>ENC 34' 5HFE' ?F$ ' ? 3 $4' / &0, ' ! ' 9 $ J' P$ 3 ' ? 3 $4'
, ' >HNFE$ 2$ 4' U, ' !#! %) !' ,#, 3 4%!' I $ 4 N+' ? -$4 ( ) !'
,#, 3 4%!' 9 $ J' ? -$4 ') !' ,#, 3 4%!' @F$4 3C' ? E$4 ' ' HQ34
? 3 $4'

?3 $4 H ?3 $4 '$?3 $4 &9 8$J HHD @O1 $J 5$E 3C
? 4 E2 , M 3E O$E PHC3C ? 3 3E , IH J$D 3 ?3 ! !# # !#! %
M4FJ ? 4 E2 H G-NF4$O 'HQ34 *FH J 1CHE @$J 1F 5HFE
9 CHE *FH4E O 9 $J 9 CHE ,3#(! H 7*FH4E O 9 $J
9 CHE , @H 2 3E M3H423 9 CDE I , % 1 ! G$ J$4EHN+ 'HQ34
9$ $N3 , %3 O 'HQ34 9$ + ECF$, I$4+FH-C3 I ,%,#!% +
5$J 3C P$ 3 9$ $N3 5$J 3C 9 O 3 , @$4C 3)! +) ! 2 !U %!
,)! 7 ! 4! #( )! + ! +341 3 ! ,)! 7? ! & ,)!
I ,3# ,)! 7 ! 4! #(+) +341 3 ! ,)! O#&! &
,)! I ,3# ,)! 7% #!) O( )! * ,0,1 , '3E&43)! !%&!1
" % ! , '3E&43 ,)! 7 O! 4! #( )! * ,0,1 , I$ C 30)!
I) ! (1 ! H M433EHN+)! I) ! (1 ! H IH4 M $C2H
)! * ,0,1 , IH HN+CF$?

R,)! +) ! , ? 4 E2

7 7)! ,1 E ,4%!)! V361 H& M4$ $J < , & PHE $2-3 9 $J
M4FJ)! 8 % , $ & 6 EN$C 3 < , & ; 1F EC HE3
)! ,#,3 4%! 9 %$J ; 1Q E $3 L! /& %)! ,#,F 4%!
@F$4 3C 6 3J E2)! ,#,30 4 *FH J $C G-ED$C V %34C3)!
,#,3 4%! M3H423 8 3E3$23 43EN3 G-ED$C L , % E 0)! ,[
#,3 4%! < !3 !# # I ,%,#!% + ' > G-ED$C)!
<%,#, 4%! #& L!0! !#& 7) , , 1 < F !# ' ! G-ED$C << 2)! ,[
#,3 4%! M3H423 '$ 1F Q3 @ <JQO)! L ( ) ,#,3 4%! 5$J 3C
Q34N4H J QO < , & I) ! " ,# + P NF$3 B4-N3 , ? 3EFH C3
" ,#! + ?$J -3 ? 4 E2 `U M H4$ " ,#! + 4NF Q$ D
; D J HEC HE3 G-E 43$ F (?$C4 9 3& ? *FH J $C > E2C HE3 4 9 NC
X-$4 34 " ,#! @4 ?D D E2 V >$4Q34 " ,#! + 3 R
$ED34 @F$4 3C P$ $ED %3 C 3 ? ! 1 ! , $E C ,15 %
,)! 7 ! 'HQ34 B$NFH1 V BH23ED 5HFE B$ 4D , @$J 3 HE
5HFE 8$4 3 B4H E , \-$4 3&(9 $J B4ON3 , %EH F3$D
< !3 !# # I ,%,#!% 9 $J B$ E , ; $C 34 > $EDC 5$J 3C B4-N3 ,
IH &H- C G$ D P-E4H B EE E2 , ?H& $ 5HFE B $N+Q-4E ,
% 3$4E 3 $ED34 B$ HNF , P DD 3& 3 D @F$4 3C >3EEH @-J
J E2 B4-N3 X&% EE$ 4DO 'HQ34 B$ &H-4 ; $C 34 M 3EFH 2 *FH J $C
B$ &H-4 ; $C 34 M 3EFH 2 3 $ED34 B-NF$E$E , 4E14 H4 'HQ34
B$NFH1 !1 & #(% EE3('HQ3& M4FJ BHE E3 , 4DHNF
'HQ34 M4FJ BHE E3)! , (! H& M$4 J H43 I 3 34 B3 R %
G$ D @$44 N+ B-NF$E$E H& G4- J 13 T 34 M3H423 B-NFEE , 6 E
E N+ *FH J $C B4ON3 B-NF$E$E , BHX- F$E)! C! L!0! !#&
* #' 5 % B$ 4D P-ENH B EE E2 5 8 B-NFEE H&
B$4DH 3)! 1 ! , @H $EA! ,15 % ,)! 7 ! 5$J 3C
8 3E4O @$ $ED34 H& @4$ 2&H4 F 3 $ED34 @ $4+ H& 9 3C 34 , 3 $EDC
5$J 3C @4$-&H4D 8 H +34C3 8 3E4O 6 3 NF34 @$J 1Q3 H& BHX-F$E
9 $J 4NF Q$ D @$DD3 H& B$E HE @4$ 2 , B$ 3 $E
5$J 3C @-EE E2F$J *F4HC ?$J @HH134 , B$ ED$ HNF 5HFE
@$J 1Q3 H& @$ Q4HH+3 + / ,)# @$ 3ED$4 H& 9 HHDQ-4E 5HFE
@$J 1Q3 @H X-FH-E H& % 34 J HE #& M$4CN$DD3E 9 $J B-4E
@$ 3ED34 H& 9 3C 34 H E *FH J $C @$44 N+ H& B-4EFH-C3 9 Q $J
G$ DCHE H& IH J HE 8 3E4O 8 H J 3 G4- J J HED H& B $ 4D4- J J HED
5HFE M3H423 8 H J 3 G4- J J HED X& QQH C24$E23 *FH J $C G-E J H43
5$J 3C G$ 2 3 CF , '3DDHNF 5HFE 5$J 3C G$ DCHE + U ,
*FH J $C G-ED$C , 6 E2$C+ 4NF Q$ D GH-2 C , P EC 5HFE
G N+

$?($ M#> ;>P ʻ ʻ @$1ʻ U

G N+ʻ + %#(ʻ M4FJʻ G$ 03 ʻ /&0,' !ʻ 5HFEʻ @$J1Q3 ʻ GH-2 $Cʻ
! ʻ M $C2H ʻ)!ʻ ,#,3 4%!ʻ 5ʻ @ʻ G-ED$ ʻ 9 $Jʻ
;DJHEDʻ , ʻG4-JH43ʻ 5HFEʻ 5$J3Cʻ ; C HEʻ %34C 3Q$D+ʻ 5$J3Cʻ ;DR
JHEDʻ @HEE3OF ʻ ,3 ʻB3E($J Eʻ ;DJHEC HE3ʻ 5$J3Cʻ ; D #2 HEʻ ʻ
M$42-EEHN+ʻG$ Dʻ ;4C+ E3 @$4D4HCCʻ5HFEʻ 6- $4 HEʻ ; 1FJC HE3ʻ
5$J3Cʻ ;4C+ E3ʻ , ʻ Q34DHE$ʻ)!ʻ " ,#ʻ " %!ʻ 6$ + 4+ʻ5H4ʻ)!ʻ 7 !ʻ
4! #(ʻ 9 $Jʻ 6 E $0ʻ P HCCʻ5HFEʻ =H-E2ʻ 6H443C 34ʻ ; $C 34ʻ @- ʻ
JH43ʻ 9 $Jʻ 6H4Q3Cʻ , ʻ@$ 34 D$4ʻ 5HFEʻ , $1 34ʻ 6H443C 34ʻ @ ʻ@4$ 2ʻ
$EE3 ʻ 5ʻ 6H4Q3Cʻ I ,%&1 ! ʻ 3 &1ʻ 9 $ 34ʻ 6344 34ʻ 5HFEʻ
6H4J$Eʻ + ʻ5ʻ ,ʻ 6H4J$Eʻ + ʻ 5HFEʻ M4FJʻ ʻ P OH F ʻ
U, ʻ G$ Dʻ M4FJʻ , ʻ P3 + 3 HHDʻ 5HFEʻ M4FJʻ # 1 ! ʻ , ʻ
% 3$4E ʻ5$J3Cʻ M $C&H4Dʻ GH-2$ C HEʻ 4NF Q$ DM 3Bʻ 6H42J Q$ ʻ
'HQ34 ʻMH $E H G4-J X-F$C 3ʻ 3 $ED34ʻ M4$F$Jʻ 5HFE
M4FJʻ)!ʻ ,3#(! ʻ , ʻB$ 2Eʻ 9 $Jʻ M4$0ʻ , ʻ 9 E D0 03 ʻ
9 $Jʻ M$ Q4$ Fʻ 8 $N+FH-C3ʻ ' NF$4Dʻ M$ Q4$ Fʻ B $ 4 ʻ 5HFEʻ
M- F4 3ʻ , ʻ@$4Q3 Fʻ 9 $Jʻ @-EE E2F$Jʻ @-EE E2F$Jʻ M4$F$Jʻ , ʻ
M$4 JH43ʻ 5HFEʻ M4$F$Jʻ , ʻ@4$ 2$ $Eʻ 3 $ED34ʻ P$ $EDʻ M QCHEʻ
)!ʻ ,3#(! ʻ @ & HEF$ ʻ5$J3Cʻ MH4DHEʻ , ʻ@4$ 2ʻ 9 $Jʻ M4$F$Jʻ
)!ʻ ,3#(! ʻ, ʻ/)ʻ 'HQ34 ʻ8 ʻ + ʻ 5HFEʻ 3 $ED34ʻ 831D34CHEʻ
, ʻ 93C 34 H Eʻ 5HFEʻ 8$4D 3ʻ P $ ECʻ ED43 ʻ 83-2Fʻ M$4 NH Cʻ
5$J3Cʻ 8HD23ʻ ` ʻ B3$4N4H& Cʻ I 5 #ʻ 5HFEʻ 6344 34ʻ 8$J HEʻ + ʻ
ED43 ʻ # () ʻ *FHJ$Cʻ @$J1Q3 ʻ 8 (2$4ʻ ʻB$ 5 &N E3
5HFEʻ 8H44HN+Cʻ H /* F3 $Eʻ I3 34ʻ "!#&!J #ʻ ! ') #ʻ ʻ ,3 R
&H-ED $EDʻ 'HQ34 ʻ5HFEC HE3ʻ H < 34 HEʻ 'HQ34ʻ E2 Cʻ \ ? HE34 D23ʻ
#&ʻ > E J ʻ 9 $Jʻ 5HFEC HE3ʻ , ʻP DD 34 22ʻ + ʻ 83E40ʻ 5$4D E3ʻ
, ʻ8$4 HHDʻ # () ʻ5$J3Cʻ 5HFEC HEHʻ ʻ H$ʻ P HE $2-3ʻ @FH J3 0ʻ
5HFEC HE3ʻ 5HFEʻ 5$J3CHEʻ 234% #ʻ)!ʻ R ' , ʻ ,#ʻ %34C3ʻ , ʻ)!ʻ 7 !ʻ
5ʻ >ʻ %ʻ >3EEH ʻ 9 HHDF3$Dʻ 9 $Jʻ %$0ʻ \ 94 2F C
I$4+ʻ 5HFEʻ B-NF$E$Eʻ % EN$ Dʻ @$4Q3 Fʻ B-NF$E$Eʻ >3N+ 3ʻ B4H NFʻ
'HQ34ʻ >$ Cʻ , ʻ 93Cʻ I 3$Eʻ 5HFEʻ > E2C J3ʻ W3$4JHE Fʻ V ʻ I$4+ʻ
8$ ʻ 9 $Jʻ @H 3ʻ >3$4JH- Fʻ @ ʻ@4$ 23ED ʻ *FHJ$Cʻ >3$4JH- Fʻ
, ʻ>$ 43EN3ʻ I$4+ʻ 9 $Jʻ >H2$Eʻ ` ʻ@ $ C HE3ʻ 4NF Q$ Dʻ >0 3ʻ , ʻ
G4-J ʻ 9 $Jʻ P-44$0ʻ *H-NFDJ ʻ 3 $ED34ʻ P-44$0ʻ /&0,' !ʻ
)!ʻ R ' , ʻ , ʻ)!ʻ 23%'!ʻ V ʻ PHE 4HC3ʻ , ʻ)!ʻ 7 !ʻ 4! #(ʻ 9 $Jʻ
PH43F3$Dʻ V ʻ834Q34 CF 43ʻ 9 $Jʻ PH43F3$Dʻ)!ʻ ,3#(! ʻV ʻ834ʻ
Q34 CF 43ʻ 5HFEʻ P$Nʻ 6$4 $E3ʻ V ʻB$ FD34HN+ʻ 5HFEʻ P$Nʻ 6$4 $E3ʻ
,3#(! ʻ V ʻ B$ ED34HN+ʻ @F$4 3Cʻ 3 $ED34ʻ PH 4ʻ , ʻ >3N+ 3ʻ
< !3 !# #ʻ !#! %ʻ + ʻ 9 $Jʻ P$ &3 ʻ ' ʻ@$ D34 HHDʻ 9 $Jʻ
3 $ED34ʻ P$ 3 ʻ)!ʻ ,3#(! ʻ V ʻ@$ D34 HHDʻ I3 34ʻ P- 4F3$Dʻ , ʻ
B-4EFH-C3ʻ 5$J3Cʻ P E3 ?$ NH$ Cʻ 'HQ34 ʻ P$Nʻ MH $Eʻ .P $ ECʻ
3 $ED34ʻ P$Nʻ >3HDʻ V ʻ P- 4$ PC D3ʻ)!ʻ L!0! !#&ʻ 'HQ34 ʻ
PH43F3$Dʻ 3 $ED34ʻ P 34ʻ V ʻ E$ 4ʻ 3 $ED34ʻ P$Nʻ 6$4 $E3ʻ , ʻ
*FH4EF ʻ5HFEʻ P$4CF$ ʻ ,3 FH-C3ʻ 5$J3Cʻ P$Nʻ 6$4 $E3ʻ H B$ 3 ʻ
5HFEʻ P-44$0ʻ , ʻ 93C 34ʻ > $EDCʻ 2,' , ʻ I$ 4 N+ʻ P-CNF3 ʻV ʻB 4+ʻ
F ʻ ? 3 $4ʻ P$(H4 Q$E+Cʻ 5$J3Cʻ 3 $ED34ʻ ? 3 $4ʻ P$N+3ET 3ʻ , ʻ
M $CC34 HEʻ #&ʻ ?3$&H4 Fʻ 5HFEʻ P$Nʻ >34H0ʻ, ʻM 3E 2ʻ 5HFEʻ B-4Eʻ
P-4DHNFʻ , ʻ,3-+ʻ 83E40ʻ PHE 3 Fʻ V ʻ@$4C $ 4Cʻ 4NF Q$ Dʻ P$(H4 R
Q$E+Cʻ ʻ P$Nʻ EE Cʻ ʻ -NF E43HNF ʻ5$J3Cʻ P$Nʻ , $ 4ʻ X B$ 3ʻ
)!ʻ ,#,3 4%!ʻ I ʻ ʻ P-44$0ʻ Pʻ ' ʻ ?ʻ , NFH CHE
HO@$4EHN+ʻ 'HQ34 ʻG-EJH43ʻ , $1 34ʻ \ B$ + J JE3ʻ ED43 ʻ '-CC3ʻ
H&ʻ @$ED 3ʻ 5HFEʻ '-CC3ʻ I H D4$+3ʻ 9 %JEʻ '$JC$0ʻ '$JC$0ʻ H&ʻ
B$EEHN+Q-4Eʻ 3 $ED34ʻ 'HQ34 CHEʻ V ʻ @$ED 3ʻ G$ Dʻ '-CC3ʻ , ʻ
9 HHDC D3ʻ ʻ Bʻ '$ C HE3ʻ H&ʻ ; 4 22ʻ 5$J3Cʻ 'HQ ECHEʻ ʻ

>3DD 02433E' P NF$3' BH $ED' &# ! ' M $C2H ' ED 3 ' ' H $ED'
9 $J' ' 3 D' H / @$4 3C HE')!' > F , 1 ' , ' + 0] (, ')!' 7 !')!'
1 ! ' , ' ,15 % , ')!' 7 !' 3 $ED34M$4 CFH43' ? 4 E2
@4$ 2Q$4E3 ' 5$E 3C' ? 4 E2' 2 M$4D3E' 4NF Q$ D' ?13 4C' H ; D34C 3'
3 $ED34' M4 J J3' ?1 34$' , ' @- N43-NF' 5HFE' ?NH ' H 9 HHD3ED'
*FH J $C' ?1H C HD3' @ ' G-E 1$N3' ED43 ' ?1 34C' , ' >HNF2433E'
*FH J $C' M4$F$ J' ? 4 E2' , ' 4 F' 4NF Q$ D' ? 4 E2' , ' %3 4' < !3[
!# #' ! # ! % M4F J' ? 4 E2' H G-NF4$0' ' HQ34 ' ? 3 $4'
? 3 $4 F$ ' 3 $ED34' ? J F' @$E2 H4 ' 5$J 3C' ? J F' @4$ 23ED'
5HFE' ? 4$3Q$E' H&' * FH4E HE' 5HFE? 4NFE')!' ,3#(! ' @ 7) , , F'
9 $J' ? H4 3' ?- J J34FH-C3' ED43 ' ? 3 E' 9 3C 34' M433E0$E C'
ED43 ' ? H4 3' + ' 9 $J' ? J F' ! ') #' #' M $C2H ' 8 3E40'
#' <,#&,#' ! 6 ' !#Z %+ '?' P' ? 4$ HE' H #ED34R
HHD' 9 $J' P H4$0' ? 4 E2' , ' 4DHNF' M4F J' ?1 34C' / &0, ' !'
' NF$4D' * $0 H4' / &0, ' !' 5$J 3C' * 43NH F N+' B$4 H ' * 43NH F N+
)5$J 3C' * FH J 1CHE' , ' ' 3DDHNF' 9 $J' * -4EQ- ' , ' 6H4 FQ$E+'
9 $J' * 0 34(5HFE' * QH J 3 J $' M3H423' 9 $DD3 ' , ' B$ X-F$ C HE'
? ' 9 $J' 9 $DD3' ` ' B$ J -+ 34' + ' M3H423' 9 $DD3' , '
' $CF 3F ' 2 , ' , ' * FH J $C' 9 $ +34' , ' 8$ & $ ' 5HFE' 9 4 2F' , '
* H4Q43 ' 5HFE' 9 $ +34' ' <4NF$4DF3$D' ' HQ34 ' 9 $4D3E' , ' I $4+F '
3 $ED34' 9 CHE' B4$3F3$D' 5HFE' 9 $-2F' H&' 8 FN$D' M3H423'
9 CHE' 3 %!

R , ')!' +%& !' V ' > E F2H

7)!' L ( ) ' , J 4%!' < , &' 5HFE' @$ J 1Q3 ' , ' 4D EN$1 3')!'
L ( ) ' ,#,3 4%!' @F$4 3C' 8 H13' < , &' * !1 &!#' , ')!' I ,%%!(!' , '
?31 ' ! ' !#! %)!' ,#,3 4%!' + ' 3 $ED34' 8 H13' , ' @4$0F$ ' : &
9 $-2F HE' ' @' " ')!' ,#,3 4%!' 64$EN C' 9 $4D' I 4 J 4HC3')!'
4%!' + ' I $ 4 N+' P -44$0' <NF34 043' " ,#! ' 6#!' , ')!'
" ,#1' , ' 1' 1 1' I ,3 ' V ' 8 ') !V3! ' + ' 5$J 3C' G$ T3 ' '
B EC' ' $4<E34 ?0 * FH J $C' > E2C HE3' X& 9 3C X-$4 34' #&' B3D H4 J 3'
" ,#! ' C ' !' / & %)!' L ( ) ' !3 4%!' + ' 9 $J' 5HFEC HE3'
8 H13' ' @' " ' + ' 5HFE' 8 H13' H&' @4$ 2F$ ' " ,#! ' + ' G$ D' 9 3D'
D34Q-4E' " ,#! ' + ' 9 & -$J' B$ 3' H&' I H +3EE3 ' " ,#! ' + '
4NF Q$ D' G-EQ$4' H&' , H4 F& 3 D' ' $4HE34' M3E34$? 4' 9 $J' P $ R
3 ' , ' @$ D34 HHD' " ,#! ' < !3 !# ' !#! % + ' 5H E' 8 H13'
I ,%,#!% , ')!' R , , ' F ( ) ' #&' I ,11' , ')!' 3!%5) " 6 &! ' ,
8$EH 34' 5HFE' B-4D' X&' ?3$F3 D' 9 $J' B $ 4' X&' HE H E' 5HFE'
BHOD' X&' 9 HHDC D3' 4NF Q$ D' B3EE3 ' X&' P$N+ $ ' 8 -2F' BH23' , '
* H4Q$E3F ' ' HQ34 ' B4H E' ! ' #')!' I 0 % +! 0 ' !' , ')!' ; $C'
ED $' I , 5 # ' M3< 23' G$ $C' B$ 4D' X&' I $4+ 0' G$ D' @$44 N+'
B-NFEE' @ ' G4- J 13 34' #&' P H-E' 34EHE' ' HQ34 ' B-NFEE')!'
,3#(! ' H&' G4- J 13 34' $ED' P H-E' 34EHE' * FH J $C' B$ &H-4' , '
B $N+Q-4E' * FH J $C' B-4EC' X&' >HE2N4H& ' ! ' ,')!' + (#! ' * FH J $C'
B-4EC')!' ,3#(! ' V ' >HE2N4H& ' 5$J 3C' 5HFE' @$DD3 ' X&' M4$E23'
9 $J' 4NF Q$ D' @$DD3 ' H&' B$E HE' 9 $J' M4$0' @-EE E2F$ J'
! ' ,')!' + (#! ' 5$E43C' -NF E 3N+' @F30E3')!' ,3#(! ' X&' 9 HHD'
NHN+D$ 3' ! ' ,')!' + (#! ' 3 $ED34' @ $4+' , ' 9 3C 34' ENF'
GHE$ D' @F$4 3C' @$ J 34HE' @ ' 6H F$ ' 9 $J' @$DD3 ')!' ,3#(! ' V '
M4$E23' M$Q4 3' 8$ J HE' G-ED$?' , ' G-DD E2C HE' 5$J 3C' G-ED$C'
X&' G-ED$C' ' HQ34 ' G-ED$C' H&' 4 J C HE' 4NF Q$ D' G-EQ$4')!'
,3#(! ' , ' H4 F& 3 D' 5HFE' 8$ J HE' G-ED$C')!' ,3#(! ' V ' G-D
' ' D E2C HE3

Ђ54 Q:=E E ʿ ʿ &'ʿ

D E2 C HE3ʿ 3 $ED34ʿ G$ $Cʿ , ʿ P HCCF$ ʿ ʿ+ ʿ 9 P $Jʿ G$ $Cʿ !ʿ
,3#(! ʿ H 7P HCCF$ ʿ D$ Jʿ G$ CHEʿ H 7BHEEO H Eʿ 9 $ Jʿ G$ CHEʿ
)!ʿ ,3#(! ʿ BHEEOʿ H Eʿ ' HQ34 ʿ G3EE C HEʿ B$4Q$-NF $ ʿ 5$ J3Cʿ
G3EE C HEʿ " # ! ʿ #ʿ M $C2H ʿ ; 4C+ E3ʿ , ʿ B $N+Q-4E ʿ G$ Dʿ
6$ NHE$4ʿ H @$4 H 4 3ʿ I 5 #ʿ M3H423ʿ 6$ NHE$4ʿ)!ʿ ,3#(! ʿ , I Jʿ
H 4 3ʿ >H- Cʿ 8 3E40ʿ 6344 34ʿ , ʿ B3 C D3ʿ 6H443C 34ʿ ? 4$ F
J ʿ ' HQ34 ʿ 6H4CO Fʿ H ' 3DFH-C3ʿ /&0,''O!ʿ 8$0ʿ " !0 / ʿ)!ʿ #(ʿ
V ʿ B3 C D3ʿ 5$ J3Cʿ 6 3 J E2ʿ , ʿ 9 $4D $ ʿ 9 $ Jʿ GH Eʿ M HEʿ , ʿ
9 $ FH-C3ʿ @F$4 3Cʿ M4$E ʿ H /ʿ M4$E JH43 ʿ 5HFEʿ M 3Eʿ /ʿ ? HE3F3$1ʿ
' HQ34 ʿ M 3Cʿ V ʿ MH4 JO43ʿ I$ 4 N+ʿ M4$0ʿ , ʿ P DD <C 4$ Fʿ 2 , ' , ʿ
*FH J $Cʿ 8 H13ʿ *) 1 ' #ʿ # ; D EQ-42Fʿ ' H234ʿ 8 H2ʿ V ʿ , 3 ʿ > C HEʿ
@$1 $ Eʿ 8 3E40ʿ 8 H13ʿ , ʿ)!ʿ L , %ʿE ʿ I ʿ " ʿ 5$ J3Cʿ 8 H13ʿ ! ʿ
,ʿ)!ʿ+ (#! ʿ 5HFEʿ 8 $ J HEʿ , ʿ 9 3C 1H4 ʿ 9 $ Jʿ BHD 3
#ʿ)!ʿ I , 3# ʿ H @$4E$4 HE ʿ 5HFEʿ 8 H13ʿ 2 ! #ʿ , ʿ)!ʿ * '3O ʿ , ʿ / &0, [
' !1ʿ 5$ J3Cʿ ' HQ34 ʿ 8 $4 ʿ , ʿ G4- J N4HCCʿ 8 $ ʿ 5$ J Cʿ 8 $ J HEʿ , ʿ
B$E(H-4 ʿ 5$ J3Cʿ 8 H13ʿ U3# , ʿ ! ʿ ,ʿ)!ʿ+ (#! ʿ 4NF Q$ Dʿ 8 H13ʿ
)!ʿ ,3#(! ʿ H @4$ 2F$ ʿ 5HFEʿ *FH J $Cʿ 8 H13ʿ)!ʿ ,3#(! ʿ V ʿ @4$ 2ʿ
F$ ʿ 9 $-2F HE ʿ 5$ J3Cʿ 8 H13ʿ @$44 D3E ʿ I 5 #ʿ)!ʿ , 3)%!ʿ
5$ J3Cʿ 8 H13ʿ , ʿ)!ʿ I , %&1 ! ʿ &1ʿ)!ʿ ,#,3)%Vʿ 8 H13
M3H423ʿ 9 $ Jʿ 8 H13ʿ " 1 ! ʿ ʿ < J0ʿ 5HFEʿ G$ Dʿ 8 H13ʿ ! [
') #ʿ #ʿ <!)ʿ)!ʿ $<,#,3 4%!ʿ < !3 !# #ʿ M3H423ʿ 8 H13ʿ L , %ʿE 0 ʿ
)!ʿ ,#,3 4%!ʿ 8 3E40ʿ 8 H13ʿ 5HFEʿ 8 H13ʿ ! ʿ ,ʿ)!ʿ+ (#! ʿ 5$ J3Cʿ
' HQ34 ʿ 8 H13ʿ ? 3 $4 ʿ B$0 30ʿ 8 $43ʿ V ʿ 8 ED HHDʿ 5$ J3Cʿ 8 3Eʿ
D34CHEʿ 9 F 3Q$- +C ʿ 5HFEʿ 5$ J3Cʿ 8 H13ʿ 5HFEC 1E3ʿ , ʿ EEED 3ʿ
5$ J3Cʿ 5HFEC HEʿ , ʿ ? 4$ HEʿ I 5 #ʿ @F$4 3Cʿ 5$ J3Cʿ 5HFEC HE3ʿ @ ʿ)!ʿ
L , %ʿE JU ʿ G$ Dʿ 5$4D E3ʿ ʿ B $N+4 2ʿ 3 $ED 4ʿ P 7M QQHEʿ Vʿ
@4$ F ʿ 5$ J3Cʿ $Eʿ P $NHEHNF 3ʿ / &0, ' ! ʿ I 5 #ʿ 4NF Q$ Dʿ
P $N 3$Eʿ , ʿ)!ʿ L , %ʿE 0 ʿ 9 $ Jʿ ?NH ʿ P HEN4 3&6ʿ ʿ % 4+ HEʿ
3 $ED34ʿ P 34ʿ , ʿ , 3 F34F ʿ 8 H-C3ʿ 9 $ Jʿ P 34ʿ H /ʿ @ $43EDHEʿ
)!ʿ L !0! !#&ʿ 5HFEʿ M$4 NCʿ P $ $EDʿ V ʿ ; $C 34ʿ 6H- CF 3 Cʿ 9 $ Jʿ
P HE 3 Fʿ B $N+Q-4EF$ ʿ 3 $ED34ʿ P $ (H4 Q$E+?ʿ P $ (H4 Q$E+2ʿ
< !3 !# #ʿ I , %,#!%ʿ 5HFEʿ P $4CF$ ʿ V ʿ B +3ECF$ ʿ I 5 #ʿ 9 $ Jʿ
Bʿ P $ 3 ʿ)!ʿ ,3#(! ʿ , ʿ @$ D34 HHDʿ ' HQ34 ʿ ?NH ʿ P HEN4 3 &ʿ
/ &0, ' ! ʿ)!ʿ ,3#(! ʿ , ʿ % 4+ HE ʿ 9 $ Jʿ P -44$0ʿ H /ʿ <NF 34 O43ʿ
3 $ED34ʿ P 7M QQHEʿ)!ʿ ,3#(! ʿ , ʿ @4$ F ʿ ' HQ34 ʿ P NF3 ʿ , ʿ
? $EDF ʿ @F$4 3Cʿ 8 H13ʿ P $N 3$Eʿ " 1 ! ʿ ʿ < F ʿ @F$4 3Cʿ ? ED3 ʿ
, H 3 ʿ ʿ BH2F$ ʿ 5HFEʿ , 3 HEʿ ʿ G4- J N4HCCʿ M3H423ʿ , $1 34ʿ , ʿ
G$ 3C ʿ 9 $ Jʿ , $1 34ʿ)!ʿ ,3#(! ʿ V ʿ 2 ! ʿ G$E 3 ʿ <4Dʿ V ʿ 9 HHDʿ
NHN+D$ 3 ʿ 5HFEʿ I N$ 4Eʿ , ʿ I N$ 4E ʿ 5HFEʿ I 4 E2 3ʿ ʿ @$44 Q34 ʿ 5HFEʿ
' $E+ E3ʿ , ʿ ENFN4HCCʿ 5HFEʿ ' -CC3 ʿ , ʿ P HCC D3ʿ 9 $ Jʿ ' -CC3 ʿ , ʿ
6$ FH-C3ʿ 5$ J3Cʿ ' -CC3 ʿ , ʿ G4- J QH 3ʿ 2 , ' , ʿ 5HFEʿ ' HQ34 CHEʿ Vʿ
>HNFNH$ ʿ 2 , ' , ʿ I$ 4 N+ʿ B$4HEʿ ?3 HEʿ H I 43C HE ʿ *FH J $Cʿ ?F$ 41ʿ
8 H-C H-E ʿ 5HFEʿ ? 3 $4 ʿ , ʿ ; $C ʿ B EEOʿ , H4 J $Eʿ ?F$ 41ʿ)!
,3#(! ʿ , ʿ 8 H-C H-E ʿ ? $ 4? 3 $4 ʿ ' FOC2 ʿ #&ʿM $?C34 HE ʿ 64$EN Cʿ
MH D 3ʿ ? J Fʿ , ʿ 9 3C HHDʿ I3 34ʿ ?$ 34Cʿ , ʿ @4$ E2$ ʿ 9 $ Jʿ
, J JHʿ ?$ED $EDCʿ , ʿ @H-C H-E ʿ 3 $ED34ʿ ?3 HEʿ U !ʿ ,3#(! ʿ , ʿ
I 43C HE ʿ I 5 #ʿ 3 $ED34ʿ ?F$ 41ʿ , ʿ)!ʿ L , %ʿE 0 ʿ 8 3E40ʿ ? $ Eʿ
HEʿ # (! ʿ , ʿ @$44HEʿ I , 5 # ʿ)ʿ >HEDHE ʿ P HE@43 &ʿ *F4 31 $EDʿ
, ʿ P DD 3 HE ʿ 5$ J3Cʿ 5HC31Fʿ 8 H13ʿ 343ʿ ` ʿ @4$ 2 D $ ʿ @F4 C H1F34ʿ
3 NFʿ , ʿ *$4 4$DHE ʿ ED43 ʿ 9 $ CHE B4 D23N$C 3ʿ ! ʿ ,ʿ)!ʿ
+ (#! ʿ 9 $ 34ʿ 9 FO 3ʿ ʿ B$E+F3$D ʿ)!ʿ L !0! !#&ʿ 3 $ED34ʿ 9 3 4ʿ @ ʿ
BH2F3$D ʿ *FH J $Cʿ G-4F$ Jʿ 9 3 4ʿ)!ʿ ,3#(! ʿ , ʿ BH2F3$D ʿ I 5 #ʿ
@F$4 3Cʿ 8 H13ʿ 9 $ CHEʿ V ʿ)!ʿ L , %ʿE 0 ʿ ' HQ34 ʿ 9 $4D3Eʿ V ʿ I$4+

UZ ' U' K' SĉM#> ; > P ' ' @$1' U

8 ' ' & 9 3C ' B E ' 6!+Z#!% 3 $ED34' 9 3DD34Q-4E
9 $J' 9 CHE' @ ' G3NF 5 HE :' 5$J 3C' 9 $DD3 ' , ' @4H& F3$D' 3 R
$ED34' 9 $4D4H1' B4 o 3FH-C3"' 5HFE' 9 $4D4H1' H ? 4$ F$ HE' 8 3E4O'
9 CHE' H&6$ EH-C3 ' 5$J 3C' 9 $ CHE')!' ,3#(! ' B4 D23N$C 3' 9 R
$J' 9 + 3' , ' P$2D$ $EC' 9 $J' 9 + 3')!' ,3#(! ' H P$2D$ $EC'
)!'+)! ' , ')!' Z?4 ')!' 7 !'4! #(')!'+)! '+341 3 !' , ')!'
+) !' , ')!' 7 !' 4! #(')!' * ,0,1' , ' > E F2H ' , ')!' 7 !'
4! #(')!' * ,0,1' , ' 33EC&344O')!' 7 !' 4! #(' M4$O'
, ' %E 2F C4 2

R, ')!'+) !' V ' I34 F

V3 1' , ' M4FE ' " ' , ' <4J3 3' >H4D' GH E3' C 1' ,3#'
? H4JHE ' <, &' B NFH ' &' 6 EN$C 3' ,#,3 4%!' 5HFE' ? -$4' , '
@$JQ-C $ $N3' ,#63)%!' 55H- $C' MH4DHE' 8$ OQ-4 HE' , ' I N-4'
,#,3 4%!' 9 $J' ! ' 4 O' @$C 3' ,#,3 4%!' 4NF Q$ D
? -$4' , ' B$ J34 EH' ,#,3 4%!' ' HQ34 ' @4$ 2 3' +!# , ' , ')!' I ,%[
%!(!' V ' ?31 ' !' F,3 !&&!' 9 B $ $' ' H8H' ,#,3 4%!' 5HFE' ? 3 $4'
9 H4 3O' P$N+3ET 3')!' ,3 ! ' V ' B3 JHE ' ,#,3 4%!' @F$4 3C'
6 3J E2' B 22$4H D@-JQ34E$ D' ,#,3 4%!' ,)#' M4$O' ,#,3 [
4%!' M3H423' ' $ 1F' Q34N (JQ3')! #(! ' * - QHDO' ,#,3 4%!'
> EDC$O' P344 N+' I3 34' B-443 ' ,#,3 4%!' 9 $J' I34324 E3' I3 34'
B-443 ' ,#,3 4%!' 9 $J' 83-4O' G4-J JHED' ,#,3 4%!' G$ D'
' HQ34 CHE' 9 $JCH#' ; $4' V ' B$ 24$O' ,#,3 4%!' + ' I$ 4 N+'
P-44$O' , ' <NF 34 043' " ,#! ' + ' 5$J 3C' @$J 1Q3 ' V ' % QHOD3'
" ,#! ' + ' 5HFE' 8 $O' , ' 8 $OC HE' " ,#! ' + ' ' HQ34 ' I43C HE' , '
$ 3O& 3 D' " ,#! ' + ' ,3 ' P 3ET 3C' V ') ' % ' " ,#! ' + '
5$J 3C' ' JCO' ' B$J ' " ! ' ' 5HFE' 4NF Q$ D' ? 3 $4' , '
M4$ED - O' " ,#! ' + ' I$ 4 N+' P-44$O' , ' * F4$1 $ED' , ' 6 E2$C+'
+ ' ; $E' 5HFE' P-44$O' P 7M432H4' V ' P 7M432H4' " ,#! ' + ' 3 R
$ED34' P - 4' P $N+3ET 3' , ' G E3 ' " F,#! ' + ' ' HQ34 ' G-ED$C' , '
B33NF HHD' " ,#! ' + ' G-EN$E' @$J 1Q3 ' V ' B$4N$ D E3' #&' M 3'
E-43' " ,#! ' !#! %' + ' BEC 34' * $4 3 HE' " ,#! ' < !3 !# #'
!#! %')!' L () ' ,#,3 4%!' + ' M3H423' P-44$O' I " ' < !3 !# #'
!#! %' + ' MH4DHE' G4-J JHED' Y I " ' < !3 !# #' !#! %' + ' ?,)#'
<C $ D' , ' G-EE + 34' I " ' ,%, %' + ' ' HQ34 ' 8 3E4O' G N+' , '
* - E3 ' I " ' U, ' !#! %' + ' 5HFE' ' HCC')!' ,3#(! ' , '
B$ 234CFH' I " ' -2-C 3' @F$4 3C' 5HC31F' &!' 6 F- ' 5HFE
>33' 3E' , ' ; 44H ' 5HFE' 5$J 3C' 3E')!' ,3#(! ' , ' ; 44H ' 5$J 3C'
3E' , ' ENF J$4 E(G$ D' ED34CHE' ^ * ?$ E' 6 E+' G$ D' ED34CHE'
" # ! ' #' ; D EQ-42F' 5$J 3C' D$J' C ! ' ,')!' + (#! ' ED43 '
4NF34' H B$ Q4H2 3' ED43 ' 4NF34')!' ,3#(! ' B$ Q4H2 3' ' H234'
O HE' V ' P -4 3C HE' ?$J -3' ED34CHE' ! ' ,')!' + (#! ' 5$J 3C'
ED34CHE' , ' @H- ' 3 $ED34' ED34CHE' , ' ? 4H 3' I 5 #' , '
"#(#!! 1' ; $C ' ED $' I, # >1'+! O ' !' 3 $ED34' 8 31Q-4E' P -44$O'
B3 CF3C' V ' E 34J $O' , ' 5HFE' P -44$O' B3 CF3C ' G$ D' ED34CHE'
B $ 4' , ' ENFO4$' ' HQ34 ' 5$J 3C' B $ 4' , ' @4HE$E' 5$J 3C' B4-2F' , '
@ H$E' 3 $ED34' B-NF$E$E' , ' J 14 H4')!' L !0! !#&' 5$J 3C' B4-2F'
V ' ; $C J E' ' HQ34 ' B$E+C' , ' @4$ 2F3$D' L !0! !#&' M3H423' @4$ 2'
B-NFEE' X& P $N+3$EC HE' L !0! !#&' * #' 5 %" F / ' V ')!' O# 0! 1 '
V ' ; D EQ-42F' * FH J$C' ; D34' B D' , ' 6H4E3 F' M3H423' B4H E' , '
B $ 4& 3 D' G$ D' P HE4H' B EE E2' 4D2$ 3' M3H423' 8 H J 3' P HE4H'
B EE E2')!' ,3#(! ' ` ' 4D2$ 3' 5 D4$' B4H E' X&' I $4+F3$D' 3

$ED34

$J 34' B-4' , ' 9 3C 34' G3-2 3' 64$EN C' I3 34' B3DD E2& 3 D' *-#0 '
J 4DHNF' #$ DB3$ CHE' H % 4+1H 3' 4NF Q$ D' B- 34 6CN ('
5HFE' B$ $ED3E3')!' ,3#(!C ' , 'H (,),J')!' L!0! !#& , J0 - /1'
B$ N$ 4E' *FH J $C' B3$ CHE' H P$ F ' ' HQ34 '@-EE E2F$ J' BH1 E3'
, ' 4DHNF' C$$N' B$0 30' ! ' #' ; D EQ-42F' 9 $J' 6$ NFE30'
B $N+' ! ') #' #' >HEDHE' , 3 ' 6342-CCHE' B $ 4')!' ,3#(! ' , '
B$ F$0HN+' 4 F-4' B$4N $0' I$4 C' ' HQ34' 3 $ED34' B$E13 J $E'
, ' Q34E0 3' ' HQ34' M4FJ' B-4D3E' , '63DD$' 64$EN C' M$4D3E'
@$J 1Q3 ' M 3E OHE' >$-43EN3' @4$ 2 3' H M 3EDH N+' ' HQ34 '@ $ +3'
V '@H J 4 3C' ED43 '@ $4+3')!' ,3#(! ' , '@H J 4 3C' @F$4 3C' @ $4+3'
1 I4 EN3 $EDC' 9 $J' , $ 4E3' @ $4+3')!' ,3#(! ' I4 EN3 $EDC'
3 $ED34' @$J 1Q3 ' , ' P HET 3' 5HFE' @$J 1Q3 ' , '% 1 HNF' @F$4 3C'
@$J 1Q3 ')!' ,3#(! ' V ' % E HNF' 5HFE' @H 3E 40' V ' G3 EECF$ '
?U !3 !# #' 3 $ED34' @ $0F C' , ' E 342H 4 3' @F$4 3C' 9 $J'
@$J 1Q3 ' V ' BH43 $ED' ' HQ34' @4$J HED' 16' 9 3C 34' >3 & 3' 5HFE'
@$J 1Q3 '@H X-FH-E' , '% 34 J HE '5$J 3C' @-EE E2F$J' B$ 2HE 3'
*FH J $C' @HED 3' 1 * F$EE$ 4 3' M3H423' @ 34+' @4$ 2 3'] `G- Q$4 30'
G$ D' @4$ 2 3')!' ,3#(! ' , ' G-EQ$4E30' 5HFE' 4NF Q$ D' @$J 1Q3 '
! ' ,')!' + (#! ' ; D $4D' @H EC' V '64H 3C H4 F' 5HFE' @$J 1Q3 '
V ' ? HE3C& 3 D' 9 $J' 5HFE' >$J Q' @$J 1Q3 ' , 'M 3E&$ HNF' 5HFE'
3 $ED34' M$ E' @$J 1Q3 ')!' ,3#(! ' 16M 3E&$ HNF' 5HFE' @$CC3 C'
V ' 4E14 H4' G$ D' @$CC3 C')!' ,3#(! ' V ' E14 H4' 3 $ED34'
@$J 1Q3 ' , ' % EN$4D E3' @4 3&&' 9 $J' @H$ 3C' @$J 1Q3 ' L! '
/& %' I$ 4 N+' @$J 1Q3 ' ' HQ34' @$J 1Q3 ' V ' ,# ') #' !#! %'
G-EN$E' @$J 1Q3 '10>HNFE3 ' ' HQ34 '@$J 1Q3 'V ' NF$ $E' ' HQ34'
@$J 1Q3 'V 'G$ C34&' < !3 !# #' I ,%,#!%' 9 $J' @F$ J34C' V 'M 3E3'
4 NF ' I ,%,#!%' 5HFE' @-EE E2F$J' , ' , 3 HE' 5$J 3C' @HED 3' 1&' 9 F 3'
F '1 ? 4H 3' 9 $J' >$ 43EN3@H X-FE-E1&@ $ F N+' 5HFE@4 NF HE'
1 64 $4CN$4C3' 9 $J' B-4E' @$ 3ED34' 1 I43C HEF$ ' G-EN$E' @$J 1R
Q3 '1 ' HN+F '< !3 !# #' I ,%,#!%' 5$J 3C' @$J 1Q3 ' 9 $J' @$J 1Q3 '
10>HNFDHNF$4 '5$J 3C' G$ D' >OHE' @$J 1Q3 'H&' 9 $J C H E' ' HQ34'
B4-N3' G-ED$C' , ' B $ 4' I 5 #' ' NF$4D' >3C 3' B4-N3' G-ED$C')!'
,3#(! ' , ' B $ 4' 83E40' 8H J 3' G4- J J HED' , ' B $ 4D4- J J HED'
M3H423' 8H J 3' G4- J J HED')!' ,3#(! '1&; $ 4D4- J J HED '5HFE' M3H423'
81 J 3' G4- J J HED' , ' QQH C24$E23' L! ' /& %' #4- J J HED' V '
P 322 ENF' 5HFE' G4- J J HED')!' ,3#(! '1 P 322 ENF' 5$J 3C' G-ED$C'
V ' P$EH4' 5$J 3C' B3 34 D23' G-EN$E' @ 'G$J C D3' 5$J 3C' B3 34 D23'
G-EN$E')!' ,3#(! ' V ' G$J C D3' 9 $J' G N+CHE' @ ' B$4EF '
9 $J' G4HE' 10B $N+4- F03E' M3H423' 8 $4 30' G4- J J HED' 1 G4- J '
HNF 0' 9 $J' G-ED$C' 1&<NF 34 043' 5$J 3C' G4- J J HED' 1&? 4$2$ F'
@F$4 3C' G4- J J HED' U3# , ' ED43 ' ' HQ34' G4- J J HED' U3# , '
5$J 3C' G N+' , ' I F$EE$ 4 3' *FH J $C' G N+')!' , F (' V ' I '
FEE 4 3' I 5 #' 5HFE' ED43 ' G N+' V ' -NFE$ 3' 9 $J' G N+'
)!' ,3#(! ' , ' -NFE$2 3' 5$J 3C' G$ 2 3 CF' @ ' 9 3C 24$E23' ! '
,')!' + (#! ' G$ D' G-ED$C')!' ,3#(! ' V ' B33NF H<D' #&' G-E 4$ '
*F3HDH43' 83E40' ; H' U , ' L , %' 8#(#!! 1' G$ D' ; 4C+ E3' V '
@$4D4HCC' 5$J 3C' ; 4C+ E3')!' ,3#(! ' @ ' @$4D4HCC' 5HFE' 5$J 3C'
; D EHEDC HE3' V ' , 3 HE' ED43 ' 6H443C 34' H&' ; $C 34' 4E2 QQHE'
3 $ED34' 64$C34' 1&' > ENH E C' EE' G$ D' 6H443C 34' 1&' ; $C 34'
I H D34' U , 'M3 34$5' 4NF Q$ D' 6342-CHE' 1&' G-1&$ $EDO' 9 $J'
60&&3' , ' 9 3C & 3 D' ' HQ34' ? 3 $4' 6 3 J 0E2' 1&" P HE3CC' D$J'
6342-CCHE' 1&' 9 HHDF ' 5HFE' 6344 34' ! ' ,')!' + (#! ' +1 !1'
643D34 N+' 6344 34' 5$J 3C' 6342-CHE' 1&' B$ 3D J -ED' G D' 6H2H'

, ' 'H ' 5$J3C P$F3 6H2H)! ,3#(! ' , ' 'H ' , % E '
'HQ34 ' M4N3J3 2(M$4 HN+ ' 5$J3C <4H3J3)! ,3#(! ' , 'M$4 HN+ '
M3H423 M4N3E$3 , ' ENQQ& 3 ' M3H423 G4-JJHED M4H3J3)!
,3#(! ' , ' ENFQ4$+3 ' G$ D M4FJ ' , ' P3+3 HHD ' 5HFE ^5$4 '
DE34 , ' M4$E23 ' 9 $J ' @ EH E2F$J ' @-EE E2F$J ' M4$F$J ' ` '
M$4 JH43 ' D$J ' M4E$4 ' , ' >HNFQ$E+ ' 3 $ED34 M43 2 , ' 8$3
7 M43 2 ! ' ,')! + (#! ' 'HQ3 ' M4FJ ' ' '3D2H4 HE ' /&0,[
' ! ' 5HFE M4$E ' V ' % 24$C HE ' 5$J3C M33+3 , ' -NF 34$ 0 F '
"!0! !#& 2,' , ' ED43 ' M4$E ' @ ' > J31H C ' M3H423 M4$E ')!
,3#(! ' , '> J E C ' 5$J3C M 3C1 3 M4$F$J ' , ' <4NF ' 5$J3C
MH $E , ' B$ X-E 1 3" 'HQ34 ' M$4DE34 , ' 'H 3$4EC ' 643D34 N+
M4FJ 23# ! & ' 8-J1F (M4FJ ! ' ,')! + (#! ' 5$J3C
M4FJ , ' >3 NF H E ' 9 $J ' M33+3 , ' 'HC3JH-E ' 5$J3C
M3JJ3 ' '>3 Q3ED0 ' 'HQ34 ' M33+3 H& M$4 HN+ ' 5$J3C 8$0 , '
?322 3D3E ' 5$J3C ' NF$4DCEE 8$0 U! ,3#(! ' , '?322 3D3E ' 5HFE
?3 $4 ' 831Q-4E , '@H X-F$T3 ' M3H423 8-E 34 , '@$ $ED34 ' 5HFE
I 34N0 83ED34CHE , ' 6HC 3 E+ ' 3 $ED34 8H22 , ' 93C 34
%EHNF ' 5HFE 83ED34CHE 'M$ $9$0 ' 5$J3C 8-E 34 ?3$C D3 '
@F$4 3C 8-E 34 , ' M 3E2N$4C3 ' @F$4 3C 8$0 , 'B$ EDHNF ' 5$J3C
8$2 , 'B$4F ' 3 $ED34 8$2)! ,3#(! ' , 'B$4F ' G$ D
B$&H-4 8$0 >30C ' $QD34C HE3 ' 5HFE 8-J3 H& 8 C D3 H '
'H '@F$4 3C 8-CQ$ED 'M 3E3$4E ' 9 $J ' 8$2 93C 34 M 3E '
CF344-1 ' ' 8$2)! ,3#(! ' H& 93C 34 M 3ECF344-1 ' 'HQ34 '
83E40 , ' 9HHD3ED ' M Q34 ' 5HFE 83$ NFH 3 ' 5$J3C 8-E 34)!
,3#(! ' , ' M 3EN$4C3 ' M3H423 G-EQ$4 @ $0F C 83ED34CHE V '
8$ 03$4DC ' 5$J3C 8-E 34 @ ' -NF 34$4D34 ' >$-43EN3 5HFEC HE3 , '
?$EDC ' 5$J3C 5HFEC HE3)! ,3#(! ' , ' ?$EDC ' L!0! !#& 2,' , '
5HFE E2 C H& ;ND3C J2 4D 3 ' @F$ J34C T3 ' H& $JHE '5$J3C
5HFEC HE '%EN$4D E3(5$J3C %344 ' ;$C ' M4$E23 ' 5$J3C %3$0
, ' ?E$ 2H ' /&0,' ! ' I$4N+ ?J$ ' %34 H& %EJH-F ' I$4N+
?J$ ' %34)! ,3#(! ' V '%EEH-F ' *FHJ$C %EHNF H& @$4E '
I$4N+ %EE3$4 , ' >H3Q HE ' I$4N+ %EE3$4)! ,3#(! ' V '
>HNF HE ' 5HFE %34 H& @Q$11 3F ' M3H423 %EHNF H& %EHNF '
M3H423 %EHNF)! ,3#(! '@ '%EHNF ' I 5 # M 9 ' 8
%E 2F ' H&5H4D$EC HE3 ' L E 'M3H423 %E 2F ')! ,3#(! ' , '5H4D$E '
C HE3 ' >3 C %3EE3D0 !1& #(' I +3 HE0 ' 9 $J ' >H ')!
,3#(! ' 'BH43 $ED ' 'HQ34 ' >$ ' 'H& 6H4D3 ' 5$J3C > J0 , '
G-E+3EE0 ' /&0,' ! ' ED43 ' >ED3 X& I J3DD3E ' 5HFE >3C 3
, 'B- 34C HE3 ' 'HQ34 ' @$42 ' >3C 3)! ,3#(! ' , 'B- 34C HE3 '
P-E2H P-44$0 , '>E 4H?3 ' ED43 ' P-44$0 V ' P-44$0CF$ ' 5HFE
P-44$0)! ,3#(! ' X& P-44$0CF$ P-E2H P-44$0 X %EN$ 4E30 '
*FHJ$C P0E3 X& P0E3& 3D ' 9 $J ' P-44$0)! ,3#(! ' , '
<NF 3& 043 ' EFHE0 P$ HE H& @- HX-F30 ' 9 $J ' P 7GHE$ D , '
?$E ' P$4 EC ' /&0,' ! ' 5HC31F P-44$0 X& 0 HE ' 5$J3C PH4$0
X& Q34N$ 4E30 ' 5$J3C P$C 34 HE 'B4$N3 ' 9 $J ' P IF34CHE , '
B$42H 43 ' 9 $J ' P GHE$ D X& @$ 3 ' EFHE0 P-44$0 X& @4 3&& '
5HFE B-4E P-4DHNF X& @1 DHNF ' 5$J3C B-4E P-4DHNF)! ,3#(! '
, '@H DHNF ' EFHE0 P-44$0 (! ' , '@4 3&& ' 5HFE 9 $J '
I ' P-4 P$N+3ET3)! ,3#(! ' , 'G3 E3 ' 5$J3C P$ F3 ' , '
9$ 40Q- C ' 5HFE P$ F3 ')! &3#(! ' V ' 9$ 40Q- C ' G$ D
P 34 , ' ;$C 34 *- 0&342-C ' 5HFE P 34 , ' 93C 34 * D 0&342-C '
P$ F3 ' PHEN4 3&& X& @-& $42 3 ' I$4N+ P-44$0 X& ? J14 E ' 3 R
$ED34 P >$-4E , ' B4H NF ' @F$4 3C 3 $ED34 PH4 , ' >3N+3
' 4 GHE$ D

GHE$ D' P M432H4' V 'B$ F$DD 3C' 5$J 3C' I$ 4 N+' P E4HO' , '>-D3'
9 $J' P E4HO' V '?F 342 $CC' M3H423' P 7; $E' , ' *$4' , ' ' -C+30'
< !3 !# #' I ,%,#!%' 'HQ34' P 7M432H4' V ')!' % !' L, %' I)# %5 #!'
R!#! 4%!1' 5HFE' P HE 3$ F' V 'G-NF$ O' 5HFE' P HE 3$ F')!' ,3#(! '
V 'G-NF$ O' 5$J 3C' P 34' , ' P HE' 5HC31F' ? 3 $4' P 3ET 3C' , '
'HCC' 5HFE' P 3ET 3C' , ' @F3C F ' 'E D' P 3ET 3C' , ' M- D$43C' 7
'HQ34' 3ET 3C' , 'BH &4$N+C' ! ' ,')!' + (#! ' 5$J 3C' P 3ET 3C'
VU' I EHN433' 5HFE' P 7M432H4' I 1) ! ' I, ! ' %' " #' ?NH $ED'
3 $ED34' P 7G-&&' V '?14 E2& 3 D' 3 $ED34' P 7G-&&')!' ,3#(! ' ` '
?14 E2& 3 D' I$ 4 N+' P$ F3 ' ',3 J E' 5HFE' P$ 34' '@H4EF '
5HFE' P$ 34')!' ,3#(! ' , '@H4EF ' 5$J 3C' P 7M432H4' , '6HE$Q'
5$J 3C' P HE4H' P 7, $F' , ' 4 F-4C HE3' G-EN$E' P 76$4 $E3' / &0, ' !'
5HFE' P$ NH J' , '@$C 3 J$ EC' M3H423' P 34N34' , 'MH4 FO' M4N3 J3'
P 34N34')!' ,3#(! ' , 'MH4 FO' M4H3 J3' P 34N34' V ' P$ CQ$E+'
*FH J$C' P 34N34' V 'B-4EQ4$3' P$ NH J' P M432H4' I ,#13%' ' IE J$'
5HFE' P -44$O' , '@H4DHE' @F$4 3C' 8 $22$4' P 34' , ' I 3CE' 8 '
5HFE' P 7, 3 $E' H ?H C2 4 F' *FH J$C' M3H423' P $N+$O' ! ' ,')!'
+ (#! ' < !3 !# #' I ,%,#!%' 5HFE' P 7GHE$ D' , ' G$ NFHCE 3' I "N'
$C $ 4' P 7*$ E' P 7GHE$ D')!' ,3#(! ' , ' G$ NFHCE 3' 'HQ34'
P 3ET 3C')!' ,3#(! ' , ' P 3ET 3C' 5HFE' FH 3' P -44$O' P 7M432H4'
)!' ,3#(! ' , ' P 7M432H4' 5HFE' P 76$4 $E3' V ' G3EF3$D' @F$4 3C'
P 7G3$4 J D' V ' IH4 E3 $E' GHE$ D' P 7GHE$ D' V 'B$ E$+3 O' % 4+'
J NF$3 ' 5HFE' P 7M432H4' V ' M 3E20 3' 5$J 3C' P 3 C' ,$ 4E3' V '
G-EC EE$E' G$ D' ,$ 4E3' @ 'G4- J+ QH' 5HFE' , NH' , '63 ' 5$4E3C'
? 3 $4' < 1F$E' V ' 'HCC 3' 'HQ34' < 1F$E')!' ,3#(! ' V ' 'QCC 3'
5$J 3C' < 1F$E' H M$C+' >$-43EN3' < 1F$E' V '@HED 3 ' E FHEO'
< 1F$E' / , #! ' !#! %' @$13' H&' MHHD' 8 H13' M3H423' I$ 34 HE'
V '@$C 3F-E O' 5$J 3C' I$ HE' , '@$C 3Q32' 5$J 3C' P -44$O' I H$'
V ' M 3E$ J HED' *FH J$C' I$ HE' , ' @HOENFE' M3H 23' I$ HE'
@ '@$ 4E 3C' 9 $J' I$ HE' , 'G3 HECF$ ' 5HFE' I N$ 4E' V ' I '
N$ 4EC' 5HFE' I 3EEON- N+' V '?H4 T $40' 5HFE' I 4HN H4' V 'M 3E+ 40'
*FH J$C' 8 34Q34' I $N3' , ' EE34NF$234E 3' 5HFE' 'HQ34 CHE' V ' * - '
Q3 HE' 5$J 3C' ? 3 $4' 'HQ34 CHE' , ' ;D4$DOE$ 3' 5$J 3C' ? 3 $4'
'HQ34 CHE')!' ,3#(! ' , ' ;D4DOE 3' 5HFE' ' - F34&H4D' , ' P D'
B$ C+' I 5 #' *FH J$C' 'HQ34 CHE' , ' M 3EF3$D' 4NF Q$ D' 8 '
'3EE 3' V 'B$ C+' 5HFE' '$ J C$O' V '% F3 ' 5HFE' ' NF$4DCHE' , '
I &H-4' 5$J 3C' ' NF 3' '@$ 3' 5HFE' 'HCC' H>'B$ 234CFH' M3H423'
' NF 3' , '8 'V ' ' - F 3E' *FH J$C' ' NF 3')!' ,3#(! ' , '8 ' , '
' - F 3E' 3 $ED34' '3 D' , 'B $ 4&3 O' 'HQ34' 'HCC' , ' <$+Q$E+'
9 $J' 'HQ34 CHE' , '% E2 C' *H440' *FH J$C' 8 $4D N+3' '$ EC 3O'
, 'BH-4E3' > ENH ECF 43' 'HQ34' @ 34+' '$ 4$O' V '@4$ 2F$ ' 'HQ34'
8 3E40' 'HQ34 CHE' I 5 #' *FH J$C' 'HQ34 CHE' , ' ;$C 34' 'H '
5$J 3C' 'HQ34 CHE' , ' ; $C' P$ EC' #&' *H44 3' *FH J$ C' ' NF$4DCHE'
, 'B$ $ F 3' 'HQ34' ' NF$4DCHE' V ' % EE$ 4D' 'HQ34' 'HQ34 CHE'
, ' -NF 33+C' I 5 #' G-EN$E' 'HQ34 CHE' V ' % ED4HNF3 ' , '
!#! %' M3H423' G-EN$E' 'HQ34 CHE' , '? 4H $E' 5HFE' '$ 4$O' , '
@H4$ Q$E+' 5HFE' ? J O F' V ' B$ F$440' / &0, ' !' 'HQ34' ? J O '
! ' ,')!' + (#! ' 5$J 3C' ? 3 $4' , '@4HCC J H-E ' 'HQ34' ? 3 $4'
, '@ HN+&H D NF' 3 $ED34' ? 3 $4' , '6 EDOE$ 3' 5HFE' ? 3 $4')!'
,3#(! ' V '6 EDOE$ 3' 3 $ED34' ? 3 $4' H B$ E$+3 O' 3 $ED34'
? 3 $4' 2&' ? 4$ F2$440' I$ 4 N+' ? J $ ' H G 4E$E3$E' 5HFE' ? 3 $4 '
G$ 2- C3' 3 $ED34' ? HD$4' , 'B$ 3ED4 N+' 3 $ED34' ? J F' , '
M $CC E2$ ' 9 $J' ? 3 $4' , ' 4D H4 N+' U, ' 9 $J' P H4$O
? 4 E2

? 4 E2' , ' 4DHNF' ; HQ34 ' ? 3 9&&') !' ,3#(! ' , ' 4D H4 NF' 2 , '[
, ' 3 $ED34' ? 3 $4' 'BHEC+3 D' 5HFE' ?E(3$ HE' , ' @H- ' I$ 4 N+'
? J 3$ H$') !' ,3#(! ' , '@H- ; '5HFE' ? 3 $4' , ' , 3 F34' I34NO' 5HFE'
? 3 $4') !' ,3#(! ' V '%3 F34' I34NO' 8H13' ? 3 $4' , 'B$ 3NF E'
'HQ34' ? 3 $4') !' ,3#(! ' 'B$ 3NF E' G-EN$E' ? 3 $4' , 'M 3E'
Q-N+ 3' #&' ? 4HE $4' 5HFE' >H4E' ? 3 $4') !' ,3#(! ' ^ M 3EQ-N+ 3'
#&' ? 4HE $4' 4NF Q$ D' ? 4 E2' H&'%3 4' 'HQ34' ? EO F3' ^ &P 3 F 3E'
3 $ED34' ? 3 $4' G34N- NF' $E' ? 3 $4' H&' B-E4$EEHNF' ??!3'
!# #' MH H4$ 3 $ED34' M4$F$ J' ? 4 E2' H&' G-NF4$O' #&' -NFO 3'
5HFE' M4F J' ? 4 E2') !' ,3#(! ' G-NF4$O' #&' -NFO 3' @F$4 3C'
? 4 E2' % 1(,F' G$ D' M3H423' ?$ED3 J $E' H&' ?14 E2 $ED' M $C'
?$ED34$$E') !' ,3#(! ' , ' ?14 E2 $ED' I 5 #' 5$ J 3C' ? 4 E2' , '
M 3E O$E' " E ' < !3 !# #' 'HH34 M4F J' ? 4 E2 * FH J $C' M4$F$ J'
? 4 E2 ' 4 F' ? 4H $E(I FH J $C? 4 E2') !' ,3#(! 'X ? 4H $E'
L !O! !#&' P NF$3' ? 4 E2' ' I$4+F3$D' 3 $ED34' ? 3 $4' H 7
@$C 3 J $ EC' I 5 #' 9 $ J' ? 3 $$' M3H423' ? 3 $4' * FH E$C'
? 3 $4' H&' D34C HE3' I 3 34' ? J 3E' , ' 9 HHDC D3' M3H423' ? J O F3'
I 3 34' ? 3 $4' H&' 6 EN$C 3' 4NF Q$ D' GH-2 $C' ? 3 $4' 5$ J 3C' C HE'
? 3 $4' #44$4D' 9 $ J' C HE' ? 3 $4') !' ,3#(! ' , ' #44$4D'
< !3 !# #' I ,%,#!%) ,0 1' ? 33 3' H&' ; 3 N+' 5$ J 3C' ? 4 E2' H&' M$4R
D3E' #&' 4E J H43' P$ NH J' ? 3 $4' H&' FH ' B$E+' 5$ J 3C' ? 3DD$E'
V ' >HNF 3' 5HFE' ? HDD$4' B$BH J E' I$ 4 N+' ? 4 E2' VA' MH2$4' #&'
B $N+24$E23' 5HFE' ? 4 E2' H&'% 113ED$ 3 ' 5HFE' ? 3 $4' ? 3E HE'
I$ 4 N+' P -44$O' * F4 31 $ED' ["E2%4' V '6 -2$C+' 9 $ J' * 4H 34' , '
B$ ED3$E' 'HQ34' %EH ' * 41 34') !' ,3#(! ' , 'B$ ED3$E' 5HFE'
#4X-F$4' V ' , , ' ' ! ') #' #' % 1(,F' 3 $ED34' 9 F CHE' , '
I$4+F '5$ J 3C' 9 4 2F' , ' >$- HE' 5HFE' 9 $ J CHE' H&' ; $C' @ -E 3'
G$ D' 9 $ J CHE') !' ,3#(! ' , ' ; $C' @ -E 3' 5HFE' 9 F CHE' , '
I H N$ +' 5$ J 3C' 9 F CHE') !' ,3#(! ' H&' I H N$ +' 5$ J 3C' 9 F CHE' * , '
,#! ' , ' B$4D J HEO' 5$ J 3C' 9 F CHE') !' ,3#(! ' , ' B$4D J HEO'
5$ J 3C' 9 O 3' , ' 4 3O 2F ' 'HQ34' 9 3QC 34' H&' < 34' G-4D 3'
* FH J $C' 9 4 2F' X&' M 3EEO' 'HQ34' (F 2F$ J' , ' >HNF1$ 4 N+' / &0 , [
' !' 9 $ J' ; D $4D' @H EC' 9 HHD' ,3#(! ' V ' ; 4H 3C H4 F' $%%1'
U!1 1' +) ! ' , ') !' +) !' V ' I34 F' #&') 1' +341 3 !1' , ') !'
7 !' 4! #(') !' * ,0 ,1' V ') !' L , %' "3 ()' , ' I34 F' , ') !' 7 !'
4! #(') !' 2! #' , ' 3 %&' X&') !' UL , %' " 3 ' , ' I34 F' , ') !' 3 %& '
< #&1' , ') !' 7 !' 4! #(') !' 2! ' ,#' V '$#' , 5, ,#' , ' % ,0! 1' , '
) !' L , %' "3 ()' , ' I34 F' , ') !' $#' , 5, ,#' < #&1' , ') !' 7 !'
4! #(') !' R 1' (1 !' , ') !' L , %' "3 ()' , ' @- 4HCC' , ') !'
7 !' 4! #(') !' R 1' (1 !' , ') !' I ' , ' G-E+3 D' , ') !' 7 !'
4! #(') !' R 1' " % !' , ') !' 7 , F#' , ' % EN$4D E3' , ') !' 7 !' 4! #('
) !' R 1' (1 !' , ' " % !' , ') !' 7 , F#' , ' @4 3&&' , ') !' 7 !'
4! #(') !' " ,#' " % !' , ' G-EQ $E3' #&' @4H J ' , ') !' 7 !' 4! #(

R , ') !' +) !' V ' Q34D33E

< , &' 5$ J 3C' 8 $O' X&' ?3$ HE' @F$4 3C' MH4DHE' ' , ,#%' ' %%! &' < , &'
? 4$ F$ 3E') !' ,#,3 4%!' 9 $ J' MH4DHE' X&' ; HE') !' ,#,3 4%!'
< !3 !# #' !#! %' 3 $ED34' G-&&' 'G3 2$ O') !' ,#,3 ' 4%!C? / % '
MH4DHE' X&' P EE3C') !' ,#,3 4%!' + ' @F$4 3C' MH4DHE' X&' % E2C&H4D'
) !' L ( ) ' ,#,3 4%!' + ' 'HQ34' MH4DHE' H&' @ 34+F ' I " ') !'
,#,3 4%!' M3H423' MH4DHE' X&' B$ &H#4') !' ,#,3 4%!' 5HFE' MH4DHE
!' X&

`A' EE$NFO')!' ,#,3 4 '5$J3C' P$C 34'H 6H4Q3C')!' ,#,3 4%!'
9$ 34'6H4Q3C'4 B4- ' U, ' !#! %')!'5;eHEH 4$93'8-2F' 4Q- FEH '
, '8$ HE' I 5 #')!' ,#,3 4%!' 9 $J' 4Q- FEH ' I,%,#!%')!'
,#,3 4%!' 64$ENC' 9 $J' M4$E' BH2&HE HE' I 5 #')!' ,#,3 '
4%!' 9 $J' <2 3' , ' 4 3' @$C 3' + ' 5HFE' ? -$4' 6H4Q3C '
C 2H' + ' 'H_34' B-4E3 ' >3OC' + ' P NF$3' B4-N3' H ? 3EFH#C3'
#&' ?NH C H J' + '5HFE' 6H4Q3C' , '@4$ 2 3 $4' + ' 9 $J' ?3 HE' , '
I J3DD3E' + ' 5$J3C' M4$E' , ' PHEOJ-C+' + ' 3 $ED34' '$JC$O'
H B$ J$E' 4'@F$4 3C' 6H4Q3C' V %O!0 #&' ;D E2 $CC 3' ?4' 'HQ34 '
G$ 40J1 3' 8H4E' ; 1F EC HE3' , '8H4E' #&' >H2 3' ; 1F EC HE3' ?0/5HFE'
B-NF$E' 831Q-4E' , 'B$ J$$D' + ' 5$J3C' M4$E' ?- 3' , ' I43C HE'
M4$E23' " ,#! ' + ' 3 $ED34' %3 F' #() ' 1) %%' !#! %' + '
5$J3C' G- &' , '% EC $4' #() ' U, ' !#! %' + ' 3 $ED34' > F'
V '6433& 3 D' I " ' M3H423' PH4 CHE' , ' G CQ $4' 2 2 ' 9 $J'
4Q- FEH 'H G3EC' *FHJ$C' 4Q- FEH 'H 7% EJ-EDO' 5HFE' ED34CHE'
, '@EDN4$ 2' 5HFE' ED34CHE' , '?$ F O' *FHJ$C' B-4E3 ' ,3#(! '
H /' >3OC' @F$4 3C' B$EE34J$E' He/ % 4+F ' I3 34' B-4E3 ' ' ; 4 N+'
5HFE' -4E3 '? -$4' , '@4 NF 3' 5$J3C' B-NF$E' V ' -NF J$NHO' 5HQb'
B-4E3 'V '%3EJ$O' M3H423' B-4 3 ' , 'B$ & - 2' *FHJ$C' B $N+' '
9$ 34 D23J- 4' 5$J3C' B4-N3' >HE2C D3' EE34-FHJ430' 9 $J'
B CC3 ' >3CC3ED4-J ' I,%,#!%' I$ 4 N+' BO43C' * HE 30 ' D$J' @-4H 3'
V ' '$ 4$0' 9 $J' I# !' ,3#(! ' '$ 4$0' 3 $ED34' @4HJQ 3'
H /' I 3CDH' 9 $J' @F$ J34C' 8-E 34' * 340 ' 9 $J' @H4Q3 ' '
B 3 DC D3' @F$4 3C' @F$ J34C' V ' PHE+CF ' 5HFE' G-&&' 'G4-J J# 4'
5HFE' G E2 $ ' B4-N+ $O' 5HFE' G E2 $ ')!' ,3#(! ')! !V ' 5HFE'
G E2 $ ' , ' DH' 2 , ' , ' 4 F-4' G E2 $ ' 6H4DON3' @- CF ' 4 F-4'
G E2 $ ' 6H4DON3' V ' *3NFJ- ' 'HQ34 ' 9 $J' G-&&' @- C34 '
'HQ34 ' G-&&')!' ,3#(! ')! !, ' 9 $J' G-&&' V ' P $O3E' M$4D3E'
G-&&' ,U' 8$ HE' B3E($J E' G-&&' ,3#(! ' , '8$ HE' *FHJ$C' Q34R
N4HJQ 3' G-&&' /&0, ' !' 'HQ34 ' G- F 3' ' - F4 3C HE' I3 34' G-2- D'
H BH-4 3' 4 F-4' G-&&' V ' @HN+ $ ' 9 $J' G-&&' V ' @H4C ED$3'
U, ' M3H423' G-&&' , ' *H 3' G-EN$E' G$ DCHE' , ' *# ONF3 O'
I$ 4 N+' G$ DCHE' ,3#(! ')! !, ' 5$J3C' MO.$E' G-&&' ' ;D3E' 5$J3C'
G$ 40J1 3' R ' V ' 9 3C F$ ' 8-2F' G4-J JHED' G$ 40J1 3' " !'
L!# ! ')! !, ' I,%,#!%' 9 $J' 8H 3' %E 2F ' ;4C+ E3' V ' I HD4 3'
83E40' () ' ,3#(! ')! !, ' 3 $ED34' ;4C+ E3& E2F$ 3 '
*FHJ$C' ; JC 3' , '6 E2$C+' 5HC31F' ; JC 3' , '@$J1F ' ED43 '
6$4X-F$4CHE' , 'B43D$' 5HFE' 6$4X-F$4CHE' Xe 8$-2F HE' ' '
<' 6$4X-F$4CHE' ,3#(! ')! !, ' I3 34' 6$4X-F$4CHE' V ' 9 F 3'
FH-C3' M3H423' @$J1Q3 ' 6$4X-F$4CHE' ,3#(! ')! !V ' 4NF Q$ D'
6$4X-F$4CHE' , ' 6 ET3$E' 5$J3C' 6$4X-F$4' V ' 5HFEC HE' 5$J3C'
6342-CHE' V ' % EJ-EDO' 5HFE' 6H4Q3C' V ' B $N+&H4D' 3 $ED34'
6H4Q3C' ,3#(! ')! !, ' 5HFE' 6H4Q3C' ,3#(! ' , ' ,3 ' #&' -NF '
J3DD3E' 3 $ED34' 6H4Q3C' , ' BHOED 3' 5$J3C' 6H4Q3C' V ' ;NF '
9 $J' 6H4Q3C' ,3#(! ')! !V ')!' L!0! !#&' 2 , ' , ' M3H423'
6H4Q3C' , ' B 3 $N+' 5HFE' 6H4Q3C' ,3#(! ')! !V ' 'U, ' !#! %'
, $ F$E 3' 6H4Q3C' , ' -NF34E N+' < !3 !# #' I,%,#!%' G$ D' 6H4Q3C'
'?-EEOQ$E+' P NF 3' 6H4Q3C' , '@4 JHED' 83E40' G$ D' 6H4Q3C' V '
B$ 2H E 3' 3 $ED34' 6H4Q3C' , ' EC 30' *FHJ$C' 3 $ED34' 64$C34'
'? 4 NF3E' #&' >H $ ' @F$4 3C' 64$C34' E 34$ HNFO' @$CD3'
64$C34' < !3 !# #' !#! %' 5HFE' 64$C34' , ' I$4+' M3H423' 64$C34' < !'
L!# ! ')! !, ' @F$4 3C' 64$C34' , ' 9 $JC HE' M3H423' 6342-CHE' V '
I &H-4' < !3 !# #' 9 $J' 64$C34' V ' ?$ HN+' M3H423' 6H4Q3C' , '

UV[U/KS M#> ;>P @$1 U

?14 E2F 'HQ34 6$4 F$4C H& #$42-3 @F$4 3C 6H4Q3C , C H-E
M3H423 6H4Q3C -NFE2 F 3 < !3 !# # M3 34$ B3E($J E 6H4Q3C
H B$Q F$E 5HFE 6H4Q3C !1 & #(; NF 8H-C3 5$J 3C 6 ED $ 34
B$ 3E 3 @$C 3 I ,%,#!% J $ E 6$4X-F$4 8 $ I + 'HQ34
6- 34 HE /4! &!!# 5$J 3C6$4X F$4C<E H P HE$ 4 3 9 $J MH4DHE
@-J E2 ?+3E3 ' Q 42 T#& GON3 D$J MH4DHE , @$ 4E& 3 D
5HFE MH4DHE ,3#(!)! !, 5HFE MH4DHE , @ -EO D $4 3C
MH4DHE , 9 $4DFH-C3 5HFE MH4DHE ,3#(!)! !, 5$J 3C MH4R
DHE , @4$ 2 8 $44O MH4DHE , %EHN+3C1HN+ 5HFE MH4DHE ,
HNF 3 *FH J $C MH4DHE X&B- F $ 9 $J MH4DHE , 6O 3
9 $J MH4DHE ` Q34DHE4 9 $J MH4DHE ,3#(!)! !,
M3H423 MH4DHE , JNF 3 @F 3C @F$4 3C MH4DHE ,3#(!)! !,
G$ D MH4DHE , Q342H D 3 64$EN C MH4DHE , % EN$4D E3
5$J 3C MH4DHE ,3#(! #) !, 5HFE MH4DHE , @$ 4EQ- 2 M3H423
MH4DHE ,3#(!)! !, 8 E MH4DHE , PE4 5$J 3C MH4DHE
,3#(!)! !, 5DFE MH4DHE , ,3 HE 5$J 3C 6$4X-F$4 MH4DHE
, B$ J - 4 5HFE MH4DHE ,3 Q34 J - 4 *F3HDH43 MH4DHE H&
< 34F$ P NF$3 64$EN C MH4DHE , B43$NF O I # 'HQ34
MH4DHE , P DJ 3 5$J 3C -2-C -C M4$E H(* 3 & 3 D 5HFE M4$E
% ! , 4 $J&H4D 'H&$J M4$E G4- J EE34 5$J 3C M$J J 3 ,
4D&634O 5$J 3C M4$< <4D 'HQ34 M4$E , * O&H-4 5H J
M344$4D , P DC 4$ F D$J MH4DHE V ,3 HE2$4 HNF I #
@F$4 3C MH4DHE , B4HH J F 5HFE MH4DHE , G4- J J 3C @F$4 3C
,$1 34 MH4DHE ;C 3 J HE 5HFE M$4D3E H P & 3 D !#! % 3 R
$ED34 8 $O '$E#3C ED43 ;3 F 8 $O ,3#(!)! !, 3 $ED34
8 3ED34CHE @ @$C+ 3E I! (!&# ' 4 8 3ED34CHE , *H4 34C HE
< !3 !# # I ,%,#!% M3H423 8 3ED34C J H(& @HE2 $CC 5HFE 8 - NF3CHE
, @$ 4E2$ 'HQ34 8 - NF3CHE ,3#(!)! !, 5HFE 8 3E4O ,
9 $ NF J H-E 5HFE 8 $4 3O , % E3 3C 5$J 3C 8 $DD3E V I34 C 3O
3 $ED34 8 $DD3E ,3#(!)! !, M3H423 8 H2$4 F , 9 HHDF
M3H423 8 H2$4 F ,3#(!)! !, *FH J $C B-NF$E 8 31Q-4E ,3#(!
, ?J 3$ HE 8 31Q-4E 5$J 3C 8 $4 3O , IH 34 H E 'HQ34 8 $4 3O
B4HH J F 3 $ED34 4 E3 H& G4- J 3 $ED34 6H4Q3C 4 E3
, ?NF $C I $ 4 N+ 4 E3 , E 34$J C$O I $ 4 N+ 4 E3 ,3#(!
)! !, >3 C EE3C V B$ H2 3 #& B$ E$N4$ 2 5$J 3C 'HC3 EE3C
V ,3 F34D$ 3 9 $J EE3C ` '$3 J H 4 3 $ED34 EE3C ,3#(!
)! !, *FH J $C % 2H 4 B34H3 E3 5$J 3C % 2H-4 ,3#(!)! !,
M3H423 % 2H-4 , 4DNH#E$E I $ 4 N+ % 2H-4 ,3#(!)! !!
5$J 3C %EH 3C % 4+ 3 5$J 3C % E HNF V 3C 'HQ34 9 $J
% 2H-4 V * - HC 5HFE >3& F 'HCC , 4E$23 5HFE 'HCC ,3#(!
)! !, 5HFE 5$J 3C 6H4Q3C '3 F ^ 9 F 3F$-2F I # 5HFE >3 F
<, % E O M3H423 >3C 3 ` 'H P3 >$ E2 , 8 $DDH 5HFE
>3C 3 , IH 9 C ; 4E3C >3C 3 V B$ X-F$ E 9 $J >3C 3 , 9 $4
F 9 $J >3C 3 ,3#(!)! !, 8 3E4O *FH J $C >- J CD3E V
@-CFE 3 8 $44O >3 F >- J CD3E V -NF EDH 4 8 $44O >- J CD3E V
B3 F3 3 8 -2F >- J CD3E V I D$1 3 8 3E4O >- J CD3E H& * -F O
I 5 # *FH J $C >- J CD3E F H& B3 F3 3 5$J 3C >- J CD3E V
-NF4O 5HFE >$ CH# V @F$13 HE 5HFE >$ CHE ,3#(! , @F$
13 1E 5$J 3C >$J HED @ ? 4$ED-&& 3 $ED34 > 234 HHD 1 >H2 3
4 3 3 9 $J > 234 HHD V3 !)! !V I $ 4 N+ >$ E2 @4$ 2 J 3
5HFE P 3ET 3C V I &HD3 C P 3HDH43 P H4 CHE , BH2E 3 5HFE
P H4 CHE , -NF E H- 3 $ED34 P ^ CHE ,3#(!)! !, 5$J 3C
P H4 CHE < ! L!# ! 1& P - 43 9 $J P H 4 V I $4+ 5HFE P $EC
& 3 D

ULKS`M#> ;>P ʻ @$1 U

3 ʻ , ʻ P D E$4ʻ 'HD34 N+ʻ P $N+3ET 3ʻ , ʻ M $N+ ʻ 5HFEʻ P $N+3ET 3ʻ ,3#(! ʻ)! !, ʻ 5$J3Cʻ 9 $Jʻ P $N+3ET 3ʻ , ʻ I 4 NF 3ʻ U, ʻ _$E 3ʻ P NF3 ʻ CF24H 3ʻ 9 $Jʻ P 7@HJQ 3ʻ ; $C 34ʻ ?+3E3ʻ *FHJ Cʻ P $EC& 3 Dʻ / '',3# #ʻ #ʻ ; D EQ-42F ʻ 5$J3Cʻ G-&6ʻ P $N+$Oʻ , ʻ B$ J$-D ʻ I3 34ʻ P 7@HJQ 3ʻ , ʻ>3E -4+ʻ @F$4 3Cʻ P 7@HJQ 3ʻ , ʻ * O ʻ &H-4ʻ L!0! !#&ʻ @F$4 3Cʻ I ,J#) !ʻ ,3#(! ʻ)! !, ʻ 9 3 J OCCʻ <44H+ʻ , ʻ <44H+ʻ I$ HEʻ H M4$EDFHJ3ʻ 5HFEʻ I$ Eʻ B$ 2H $E ʻ 3 R $ED34ʻ IF 1ʻ^ =HED34 HEʻ 5HFEʻ I$-ʻ , ʻ ,3 C3$ʻ #&ʻ M 3ED$ 3EEOʻ 3 $ED34ʻ '-CC3 ʻH P HE NH&&34ʻ 5HFEʻ 'JCOʻ B44ʻ5HFEʻ '-CC3 ʻ Oʻ B$ J$-D ʻ 'HQ34ʻ 'HQ34 CHEʻ , ʻBHDDHJ ʻ5$J3Cʻ '3 Dʻ H P - 4 H Eʻ 3 $ED34ʻ '$JC$Oʻ ,3#(! ʻ , ʻB$ J$ Eʻ 5$J3Cʻ ?+3E3ʻ , ʻ '-QC$ ʻ M3H423ʻ ?+3E3ʻ ,3#(! ʻ)! !, ʻ M3H423ʻ ? ʻ , ʻ P D3Eʻ 5HFEʻ P$ H4ʻ ? ʻ ,3#(! ʻ)! !, ʻ I$ 4 N+ʻ ? 3-$4ʻ , ʻ -NF -EN$4 ʻ 9 $Jʻ ?F$EDʻ , ʻ @4$ 23 Oʻ ?F$EDʻ ,3#(! ʻ)! !, ʻ 3 $ED34ʻ ?3 H#ʻ , PH-E 3ʻ 5HFEʻ ?+3E3ʻ , ʻ>3 F3E Oʻ ? 3 $4ʻ ?H- 34ʻ , ʻ P 3 4HC3ʻ 5HFEʻ >-JCD3Eʻ ?F 443&Cʻ "% , ,#)ʻ M3H423ʻ ?+3 HEʻ , ʻ E 34E3 3ʻ M3H423ʻ ?OJ J34Cʻ H @- Cʻ 3 $ED34ʻ ?NH ʻH&ʻ @4$ QC HE3ʻ 3 $ED34ʻ ?J Fʻ , ʻM 3EJ $Eʻ 9 $Jʻ ?J Fʻ , ʻ8$ HEʻ 3 $ED34ʻ ? 4HE$NFʻ , ʻ G4-J$ $Eʻ M3H423ʻ M4$Eʻ ?- 3ʻ ,3#(! ʻ , ʻ I43C HEʻ M4$E23 ʻ 9 $Jʻ ? -$4ʻ , ʻ@$4E$4 HEʻ 5$J3Cʻ ?F31F34Dʻ , ʻ D 3ʻ 5$J3Cʻ ?F 43& C ʻ< Dʻ G334ʻ 3 $ED34ʻ ?F$41ʻ ?F$EDʻ , ʻ*3J1 $EDʻ 5HFEʻ MH4DHEʻ ? 3 $4ʻ P HCC H Eʻ 3 $ED34ʻ *FHJCHEʻ H&ʻ B$ENFH4Oʻ 5HFEʻ *-4E34ʻ H *-4E34F$ ʻ< !3 !# #ʻ I ,%,#!%ʻ M3H423ʻ *-4E34ʻ , ʻ P 3E 3ʻ 9 $Jʻ *H 34ʻ H&ʻ % E$ D 3ʻ ʻ,ʻ ʻ 6ʻ * H4ʻ G-EE 3D334ʻ 9 $Jʻ 5$J3Cʻ *$O H4ʻ ,3#(! ʻ)! !, ʻ 5HFEʻ *F-4QE4Eʻ &ʻ P -4 3ʻ < !3 !# #ʻ I ,%,#!%ʻ 5HFEʻ 'HQ34ʻ #DEOʻ , ʻ #DEOʻ 5HFEʻ ,3#(! ʻ)! !, ʻ 5$J3Cʻ #4X-F$4ʻ H&ʻ P 3 D4-J ʻ 9 $Jʻ #4X-F$4ʻ H&ʻ @4$ 2C HEʻ B3$-NF$J1ʻ @H N 3-2Fʻ #4X-F$4ʻ H&ʻ BO Fʻ 5$J3Cʻ 9 CHEʻ -NF$Q34ʻ M3H423ʻ =3$ C -X-F$4E 3ʻ +)! ʻ , ʻ)!ʻ +) !ʻ H&ʻ Q34D33Eʻ +)! ʻ +341 3 !ʻ , ʻ)!ʻ +) !ʻ , ʻ Q34D33Eʻ +)! ʻ2!53 !ʻ , ʻ)!ʻ + !ʻ , ʻ B$E&&ʻ * ,0,1ʻ #&ʻ !%&!1ʻ" %% !ʻ , ʻ Q34D33Eʻ)!ʻ 2! #ʻ , ʻ 3 %&ʻ , ʻ Q34D33Eʻ)!ʻ 1 ! ʻ6ʻ , ' ,#1ʻ)! !, ʻ * ,0,1ʻ #&ʻ !%&!1ʻ " %% !ʻ , ʻ< Dʻ Q34D33Eʻ I) ʻ (1 !1ʻ , ʻ E 34-40ʻ #&ʻ % E H43ʻ 9 $Jʻ @$4E32 3ʻ 7,0,# I%! ʻ Q34D33Eʻ (& 3 " ,#ʻ " %% !ʻ `ʻ I3 34F3$Dʻ)!ʻ " ,#ʻ " %% !ʻ , ʻ64$C34Q-42Fʻ)!ʻ " ,#ʻ " %% !ʻ , ʻ 8-E Oʻ , ʻ)!ʻ 7 !ʻ 4! #(A

R, ʻ)!ʻ +) !ʻ , ʻ E 34E3CCʻ

7)!ʻ L ()ʻ ,#,3 4%!ʻ MHD&43Oʻ BHC 3ʻ <, &ʻ P $NDHE$ Dʻ)!ʻ L ()ʻ ,#,3 4%!ʻ @F$4 3Cʻ M4$Eʻ , ʻM 3E3 2ʻ)!ʻ L ()ʻ ,#,3 4%!ʻ 'HQ34ʻ M4$E ʻG4-JH43ʻ)!ʻ ,#,3 4%!ʻ 5HFEʻ ? -$4 ʻ)!ʻ ,#,3 [4%!ʻ 3 $ED34ʻ P $NDHE$ Dʻ)!ʻ ,#,3 4%!ʻ E2-Cʻ P $N+ E HCFʻ H&ʻ P $N+ E HCFʻ + ʻ5$J3Cʻ P 3Cʻ ' DD3 ʻH&ʻ 4DE$J -4NF$4Dʻ #&ʻ ?- $4 ʻ " ,#! ʻ+ ʻ64$EN Cʻ 3 $ED34ʻ P $N+3ET 3ʻ H&ʻ M$ HNFʻ " ,#! ʻ+ ʻ G-EN$Eʻ @$J34HEʻ H&ʻ 6$CC&34Eʻ " ,#! ʻ + ʻ5$J3Cʻ 5HFEʻ 64$C34ʻ , ʻ >3$DN -E3ʻ " ,#! ʻ? 4ʻ 5HFEʻ I3 34ʻ M4$Eʻ H&ʻ 'H F 3J -&NF-Cʻ #()ʻ M4$Eʻ $Eʻ H&ʻ >HEDHEʻ !') #ʻ ; $Eʻ B$ 3ʻ)!ʻ ,3#(! ʻ GHNF&H-4ʻ 5$J3Cʻ ; $Eʻ B$ 3ʻ , ʻB4 C H ʻ< !3 !# #ʻ I ,%,#!%ʻ 5HQEʻ B$ 3ʻ H&ʻ >3OCʻ GHE$ Dʻ @$J34HEʻ)!ʻ ,3#(! ʻ , ʻ>HNF 3 ʻ5HFEʻ @$J34HEʻ X&ʻ NF E 3ʻ < !3 !# #ʻ I ,%,#!%ʻ 8-2Fʻ 5HFEʻ @$J34H&ʻ , ʻ >3 34& E $Oʻ GHE$ Dʻ @F$4 3Cʻ @$J34HEʻ H&ʻ 6H F$ ʻ 5HFEʻ @$J34H#ʻ)!ʻ ,3#(! ʻH&ʻ 6H F$ ʻ 9 $Jʻ 6ʻ @F$JQ34Cʻ H&ʻ 4E CD$ 3ʻ +&ʻ 3W $ED34

$ED34 9 $ J @F CFH J , @F CFH J 5HFE M- J J E2 , M4 CF34E C+
8 -2F G$ DCHE @$E 4$O 8 -2F ' HQ34 G - && , P - 4 H E 5HFE
; D $4DC +) ! b +341 3 ! @ % ! ! 1] & 6$ NHE34 >3E
4$E 5$ J 3C 5HFE 6$ NHE34 (! , >3E 4 - E 5HFE 6342 - CHE
! ') # # E 34E3CC 6H4Q3C ,3#(! , @- HD3E 5$ J 3C
5HFE 64$C34 8 -2F 64$C34 ,3#(! , 3 HE G - EN$E 64$C34 ,
* E2$C+ && 3N+ 64$C34 @ - D - F3 5$ J 3C 64$C34 , @-
D- F3 8 -2F 64$C34 , ? 4-0 ! ,) ! + (#! 5HFE 64$C34 @
NFE2 4E *FH J $C 3 $ED34 64$C34 , >H $? J HE 64$C34
,3#(! , >H $ ' HQ34 64$C34 , 6H4Q43N+ 3 $ED34 64$C34
,3#(! , 6H4Q43N+ 4NF Q$ D *FH J $C 643D34 N+ 64$C34 , Q34
$ &_ *FH J $C 64$C34 ,3#(! ; C+D 3 ? J HE 64$C34 ,3#(! ,
B$ E$ E *FH J $C M T3FE B - 8 $NF HE 5HFE MH H J MH 3 J & 3 D
64$EN C 9 $ J M4$E 9 $ J I 3 34 M4$E ,3#(! , ' H F 3
J - 4NF- C 5HFE P $N1F34CH4 M4$E ,3#(! , B$ ED$ HN+ &
E 343CF 3 5$ J 3C M4$E H B - 2Q G - EN$E # ,3#(! H B - 2F
5$ J 3C P - 44$O M4$E H& 8 E J H4 C HEE 9 P HO 5HFE # ,F (!
, M 3E J H4 C HE #& P HO I $ 4 N+ M4$E , >$+3& 3 D 3 $ED34
' HE$ D M4$E ,3#(! >$+3& 3 D 3 $ED34 M4$E ,3#(! ,
@H44 3 J HEO 9 $ J *FH J $C M4$E B34E34$ 5$ J 3C M4$E O !
,) ! + (#! I $ 4 N+ M4$E ! ,) ! + (#! , H4 J $E 8 H&
B4HH J F / &0, ' ! $#J!1 ! ') # >HEDHE 3 $ED34 %3 O
! G E2 $ 5HFE P $NDHE$ D ,3#(! , @ $E4$E$ D @H
P $NDHE$ D , B$44 CD$ 3 4NF Q$ D P $NDHE$ D ,3#(! , B$44 C
D$ 3 U, !#! % 5HFE P $NDHE$ D , B34E CD$ 3 P $ F3
, H4 J $E P $NDHE$ D ! Z) ! + (#! 5$ J 3C *FH J $C P $NR
DHE$ D , B$ 4E D , H4 F # C / GHE$ D P $NDHE$ D , ?+N$QHC
U, P $NDHE$ D H& *4- J 1$E #& 9 $ 34E CF 5HFE P $NR
DHE$ D H& P H4$4 8 -2F P $NDHE$ D H& BH CD$ 3 9 $ J ' HQ34 R
CHE P $NDHE$ D ,3#(! , % E HNF J $ D$4 ' E D F $NDHE$ D ,
? $&&$ E2 - C P $NDHE$ D H& M 3E$ D 3 3 $ED34 P $NDHE$ D ,
' F- 3 U, $E P $NDHE$ D , 4D J H43 < !3 !# # I ,%,#!%
GHE$ D P $NDHE$ D ; E3$C ' $ $ DCHE P $NDHE3 , M 3E2$44O #&
@ $E4$E$ D U, !#! %? 3#!1 P $NDHE3 U, ? !1 P $NDHE3
H& ?NH HC L !0! !#& 5 P $N+$O @ ' $&&H4D 3 $ED34 P $N+ E HCF
,3#(! P $N+ E HCF @$ J 1Q3 P $N+ E HCF G$ J 2$ 3 GHE$ D
P $N+ E HCF H T2H4 G$ J 2$ 3 ; E3$C P $N+ E HCF ,3#(! ,
$ 2 J H43 5HFE P $N+ E HCF ^(& 8H J (9 $ J P $N+ E HCF H M3DD3C
M3H423 P $N+ E HCF ,3#(! @ M3DD3C @F$4 3C P $N+ E HCF ,
Q34$4D34 < !3 !# # I ,%,#!% 5$ J 3C 5HFE P $N+ E HCF H 6$44 @E3$C
P $N+ E HCF ! ') # >HEDHE ; E3$C P $N+ E HCF H& B$ E3C1 N+
, H4 J $E P $N 3HD ,3#(! , P $N 3HD 5HFE P $D3 _D H ' CO
3 $ED34 , H4 J $E P $N 3HD 8 $44 C 3 $ED34 , H4 J $E P $N 3HD
,3#(! , 8 $44 C 5$ J 3C P $N1F34CHE H& B3 3 3 < 3E P $N1F34
CHE H& @ - EO I 5 # ; 3E P $N1F34CHE H& M 3E 4$ F3 2 , ' ,
8 -2F P $N1F34CHE , ; 22 P $N1F34CHE ,3#(! , ; 22
8 -2F P $NX- 33E ! , ?F + ( ) ! 5HFE P $NX- 33E +,% ' ,
>HEDHE 3 $ED34 P H44 CHE ,3 ! NF E H- @F$4 3C P $4NF
I F 1C H& M$43EDHE I $4+ 5$ J 3C ' HQ34 CHE H& - E$C+ $NF 2
3 $ED34 E2 C ' HQ34 CHE ,3#(! , - E$C+ $NF 4 F- 4
P $C 34 HE ' HQ34 CHE ,3#(! ENF3C 8 -2F ' HC3 H& % 4$ HN+
I ,%,#!% 5HFE ' HC3 H& @$C 3F 5HFE ? 3 $4 , B3 $D4- J @F$4 3C
; D $4D ? 3 $4 HP 234 H& B3 $D4- J 3 $ED34 *O 34 ,3#(!
,

U K S M#> ;>P @$1 U

, B$ E$ E 5$ J 3C 9 CF$4 , 63E 2 *) 1 ' # # G E2 $)! + 3 ?? #& +)! +341 3 ! ,)! I ,3# , E 34E3CC 5Q4)! 7 ! 4! #(

R,)! +) ! ,U ,$ 4E

%/ !3 !# # !#! % + 8 3E40 643D34 N+ @$ J 1Q3 I " 8 3E40 *4H 34 P H4 HEF$ *FH J $C *4H 34 ! ,)! + (#! G- N$E M 6H4Q3C , @- HD3E 5HFE MH4DHE , @ -EO * + 5$ J 3C G-EQ$4 , BH$ F " ,#! I 5 # L E)! ,#,3 4%! 9 $ J 8H $4D < !3 !# # I ,%,#!% 3 $ED34 8 $O , 9 3C 34 H E)! ,#,3 4%! M3H423 I 4OCN @$ J 1Q3 I 5 # L E 9 $ J B4HD 3 , B4HD 3 5$ J 3C 3 $ED34 ? 3 $4D P $N+3ET 3 , ?3$&H4 F * + 9 $ J MH4DHE MH4DHE @- J J E2 " ,#! * + 5$ J 3C P HE 2H J 34O @-E E2F$ J 3 , @H4C3F " ,#! 5HFE >$NF $E P M 4$O @ G- J E$2 $CC 9 $J P $N+ E HCF , M3DD3C M3H423 P $N+ E HC ,3#(! , M3DD3C)! L !0! !#& 5$ J 3C M4$E # 1 ! ,)! * 1) , ,$ 4E ED43 9 $ CHE , B4 D23 @$C 3 ! ,)! + (#! 8 -2F G$ DCHE , @$E 4$O 5$ J 3C -2-C -C M4$E V 3 & 3 D 8 -2F 'HC3 , % 4$ HN+ 5$ J 3C @$ J 1Q3 B4HD 3 , >3 F3E)! L !0! !#& 3 $ED34 'HC3 2 2 6#! V)! # 1 ! 1 , E 34E3CC)! +)! #& +)! +341 3 ! ,)! I ,3# H ,$ 4E)! !%&!1 " % ! "! # , 3 %& #& 7 ! 13 ! V)! "3 () , ,$ 4E #&)! " ,# " % ! ,)! " ,# , @$ DH4 %% ,)! 7 ! 4! #(

R,)! +) ! V 420

7)! L () ,#,3 4%! <,# & 5HFE @$ J 1Q3 V ?N$ J J D 3)! L () ,#,3 4%! 5HFE <, & M 3EH4NFO)! L () ,#,3 4%! <, & 5HFE 8 $O)! L () ,#,3 4%! <, & 6 EN$C 3 + 4NF Q$ D @$ J 1Q3 V ?-NNHNF " ,#! + 5HFE I H 3 < D3 , % J H44O " ,#! 5HFE P $N ,3 M 2F$ 5HFE @$ J 1Q3 % Q344O 5HFE @$ J 1Q3 ,3#(!)! !, 3 $ED34 @$ J 1Q3 , ;D34 E3 5HFE @$ J 1Q3 , -NF E3 $E ,H4 J $E >$ J $E , P HEOD4$ E 5HFE M @$ J 1Q3 V ?F 4 $ E G-EN$E @$ J 1Q3 , G-ENFH 2 E ,3 P $ NH J H I H $ HNF ,3 %/] ',L ,3#(!)! ! @H E B3 P $N >$NF $E ,3#(! , @4$ 23E 3 3 P HC3C @$ J 1Q3 , E 34 34 'HQ34 P $N %3ET 3 , ?$ $NF4O @H E P $N GH-2$, >-E2$ 5HFE @$ J 1Q3 , M 3E J H43 G-EN$E @$ J 1Q3 , 'HN+F G$ D <4 J 3 @- FQ34 P $ NH J 5HFE P $ NH J G-EN$E @$ J 1Q3 , 'HCC #& E 34E3 5$ J 3C @$ J 1Q3 ,3#(!)! !, I ,%,#!% 9 $ J %3 F ; 1F EC HE3 , @$4C E2 >$NF $E P $N ,3 , G4 J D4 CF$ 2 5HFE @$ J 1Q3 , G4- J E$ J -N+ HNF @H E @$ J 1Q3 , 4D1$ 4 N+ I ,%,#!% GHE$ D P $N ,3 7 + V NFE$Q$ 5HFE P $N GH-2$ X B433 $ NF 5HFE @$ J 1Q3 V G-ECHE % 4+ J $E 6 E $O , @$C 3 *H $4D 5$ J 3C 6 E $O ,3#(!)! !, 3 $ED34 >$ J 3E , %EHN+DH 5HFE @$ J 1Q3 , ?H- F$ @H E @$ J 1Q3 +!',#& +,# ,)! % ! 5HFE @$ J 1Q3 V ?H- F$ 5HFE @$ J 1Q3 , <E J D$ 3 4NF Q$ D @$ J 1Q3 , M 3ED$4E3 E2-C 6 3 NF34 G-E$EC 'HQ34 P $N >$NF $E V P $N >$NF $E 5HFE @$ J 1Q3 ? 4$NF-4 5$ J 3C 8 3E4O @$ $ED34 , 4D+ E2 $CC P -E2H , - 34 @$ J 1Q3 , B$ J H43 4NF Q$ D @$ J 1Q3 , G4 J COE 3 53 J @$ J 1Q3 , < 34 < !3 !# # I ,%,#!% GHE$ D P $N ,3 , >$4X 3

! B J H43

JH43ʿ 5HFEʿ P$Nʿ 4 F-4ʿ PQ 4ʿ , ʿ P HEʿ P NF$3ʿ > EE E2ʿ @ ʿ
^ H4 E H CFʿ 5HFEʿ 6 3 NF34ʿ B34E N3 ʿ 5$ J 3Cʿ 8 - E 34ʿ , ʿ 8 $ & HEʿ
3 $ED34ʿ @$ J 1Q3 ʿ H6ʿ B$ HNFO 3ʿ 9 $ Jʿ =H - E234ʿ H / @4$ 2 3 $EDCʿ
* FH J $Cʿ 8 $4+E3CCʿ ʿ M$44$NFH43Eʿ 5HFEʿ P $Nʿ 34ʿ , ʿ 4D J 34EHN+ʿ
G$ Dʿ , $1 34ʿ -0KM 3ECF3 & Fʿ M3H423ʿ ʿʿʿ 9 CHEʿ H*ʿ E C J $4-C+
' HQ34ʿ $N > $NF $Eʿ , ʿ B$ JH43ʿ 4NF Q$ Dʿ @$ J 1Q3 ʿ , ʿ 5 - 4Dʿ
5$ J 3Cʿ @$ J 1Q3 ʿ , 3#(! ʿ ? ! ! ʿ - ,) ,ʿ P $Nʿ , 3 ʿ , ʿ @H HEC$Oʿ
3 $ED34ʿ P $Nʿ , 3 ʿ , 3#(! ʿ) ! ! , ʿ 9 $ 34ʿ 643D34 N+ʿ @$ J 1Q3 ʿ V ʿ
?F$ & 3 Dʿ #&ʿ C $Oʿ 9 $ 34ʿ MD J 1Q3 ʿ , ʿ ? - ED34 $EDʿ G - EN$Eʿ
P $Nʿ , 3 ʿ / &0, ' ! ʿ @H Eʿ @$ J 1Q3 ʿ , ʿ B$ E$QOʿ ?$ J - 3ʿ @4$ &H4Dʿ
V ʿ C $Oʿ ' HQ34ʿ @$ J 1Q3 ʿ , ʿ ?HENFEʿ ! # ! % G - EN$Eʿ @$ J 1Q3 ʿ
^ >HNFE3 ʿ + ʿ G - EN$Eʿ @$ J 1Q3 ʿ B$4N$ D E3ʿ ' HQ34ʿ @$ J 1Q3 ʿ @ ʿ
4DNF$ $Eʿ + ʿ 5HFEʿ @$ J 1Q3 ʿ H6ʿ 4DE$ J - 4NF$Eʿ " , # ! ʿ 5HFEʿ
^ $ J 1Q3 ʿ , 3#(! ʿ) ! ! , ʿ @F$4 3Cʿ @$ J 1Q3 ʿ , ʿ @H J QOʿ 4NF Q$ Dʿ
P $Nʿ @$ J $Eʿ ʿ G4 CC$ 2ʿ 3 $ED34ʿ P $Nʿ @$ J $Eʿ , 3#(! ʿ) ! ! , ʿ
5HFEʿ @$ J 1Q3 ʿ , ʿ P 3 &H4Dʿ I , Cʿ P $Nʿ GH - 2$ ʿ , ʿ 4D EN$1 3ʿ
I 5 # 5HFEʿ P $Nʿ GH - 2$ 8ʿ , ʿ P $Nʿ GH - 2$ ʿ GH - 2$ ʿ P $Nʿ GH - 2$ ʿ
^0ʿ M$ ENFʿ 3 $ED34ʿ @$ J 1Q3 ʿ > 34$2 Cʿ 4NF Q$ Dʿ @$ J 1Q3 ʿ
, 3#(! ʿ) ! ! , ʿ 5HFEʿ ? 3 $4 ʿ ʿ BH$N H NFʿ @F$4 3Cʿ ? 3 $4ʿ , ʿ
4DCF3$ ʿ @F$4 3Cʿ ? 3 $4ʿ , O#(! ʿ) ! ! , ʿ @F$4 3Cʿ ? 3 $4ʿ , ʿ
B$ $NFH CFʿ I , Cʿ P $Nʿ GHE$ Dʿ V ʿ G$ E3CCʿ 5$ J 3Cʿ P $Nʿ GHE$ Dʿ
, 3#(! ʿ) ! ! V ʿ 3 $ED34ʿ @$ J 1Q3 ʿ , ʿ EE C H43ʿ ' HQ34ʿ GH E 3ʿ
, ʿ 11 Eʿ ' HQ34ʿ GH E 3ʿ , 3 (! ʿ) ! ! V ʿ < ! 3 ! # #ʿ 4NF Q$ Dʿ
@$ J 1Q3 ʿ V ʿ) ! ʿ % ! ʿ ZUb 6QH&ʿ @$ J 1Q3 Bʿ G4 - J J HEDʿ ' DD3 ʿ / &0, ' ! ʿ
GHE$ Dʿ @$ J 1Q3 ʿ H / G - EC $&&E$D3ʿ 3 $ED34ʿ M OEEʿ @$ J 1Q3 ʿ 5HFEʿ
P $Nʿ GH - 2$ ʿ V ʿ %E 1HNFʿ 3 $ED34ʿ @$ J 1Q3 ʿ , ʿ P HET 3ʿ 3 R
$ED34ʿ 6H4CO Fʿ V ʿ G - E$NFʿ @H Eʿ @$ J 1Q3 ʿ , ʿ ' HNFQ$E+ʿ 4NF Q$ Dʿ
@$ J 1Q3 ʿ , 3#(! ʿ) ! ! , ʿ + ʿ G - EN$Eʿ @$ J 34HEʿ H6ʿ 6$CC&34Eʿ 8 - 2Fʿ
P - E4Hʿ , ʿ B$4ED E3ʿ + ʿ 5$ J 3Cʿ P & 3Cʿ ' DD 3ʿ , ʿ 4DE$ J - 4NF$Eʿ #&ʿ
? EE$4 ʿ " , # ! ʿ 5$ J 3Cʿ 6H4Q3Cʿ , ʿ % E234 HNFʿ ' 1E$ Dʿ M3H423ʿ
P $Nʿ GHE$ Dʿ 1 @ $E4$E$ Dʿ 3 $ED34ʿ P $Nʿ > 3$Eʿ V ʿ 4D2H - 4ʿ I 5 #
4NF Q$ Dʿ P $Nʿ > 3$Eʿ L % ʿ , 3#(! ʿ) ! ! V ʿ GHE$ Dʿ @$ J 34HEʿ , ʿ
>HNF 3 ʿ GHE$ Dʿ @$ J 34HEʿ , 3#(V ʿ) ! ! , ʿ 5HFEʿ ? 3 $4ʿ , ʿ - NF$ʿ
D$CF3E$ 2ʿ I , %, # ! % GHE$ Dʿ @$ J 1Q3 ʿ , ʿ P CFE CFʿ 4NF Q$ Dʿ 5$ J 3Cʿ
@$ J 1Q3 ʿ V ʿ % 1$ 4 N+ʿ 3 $ED34ʿ P $Nʿ > 3$Eʿ , ʿ @H ʿ 8 - 2Fʿ P $Nʿ
> 3$Eʿ , 3#(! ʿ) ! ! , ʿ G - 2$ Dʿ P $3 > $N $Eʿ %3 3 J H43ʿ 3 $ED34ʿ
P $Nʿ > 3$Eʿ , ʿ @$4C$ 2ʿ D 2Hʿ , ʿ I 3EE02$ ʿ P - 4DHN+
P $Nʿ > $ E3ʿ , ʿ > HNFQ - Oʿ P - 4DHN+ʿ P $Nʿ > $ E3ʿ , 3#(! ʿ) ! ! , ʿ 5HFEʿ
P $Nʿ GHE$ Dʿ , ʿ BH44HD$ 3ʿ E2 - Cʿ P $Nʿ GHE$ Dʿ , 3#(! ʿ) ! ! , ʿ 5HFEʿ
M432$4CHEʿ , ʿ 4D H4 CFʿ I $ 4 N+ʿ M4$Eʿ , ʿ > $+3& 3 Dʿ 5HFEʿ ? EN $ 4ʿ
V ʿ > HNF$ E3ʿ 8 - 2Fʿ P $Nʿ C+ ʿ ʿ P H4 E CFʿ 3 $ED34ʿ @$ J 1Q3 ʿ , ʿ
6HCC ʿ #&ʿ * H4HC$Oʿ 5HFEʿ @$ J 1Q3 ʿ P0 N4ʿ) ! ! , ʿ 5HFEʿ P $Nʿ > 3$Eʿ
H % 3 ED E3ʿ > $NF $E3ʿ P $3ʿ ($440ʿ 1&ʿ 5$4 C& 3 Dʿ E2 - Cʿ P $Nʿ
GHE$ Dʿ , ʿ M 3E$ D 3ʿ 3 $ED34ʿ @$ J 1Q3 ʿ , ʿ @$H Cʿ I , Cʿ 3 R
$ED34ʿ 64$T34ʿ , ʿ NF$4E(ʿ @F$4 3Cʿ P J0ʿ \ - $44 3ʿ , ʿ # $ʿ @F$4 3Cʿ
P $Nʿ \ - $44 3ʿ , 3#(! ʿ) ! ! V ʿ I , %, # ! % L ,) , ʿ P $Nʿ GHE$ Dʿ V ʿ ENFʿ
+3EE3 Fʿ I 5 # ' HQ34ʿ P $Nʿ GHE$ Dʿ , 3#(! ʿ) ! ! , ʿ GHE$ Dʿ P $Nʿ
> 3$Eʿ , ʿ % E HNFCN4 D3Eʿ GHE$ Dʿ P $Nʿ W $Eʿ , ʿ BH4434$ʿ #&ʿ G4 J E Eʿ
5HFEʿ 6344 34ʿ C + ʿ 5HFEʿ @$ J 1Q3 ʿ , ʿ ? H 3& 3 Dʿ @H Eʿ @$ J 1Q3 ʿ
, 3#(! ʿ) ! ! , ʿ 9 $ 34ʿ @$ J 1Q3 ʿ ?+ 1E3CCʿ U , ʿ ! # ! % ' HQ34ʿ
^ @$ J 1Q3 ʿ 1 * ME $4Q34 ʿ + ʿ @F$4 3Cʿ P $Nʿ GHE$ Dʿ > HN+F$4ʿ 1 > $42 3ʿ
%3 Fʿ P $Nʿ C 34ʿ H * B$44ʿ 643D34 N+ʿ 9 $ Jʿ @$ J 1Q3 ʿ 1 * B$ QE3N+ʿ
5HFEʿ @$ J 1Q3 ʿ H&ʿ M 3EC$DD 3ʿ M3H423ʿ P $Nʿ , 3$ʿ # 22D 3ʿ G - 2$ D
[ʿ @$ J 1Q3

@$J1Q3 ' '% D$ $2' 5HFE' @ $ J 1 Q 3)! !, ' ,3 '
,3 ' , ' 4 E$N4HCC' 5HFE' >H4E' ? 3 $4' @ ' M 3EQ-N+ q"' @F 53C'
P$N' FN$4' , '% 3 $E' ?$J -3' < J$O' , '%3 ' 5HFE' P$N' P ? $1' '
@$4C+32' P$ NH J' P$N' P $E' P$N' ,3 ' ,3#(! ')! !, ' ; NFF D'
@$J1Q3 '@ ' -NF EQ43N+' 9 $J' P$N' GHE$ D' , 'B$ CF$43"' GC D'
? 3 $4' M$Q43$ F' , ' $NF4 F$E CF' 5$J3C' 64$C34' M$ Q43$ F' ,O#(! '
)! !, ' ?$J -3' % 1$ 4 N+' , '@F C+$E' 5HFE' 6 33 J E2' V ' P -CD 3 '
@H E' P$N' ;$NF34E' , '<$ & 3 D' E2-C' P$N' C 34' V ' B$ F$+ '
I3 34' @$J1Q3 ' , ' C+3 J ' P$ NH J' P$N' ,3 ' V ' M$ H3F #O"' '
83N H4' P$N' ,3 ' <P"234')! !, ' GHE$ D' P$N' P $E' V '
C 4$ F' @H E' P$N' >$4 O' ' %3 C' 5HFE' 6433 J $E' P&3N' >$4&O'
,3#(! ')! !, ' 'HQ34' ; D34' , 'B3 HNF' + ' 5HFE' P$N' GHE$5D'
% E'E3$4' , '?$ED$' GHE$ D' P$N' E' 043' , '? 3 $4 & 3 D' @$ $1 '
Q3 ' , 'G-E J H43' 3 $ED34' P$N' C 34' , '>H-1' @$ 1Q3
, '<4 J C$40' 9 $J' 5HFE' >$J Q' @$J1Q3 ' V 'M 3E&$ HNF' @F$4 3C'
9 $J' @$J1Q3 ' +,# , ')!' &!'! 1!&' 5HFE' @$J1Q3 ' V 'BH4N& D'
M3H423' ED43 '@$J1Q3 ' +!',#&'+,# , ')!' &!'! 1!&' 5HFE' @$ Q3 '
V ' BH43 $ED' 9 $J' BH 3' @$J1Q3 ' ! ' # ;D EQ-42F' 8$13'
? 3 $4' , 'B$ HNF$E' 5HFE' @$J1Q3 ' , '% E HNF' 5$J3C' M 3C1 3'
G$ DCHE' + ' 9 $ 34' 6344 34' + ' >H4E' @$J1Q3 ' V ' 'H? @$ F'
4NF Q$ D' @$J1Q3 ' @F$J Q34 $ E' V ' 420 ' E2-C' P3 DF3N'
5$J3C' P$N' EE3C' ! ' ;D EQ-42F' *FH J $C' 6' %3 # 3DO' '
G-E-43' GHE$ D' P $' E 043' ! ' M $C2H ' 4NF Q$ D' <H@B 3E'
+ ' 'HQ34' % E2' ,10!#, '*% '!' <,#&,#

R, ')!' +) !' V '% E4HCC

7)!' L ()' ,#,3 4%!' 9 $J' D$J' , 'B $ 4' D$J ' <, &' I)!'
I, 11 ,#! ' , ')!' ?3 ' I,3 ' # ?NH $ED' 5HFE' =H-E2' V '@53 CF'
L! '/& %' @F$4 3C' D$J' H /B$4EC' 9 $J' I$ 4 N+' D$$ [$C:02N (
V ' B$4EC')!' L!0! !#&' M3H423' 8 3E40' *3 J 1 $4' C ' V ' $1 D+'
?H J 3 C3 CF 43' 9 $J' M3H423' D$J' O !) 1' 6R
!#! %' + ' 643D34 N+' D$J' I " ' ;D $4D' 3 $ H' '
IH C' + ' 5$J3C' PHE 2H J 340' V ' ? $EFH13' " ,#! ' ED43 '
@ 31F$E3' /&0,' !' 8$O' @ 31F$E3' % !' V ')!' ,#,3 4%!' ;$C' ED $'
I, 5 # 1' +! 0 '!' 4NF Q$ D' PHE 2H J 340' !1 & #(' ' 9F J ' 'HQ34'
,- 34' @$J1Q3 ' , '%$ T3')!' L!0! !#&' 5$J3C' N $ED' *3 J 1 34'
G$ D' BN$ CHE' , ' % 4+1H 3' 4 F-4' B$4N $O' , ' M 3EDO' 4 F-4'
8 $O' B$4N $O') 1' !%&!1' +,#' M3H423' R %' V ' G-E J H43' 3 $ED34'
;D $4D' <, &' 6 EN$C 3')!' L!0! !#&' ED43 ' ;D 3' V ' -NF NE$O'
1 ! ' # 6H4&$4' @F$4 3C' ? 3 E' V ' 8$ HEQ-4E' @F$4 3C' -2-C -C'
P34N34' I,3#' 6 F- ' *FH J $C' M4$F$J' PHE 2H J 340' , '% E4HCC'
5HFE' M43 2' , '>3 F$E2 3' 5HFE' M43 2' ,3#(! ' V '>3 F 2 3 '5HFE'
8H4E' H *FH J $E3$E' M3H423' @H 3E 40' H ?F$E 3 '(? e_
*FH J $C' B4-N3' , ' 4EH ' *FH J $C' B4-N3' ,3#(! ' , ' 4EH '<, &'
@H J 1 HE' <, &' PHEN4 3&&' V ' *- 3QH 3' 8 3E40' PHEN4 3&&' ,3#(! '
, ' *- 3QH 3' 9 $J' P-44$O' V ' G-EN4 3 3' ED43 ' P-44$O'
,3#(! ' , 'G-EN43 3' 5$J3C' ? 33D J $E' , '64- ' 5$J3C' ? 33D J $<'
,3#(! ' , '64- ' 9 $J' > EDC$O' V ' 8$ NFQ$E+' 8 3E40' 6 <3+F$4'
@ ' EE$&433F' 9 $J' '3 D' V ' ;$C' B$E+' , ' @$4C32H-4
'3 D' ,3#(! ' , ' ;$C' B$E+' , ' @$4C32H-4' *FH J $C' B3 34 ' '
@$4C32H-4' 5$J3C' B3 34 D23' , ' ;$C 34' * OHNF 3' 5HFE'
,3#(! ' , ' ;$C 34' * OHNF 3' 5$J3C' G3 J 1C 34' , ' 9 3C 34' * BOD@J '
9 $J' % 4+ $ED' , ' >$ F4H' 5$J3C' B3 34 D23' H 9 3C 34' * OQ@F 3

ED43 ʻ B3 34 D23ʻ , ʻ 9 3C 34ʻ B$ $DH ʻ *FH J $Cʻ B3 34 D23ʻ , ʻ ; $C 3&ʻ B$ $DH ʻ 5$ J 3Cʻ B3 34 D23ʻ ,3#(! ʻ ; $C 34ʻ B$ $DH ʻ *FH J $Cʻ B3$ CHEʻ P$ F ʻ 5HFEʻ 8 3ED34CHEʻ ʻ * -4&Q Cʻ 5HFEʻ 8 3ED34CHEʻ ,3#(! ʻ , ʻ * -4&F Cʻ *FH J $Cʻ I -4 Cʻ H&ʻ 9 $44HNF ʻ I -4 Cʻ ,3#(! ʻ , 9 $44HNF ʻ 2 , ' , ʻ P *$4+ ʻ 2 , ' , ʻ 5$ J 3Cʻ P -4DHN+ ʻ , ʻ @4$ 2H ʻ 5HFEʻ B4H Eʻ , ʻ ; ED34 $O ʻ 5$ J 3Cʻ B4H Eʻ ,3#(! ʻ , ʻ 6 ED34 $O ʻ G$ Dʻ ' HQ34 CHEʻ , ʻ * H -NF 3 ʻ 5$ J 3Cʻ ' HQ34 CHEʻ ,3#(! ʻ , ʻ * H -N 43 ʻ ED43 ʻ ' 3$D 3ʻ , ʻ , 3 9 F$ ʻ 5HFEʻ ?F$ ʻ , ʻ 9 3C F$ ʻ 9 $ J ʻ ?F$ ʻ ,3#(! ʻ , ʻ 9 3C F$ ʻ 5$ J 3Cʻ *FH J CHEʻ H&ʻ ?322 3 ʻ 9 $ J ʻ ' HOʻ , ʻ ' E H- ʻ ' HOʻ OH P2H4ʻ H&ʻ ' E H- ʻ M3H423ʻ @HED 3ʻ H&ʻ >3D $ HE ʻ M3H423ʻ @HED 3ʻ ,3#(! ʻ , ʻ P3D $ HE ʻ 5HFEʻ P 34ʻ , ʻ B$ E2$ ʻ)!ʻ L !0! !#&ʻ 8 3E40ʻ B3 &4$23ʻ @H C HE ʻ I $ 4 N+ʻ M3H423ʻ ?+3E3ʻ , ʻ I H-4 ʻ 5$ J 3Cʻ ? J 1C<Eʻ @ ʻ P EN4C3 ʻ < !3 !# # ʻ I ,%,#!%ʻ ' HQ34 ʻ 8 3E40ʻ H&ʻ 9 HHD3ED ʻ 5HFEʻ ' 3$D 3ʻ 5 ʻ @- F ʻ G$ Dʻ : ! ! $ *ʻ ,3#(! ʻ , ʻ @- F ʻ ' HQ34 ʻ P 76$4 $E3ʻ ʻ <4 3 ʻ M3H423ʻ 4EH ʻ 9 $ +34ʻ 4EH ʻ H&ʻ 4 $40 ʻ G$ Dʻ 9 F0 3ʻ H&ʻ I 3ED4 3NF ʻ 5HFEʻ 9 F 3ʻ ,3#(! ʻ , ʻ I 3 D4 3NF ʻ I3 34ʻ P $3ʻ M ʻ (;64 H4ʻ #ʻ % E4HCC ʻ ' HQ34 ʻ , 3 CHEʻ , ʻ 8 HE ʻ G$ Dʻ M43 2ʻ H&ʻ , 3 F34ʻ * 0403 ʻ 5HFEʻ M43 2ʻ ,3#(! ʻ , ʻ , 3 F34ʻ * 0403 ʻ 3 $ED34ʻ M43 2ʻ \ & #1134ʻ * 0403 ʻ + E ʻ CHEʻ , ʻ I H J ʻ 5$ J 3Cʻ B3 34 D23ʻ , ʻ 9 3C 34ʻ % EE3C HE ʻ 5$ J 3Cʻ B3 3R 4 D23ʻ ,3#(! ʻ , ʻ 9 3C 34ʻ % EE3C HE ʻ 5HFEʻ B3 34 D23ʻ H&ʻ ; $C 34ʻ % EE3C HE ʻ 5HFEʻ B3 34 D23ʻ O< 2H4ʻ H&ʻ ; $C 34ʻ % EE3C HE ʻ 9 $ J ʻ ?NH ʻ !1 & #(ʻ #ʻ >3C 3 ʻ 9 $ J ʻ * HDʻ ʻ 6 EEC O ʻ 3 $ED34ʻ @H 3ʻ ʻ H&ʻ P$ -E

R, ʻ)!ʻ +) !ʻ ,

7) !ʻ L ( ) ʻ ,#,3 4%!ʻ) !ʻ %ʻ , ʻ ? 4$ F J H43 ʻ) !ʻ L ( ) ʻ ,#,3 ʻ 4%!ʻ) !ʻ 8 %ʻ , ʻ 4 3 ʻ) !ʻ L ( ) ʻ ,#,3 4%!ʻ) !ʻ 8 %ʻ , ʻ QHOE3 ʻ) !ʻ L ( ) ʻ ,#,3 4%!ʻ) !ʻ ʻ , ʻ % E H43 ʻ) !ʻ L ( ) ʻ ,#,3 4%!ʻ) !ʻ 8 %ʻ , ʻ @$CC3 C ʻ) !ʻ L ( ) ʻ ! 4%!ʻ < , &ʻ M $ J J CCʻ !%&!1 ʻ +,#ʻ @ ʻ) !ʻ 8 %ʻ , ʻ ? 4$ F J H43 ʻ) !ʻ L ( ) ʻ ,#,3 4%!ʻ < , &ʻ <2 Oʻ !%&!1 ʻ +,#ʻ , ʻ) !ʻ 8 %ʻ , ʻ 4 3 ʻ) !ʻ L ( ) ʻ ,#,3 4%!ʻ < , &ʻ ' HC3F ʻ !%&!1 ʻ +,#ʻ , ʻ) !ʻ 8 %ʻ , ʻ , H4 F3C+ ʻ) !ʻ L ( ) ʻ ,#,3 4%!ʻ < , &ʻ ? 4$ F$ 3Eʻ !%&!1 ʻ +,#ʻ , ʻ) !ʻ 8 %ʻ , ʻ QHOE3 ʻ) !ʻ L ( ) ʻ ,#,3 4%!ʻ < , &ʻ E 34$40ʻ !%&!1 ʻ +,#ʻ , ʻ) !ʻ 8 %ʻ H&ʻ % E H43 ʻ) !ʻ L ( ) ʻ ,#,3 4%!ʻ < , &ʻ G -EN$Eʻ !%&!1 ʻ +,#ʻ , ʻ) !ʻ 8 %ʻ , ʻ @$ J 134DH Eʻ) !ʻ ,#,3 4%!ʻ 5HFEʻ M4$Oʻ !%&!1 ʻ +,#ʻ , ʻ < , &ʻ M4$O ʻ) Wʻ ,#,3 4%!ʻ ? , ʻ ? -$4 ʻ 9 H4 3Oʻ P 7%3ET 3ʻ !%&!1 ʻ +,#ʻ , < ,#&ʻ 9 F$4EN ?3 ʻ) !ʻ ,#,3 4%!ʻ 6H ʻ P$ - 3ʻ !%&!1 ʻ +,#ʻ , ʻ >H4Dʻ I $E J -43 ʻ 5HFEʻ CHEʻ ʻ 9 3 Q$E+ ʻ 5HFEʻ CHEʻ , ʻ ; $C 34ʻ B4$N+ 3 ʻ 5$ J 3Cʻ ED34CHEʻ , ʻ @ H+CQ4 2C ʻ 5$ J 3Cʻ D$ J CHEʻ H&ʻ B$ HNF ʻ I $ 4 N+ʻ ED34CHEʻ >$ C ʻ ' HQ34 ʻ 4+ 3Oʻ H @$ F 3Q3$ HE ʻ *FH J $Cʻ ED34CHEʻ H&ʻ >H-2F$ -2F ʻ 5$ J 3Cʻ @$4E32Oʻ 4Q- FEH ʻ H&ʻ B$ E$ J HHE ʻ 5HFEʻ B$ 34ʻ , ʻ D 3C ʻ 8 3E40ʻ B$ 34ʻ ,3#(! ʻ , ʻ D 3C ʻ I3 34ʻ B3 ʻ H&ʻ I 1H E O ʻ 9 K Jʻ B4 -N3ʻ , ʻ @H -C HE ʻ G$ Dʻ B $ 4ʻ , ʻ @HH+C HE ʻ G$ Dʻ B $ 4ʻ ,3# ʻ , ʻ @HH+C HE ʻ *FH J $Cʻ B EE3Oʻ ʻ P$ - 3CD3E ʻ I 5 #ʻ ʻ B$+34ʻ - ʻ 2 (, ,#1 ʻ + ʻ 5$ J 3Cʻ @$4E32Oʻ , ʻ ?H- F3C+ ʻ " ,#! ʻ C J ' ʻ 9 $ CHEʻ @$4E32Oʻ H&ʻ >H 34ʻ #&ʻ * -4 E ʻ 9 $ J ʻ 6- 34 HEʻ > EDC$Oʻ @$4E32Oʻ H&ʻ BHOC$N+ ʻ 5$ J 3Cʻ @4$ 2ʻ H&ʻ B$ 2 $4C 3 ʻ 3 $ED34ʻ @ $OF Cʻ , ʻ E 342H 4 3 ʻ G$ Dʻ @$4E32Oʻ , ʻ @4$ 2H ʻ *FH J $Cʻ @$4E32Oʻ ,F#(! ʻ H&ʻ @4$ 2H ʻ M3H423ʻ @F$1 Eʻ H&ʻ @H C HE ʻ I $ 4 N+ʻ @F$ J 34C ʻ - DQ$4 ʻ 5$ J 3Cʻ @4- N+CF$E+ʻ , ʻ >$E2R 3Oʻ I $4+ ʻ 5$ J 3Cʻ 3 $ED34ʻ @4- N+CF$E+ʻ ,3#(! ʻ , ʻ >$E2 3Oʻ I $4+ 5$ J 3C

5$J3C @$J1Q3 /&0,' ! 9 $J B4H E @HEC $Q 3 , 9$ $N3
@4$ 2 3 3 $ED34 @4- N+CF$E+ ? 4N F4H 3 $ED34 @4- N+CF$E+
, % 3 QHN+ 5$J3C @4- N+CF$E+ ,3#(! , % 3 FH+ I 5 # 5H E
@$4E320 ? 2 (, ,#1 I$ 4 N+ @4- N+CF$E+ , M 3EC+ EEH)! L!0![
!#& ? @$4$320 , ?3$&H4D M3H423 6- 34 HE @$4E320 , % EE$
Q$4 5$J3C @$4E320 ! ,)! + (#! 5HFE @43 2F HE , 9 3C
M4$E23 , @HEHE 5HFE E2 C @F$ J34C , >HEDHE)! ,#,3 4
@F$4 3C GH-2 $C +!',#& +,# ,)! % ! L ( ) ,#,3 4%! <, &
GH-2 $C I 5 #)! ,#,3 4%! 83E40 G-EN$E L E I 5 #)!
,#,3 4%! M3H423 GH-2 $C L E 'HQ34 GH-2 $C , B4 2 HE
9 $J GH-2 $C ,3#(! V B4 2 HE P -E2H G N+ I +344H
9 $J GH-2 $C G N+ ,3#(! , I +344H 3 $ED34 G JN$E ,
I$4+F 3 $ED34 G-EN$E ,3#(! , I$4+F 'U, 5$J3C
G$ 2$ 4EC B$ 2$44 C 5$J3C ? H4JHE F G$4 E2 / >3DE$ F 3
64$EN C 9$ +34 G4- J JHED H 8$ FH4ED3E 5$J3C 9$ +34
G4- J JHED ,3#(! , 8$ FH4-D3E I,%,#!% 64$EN C ;4C+ F3 ,
% 4+Q-DDH *FHJ$C ;4C+ E3 , > E $ F3E 3 $ED34 ;4C+ E3 ,
B$ F$ I,%,#!% *FHJ$C <2 O 6H F34 E2F$J V IH 4 3 643D34 N+
6H F34 E2F$E ! ,)! + (#! 5HFE 6$4X-F$4 , I CN$E O
*FHJ$C 6$4X-F$4CHE , B$ DH 3 U, G$ D *O &3 , ?J F& 3 D
9 $J 63 J 3 , * O F$ED $ED 9 $J 6H4D V 9 3C HHD)!
,#,3 4%! D$J M 3C , % E 4HN+$ 6#! ,)! +!# , 1 V)!
I,%%!(! , ?31 '! 5HFE M- F4 3 , M- F4 3 5HFE M- F4 3 ,3#(!
, M- F4 3 5$J3C M- F4 3 , @4$ 2 3 G$ D @F$4 3C M- F4 X ! [
') # # >HEDHE *FHJ$C M$4DOE3 V P DD 3 HE @F$4 3C M4$O ,
@$4C3 9$ 34 M4$O ,3#(! , @$4C3 'HQ34 ? 4 E2 M4FJ ,
% EN$ D4- J k M43 34 , ;$C 34 @4$ 2 5$J3C M33+ 3 9 3C 34
B$ DH 4 3 64$EN C M4$FJ , B 3ED$42 ED43 M3 J J 3
9 F 3 $ 9 $J MH-4 O , B + 3)! ,#,3 4%! 643D34 N+
MH4DHE 7) &+,# ,)! 8 % , QHOE3 9 $J ? 4 E2 M4$F$J
V G-E -E3 9 $J M33+ 3 V ;$C 34 B$ DH 4 3 G$ D M433EF
)! I 0%+! 0 '! ,)! ,#,3 4%! ;$C $#Z 1 I, 5 #)! ,#,3 [
4%! GH-2 $C MH4DHE 8$ QOQ-4 HE , I N-4 !#! % G$ D 8 -E 34
, B-4EC D3 9 $J 8 -E 34 ,3#(! , B-4EC D3 !#! % +
5HFE 8H13 V I34 I " G$ D 8 -E 34 V B $N+E3CC 5HFE 8$O
, >3 F$E 5HFE E2 C 8$4 3O V % EE3 3C 5$J3C 9F 3CF3D
8$ + EC V '3C 3FE3 9 $J 83ED34CHE , M4$E23 B$44O)!
L!0! !#& 5$J3C <2 O 83ED34CHE H 'HNF F 5HFE 8# @H HE
V @4$ 2 U, *FHJ$C 8 -E 34 @$4 H2 3 @F$4 3C @$4E320 8$O
I &H4 F 3 M3H423 @ $OF C 8 ED34CHE V @$4D E2 3 'HQ34
5HQCHE ! ') # # G-ED33 3 $ED34 5HFEC HE V >$ HE 5HFE
% E HNF , % 40 M3H423 % E HNF , % E HNF M3H423 % E HNF
,3#(! H> % E HNF *FHJ$C %344 , H4 F24$E23 9 $J %344
V 6 E $O 5HFE %344 , I 4-NF 3 M3H423 %3 F V #C$E I$ 4 N+
%344 , G4- J23 F G$ D %344 , M4$E23 *FHJ$C %344 ,3#(!
, M4$E23 M3H423 % 4+$ DO , B$ DH 43 ED43 % 3 9F & 3 D
I 5 # 5HFE >$-43ECHE E 343 2F O 2 (, ,#1 @F$4 3C >03
H % EH4DO @F$4 3C < ! ,3#(! H % EH4DO 'HQ34 >O$ X ,3
Q 22 E 3 $ED34 >O$ H& M$4DOE3 5HFE >$ E2 , ' EJ - 4 'HQ34
> EDC$O , J 34 N HCC 5HFE > E D C $ O J 3 4 3 H C C 5$J3C
> J O H&G-E+3EEO 5HFE 'JCO $? ,3#(! H& G-E+3E20
M3H423 >OHE H& M 3EH2 G$ D >$ 4D ? 4$ FJ$4 E 5$J3C >O$
, MD $40 G$ D >H CHE H& ?14 E2& 3 D *FHJ$C >O$ L E 5HFE

%3ET3' > EDC$O' !' ,')!' + (#! ' 83E40' >-JCD3E' H * O '
U, '5$J3C' P E' , ' ,H4$EC D3' P-E2H' P-44$O' , ' > E 4HC3' 5$J3C'
P E' 9HHD (' 3 $ED34' 8$O' P E' ,3#(! ' , ' 9HHDF '5$J3C'
P-D3' , ' 4Q+3' P-D3' ,3#(! ' , ' 4Q+3' 5HFE' $4
, 'B$ -JQ3' I$4N+' P-44$O' , '?-E14 J' M Q34' >$E2' P3$CHE' , '
' > ED34 C' P3$CHE' ,3#(! ' , ' > ED34 C' 5HFE' PH4CH-
, '@$4E4$HN+' I$4N+' P $4'^ B$Q-NF O'5$J3C' P$J 3' , 'G3-NF$4'
9 $J' PH42$E' , 'B$Q EEO' 5$J3C' P3 C' ,$4E3' , '#-EC EE$E3'
G$ D' ,$4E3' , ' G4-J+ QH' C! ' L!0! !#&' 64$ENC' , NH ' , '
B$2 H' * #' 5 %' , ')!' I,%%!(!' , '?$E' ED43 C' 5$J3C' P 34' H 7
P HE' *FHJ$C' P$N+3ET3' , ' 11 3N4HCC')!' ,#,3 4%!' GHE$D'
<2 O' , '@H $' <2 O' ,3#(! ' , '@H $')!' ,#,3 4%!
9 $J' <2 O' ' 4 3' + '5HFE' <2 O' E 34X-F$4 0' " ,#! '
+ 'M3H423' <2 O' V 'B44C' " ,#! ' + ' @F$4 30' -NF 34 HEO' '
B$ J$D 3C' " ,#! ' 5HFE' -NF 34 HEO' , 'M OE)' @F$4 3C' <2 O'
31' *EED N3' 9$ 34' <2 O'OH E234' H ' *EED N3' I3 34' 93DD34'
Q-4E' <2 O'H '-F 3E' <2 O' '-F 3E' 5$J3C
<2 O' , ' I$4+NHEEHE' 9 $J' IH-43' , ' '3C $ 3' 9 $J' G$ D'
I4HN H4' , ' 8$+34 HE' U, ' !#! %')!' ,#,3 4%!' 5HFE' 'JCO'
GOC$4 ' 9 $J' P$-3' 'JCO' ,3#(! ' GOC$4 ' + ' 3 $ED34'
'JCO' H /B$ J$E' " ,#! ' '$JC$O' ,3#(! ' H 7B$ J$E
+ '5$ J3C' 'EC$O' , 'B$E&&' " ,#! ' 8H4$ H' 'HCC' , ' 'HCC 3' G$ D'
'$E+ E3' , ' G-DFH13' 5$J3C' '$ 4$O' H ' ;$C J ' '$ 4$O
,3#(! ' V ' '$C J ' I 5 #' 5$J3C' '$ ' V ' EE C HE' 3 $ED34'
'3D' , ' I 3ED4 NF' 3 $ED34' '3D' ,3#(! 'H I 3ED4 NF' *FHJ$C'
'$ 4$O' , ' B3 $0' 'H $ED' , ' NFJ F3')!' ,#,3 4%!
4NF Q$D' ?3 $4' H6' B$ J34 EH' + ' 9 $J' ?NH ' , ' EN4-J'
" ,#! ' 3 $ED34' ? H4JHE F' , ' % EN -E3' 2 ' 5HFE' ?J F' ,U'
B$ F$440' 'HQ34' ? J3' H1' M433E $ F ' 'HQ34' ?133D' , ' 4DH 3'
5$J3C' ?133D' ,3#(! ' , ' 4DH 3' 3 $ED34' ? E$4' V '@HEHECO F'
9 $J' ?J?&4' V '@$4EQ$E+')!' L!0! !#&' G$ D' ?0J34C' , ' ;$CC 3'
M3H423' 'HQ34 CHE' ?NH 'H1B3EFH J 'M3H423' 'HQ34 CHE' ',]]' ,3#(! '
, 'B3EFH 4$' 4NF Q$D' @$J1Q3 ' ?3 $4' , '?$E' *H4' #&' @$C 3'
?3 $4 ' I 5 #' 'HQ34' ?NH 'H1 QQ3 F-E3' G$ D' ?NH 'V E!F ,#?'
G$ D' ?NH ' ,3#(! ' , ' ,3 HE' 5$J3C' 6H F34 E2 HE' ?N4 JCH-43' ,U'
*3$ E2' G$ D' ?1$D E2' B4HH EF$ '5$J3C' I3 34' ?F$ 'V 2 3 , ' '
$J' ?F$ 21,3 F$ '5$J3C' ?133D' B43NF E' 3 $ED34' ? J1CN$'
H1' ;$C 34' <2 ' 9 $J' ?F$ED' V ' 4EF$ ' I3 34' ?F$ ' , ' 9$ 34 HE'
5$J3C' ?H- 34' !' ,')!' + (#! ' 9 $J' *$0 H4' , '>-E$E' P3 '
$ED34' '3EEO' *$ TH-4' BH44H &3D' '3EEO' *$ TH-4' ,3' '
V 'BH44H &3D' D$J' *$ 'H1' I 34JH' 'HQ34' *$0 H4' !')' #
>HEDHE' 'HQ34' 93QC 34' 6 3J E2 HE '5HFE' 9$ 'H1 ;$C 34' P3$ F3'
'HQ34' 93QC 34' , 'B$ 4-DDH40' 5$J3C' 93QC 34' H1' B$ J-4' G$ D'
93DD34Q-4E' , ' I3$4C3' 83E40' 93DD34Q-4E' H1' 93DD34Q-4E' 643D3R
4N+' >H-C' ?H4 E2NH-4' 93DD34Q-4E' ,3#(! ' , ' 93DD34Q-4E' 'HQ34'
9 +3' H1' ,3 Q$4EC' + 'G$ D' 93DD34Q-4E' " ,#! ' 9 +3
,3#(! ' , ' ,3 Q$4EC' 5$J3C' 93QC 34' X&' 93C 34' P3$ F3' 5$J3C'
=3JE' , ' && 3N+' =H-E2' ' CFN43$43')!' +)! ', '6H4&$4CF 43'
, ')!' 7 !' 4! #(')!' +)! 1' +341 3 !1' 6H4&$4CF 43' , ')!' 7 !'
4! #(')!' * ,0,1' , '6H4&$4' , ')!' 7 !' 4! #(')!' !%&!1' " %% !' , '
6H4&$4' , ')!' 7 !' 4! #(')!' * ,0,1' , 'G-ED33' , ')!' 7 !' 4! #('
)!' * ,0,1' , ' PHE 4HC3 1_4')!' 7 !' 4! #(')!' * ,0,1' , ' 4Q4H$ F'
, ')!' 7 !' 4! #(')!' * ,0,1' V 'B43NF E' , ')!' 7 !' 4! #(

N 4 / :) !) 3 1 ' ' &'1 b U

? ') !' +) !' , '?- F34 $ED

' &' ^ 3C ?E ^(' BEg 4H ' # ! ' + ' 5$J3C 93JOCC
'(' , ' -E '^) %3 #! ' I 5 #' 9 $J' MH4DHE' % !' ,
' H4 - ') E(' B4-N3' ;E3$C' P7>3HD' @$DQH ' 'HD34 N+' P7>3H^'
& 3' ' _' E F ' I3a @ #' %3EE3 F' P %$O'& E 34N$44HE' G-2$D'
E' ' ' #' '_-2- D' M NF4C' <P02N0' H <C1 CD$3' 9
J' ,' #E H E' ! ' ,')!'+ (#!
' ' ' $F' E4 '4T4 5 34NCF3'5HFE P7IF34CHEM4$E (^HO&& 2 N4'
F5' $ HN '@#&' J343' 3' 9 $J' =H-E2' ' -42F3$D' @HH(N5' '
'A(' ' 7 P,' 7^ ' F4$C34' , ' E 34 HNFO' @$C 3' 64$T34' 5$J3C'
E & ' 7+ -E- ' ' F 4@H E' @$J1Q3 ' 6%$OH&B 2FH-C3' M$Q4 3'
3 ' ^B' % N-E ' ' ' U, ' M3H423' M-EE' P-E4H' ' BHO T&3D'
E&' 43' [' ' ' ' @A' C+ H' *FHJ$C' 8H-C HE' , ' @433NF' 8-2F'
)' ' ' E' ^' 4' *43 ' 9 $J' 6H4Q3C' P7%3ET 3 ' IH4 JH4N
' ?^ ^' 8 3F' 9>' ,' , '6) 0)')''+)! '2!53 !', ')!' I ,3# '
(' ?' ' ' F D' @ %')1' +3)1 0'' , ')!' 7 !' 4! #(')!' R ' , ', '
, $)' @ '? F' 4$-)' , ' %3' 7 !' 4! #(')!' R ' , '^ *HE2-3'
)@ 7 ,' F ')!' R ' , ' , ' +', U'U4 ')!' 7 !' 4! #(')!'
,' E '3# ' & ' ' O % '' ' ')!' '' , ,3()' , ' GH4EHNF H4')!' 7 !
. ' ;P

R@ '2# +) !' , '; 2E' #&' BH443C

? F' >' ED&4 N(E' , ' I$ J34' @4HCC' # () ' IF 1' B$44 E2 HE
E 3' ? @ &$7# 1' 5$J3C' @$J1Q3 ' B4HD 3' >3 F3E' 9 $J'
FH ' ` ' /4H 3' 4 H E$C' B4$ED34' H&' ' H 3C NF$-2F' 5$J3C' @H$)
' J&!@' E' 5 ' E' @-E E2F$J' H&' G- HNF' & HHN40 ' >$N $J' @-4$J E2'
I E' + Q' 5HC3m_F' B4HD 3' G-EE' P HE' 5$J3C' G-&&
`99Q99' %%, ' @@5% # E F Q$ D' G-&& L ' 7B4$3 JH43C HE' M3H423'
?+3E3')_ 73 P HE' @HH ? JHE' 64$C34' 1 G4-JD-$E' 9 $J'
' 'Q' H&' ?NH C HEF ' /) , ' ' ' 9 $J' M4$E' ,3#(! ' ' ' 93C 34'
;E' ' ' 5' 'M4 2H40' ^* $ ' L ' E ' B-4EC D3' ' HQ34' M4$E' H&
@E NH4 F' $& , ' ! '=? $J' (3E+ JC' 1 ? 43 $E' M4H 3' 5$J3C' P-44$O'
^4 E&' H P4/' #&' ?3JEH43C HE' I , %, #!%' 3 $ED34' M4$E' H&' 6F'
' CP ' I' " ' 3' 5$J3C' M4$E' H&' ?ENFO' 4NF Q$ D' >3C 3'
&' ' H&' I$ E$23 '5HFE' >$ CHE' g0H0)0234' 1&@F$13 EE' *FHJ$C
-E' 3 5# E 35' 8-2F' ED43 '5HFEC HE' P-E4H' H , H $4' 9 $J'
)' & 4 C& E1& NF3E4H F' 5$J3C ?31F3E' P G '1 ?F$ENFH40' I 5 #'
5' HC' ?N' 4' @ '>3C E$'4 3' #&' 3 EE ')!' ,#,3 4%!' 5HFE' ? -$4'
+,' á) ' R %' , ' PH4$O' ' HQ34' *- HNF' 1 7B-42 3' & H4' 3 '
E D&' 64$EN ' * O H4' O* &H - -2F O

R, ')!' + '!J! ' ' 1 <4+E30' #&' e3 $ED

B#' F ?H' XXX' , #' 4%!' '$ E3EN3' WH4D' G-ED$C')!' ,#,3 4%!'
H- $C' 5EJ C')!' ,#,3 4%!' #& L!0! !#&' 7), &1' >$ 43EN3'
' J $C' < < 2 ')!' ,#,3 4%!' M3H 23' 83E3$23' >$ 43EN3' G-E'
' C' G ' " ')!' ,' ,3) ' + ' *FHJ$C' >$ 43EN3' G-ED$C' I '
F-E C' *4$ ' H&' 8HFF C 34' 5HFE' B$&H-4' H&' *43E$QO' L ! ' / & %'
- Q34' 8HEOE $E' B F$J' B$&H-4' 1 ; N+' 9 $J M4$F$J' 9$ '
H&' B 3N+ -7.C' 5$J C' B$ + 3' H&' ?$E+34E3CC' L!0! !#&' ,
9 HC H N' 5$JHC' ^$4E32 ' ! ' ,')!' + (#! ' M3H423' *4$J' H&' 8HQ
' ' QC34
'

S[[ʿ ʿ UčKʿS ʿM # > ; > P ʿ ʿ @$1ʿ U

Q C 34ʿ M3H423ʿ *4$ ʿ , ʿ 8H $EDʿ 5HFEʿ *4$ ʿ #4X-F$4ʿ , ʿ ; CE3CCʿ 5$J 3Cʿ *4$ ʿ " 1 ! ʿ ʿ< F ʿ 5HFEʿ %E4ʿ ! ʿ ,ʿ) !ʿ + (#! ʿ M R Q34ʿ >$ E2ʿ P 3$CHEʿ , ʿ> ED34 Cʿ 9 $ Jʿ *4$ ʿ V ʿ *4H H& ʿ M Q34ʿʿ *4$ ʿH 8$ C HE ʿ 3 $ED34ʿ 8 3ED34CHEʿ ? 3 J 1C 34ʿ I 5 #ʿ G$ Dʿ 8 3ED34CHEʿ ,3#(! ʿ , ʿ? 3 J 1C 34ʿ < !3 !# #ʿ 9 $ Jʿ 8 HEO J $Eʿ 8 3ED34CHEʿ , ʿ) !ʿ L , %ʿE 0 ʿ *4$ ʿ ʿ 9 HHD N+ʿ 5HFE B$+ 3ʿ , ʿ?H CX-HOʿ M3H423ʿ ' NF3Eʿ ` ʿ '$1E3CCʿ ?$ J -3ʿ >$ E2ʿ , ʿ I $1D$ 3ʿ 9 $ Jʿ P HE$ ʿ , ʿ M$4 F ʿ M3H423ʿ *4$ ʿ @54X-F$4ʿ ʿ2 ʿ 'HQ34ʿ 8 3DD 3ʿ , ʿP 3 C3 34ʿ G$ EDʿ ?- F34 $EDʿ , ʿ '$N+ N+ʿ P $ R F3 ʿ 6H4C 34ʿ , ʿB4 EECʿ M3H423ʿ 64$CHOʿ , ʿ I $4+ʿ 9 $ Jʿ 8 3E4Oʿ Qʿ 6H F34 E2F$ J 3ʿ , ʿ I $1 $Oʿ '$ 1Fʿ ? J Fʿ 2&ʿ<4DE3CCʿ 9 $ Jʿ 5$ J 3C ʿ >1 $C34ʿ ,#%ʿ+,#ʿ , ʿ !#! %ʿ + ʿ-,)# "7V1! ʿ # ( ) ʿ 8 3E4Oʿ MH4DHEʿ G N+CHEʿ ! ʿ ,ʿ) !ʿ + (#! ʿ 5HFEʿBH4 F N+ʿ !1 & #(ʿ ʿ %34C3ʿ 6 *FH J $Cʿ 8 - HEʿ !1 & #(ʿ ʿM4$ EQ$$+ʿ I 3 34ʿ > HE ʿ B $E+C ʿ< !3 ʿ ʿ !# #ʿ 3 $ED34ʿ 8 3DD 3ʿ , ʿM4- F$Oʿ 3 $ED34ʿ?- F34 $EDʿ M4H3 J 3ʿ , ʿM4H3 J CF$ ʿ *FH J $Cʿ B$ &H-4ʿ , (! ʿ@ ʿ; N+ʿ 9 $ Jʿ 9 $ ʿ M4F Jʿ 9 $ ʿ ,3#(! ʿ , ʿB43N+E3CCʿ *FH J $Cʿ *4$ ʿ , ʿ 9 3C H 3ʿ 9 $ 34ʿ *4$ ʿ , ʿ \ -3ED$ ʿ *FH J $Cʿ * $ ʿ ,3#(! ʿ , ʿ 8H $EDʿ P $2E-Cʿ >$ E2ʿ P 3$CHEʿ ,3#(! ʿ , ʿ> ED34 Cʿ M Q34ʿ 64$EN Cʿ *4$ ʿ ,3#(! ʿ , ʿ 8$ C HEʿ 9 $ Jʿ B$ &H-4ʿ B J + 3ʿ ,3#(! ʿ , ʿ?H- CX-HO ʿ 9 $ Jʿ ʿ ,3#(! ʿ , ʿ 9 HHD N+ʿ?$ J -3ʿ?$ J -3ʿ>$ E2ʿ H E2N4 ʿ , ʿ I $1D$ 3ʿ 5HFEʿ M3H423ʿ 8 3DD 3ʿ ,3#(! ʿ , ʿ P 3 C3 34ʿ < !3 !# #ʿ I ,%,#!%ʿ 9 $ Jʿ B$ &H-4ʿ , ʿ) !ʿ Z ʿL !(!#ʿ , ʿL , , ʿ 5HFEʿ '$3ʿ , ʿ ʿ 9 O43ʿ C 3ʿ 5$ J 3Cʿ '$3ʿ ,3#(! ʿ` ʿ C 3ʿʿ 3 $ED34ʿ M4H3 J 3 M4H$ ʿ , ʿ , 3 F$ ʿ *FH J $Cʿ I H 3 &3Eʿ , ʿ@$ 4C HEʿ 5$ J 3Cʿ ' DDHN+ʿ I H 3 &3Eʿ ,3#(! ʿ H&ʿ@$ 4C HEʿ 5$ J 3Cʿ? 3 $4ʿ B4 - 2Q ʿ 5$ J 3Cʿ 5HFER C HEʿ , ʿ @H-Q C 34ʿ *FH J $Cʿ ?$EDCʿ , ʿ? $ J Q C 34ʿ 'HQ34ʿ ?$EDCʿ ,3#(! ʿ ? $ J Q C 34ʿ *FH J $Cʿ? 3 $4ʿ*4$ ʿ@ ʿ* 4 H ʿ 3 $ED34ʿ M4$F$ Jʿ @F$EN3 H4ʿ P 34ʿ , ʿM34 J C HEʿ 'HQ34ʿ P HEN4 3&&ʿ , ʿ 8H- ʿ HEʿ 9 $ Jʿ MH4DHEʿ , ʿ; 3ʿ 8 3N H ʿ P J NE3&& ,3#(! ʿ2&8H- HE ʿ) !ʿ L !0! !#&ʿ 5HFEʿ B$44Oʿ X6ʿ?$ 34HN+ʿ *FH J $Cʿ P 7%3Ee 3ʿ M4H-ED ʿ $ 34ʿ 5HFEʿ P NF3 ʿ , ʿ M$4CHEʿ 5HFEʿ ' &H34 CHEʿ ` ʿ , 3CCʿ 'HQ34ʿ I $ HEʿ , ʿ?$ C+$ 3ʿ) !ʿ+) ! ʿ2 !53 !ʿ , ʿ<4+E3Oʿ #&ʿ e3 $EDʿ #&) 1ʿ +341 3 !1ʿ , ʿ) !ʿ 7 !ʿ4! #(ʿ) !ʿ * F , Z ʿ #&ʿ2 F ,ʿ 1!# , ʿ " %% !1ʿ , ʿ% 4+ $ ʿ(&34ʿ) !ʿ 7 !ʿ4! #(ʿ) !ʿ1!# , ʿ+ % !ʿ , ʿ+ , #!11ʿ , ʿ) !ʿ 7 !ʿ4! #(ʿ *FH J $Cʿ ; D J HEDC HE3ʿ X&BEE3?Cʿ *FH J $Cʿ >3 C+ʿ X #O3$ʿ + ʿ 4 F-4ʿ , NH CHEʿ H6 , HH CHEʿ " ,#! ʿ I 5 ʿ ʿ $ Jʿ 8 3ED34CHEʿ , ʿ M H-1ʿ 'HQ34ʿ 8 -E 34ʿ , ʿ>-EE$ʿ 'HQ34ʿ B4-N3ʿ , ʿ?O J Q C 34ʿ 4 F-4ʿ @F3OE3ʿ , ʿ < $Q344Oʿ 5HFEʿ @F3OE3ʿ H&ʿ?$E2 3+ʿ 4 F-4ʿ M &&H4Dʿ H&ʿB-C $ʿ5HFEʿ?NH ʿH&ʿP 3 Q 3ʿ5HFEʿ , (! ʿH&ʿP 3 Q 3 5HFEʿ ?NH ʿH&ʿ?N$ H $Oʿ 5HFEʿ ?NH ʿ ,3#(! ʿ , ʿ?N$ H $Oʿ ED43 ʿ M4 34CHEʿ H&ʿ \ -3ED$ 3ʿ 9 $ Jʿ P H4 $ʿ ʿ M$4 F ʿ 9 $ Jʿ 8 $Oʿ H&ʿ >$ & 4 F ʿ @F$4 3Cʿ <2 3ʿ H&ʿ?3$& 3 Dʿ 5HFEʿ B4-N3ʿ , ʿ?- J Q-42F ʿ 5HFEʿ B4-N3ʿ ,3#(! ʿ , ʿ?- J Q-42F ʿ 9 $ Jʿ B4-N3ʿ ,3#(! ʿ , ʿ?O J Q C 34ʿ 2 , ' , ʿ 9 F$ Jʿ 5$N+ʿ * : ' 5 %ʿ , ʿ # 1ʿ I ,%%!(!ʿ Q34D33Eʿ 'HQ34ʿ B4-N3ʿ , ʿB-44$ H3ʿ 5HFEʿ <2 Oʿ H&ʿ \ -$4&&ʿ *FH J $Cʿ M &&H4Dʿ X&ʿ6$ 4O ʿ Q$E+ʿ 5 #ʿ 5HFEʿ @4$ 2 3ʿ X&ʿ? 4H J ʿ 5$ J 3Cʿ M4 34CHEʿ ,3#(! ʿ , ʿ \ -3ED$ 3ʿ I 5 #ʿ @4 NF HEʿ M4 34CHEʿ L , %ʿ #(#!! 1ʿ I 5 #ʿ 9 R $ Jʿ @$ J 34HEʿ , ʿB3 J HE ʿ 9 $ Jʿ P HE$ ʿ@$ J 34HEʿ !%&!1ʿ+,#ʿ V) !ʿ 1 &ʿ I 5 # 9 $ Jʿ @$ J 34HEʿ 5$ J 3Cʿ 8 $Oʿ ,3#(! ʿ , ʿ >$ & 4 Fʿ 5$ J 3Cʿ <2 3ʿ , ʿ? H 3ʿ 5$ J 3Cʿ M43 2ʿ ! ʿ N+

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